COMMENT LETTER O21

O21

Comments on City of Barstow General Plan and BNSF Barstow International Gateway (BIG) Draft EIR (SCH No. 2024020501)

Yessenia Moreno <ymoreno@earthjustice.org>

Mon 1/12/2026 12:01 PM

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1 attachments (7 MB)

2026-0112 Final BNSF Barstow Railyard DEIR Comments.pdf;

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Dear Mr. Chris Heldreth,

Please find attached comments on the City of Barstow General Plan and BNSF Barstow International Gateway (BIG) Draft Environmental Impact Report (SCH No. 2024020501). Please include these comments as part of the administrative record.

Please confirm timely receipt of submission, and let us know if you have any trouble accessing the document or have any questions.

Best regards,
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January 12, 2026

VIA ELECTRONIC MAIL

Chris Heldreth
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Re: Comments on City of Barstow General Plan and BNSF Barstow International Gateway (BIG) Draft Environmental Impact Report (SCH No. 2024020501)

Dear Mr. Chris Heldreth:

We respectfully submit the following comments to the Draft Environmental Impact Report ("EIR") for the City of Barstow General Plan Update ("General Plan") and BNSF Barstow International Gateway ("BIG" or "BNSF BIG Railyard" or "Project") on behalf of local residents, community, environmental, environmental justice, labor, and union organizations, including Backbone Campaign, Center for Biological Diversity, Center for Community Action & Environmental Justice, Center on Race, Poverty & the Environment, Clean Water Action, Country Club Road Community, Earthjustice, East Yard Communities for Environmental Justice, Little Village Environmental Justice Organization, Long Beach Alliance for Children with Asthma, Moving Forward Network, Natural Resources Defense Council, New Jersey Environmental Justice Alliance, Sierra Club, San Gorgonia Chapter, Silver Lakes Community, Solutionary Rail, Tallahassee Food Network/Greater Frenchtown Revitalization Council, United Electrical, Radio & Machine Workers of America, Warehouse Workers for Justice, West Long Beach Association, and concerned residents of the High Desert. O21-1

Barstow is a city with deep historic and environmental significance—anchored by its iconic Route 66 corridor and located near treasured natural resources such as the Rainbow Basin and the Mojave National Preserve.[1] Despite this context, the City proposes to convert more than 4,300 acres of agricultural land, residential areas, and other existing uses into what would become the largest railyard in the nation. As proposed, this massive industrial project would operate diesel trains, diesel trucks, and diesel railyard equipment 24 hours a day, 365 days per year just feet from people's homes.

[1] City of Barstow, *History*, https://www.barstowca.org/residents/about-barstow/history (last visited Jan. 5, 2026); City of Barstow, *Natural Attractions*, https://www.barstowca.org/residents/about-barstow/natural-attractions (last visited Jan. 5, 2026).

The Draft EIR fails to provide a clear and accurate description of the General Plan and BIG Project's scale, environmental impacts, and required mitigation under the California Environmental Quality Act ("CEQA"). If the City wants to proceed, it must fix each of the numerous flaws detailed below and adopt all feasible mitigation measures. O21-1 cont'd.

Attached to these comments is a technical report by Hal Connolly ("Connolly Memo") that identifies additional flaws with this Draft EIR.[2] Please include these comments as part of the record and as specific comments on the Draft EIR.

I. THE DRAFT EIR'S PROJECT DESCRIPTION FOR BIG IS UNSTABLE, INACCURATE, AND FAILS TO EVALUATE FORESEEABLE FUTURE CONSEQUENCES OF THE PROJECT.

"[A]n accurate, stable and finite project description is the sine qua non" of a legally sufficient EIR, and "the defined project and not some different project must be the EIR's bona fide subject." (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 199.) Under CEQA, a project description must provide sufficiently specific, coherent, and consistent information to permit meaningful evaluation of the project's environmental impacts. (Cal. Code Regs., tit. 14, § 15124.) O21-2

Here, the Draft EIR for the BNSF BIG Railyard fails this foundational requirement. Its project description is unstable, internally inconsistent, and incomplete. The document fails to analyze foreseeable future consequences of the Project and presents critical information in a manner that obscures rather than illuminates the Project's true scope. For all of the following reasons, the City must revise and recirculate the EIR.

BNSF BIG RAILYARD

A. The Draft EIR fails to analyze reasonably foreseeable future consequences of the Project.

CEQA requires that a project description encompass all relevant parts of a project, including future phases or expansions that are foreseeable results of project approval. (*Laurel Heights Improvement Assn. v Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 396 (hereafter *Laurel Heights*); see also Cal. Code Regs., tit. 14, § 15126 (EIR's impact analysis must consider "[a]ll phases of a project").) As the California Supreme Court explained, CEQA prohibits agencies from "chopping a large project into many little ones—each with a minimal potential impact on the environment—which cumulatively may have disastrous consequences." (*Bozung v. Local Agency Formation Com.* (1975) 13 Cal.3d 263, 283–84.) The Draft EIR violates this principle. It fails to evaluate the full range of reasonably foreseeable consequences associated O21-3

[2] The Connolly Memo is attached to these comments as Appendix A.

with the BIG Railyard, including expansions and downstream activities that the document indicates are probable outcomes of project approval.

Under *Laurel Heights*, a future action or expansion must be analyzed in an EIR when:

> (1) it is a reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects.

(*supra*, 47 Cal.3d at p. 396.) Where the record contains evidence suggesting a reasonable possibility of such future actions, an EIR's failure to analyze them renders the project description legally deficient. (*Ibid.*) By omitting foreseeable future phases and consequences of BIG, the City has failed to disclose the Project's true scope and environmental footprint, undermining CEQA's core informational purpose. O21-3 cont'd.

1. The Draft EIR fails to analyze impacts from reasonably foreseeable regional increases in BNSF cargo volumes.

The Draft EIR improperly assumes that the BIG Project will reduce regional truck miles traveled and diesel fuel consumption at BNSF railyards, despite the absence of any enforceable commitment from BNSF to maintain current cargo volumes—or to refrain from increasing truck activity—at its other regional facilities. (See Section III.) Without an enforceable commitment from BNSF to refrain from replacing trucks taken off the road with additional truck trips, there is nothing preventing BNSF from simply adding rail *and* keeping truck trips at other BNSF railyards in the region. Absent such an enforceable commitment, it is reasonably foreseeable that the BIG Project will lead to regional increases in BNSF's cargo volumes and truck trips, and such future expansion or action would undoubtedly result in significant environmental impacts that must be analyzed. (See *Laurel Heights*, *supra*, 47 Cal.3d at p. 396.) The EIR must perform this analysis. O21-4

2. The Draft EIR fails to evaluate the reasonably foreseeable expansion of the existing Barstow classification yard.

The Draft EIR fails to analyze—or adequately explain why it does not analyze—the Project's foreseeable impacts on the existing Barstow classification yard. The document states that "major maintenance activities would still occur at the existing Barstow classification yard," and that BNSF intends to increase renewable diesel fuel use at "the existing . . . Barstow classification yard from 1 percent to 10 percent, a 900 percentage point increase in renewable diesel." (DEIR at 3-48.) It also projects a substantial increase in annual locomotive maintenance events attributable to BIG: 433 in 2028, 486 in 2033, and 606 in 2048. (*Id.* at 3-49.) Moreover, by 2048, the Draft EIR anticipates 1,212 annual locomotive maintenance trips to the existing classification yard. (*Ibid.*) O21-5

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Despite these clear indicators of increased operational demand, the Draft EIR summarily concludes that "No expansion/modification of the existing Barstow classification yard maintenance buildings or equipment is required or proposed to meet BIG's heavy maintenance needs." (*Id.* at 3-48.) This conclusion is unsupported. To start, the Draft EIR fails to include information regarding the existing baseline activities at the existing Barstow classification yard, such as annual maintenance events and annual maintenance trips, among other things. Without this information, it is impossible for the public and decisionmakers to evaluate the Project's impacts.

Moreover, applying the *Laurel Heights* two-part test, it is (1) reasonably foreseeable that increased maintenance trips will require modification and/or expansion of the existing Barstow classification yard, and that (2) any future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects. The Draft EIR's failure to evaluate these foreseeable consequences renders the project description legally deficient under CEQA. If the Barstow classification yard will require expansion or modification to handle the increased maintenance load, CEQA requires that such expansion be described and analyzed. If the City believes no expansion is needed, it must provide substantial evidence—*i.e.*, "facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts"—supporting that conclusion. (See Cal. Code Regs., tit. 14, § 15384(b).) The Draft EIR does neither, violating CEQA's mandate for a stable, accurate, and complete project description.

O21-5 cont'd.

3. The Draft EIR fails to describe and analyze the impacts of relocating an existing airstrip.

The Draft EIR for BIG notes that a private airstrip within the site will be demolished, but fails to state whether that airstrip will be relocated elsewhere. (DEIR at 3-19.) It is reasonably foreseeable that the airstrip would be moved to another location as a consequence of BIG's development, and that such demolition and rebuild would have significant consequences to the environment, including potentially increased air traffic to the region. That this possibility is not discussed, analyzed, or explained with substantial evidence violates CEQA.

O21-6

B. The project description for BIG is unstable and inconsistent.

A project description violates CEQA when it "gives conflicting signals to decision makers and the public about the nature and scope of the project." (*Citizens for a Sustainable Treasure Island v. City & County of San Francisco* (2014) 227 Cal.App.4th 1036, 1052.) This is because an "unstable project description draws a red herring across the path of public input." (*South of Market Community Action Network v. City and County of San Francisco* (2019) 33 Cal.App.5th 321, 332, internal quotation omitted.) The Draft EIR's shifting and contradictory discussion of truck and train trips exemplifies this defect. The document provides conflicting numbers for how many trucks and containers BIG would process each year, without adequate justification for these inconsistencies.

O21-7

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1. The Draft EIR is internally inconsistent regarding truck trips, violating CEQA and undermining all impact analyses.

The Draft EIR estimates BIG would process 108,405 trucks per year in 2028, 137,605 in 2033, and 169,725 in 2048. (DEIR at 3-51.) Yet Table 3-13 projects significantly higher numbers of containers arriving or departing by truck—128,000 in 2028, 160,000 in 2033, and 200,000 in 2048. (*Id.* at 3-53.) Assuming one container per truck, these figures cannot be reconciled. The Draft EIR offers no explanation for this disparity, rendering the project description internally inconsistent and therefore legally inadequate.

Moreover, the Draft EIR includes additional inconsistencies regarding the number of truck trips from BIG. The Draft EIR asserts that "BIG would transport all containers with trains instead of heavy-duty trucks, which would *eliminate almost all truck trips* and truck miles traveled (TMT)." (*Id.* at 5.6-41, emphasis added.) But elsewhere, the Draft EIR acknowledges that "[o]nly a portion of total containers processed at BIG would arrive or depart via heavy-duty truck, totaling approximately 297 trucks *per day* in 2028, 377 trucks *per day* in 2033, and 465 trucks *per day* in 2048." (*Id.* at 3-51, emphasis added.) At yet another point, at the end of Appendix 5.15, the Draft EIR suggests that the BIG Project will add more than half a million truck trips annually. (*Id.* App. 5.15 BIG-1 at 142–44). O21-8

These statements are irreconcilable. The claim that "almost all" truck trips would be eliminated is contradicted by the Draft EIR's own projections showing hundreds of daily diesel truck trips projected for the next two decades, which is yet contradicted by data suggesting that BIG will add more than half a million truck trips annually. Such inconsistencies are not minor. Accurate truck trip assumptions are foundational to the Draft EIR's project description.

Moreover, these inconsistencies directly affect the validity of the Draft EIR's impact analyses. Air quality, energy consumption, greenhouse gas emissions, and noise assessments, among others all depend on accurate truck trip assumptions. By presenting contradictory and misleading information, the Draft EIR fails to provide the good faith, reasoned analysis required under CEQA. This deficiency must be corrected in the next draft of the EIR to ensure that decisionmakers and the public are adequately informed.

2. The Draft EIR is also internally inconsistent regarding the Project's train trips.

Likewise, the Draft EIR is internally inconsistent, without explanation, regarding the number of trains that will pass through BIG over the course of the project. At one point, the Draft EIR anticipates 24 daily freight train pass-bys in 2028 and 35 in 2048. (*Id.* at 5.12-38.) At another point, in an appendix to the Draft EIR's noise analysis, the Draft EIR assumes 32 trains per day as a present-day baseline and anticipates 37 trains per day in 2028, amounting to a 5-train per day increase. (DEIR App. 5.12 BIG-1 at 199.) At yet another point, the Draft EIR includes a table buried in an appendix that provides that the existing average trains per day is 45.3, and that this would increase to 134.9 trains per day with BIG in 2048, amounting to nearly 90 additional trains per day within the BIG footprint. (*Id.* at 70.) Even worse, the table with these O21-9

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figures does not present these figures in a clear, articulable way. Instead, the public and decisionmakers have to do the math themselves.

By presenting contradictory, unexplained, and misleading information regarding the number of train trips caused by BIG, the Draft EIR fails to provide the accurate, stable, and finite project description CEQA requires. The next iteration of the EIR must clearly state the number of trains and locomotives (across all categories of trains and locomotives) for the existing baseline and all the Project years. O21-9 cont'd.

II. THE DRAFT EIR'S ALTERNATIVES ANALYSIS IS BASED ON IMPROPERLY NARROW OBJECTIVES AND FAILS TO CONSIDER A REASONABLE RANGE OF ALTERNATIVES.

"The core of an EIR is the mitigation and alternatives sections." (*Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 564.) An EIR must describe "a range of reasonable alternatives to the project . . . which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project." (Cal. Code Regs., tit. 14, § 15126.6, subd. (a).) The selection of alternatives is governed by the "rule of reason." (*North Coast Rivers Alliance v. Kawamura* (2015) 243 Cal.App.4th 647, 667.) Critically, "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects." (Pub. Resources Code, § 21002.) Here, the City violated CEQA by creating a list of unduly narrow project objectives for BIG and failing to consider a reasonable range of project alternatives for the General Plan and the BIG Project. O21-10

GENERAL PLAN

A. The Draft EIR for the General Plan fails to analyze a reasonable range of alternatives.

CEQA mandates that an EIR "consider a reasonable range of potentially feasible alternatives" that would avoid or substantially lessen significant impacts. (Cal. Code Regs., tit. 14, § 15126.6, subd. (a).) The purpose of an EIR is not to present alternatives that "meet few if any of the project's objectives so that these alleged alternatives may be readily eliminated." (*Watsonville Pilots Assn. v. City of Watsonville* (2010) 183 Cal.App.4th 1059, 1089, original italics.) Instead, the alternatives analysis must be structured to "foster meaningful public participation and informed decision making." (*Preservation Action Council v. City of San Jose* (2006) 141 Cal.App.4th 1336, 1354, citing Cal. Code Regs., tit. 14, § 15126.6, subd. (f).) "Meaningful analysis of alternatives in an EIR requires an analysis of *meaningful alternatives*." (*Save Our Capital! v. Dept. of Gen. Services* (2023) 87 Cal.App.5th 655, 704, italics added.) O21-11

CEQA further prohibits an agency from approving a "project if feasible alternatives exist that would substantially lessen its significant environmental effects." (*Save Panoche Valley v. San Benito County* (2013) 217 Cal.App.4th 503, 520, citations omitted.) A feasible alternative is one that is "capable of being accomplished in a successful manner within a reasonable period of

time, taking into account economic, environmental, social, and technological factors." (Pub. Resources Code, § 21061.1.) While alternatives must be capable of achieving most project objectives, they need not achieve all of them. (*Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4th 477, 489.)

Here, the City failed to analyze a reasonable range of alternatives that could substantially lessen the General Plan's significant environmental impacts. The Draft EIR evaluates only two alternatives: (1) the No Action Alternative, which would retain the 2015 General Plan and (2) the No BIG/Proposed General Plan Reduced Development Alternative ("No BIG Alternative"), which would update the General Plan to comply with state law but exclude BIG and related land use changes. (DEIR at 8-66.) This narrow set of options does not satisfy CEQA's requirement to consider a reasonable range of feasible alternatives.

The Draft EIR's reliance on a single development alternative—the No BIG Alternative—falls short of CEQA's mandate. (See Cal. Code Regs., tit. 14, § 15126.6, subd. (e).) The City should have evaluated additional alternatives that would meet the General Plan's basic project objectives while meaningfully reducing environmental impacts. This obligation is particularly important given that Barstow is located within the Mojave Air District, a region already designated nonattainment for multiple federal and state ozone and particular matter standards. (DEIR at 5.3-54.) In such a context, CEQA demands a more robust alternatives analysis than the Draft EIR provides.

O21-11 cont'd

The Draft EIR should be revised to include a robust alternatives analysis that evaluates (1) 'mixed use' alternatives, such as increased retail and high-density residential uses, and (2) land-use buffering alternatives that separate industrial development from adjacent sensitive receptors, including Sylvan Avenue and Lenwood Elementary School.

Mixed-use alternatives are both feasible and capable of meeting most of the General Plan's project objectives. They are also widely used throughout the Inland Empire, where jurisdictions have successfully adopted master-planned developments that integrate housing, retail, and employment-generating uses. For example, San Bernardino County recently approved "The Resort," a 160-acre master-planned community with 3,450 residences and 220,000 square feet of neighborhood-serving retail—reflecting the County's recognition that rapid population growth has increased demand for retail and mixed-use development.[3] Similarly, the City of Redlands approved the "Tennessee Village" mixed-use project in 2024, providing 460

[3] San Bernardino Cnty., *New Infrastructure Ushers in a New Retail Era for San Bernardino County* (June 6, 2024), https://main.sbcounty.gov/2024/06/06/new-infrastructure-ushers-in-a-new-retail-era-for-san-bernardino-county/.

apartments and 18,000 square feet of commercial space.[4] The City of Fontana approved mixed-use development on 80 acres within a new 101-acre master-plan that includes 1,700 homes and retail uses, located within one of the nation's largest logistics hubs.[5] Other examples include the "Shops at Jurupa Valley," a 30-acre retail project designed to serve the region's growing population[6]; a transit-oriented mixed-use project in Corona with 286 residential units and over 70,000 square feet of commercial space[7]; and the Ontario Ranch master-planned community, which integrates residential, commercial, business park, and industrial uses.[8]

These projects demonstrate that mixed-use development is not only feasible but increasingly common in the region. Industry analyses also highlight the emergence of a "mixed-use industrial sector" in the Inland Empire, where industrial, retail, office, and restaurant uses are intentionally co-located to create economic synergies.[9] Mixed-used industrial developments—such as the 2,000-acre Goodman Commerce Center in Eastvale—combine Class A logistics facilities with retail, flex space, and business park uses.[10] These development generate diverse and stable employment opportunities, support walkable commercial amenities, and strengthen

O21-11
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[4] Cmty. Forward Redlands, *Redlands City Council Approves 460-Unit Mixed-Use Development* (Dec. 5, 2024), https://www.communityforwardredlands.com/redlands-city-council-approves-460-unit-mixed-use-development/#:~:text=The%20Tennessee%20Village%20mixed%2Duse%20project%20in%20Redlands%2C,residents%20*%20**Commercial%20space**%2018%2C000%20square%20feet.
[5] CoStar, *Apartment Project Kicks Off Green Goals for Inland Empire Developer* (Mar. 27, 2024) https://www.costar.com/article/756137741/apartment-project-kicks-off-green-goals-for-inland-empire-developer.
[6] Inland Empire Bus. J., *The Evolution of Retail: A Comprehensive Look at the Inland Empire's Newest Shopping Center* (Dec. 10, 2024), https://iebizjournal.com/the-evolution-of-retail-a-comprehensive-look-at-the-inland-empires-newest-shopping-center/#:~:text=Meeting%20Community%20Needs%20in%20a,for%20both%20convenience%20and%20experience.
[7] Wermers Co.'s, *Highly Anticipated Mixed-Use Project in the Inland Empire Is Officially Complete* (Mar. 15, 2018), https://wermerscompanies.com/highly-anticipated-mixed-use-project-in-the-inland-empire-is-officially-complete/.
[8] City of Ontario, *Ontario Ranch Community*, https://www.ontarioca.gov/government/community-development/planning/ontario-ranch-community (last visited Dec. 11, 2025).
[9] Dan MacDavid, *Mixed-Use Industrial Sector Soars in the Inland Empire*, REBusiness Online (Jan. 14, 2022), https://rebusinessonline.com/mixed-use-industrial-sector-soars-in-the-inland-empire/.
[10] Goodman, *Goodman Commerce Center Eastvale*, https://us.goodman.com/our-properties/properties-for-lease/goodman-commerce-center-eastvale (last visited Dec. 11, 2025).
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local economics.[11] The Draft EIR's failure to consider a mixed-use alternative overlooks the substantial environmental and economic benefits such an alternative could provide.

Mixed-use development also offers long-term workforce advantages that the Draft EIR does not acknowledge. Although the Inland Empire is a major economic hub, its workforce earns less than statewide averages, and regional leaders have emphasized the need to transition from lower-wage warehouse jobs to higher-skilled technical, managerial, and advanced manufacturing positions.[12] Mixed-use development supports this transition by diversifying employment opportunities. This is particularly important given the rapid automation of warehouse and logistics operations.

O21-11 cont'd

At the same time, BNSF is actively advancing automation across its railyard operations. In 2020, BNSF launched a pilot at its Logistics Park Kansas City terminal using automated straddle carriers—equipment that lifts containers on and off trucks and moves them to stacking areas or railcars without human crane operators.[13] This system eliminates the need for hostler trucks and significantly reduces on-site labor.[14] BNSF has described this level of automation as the "future of intermodal hub operations," underscoring BNSF's eagerness to shift toward technology-driven, labor-reducing systems.[15]

In light of these examples, economic trends, and demonstrated feasibility, the Draft EIR's failure to evaluate a mixed-use alternative—and an alternative that buffers industrial uses from sensitive receptors—falls far short of CEQA's requirement to analyze a reasonable range of alternatives capable of substantially reducing environmental impacts.

B. The Draft EIR's alternatives analysis for the General Plan is not supported by substantial evidence.

CEQA's substantive mandates requires agencies to make specific findings before approving a project with significant environmental effects, including a finding that "[s]pecific economic, legal, social, technological, or other considerations . . . make infeasible the . . . project alternatives." (Pub. Resources Code, § 21081, subd. (a)(3); Cal. Code Regs., tit. 14, § 15091,

O21-12

[11] Stance Com. Real Estate, *The Future of Mixed-Use Developments: Live-Work-Play Spaces in Demand* (Aug. 28, 2025), https://stancerealestate.com/the-future-of-mixed-use-developments-live-work-play-spaces-in-demand/.
[12] *Ibid.*
[13] BNSF, *BNSF's 'Uplifting' Technology Keeps Intermodal Containers Moving Safely and Efficiently*, (July 15, 2020) https://www.bnsf.com/news-media/railtalk/innovation/autostrad.html#:~:text=BNSF%E2%80%99s%20%E2%80%98uplifting%E2%80%99%20technology%20keeps%20intermodal,containers%20moving%20safely%20and%20efficiently.
[14] *Ibid.*
[15] *Ibid.*
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subd. (a)(3).) Any finding of infeasibility must be supported by substantial evidence. (Cal. Code Regs., tit. 14, § 15091, subd. (b).)

The Draft EIR does not satisfy this requirement. It summarily concludes that "the proposed General Plan with No BIG Alternative would not fulfill any of the proposed General Plan objectives." (DEIR at 8-73.) Yet this conclusion is directly contradicted by the Draft EIR's own analysis in Table 8-6, which shows that the No BIG Alternative either "Meets Objectives" or "Meets Objectives to a Lesser Extent" for every single project objective for the proposed General Plan. (*Id.* at 8-73–74.) An agency cannot disregard its own evidence and then declare an alternative infeasible. This plainly violates CEQA. Indeed, an alternative need not even achieve all project objectives to be considered feasible—but here, the No BIG Alternative actually meets all objectives. (See *Mira Mar Mobile Community*, *supra*, 119 Cal.App.4th at p. 489.)

O21-12 cont'd

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Table 8-6: No BIG/Proposed General Plan Reduced Development Alternative Ability of Alternative to Meet Project Objectives	
Objective	**Objective Met?**
Objective 1. The addition of a substantial number of livable wage jobs that will strengthen the City's economic base and fiscal resiliency and provide career pathways for the community.	**Meets Objective to a Lesser Extent.** When compared to the proposed General Plan, this alternative would result in 13,900 fewer jobs. This alternative would, nonetheless, result in new jobs in the City when compared to existing conditions, thereby meeting this objective to a lesser extent than the proposed General Plan.
Objective 2. A larger amount and wider range of housing opportunities to address the needs of the community and military installations, demand from new households generated by job growth, and full spectrum of lifestyles and life stages.	**Meets Objectives.** This alternative would allow the same development in the City under the same land uses as the proposed General Plan, with the exception of the land use changes related to implementing the BIG Specific Plan. These land use changes under the proposed General Plan would only be implemented at the BIG Specific Plan area and do not involve land currently designated or that would be designated for housing. Therefore, while alternative would result in less overall production of housing since less development is anticipated to occur in lieu of BIG, it would not affect where and what kind of housing could be built when compared to the proposed General Plan, since it proposes the same land use plan with respect to residential uses.
Objective 3. A cohesive land use plan that appropriately transitions between residential, commercial, and industrial areas, encourages new development to leverage and improve existing infrastructure, and provides expansion opportunities to support long term growth.	**Meets Objective.** This alternative proposes the same land use plan as the proposed General Plan with the exception of the land use changes needed to facilitate the development of BIG at the BIG Specific Plan area. Therefore, it would, like the proposed General Plan, provide a cohesive land use plan. While this alternative does not anticipate any annexations of the SOI, it would not prevent future annexations of land in the SOI to support further growth of the City, if needed.
Objective 4. Economic opportunities that allow residents to (re)invest in the community and create generational wealth.	**Meets Objective to Lesser Extent.** While this alternative would result in an increase of 5,910 jobs when compared to existing jobs in the proposed General Plan area, when compared to the job growth under the proposed General Plan, this alternative would create less economic opportunities since the job growth under BIG would not occur.
Objective 5. Land use and circulation plans that capitalize on Barstow's unique location, as a link on the national supply chain, and existing industrial and rail infrastructure to attract and retain innovative industrial and rail operators and to support the efficient movement of goods.	**Meet Objective to Lesser Extent.** When compared to the proposed General Plan, which facilitates the development of BIG, this alternative does not intentionally create opportunities to capitalize on Barstow's location to attract new rail operators. This alternative would not include the development of BIG nor the land use changes needed to facilitate a development of its kind. However, it does not prevent innovative industrial and rail operations and is anticipated to result in approximately 10 million square feet of new truck-based warehousing uses. This alternative therefore does not meet this objective to the extent of the proposed General Plan.

O21-12 cont'd

Table 8-6: No BIG/Proposed General Plan Reduced Development Alternative Ability of Alternative to Meet Project Objectives	
Objective	**Objective Met?**
Objective 6. Goals, policies, and implementation strategies that ensure Barstow is a healthy and safe community for residents, businesses, and visitors.	**Meets Objective.** This alternative would implement the same goals, policies and implementation strategies as the proposed General Plan, with the exception of those related to the implementation of BIG. However, all policies related to health and safety in the community at large would remain the same as the proposed General Plan.

Other infeasibility findings in the Draft EIR are similarly unsupported. The Draft EIR claims—without citation to any data, studies, market analyses, or expert input—that under the No BIG Alternative, "Barstow is likely to attract traditional truck-based warehousing" due to

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"long-term demand for logistics" and "fewer air quality restrictions" in the Mojave Air District. (DEIR at 8-66.) It then assumes, again without evidentiary support, that "up to 10 million square feet of new traditional truck-based warehousing could be developed by 2048, which would generate up to 5,910 jobs and 1,413 new houses." (*Ibid.*) These projections are attributed only to unspecified "input from property owners" and "speculative development interest," neither of which constitutes substantial evidence under CEQA. (*Ibid.*)

O21-12 cont'd

The Draft EIR further asserts—without any supporting analysis—that traditional truck-based warehousing "may require substantial improvements to local and State roadways," and that such improvements "may or may not be economically feasible." (*Ibid.*) It then concludes, again without evidence, that BIG is "unique" because it could add jobs "without substantially increasing truck traffic on area roadways." (*Ibid.*) These statements are speculative, conclusory, and unsupported by any cited facts, modeling, or expert evaluation.

BNSF BIG RAILYARD

C. The Draft EIR's list of project objectives for BIG is unduly narrow.

CEQA's alternatives analysis begins with the establishment of project objectives by the lead agency. (*We Advocate Thorough Environmental Review v. County of Siskiyou* (2022) 78 Cal.App.5th 683, 691 (hereafter *WATER*).) Project objectives must be written broadly enough to "help the lead agency develop a reasonable range of alternatives" and to support informed decision-making. (Cal. Code Regs., tit. 14, § 15124, subd. (b).) When project objectives are drafted too narrowly such that only the proposed project can satisfy them, they preclude meaningful consideration of alternatives and violate CEQA. (*North Coast Rivers Alliance*, *supra*, 243 Cal.App.4th at p. 668; *WATER*, 78 Cal.App.5th at p. 692.)

O21-13

The Draft EIR falls squarely into this prohibited pattern. Rather than articulating broad policy goals, the project objectives for BIG describe the Project's specific design, location, configuration, and operational model. The Draft EIR's project objectives for BIG are as follows:

- Increase the speed and reliability, and lower the cost, of moving containerized goods from the San Pedro Bay Ports (Ports) to their end destinations, with the end effect of reducing traffic congestion and associated air emission from trucking of goods to and from transload facilities, by constructing and operating a freight rail facility that comprises:
  - an intermodal freight yard (IMF) with a "closed loop" connection to an on-site transload warehouse center of sufficient capacity to attract large-scale users of warehouse facilities and justify their adoption of rail transport instead of long-distance, heavy-duty truck transport, and
  - a block swap yard at the same site as the IMF, to enable blocks of rail cars with the same destination to be combined into a single train, thereby increasing the efficiency of goods movement by rail;

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- Optimize symbiotic facility site design that allows the most efficient interplay between the operations of the block swap, IMF and transload warehouse center to ensure that the site will accommodate projected future demand.
- Construct and operate the facility in a manner that promotes the public policy goals in the State Rail Plan to reduce the disproportionate impacts of truck-borne goods movement in urbanized and densely populated areas adjacent to Prot facilities in southern California.
- Utilize a single technology platform to track goods throughout their journey from the Ports through the facility to their end destinations, thereby maintaining greater control, awareness, and visibility of goods movement through the supply chain.
- Design the facility so that its construction and operations do not interfere with or cause delays to existing operations on the mainlines.
- Locate the facility at a site that would:
    - be large enough for all BIG components (i.e., intermodal facility, transload warehouse center, block swap yard, additional laydown area, and additional tracks along BNSF's existing mainline);
    - be positioned along BNSF's existing mainline and near where the Cajon, Mojave, and Needles Subdivision main railroad lines converge (i.e., the "Subdivision Wye");
    - be positioned near an existing locomotive maintenance facility, or with sufficient space for a new locomotive maintenance facility;
    - be positioned a reasonable distance from heavily urbanized areas (where land use incompatibilities can be minimized) yet near an existing employment base, freeways, and essential infrastructure;
    - be relatively level and largely devoid of existing land uses and sensitive biological resources; and
    - allow for sufficient on-site power generation to the railyard (i.e., solar farm).

(DEIR at 8-4–5.)

These are not broad policy objectives. They are detailed design criteria that mirror the proposed BIG Project exactly. By requiring, for example, that the Project "be positioned along BNSF's existing mainline" and "near an existing locomotive maintenance facility," the Draft EIR effectively mandates the Project's precise footprint and operational model. (*Id.* at 8-4.) The objective that the Project "[u]tilize a single technology platform to track goods throughout their journey from the Ports through the facility to their end destinations" likewise prescribes a specific proprietary system rather than articulating a broader goal. (*Ibid.*) Moreover, the Draft EIR not only names the objective of increasing "speed and reliability . . . and lower[ing] the cost . . . of moving containerized goods from the San Pedro Bay Ports . . . to their end destinations," but also that it include a "closed loop" connection to an intermodal freight yard and "a block swap yard at the same site." (*Id.*)

O21-13 cont'd

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Project objectives drafted at this level of specificity do not describe what the City seeks to achieve. They describe the Project as proposed. As a result, this list of project objectives forecloses consideration of any alternative that does not replicate BIG's exact footprint, location, and operational design. Such narrowly drawn objectives unreasonably limit the available alternatives and undermine CEQA's core purpose of fostering meaningful public participation and informed decision-making. (*Kawamura*, *supra*, 243 Cal.App.4th at p. 667; Cal. Code Regs., tit. 14, § 15126.6, subd. (f).) In effect, the objectives demand the BIG Project and nothing else. O21-13 cont'd

D. The Draft EIR fails to evaluate a reasonable range of project alternatives for the BIG Project.

The Draft EIR fails to meet CEQA's fundamental requirement to evaluate a reasonable range of potentially feasible alternatives capable of avoiding or substantially reducing the BIG Project's significant environmental impacts. CEQA mandates that an EIR "consider a reasonable range of potentially feasible alternatives" that would achieve this purpose. (Cal. Code Regs., tit. 14, § 15126.6, subd. (a).) An alternatives analysis cannot be structured to present only options that "meet few if any of the project's objectives so that these alleged alternatives may be readily eliminated." (*Watsonville Pilots Assn.*, *supra*, 183 Cal.App.4th at p. 1089.) Instead, the alternatives analysis must "foster meaningful public participation and informed decision making." (*Preservation Action Council*, *supra*, 141 Cal.App.4th at p.1354, citing Cal. Code Regs., tit. 14, § 15126.6, § 15126.6, subd. (f).)

CEQA also prohibits approval of a project where "feasible alternatives exist that would substantially lessen its significant environmental effects." (*Save Panoche Valley*, *supra*, 217 Cal.App.4th at p. 520, citations omitted.) A feasible alternative is one "capable of being accomplished in a successful manner within a reasonable period of time," considering economic, environmental, social, and technological factors. (Pub. Resources Code, § 21061.1.) While an alternative must be capable of achieving most project objectives, they need not achieve all of them. (*Mira Mar Mobile Community*, *supra*, 119 Cal.App.4th at p. 489.) O21-14

Here, the City did not evaluate a reasonable range of alternatives. The Draft EIR considers only three: (1) the No Action Alternative (DEIR at 8-74); (2) the Reduced Intensity Alternative, which would cut the railyard and transload warehouse center's footprint and intensity by half (*Id.* at 8-89); and (3) the BIG West Transload Warehouse Center Alternative ("Transload Center Alternative"), which would provide that no transload warehouse center buildings would be constructed east of the Lenwood Channel (*Id.* at 8-100). The Draft EIR concludes that the No Action Alternative would not meet the Project's objectives, and that both the Reduced Intensity Alternative and the Transload Center Alternative would meet all but one project objective. For the Reduced Intensity Alternative, the Draft EIR asserts—without supporting evidence—that it would not accommodate projected future demand. (*Id.* at 8-99.) For the Transload Center Alternative, the Draft EIR claims that California Public Utilities Commission regulations would prohibit the solar farm from powering the railyard. (*Id.* at 8-113.) Yet the Draft EIR provides no technical analysis, data, or expert evaluation to substantiate these assertions or to explain why these alternatives were rejected. (See *Mira Mar Mobile Community*, *supra*, 119 Cal.App.4th at p. 489.)

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At minimum, the City should have evaluated: (1) a Zero-Emission BIG Project Alternative, and (2) a Partially Zero-Emission BIG Project Alternative. (See *Save Panoche Valley*, *supra*, 217 Cal.App.4th at p. 520.) As detailed in the attached Connolly Memo, zero-emission locomotives, trucks, rubber-tired gantry cranes, and other equipment are commercially available and are technologically and economically feasible. By failing to analyze these options, the City violated CEQA's core requirement to meaningfully consider feasible alternatives that could reduce environmental harm.

1. Zero-Emission BIG Project Alternative

A Zero-Emission BIG Project Alternative ("ZE Alternative") is plainly feasible under CEQA's definition—i.e., "capable of being accomplished in a successful manner within a reasonable period of time," considering economic, environmental, social, and technological factors. (Pub. Resources Code, § 21061.1.) The Connolly Memo demonstrates that zero-emission technologies are technically feasible, commercially available, and in many cases cost-competitive or more affordable than combustion equipment. The Draft EIR must therefore evaluate a ZE Alternative that includes: (1) zero-emission electric locomotives for the Corridor—specifically battery-electric locomotives, intermittent catenary electrification, and full catenary electrification; (2) zero-emission switcher locomotives for railyard operations; (3) zero-emission rubber-tired gantry cranes; and (4) zero-emission heavy-duty trucks. The City must also respond to the detailed technical analysis in the Connolly Memo regarding each of these components.

O21-14 cont'd.

a. Zero-Emission Electric Locomotives for the Corridor

The Connolly Memo provides a comprehensive evaluation of the technical feasibility, commercial readiness, and capital, fueling, and lifecycle costs of battery-electric locomotives, intermittent catenary electrification, and full catenary electrification as alternatives to the Project's proposed Tier 4 diesel locomotives for the LA-Barstow Corridor. (See Connolly Memo at pp. 22–31, 35–46.) The Draft EIR must evaluate all three technologies.

b. Zero-Emission Electric Switcher Locomotives

The Connolly Memo also evaluates zero-emission switcher locomotives for railyard operations. (*Id.* at pp. 46–52.) The City must revise the EIR and analyze zero-emission electric switchers as a feasible alternative.

c. Zero-Emission Rubber-Tired Gantry Cranes (RTGs)

Similarly, the Connolly Memo's analysis demonstrates that zero-emission RTGs are commercially proven and cost-effective. (*Id.* at pp. 52–59.) The City must revise the EIR to incorporate zero-emission RTGs as a feasible alternative.

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d. Zero-Emission Heavy-Duty Trucks

The following text and the Connolly Memo (*id.* at pp. 61–63) also demonstrate that requiring the usage of Class 7 and 8 battery-electric trucks at BIG is a feasible alternative.[16] First, numerous studies show that the current total cost of ownership for a large battery-electric semi-truck is less than a diesel equivalent. As the decade progresses, the cost of battery-electric semi-trucks will drop even lower, whereas diesel trucks are expected to increase in cost, or remain stagnant. Second, the two largest technological barriers to widespread usage of battery-electric semi-trucks, which are the existence of cheap batteries that can sustain long range freight movement, and sufficient charging infrastructure to support battery-electric semi-trucks, have been overcome with immense public and private investment. Third, there are currently numerous Class 7 and 8 battery-electric truck models available for purchase, and many freight facilities have already committed to utilizing these trucks. Finally, government agencies in California are aggressively pushing for widespread usage of large battery-electric semi-trucks, through regulatory mandates, grant programs, and financial incentives.

O21-14 cont'd.

i. The current total cost of ownership of battery-electric semi-trucks is less than diesel semi-trucks.

Numerous studies have compared battery-electric semi-trucks with their diesel and natural gas counterparts using a Total Cost of Ownership ("TCO") analysis. A TCO analysis attempts to capture the total cost of purchasing and operating a vehicle throughout its entire life. While each study has slightly varied methodology, each TCO analysis generally consists of vehicle purchase cost, lifetime fuel and maintenance costs, and necessary infrastructure costs.

Some studies analyze additional factors, including California's available financial incentives, the charging infrastructure investments made by California's utilities, and the environmental externalities associated with Class 7 and 8 semi-trucks. Multiple comprehensive studies show that, with financial incentives, electric semi-trucks currently have a lower TCO than both diesel and natural gas semi-trucks. Further, these studies indicate that the cost of battery-electric Class 7 and 8 semi-trucks will continue to decrease as the 2020s progress, whereas the cost of diesel trucks will either increase or remain stagnant.

CARB undertook a TCO analysis that compared battery-electric and diesel Class 8 Day Cab semi-trucks.[17] Day Cabs are a type of truck generally used for day trips less than 250 miles and are also known as regional-haul or short-haul trucks. The study compared the TCO of this

[16] Indeed, the State of California recognizes that zero-emission trucks are a best practice for warehouse projects. *See* California Office of the Attorney General, *Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act* (2022), https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/warehouse-best-practices.pdf.
[17] Cal. Air Res. Bd., *Draft Advanced Clean Trucks Total Cost of Ownership Discussion Document* (Sept. 9, 2021), https://ww2.arb.ca.gov/sites/default/files/2021-08/210909costdoc_ADA.pdf.
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type of semi-truck in three different scenarios: if the vehicle is purchased in 2025, 2030, and 2035.[18] The study concluded that the TCO for a battery-electric Class 8 Day Cab purchased in 2025 is about $150,000 less than its diesel counterpart.[19] The TCO for a battery-electric truck purchased in 2030 is about $200,000 less than a diesel truck.[20] For 2035, the TCO is about $215,000 less than a diesel truck.[21]

These studies underestimate the full extent that TCO of battery-electric semi-trucks are more economical than diesel semi-trucks by not accounting for financial incentives available in California. For example, an International Council on Clean Transportation ("ICCT") study indicates the TCO of a battery electric semi-truck will be less than a diesel equivalent by 2030.[22] However, this conclusion does not consider the financial incentives available in California, and the CARB study only considers the Low Carbon Fuel Standard ("LCFS").[23] California has many more incentives available, with the most prominent being the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project ("HVIP").[24] For certain Class 7 battery-electric trucks, this HVIP program provides $95,000 as a voucher to offset some of the purchase price.[25] For certain Class 8 battery-electric trucks, the voucher amount is $150,000.[26] Further, in their respective analyses of charging infrastructure costs, neither study incorporates the hundreds of millions of dollars which California utilities have already committed to support the development of heavy-duty charging infrastructure.[27] When these additional factors are considered, the TCO for battery electric semi-trucks is more substantial than reported in the studies.

O21-14 cont'd

A study conducted by ICF finds that, when the HVIP program and the utilities' charging infrastructure investments are incorporated into a TCO analysis, battery-electric semi-trucks

[18] *Id.* at 6.
[19] *Ibid.*
[20] *Ibid.*
[21] *Ibid.*
[22] Dale Hall and Nic Lutsey, *Estimating the Infrastructure Needs and Costs for the Launch of Zero-Emission Trucks*, International Council on Clean Transportation (Aug. 2019), https://theicct.org/sites/default/files/publications/ICCT_EV_HDVs_Infrastructure_20190809.pdf .
[23] *See id.* at 7; Cal. Air Res. Bd., *Clean Truck Total Cost of Ownership Discussion*, *supra* note 17.
[24] California Hybrid and Zero-Emission Truck and Bus Voucher Program, https://www.californiahvip.org/ (last visited Dec. 11, 2025).
[25] *See generally* California HVIP Eligible Vehicle Catalog https://californiahvip.org/vehiclecatalog/.
[26] *Ibid.*
[27] Cal. Pub. Util. Comm'n, *Transportation Electrification Activities Pursuant to Senate Bill 350* https://www.cpuc.ca.gov/sb350te/.
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currently have a favorable TCO compared to diesel.[28] ICF's study compares the TCO of battery-electric and diesel Class 8 short-haul semi-trucks and Class 8 long-haul semi-trucks purchased in 2019 and 2030.[29] For battery-electric short-haul trucks purchased in 2019, the TCO was about $150,000 less than a diesel equivalent.[30] For battery-electric short-haul trucks purchased in 2030, the TCO is about $200,000 less than a diesel equivalent.[31] For battery-electric long-haul trucks purchased in 2019, the TCO was about $200,000 less than a diesel truck.[32] For battery-electric trucks purchased in 2030, the TCO is about $300,000 less than an equivalent diesel truck.[33] This study finds that, when HVIP incentives and the cumulative hundreds of millions California utilities have invested to build charging infrastructure are included in a TCO analysis, large battery-electric semi-trucks currently have a favorable TCO compared to diesel. Further, consistent with the findings of CARB and ICCT, ICF indicates that battery-electric trucks should be able to compete without HVIP incentives on a TCO basis by 2030.[34]

O21-14
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In addition to financial incentives and utility charging infrastructure investment, when the environmental externalities of air pollution and GHG emissions are monetized and incorporated into a TCO analysis, battery-electric trucks are even cheaper compared to diesel. A study done by the Lawrence Berkeley National Laboratory ("LBNL") monetizes the reductions in GHG emissions and air pollution associated with battery-electric trucking in three different scenarios: when electricity comes from 90 percent renewable sources and 10 percent gas, when it comes from 100 percent gas, and when it comes from 100 percent coal.[35] The study found that, when battery-electric trucks are fueled by electricity generated with 90 percent renewables and 10 percent gas, these trucks save $0.28 per mile compared to diesel.[36] When battery-electric trucks are powered by electricity generated with 100 percent gas, these trucks save $0.20 per mile compared to diesel.[37] California's electricity generation mix is somewhere in between these two extremes of 100 percent gas and 90 percent renewable.[38] Therefore, battery-electric trucks

[28] ICF, *Comparison of Medium and Heavy-Duty Technologies in California, Part Two: Total Cost of Ownership Analysis* (Dec. 2019), https://caletc.com/wp-content/uploads/2024/04/ICF-Truck-Report_Final_December-2019.pdf.
[29] *Id.* at 1.
[30] *Id.* at 20.
[31] *Ibid.*
[32] *Id.* at 19.
[33] *Ibid.*
[34] *Id.* at 32.
[35] Amol Phadle et al., *Why Regional and Long-Haul Trucks are Primed for Electrification Now*, Lawrence Berkeley National Laboratory, 20 (Mar. 2021), https://eta-publications.lbl.gov/sites/default/files/updated_5_final_ehdv_report_033121.pdf.
[36] *Id.* at 27.
[37] *Ibid.*
[38] Nuclear Energy Inst., *State Electricity Generation Fuel Shares*, https://www.nei.org/resources/statistics/state-electricity-generation-fuel-shares (last visited Jan. 5, 2026).
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operating within California would likely save somewhere between $0.20 and $0.28 per mile in GHG and air pollution costs compared to a diesel truck operating in California. Further, even without the monetization of environmental externalities, the LBNL study concludes that the TCO of a Class 8 semi-truck with a 375-mile range is about 13 percent less than a diesel equivalent.[39]

When analyzed cumulatively, these studies show that battery-electric Class 7 and 8 semi-trucks are *currently* an economically feasible alternative to diesel and natural gas semi-trucks. If incentive programs like the HVIP and LCFS, as well as the significant investment made by California utilities in charging infrastructure are incorporated into a TCO analysis, battery-electric trucks are currently cheaper than diesel equivalents. As the 2020s progress, battery-electric trucks will become even cheaper, as diesel trucks become more expensive. Further, by 2030, battery-electric semi-trucks are expected to compete with diesel semi-trucks on a TCO basis without any financial incentives.

(a). Battery pack prices are expected to continue declining significantly, and battery technology has advanced to support long range freight movement.

O21-14 cont'd

According to CARB, the cost of battery packs is the most important factor in the price of a battery-electric semi-truck.[40] The price of battery packs for semi-trucks, and all heavy-duty vehicles, has significantly declined over the past decade, and is expected to continue declining over the next decade. Between 2010 and 2018, battery pack prices declined approximately 80 percent.[41] A report conducted by the Rocky Mountain Institute indicates that the cost of manufacturing battery capacity will drop 50 percent between 2018 and 2023.[42] This unexpected, rapid scaling of battery manufacturing is due largely to the fact that "total manufacturing investment, both previous and planned until 2023, represents about $150 billion dollars."[43] As battery prices continue to decline, battery-electric trucks will become an even more favorable option when compared to diesel or natural gas trucks.

Not only are battery prices falling significantly, but battery technology is progressing to such an extent that it is technologically feasible for battery-electric semi-trucks to operate effectively over the long ranges necessary for some kinds of freight movement. The LBNL study referenced above found that "thirty minutes of charging using 500 kW or mega-Watt scale fast-chargers would add sufficient range without impairing operations and economics of freight

[39] Phadle, *supra* note 35 at 1.
[40] Cal. Air Res. Bd., *Clean Truck Total Cost of Ownership Discussion*, *supra* note 17 at 6.
[41] *Ibid.*
[42] Rocky Mountain Inst., *Breakthrough Batteries*, at 14 (2019), https://rmi.org/insight/breakthrough-batteries.
[43] *Id.* at 7.
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movement."[44] This is consistent with claims by Tesla that its Tesla Semi can be fully charged in under thirty minutes.[45]

Fast-charging is crucial for freight movement, as approximately 40 percent of large semi-trucks travel 500 miles or more per trip.[46] Fast-charging also has the added benefit of reducing strain on the grid. Each thirty-minute charging session is estimated to provide 4–6 hours of driving time, allowing long-haul battery-electric truck operators to effectively compete with operators using diesel and/or natural gas trucks.[47] The ICCT study referenced above found that with fast charging, a battery-electric semi-truck operator would spend approximately two hours charging on a trip between Los Angeles and Chicago.[48] Although two hours is more time than a diesel or natural gas semi-truck operator would spend refueling, ICCT concludes this time "does not significantly affect total daily driving time within legal limits."[49]

Therefore, not only are battery prices falling dramatically, but battery technology is advancing exponentially, making it technologically feasible for battery-electric trucks to operate over both short and long ranges.

O21-14 cont'd

(b). California's electric utilities have committed hundreds of millions of dollars to build medium and heavy-duty charging infrastructure.

While it has been shown that battery prices are falling significantly, and battery technology is increasing rapidly, this means little if there is insufficient charging infrastructure. According to CARB, charging infrastructure has emerged as the largest current issue preventing the widespread usage of heavy-duty battery-electric trucks.[50] Fortunately, there has been and will continue to be significant investment by California public utilities in medium and heavy-duty charging infrastructure. Further, the cost of charging infrastructure per vehicle diminishes significantly as the volume of vehicles increases. Therefore, the utilities' investment allows the battery-electric semi-truck market to circumvent the high costs currently associated with early charging infrastructure development, and helps to create economies of scale for future buyers.

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[44] Phadle, *supra* note 35 at 1.
[45] *Ibid.*
[46] Shashank Sripad and Vekatasubramanian Viswanathan, *Quantifying the Economic Case for Electric Semi-Trucks*, ACS Publications, 149 (Dec. 4, 2018), https://pubs.acs.org/doi/pdf/10.1021/acsenergylett.8b02146.
[47] Phadle, *supra* note 35 at 4.
[48] Hall, *supra* note 22 at 17.
[49] *Ibid.*
[50] Cal. Air Res. Bd., *Heavy-Duty Investment Strategy*, at D-41 (Sep. 20, 2019), https://ww2.arb.ca.gov/sites/default/files/2019-09/fy1920fundingplan-appd.pdf.
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The California Public Utilities Commission ("CPUC") has approved significant investments proposed by California's major public utilities in medium and heavy-duty charging infrastructure.[51] For example, in 2018, the CPUC approved Pacific Gas & Electric's ("PG&E") proposed investment of $236 million to support medium and heavy-duty charging infrastructure installations across its service territory.[52] The CPUC in 2018 also approved Southern California Edison's ("SCE") proposed investment of $343 million to support medium and heavy-duty charging infrastructure installations in its service territory.[53] In 2022, the CPUC approved several programs for SCE to implement proceeds from the sale of its LCFS Holdback credits, including a Drayage Truck Rebate to encourage adoption of cleaner fleets and reduces long-term operator costs.[54]

Additionally, the California Energy Commission has invested $771 million to support implementation of the Clean Transportation Program, much of which will go to support incentives for zero-emission truck charging and refueling projects.[55] As a direct result of the Clean Transportation Program's investments in charging infrastructure, Class 8 battery-electric semi-trucks made a historic crossing across the U.S.–Mexico border using chargers installed by San Diego Gas & Electric ("SDG&E") last year.[56]

Altogether, these investments will support the development of charging infrastructure for over 10,000 trucks and buses. In fact, Southern California Edison's Q3 Program Advisory Counsel[57] meeting showed it has been working on 313 active sites with the potential for more than 6,000 electric medium- and heavy-duty vehicles.

O21-14
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[51] Cal. Pub. Util. Comm'n, *Transportation Electrification Activities Pursuant to Senate Bill 350*, https://www.cpuc.ca.gov/sb350te/ (last visited Dec. 11, 2025).
[52] *Ibid.*
[53] *Ibid.*
[54] Cal. Pub. Util. Comm'n, *Key CPUC TE Decisions and Resolutions*, https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/infrastructure/transportation-electrification/key-cpuc-te-decisions-and-resolutions (last visited Dec. 11, 2025); *S. Cal. Edison, Drayage Truck Rebate*, https://commercialevrebates.sce.com/consumer/drayage (last visited Dec. 11, 2025).
[55] Cal. Energy Comm'n, *Zero-Emission Vehicle Infrastructure Dollars Are at Work Across California* (May 8, 2024), https://www.energy.ca.gov/news/2024-05/zero-emission-vehicle-infrastructure-dollars-are-work-across-california.
[56] San Diego Gas & Electric, *First Class 8 Heavy-Duty Electric Freight Truck Makes Historic Crossing of U.S.-Mexico* Border (Apr. 11, 2024), https://www.sdgetoday.com/news/first-class-8-heavy-duty-electric-freight-truck-makes-historic-crossing-us-mexico-border.
[5757] *See* S. Cal. Edison, *Transportation Electrification Program Advisory Council* (Sept. 12, 2025) [Attached as Appendix B].
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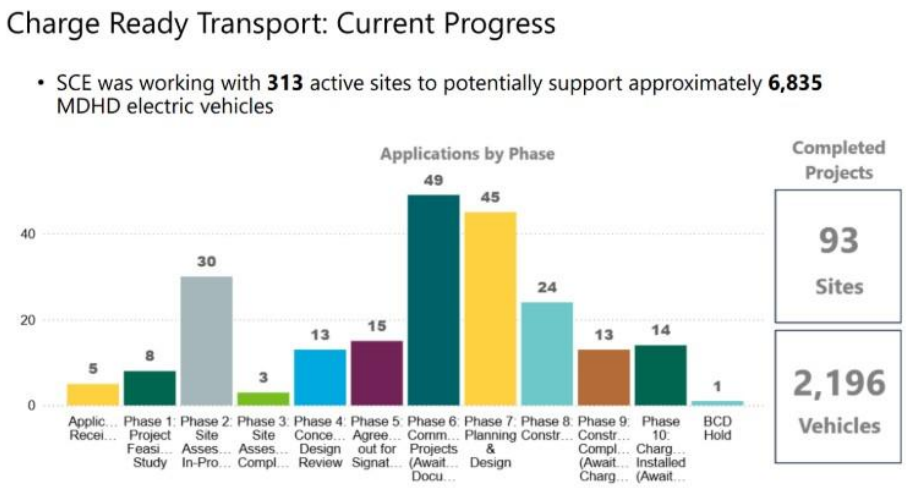

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In fact, warehouses and distribution centers are popular sites for these projects as shown by significant projects at warehouses and distribution centers in the pie chart pasted below.[58]

[58] *Ibid.*

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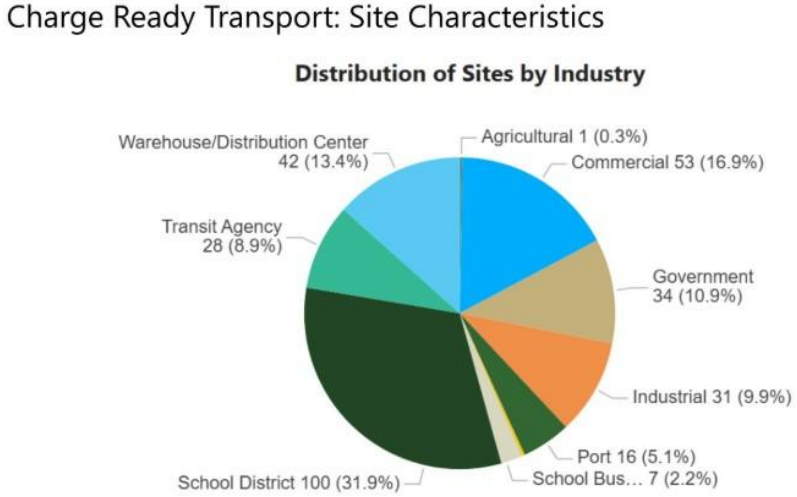

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Therefore, although charging infrastructure is a significant barrier to widespread usage of heavy-duty vehicles, the almost $1 billion already committed to building this infrastructure by California's utilities is a huge step in overcoming this barrier. This investment by California's utilities is vital because it has been shown that the cost of charging infrastructure per truck diminishes significantly as the amount of infrastructure installations increases. In the ICCT study referenced above, the ICCT calculates the expected cost of charging infrastructure per Class 8 long-haul battery-electric truck. With 100 trucks and 150 charging installations, the cost of infrastructure per vehicle is $189,000.[59] With 1,000 trucks and 1,200 installations, the cost drops to $114,000 per truck; with 10,000 trucks and 9,700 installations, the cost drops even further to $71,000 per truck.[60]

The economies of scale associated with charging infrastructure show why the utilities' investments are so crucial in ensuring the technological feasibility of battery-electric semi-trucks. The utilities' committed investment will help early battery-electric truck purchasers avoid the high costs currently associated with charging infrastructure. Further, the investment will aid the battery-electric market generally, as these hundreds of millions of dollars will create the economies of scale needed to significantly lower the cost of charging infrastructure for future buyers. This is partly why, as the ICF study shows, when these utility investments are incorporated into a TCO analysis, large battery-electric semi-trucks currently have a favorable TCO when compared to diesel. Thus, with these investments, the cost of charging infrastructure

[59] Hall, *supra* note 22 at i.
[60] *Ibid.*
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is no longer an obstacle to the widespread usage of Class 7 and 8 battery-electric semi-trucks at freight facilities.

In fact, heavy-duty charging infrastructure is already being deployed at scale. For example, last year, Greenlane unveiled plans for a 280-mile electric truck charging corridor along Interstate 15, with initial sites in Colton, Barstow, and Baker, and additional charging sites expected to extend to San Pedro.[61] This year, Tesla announced a plan to build 46 Megacharger Stations for use by Tesla Semi-trucks across the country by 2027.[62] Additionally, the largest port-based electric truck charging depot in the nation opened this year at the Port of Long Beach, offering 44 high-speed chargers delivering 9 megawatts of power with the capability of supporting of 200 trucks per day.[63] Thus, the Draft EIR's unsupported claim that "the necessary charging infrastructure does not exist along the many anticipated truck routes in California or elsewhere in the region" is not substantial evidence that battery electric trucks are infeasible. (DEIR at 5.3-113.) Likewise, the Draft EIR's unsupported claim that "there is no basis to find that such critical infrastructure will exist in a reasonable period of time" is likewise not supported by substantial evidence, and in fact is demonstrated to be incorrect according to the wealth of evidence included in this comment letter. The fact that the national fast-charging network is rapidly growing from a low baseline does not establish infeasibility. In fact, as of September 2025, the California Energy Commission announced that there are 20,093 charging and hydrogen fueling points for medium- and heavy-duty ("MDHD") zero-emission vehicles across the state, marking an increase of 3,766 (23 percent) since the last update in February 2025.[64] The Draft EIR vastly underestimates charging stations and wrongly suggests—without reference to any data, reports, or even citations—that "because of the revocation of the Advanced Clean Truck Rule, there is no basis to find that such critical infrastructure will exist in a reasonable period of time." (DEIR at 5.3-113.) To the contrary, this comment letter and the attached Connolly Memo at pages 61 to 63 point to considerable evidence demonstrating that charging infrastructure is already built out, and even more is planned.

O21-14
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[61] Colin Campbell, *Greenlane unveils EV truck charging corridor*, Trucking Dive (Apr. 2, 2024), https://www.truckingdive.com/news/greenlane-electric-truck-charging-corridor-interstate-15-california/711953/.
[62] Mark Kane, *Tesla Develops 46 Megacharger Stations for Semi Trucks*, EV Charging Stations (May 1, 2025), https://evchargingstations.com/chargingnews/tesla-develops-46-megacharger-stations-for-semi-trucks/.
[63] Forum Mobility, *Forum Mobility Celebrates Grant Opening of FM Harbor*, https://forummobility.com/news/forum-mobility-celebrates-grand-opening-of-fm-harbor-the-largest-port-based-electric-truck-charging-depot-in-the-us/.
[64] Cal. Energy Comm'n, *California Exceeds 200,000 Electric Vehicle Chargers* (Sept. 24, 2025), https://www.energy.ca.gov/news/2025-09/california-exceeds-200000-electric-vehicle-chargers.
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Moreover, microgrid-enabled charging hubs that strengthen, rather than burden, the local grid are rapidly emerging.[65] Earlier this year, NFI Industries and Prologis Mobility launched an electric truck charging depot in Ontario, offering 10 charging ports that can charge up to 20 vehicles daily.[66] NFI installed a 1-megawatt solar array and 7 megawatt-hours of batteries at its Ontario, California, warehouse. That microgrid will help supplement grid power for NFI's fleet of nearly 90 Class 8 electric trucks, which handle drayage operations between the ports and the Inland Empire. Prologis's Hub in Torrance, California—the largest heavy-duty electric truck charging facility in North America—operates 96 high-powered charging stalls on a 9-MW microgrid made up of six independent units with 18 megawatt-hours of onsite battery storage and 3 MW of renewable-gas and hydrogen-capable generation.[67] This configuration allows managed charging, peak-shaving, and full autonomous operation for hours without grid support, serving more than 300 medium- and heavy-duty trucks per day.[68] These examples directly refute the Draft EIR's premise that the necessary charging infrastructure is infeasible without major grid upgrades. (See DEIR at 5.3-113.)

O21-14 cont'd

ii. Class 7 and Class 8 battery-electric semi-truck models are available for purchase, and many freight facilities have committed to utilizing these trucks.

Readily available models of zero-emission trucks will easily meet the requirements of the Project. There are numerous models of Class 7 and 8 Battery-Electric semi-trucks that are currently available for purchase, and are already in operation across the nation. In 2024, zero-emission heavy-duty truck registrations exceeded, for the first time, 200 registrations for every quarter of the year.[69] Based on company announcements, there are at least ten Class 7 or 8 models with ranges up to 550 miles that have or are slated for commercial deployment in the

[65] Jeff St. John, *Without enough utility power, California EV-truck depots try microgrids*, Canary Media (Jan. 17, 2025), https://www.canarymedia.com/articles/ev-charging/without-enough-utility-power-california-ev-truck-depots-try-microgrids; NFI, *NFI and Prologis Mobility Open EV Truck Charging Hub to Power Fleet Electrification* (Apr. 22, 2025), https://www.nfiindustries.com/about-nfi/news/nfi-and-prologis-mobility-open-ev-truck-charging-hub-to-power-fleet-electrification/.
[66] NFI, *supra* note 65.
[67] Prologis, *North America's Largest Heavy-Duty EV Charging Hub Powered by Microgrid* (June 11, 2024), https://www.prologis.com/insights-news/success-stories/north-americas-largest-heavy-duty-ev-charging-hub-powered-microgrid.
[68] *Ibid.*
[69] Ilma Fadhil and Yihao Xie, *Zero-Emission Bus and Truck Market in the United States (January-December 2024)*, Int'l Council on Clean Transp., 8 (June 24, 2024), https://theicct.org/wp-content/uploads/2025/06/ID-374-%E2%80%93-US-HDV-2024_spotlight_final.pdf.
25

coming years.[70] Tesla is projecting to complete construction of its Tesla Semi production line so that it can begin volume production of its semi-truck in 2026; the company expects to produce 50,000 semi-trucks per year upon reaching full capacity.[71] As early as January of 2018, 19 companies had already ordered 375 Tesla Semis, with UPS ordering 125 and PepsiCo ordering 100.[72] This year, WattEV ordered 40 Tesla Semi trucks to deploy at the Los Angeles and Long Beach ports.[73] BYD, a Chinese zero-emission vehicle manufacturer, announced in January 2020 that it had delivered its 100th battery-electric truck within the United States, which was a second generation Class 8 semi-truck.[74] The German company Daimler announced it delivered its first battery-electric semi-truck in 2019 and that, by 2024, its truck was being used in more than 55 company fleets in the United States.[75]

O21-14 cont'd

As demonstrated by a recent San Pedro Bay Ports Clean Air Action Plan quarterly update, there are currently registered 629 zero-emission port drayage trucks (528 battery electric and 101 hydrogen fuel cell).[76]

[70] Electronsx, *Electric Semi Truck Directory* (2025), https://electronsx.com/electric-semi-truck-directory.php; Good Car, Bad Car, *A Look at Every Major EV Semi-Truck Actually in Customer* Hands (2024), https://www.goodcarbadcar.net/a-look-at-every-major-ev-semi-truck-actually-in-customer-hands/.
[71] Electrek, *Tesla gives update on Tesla Semi factory, says on track for volume production in 2026* (Apr. 28, 2025), https://electrek.co/2025/04/28/tesla-gives-update-semi-factory-on-track-volume-production-2026/.
[72] Mark Matousek, *Companies that Have Ordered Tesla Semis*, Business Insider (Apr. 25, 2018), https://www.businessinsider.com/companies-that-ordered-tesla-semi-2017-12.
[73] WattEV, *WattEV adds Tesla Semis to its zero-emission fleet at Port of Long Beach* (2025), https://www.wattev.com/post/wattev-adds-tesla-semis-to-its-zero-emission-fleet-at-port-of-long-beach.
[74] BYD, *BYD Delivers its 100th Battery-Electric Truck in the United States* (Jan. 8, 2020), https://en.byd.com/news-posts/byd-delivers-100th-battery-electric-truck-in-the-united-states/.
[75] Electrek, *Daimler Delivers More Electric Freightliner eCascadia Semi-Trucks* (Mar. 4, 2020), https://electrek.co/2020/03/04/daimler-electric-freightliner-semi-trucks-ecascadia/; Daimler, *Daimler Truck unveils battery electric autonomous Freightliner eCascadia technology demonstrator* (2024), https://northamerica.daimlertruck.com/news-stories/2024/daimler-truck-unveils-battery-electric-autonomous-freightliner-ecascadia-technology-demonstrator.
[76] Clean Air Action Plan, *About the CAAP Implementation Stakeholder Advisory Group*, https://cleanairactionplan.org/about-the-plan/stakeholder-advisory-group/ (last visited Dec. 11, 2025).
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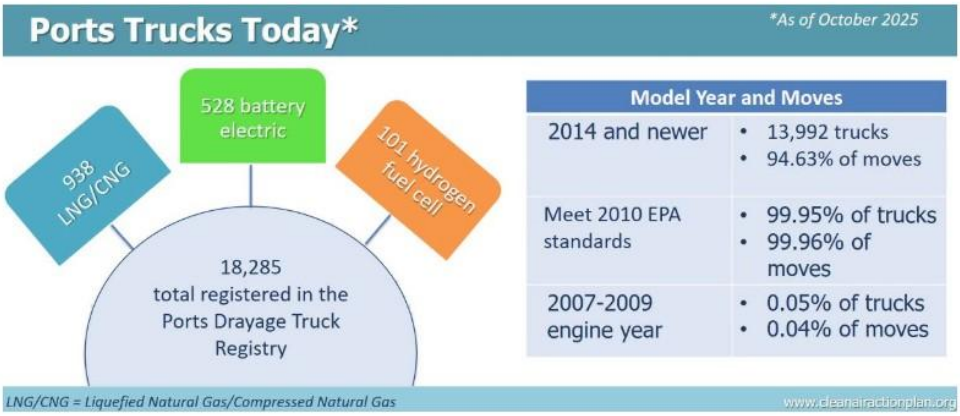

O21-14 cont'd

Not only are there multiple Class 7 and 8 battery-electric semi-truck models available for purchase and currently on the road, but many freight facilities have already committed to incorporating these trucks into their fleets. Many other, similarly-situated warehouse projects across California have committed to adopting zero-emission truck fleets as quickly as is feasible, including, for instance, the Beaumont Pointe Project in Beaumont, California.[77] In 2022, Walmart opened a fulfillment center in British Columbia which will feature a *fully electric* fleet.[78] Anheuser-Busch ordered a total of 931 electric and hydrogen semi-trucks between 2018 and 2025.[79] Frito-Lay is currently upgrading an existing freight facility, which will include use of 15 Tesla Semis and a 1 Megawatt photovoltaic array with charging infrastructure.[80] Loblaw, a Canadian supermarket company, has committed to fully transforming its fleet to zero emission

[77] City of Beaumont, *Beaumont Pointe Specific Plan: Final Environmental Impact Report* 2-24 (Nov. 16, 2023), https://lafco.org/wp-content/uploads/documents/beaumont-pointe/_BPSP%20Final%20EIR_2023_11-16.pdf referring mitigation measures B-41 and B-42 therein and stating that they require that "all heavy-duty vehicles engaged in drayage to or from the project site to be zero-emission beginning in 2030" and that "tenants to use zero-emission light- and medium-duty vehicles as part of business operations

[78] Walmart Canada, *Walmart Canada opens high-tech, sustainable grocery distribution centre in Surrey, B.C.* (Apr. 13, 2022), https://www.walmartcanada.ca/content/walmart-canada/en_ca/news/2022/04/13/walmart-canada-opens-high-tech-sustainable-grocery-distribution-centre-in-surrey-b-c.html/.

[79] Nora Manthey, *Anheuser-Busch showcases Zero-Emission Beer Delivery*, Electrive, (Feb. 14, 2022), https://www.electrive.com/2022/02/14/anheuser-busch-showcases-zero-emission-beer-delivery/.

[80] Frito-Lay, *Frito-Lay Transforms California Production Site into First-of-its-Kind Showcase for Sustainability* (Oct. 3, 2019), https://www.fritolay.com/news/frito-lay-transforms-california-production-site-into-first-of-its-kind-showcase-for-sustainability.

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vehicles by 2030, and had already ordered 25 Tesla Semis by late 2017.[81] As part of its goal of 100 percent zero-emission home deliveries, IKEA Australia invested in four Volvo FL long-range electric trucks.[82] FedEx also took delivery of 36 Class 7 and 8 battery electric semi-trucks in 2023 and early 2024.[83] Further, the Port of Los Angeles has committed to deploying ten Kenworth and Toyota Class 8 fuel cell trucks, and two battery-electric yard tractors.[84] The South Coast Air Quality Management District has committed to deploying 23 Class 8 Volvo battery-electric trucks to move freight across the Inland Empire and another 100 Battey-electric trucks broadly throughout California via a partnership with NFI Industries and Schneider.[85] The United States Postal Service is aiming to electrify roughly 70 percent of its delivery vehicle fleet and has already added 9,000 to 10,000 all-electric trucks to its fleet in 2025.[86]

O21-14 cont'd

In addition to multiple studies demonstrating that battery-electric semi-trucks are cheaper on a lifetime basis than diesel semi-trucks, these examples of semi-trucks currently available for purchase, and facilities committed to transforming their fleets, indicate that widespread usage of Class 7 and 8 battery-electric trucks at freight facilities is currently feasible.

iii. California regulatory agencies are aggressively pushing for increased utilization of battery-electric semi-trucks.

Multiple government agencies within California are attempting to increase the number of battery-electric semi-trucks on the road, through regulatory mandates, grant programs, and incentive programs. These are in addition to the Low Carbon Fuel Standard, the HVIP program,

[81] Ross Marowits, *Loblaw Says it Ordered 25 Tesla Semis, Wants Fully Electric Fleet by 2030*, Financial Post (Nov. 17, 2017), https://business.financialpost.com/news/retail-marketing/loblaw-says-it- ordered-25-tesla-electric-trucks-wants-fully-electric-fleet-by-2030.
[82] IKEA, *New Volvo long-range electric trucks for IKEA zero emissions deliveries* (Oct. 31, 2025), https://www.ikea.com/au/en/newsroom/corporate-news/new-volvo-long-range-electric-trucks-for-ikea-zero-emissions-deliveries-pub867d75f0/.
[83] FedEx, *2025 Corporate Responsibility Report* (2025), https://www.fedex.com/content/dam/fedex/us-united-states/sustainability/gcrs/FedEx_2025_CR_Report.pdf; 3BL Media, Driving Sustainability: *FedEx's Commitment to Carbon Neutral Operations and a Greener Global Supply Chain by 2040* (Feb. 18, 2025), https://www.3blmedia.com/news/driving-sustainability-fedexs-commitment-carbon-neutral-operations-and-greener-global-supply.
[84] Cal. Air Res. Bd., *CARB Announces More than $200 Million in New Funding for Clean Freight Transportation* (Sep. 26, 2018), https://ww2.arb.ca.gov/news/carb-announces- more-200-million-new-funding-clean-freight-transportation.
[85] *Ibid.*; S. Coast Air Quality Mgmt. Dist., *South Coast AQMD Leads North America's Largest Deployment of Class 8* (Aug. 31, 2021), https://www.aqmd.gov/docs/default-source/news-archive/2021/JETSI-aug31-2021.pdf.
[86] Adam Ismail, *Your Holiday Packages Might Be Delivered by USPS's New Electric Mail Trucks*, The Drive (Dec. 1, 2025), https://www.thedrive.com/news/your-holiday-packages-might-be-delivered-by-usps-new-electric-mail-trucks.
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and the utility investments in charging infrastructure referenced above. In addition to the favorable TCO of battery-electric semi-trucks, these various agency actions increase the feasibility of widespread usage of these types of trucks at freight facilities.

In 2021, the South Coast Air Quality Management District ("SCAQMD") approved an Indirect Source Rule that would apply to freight facilities within the South Coast region, where the Project is located.[87] Under this rule, freight facilities above 100,000 square feet would be required to accumulate a certain number of Warehouse Actions and Investments to Reduce Emissions ("WAIRE") points per year.[88] WAIRE points can be generated through the purchase and usage of zero-emission and near zero-emission equipment, including vehicles and charging infrastructure.[89] Zero-emissions and near-zero-emission truck trips also generate WAIRE points. The most points that can be allocated for a singular action is for the purchase and usage of Class 8 battery-electric or fuel cell trucks.[90]

O21-14 cont'd

SCAQMD cites the commercial availability of battery electric Class 7 and 8 trucks in the technical document supplementing the regulatory language.[91] While the specific acquisition and usage of Class 7 and Class 8 zero-emission trucks is not per se required, this rule would strongly incentivize, if not force, many freight facilities to acquire these types of trucks and/or ensure that a certain number of truck trips made to their warehouse each year are by these trucks. Compliance data from 2021 to 2023 demonstrates that the rule has resulted in the acquisition of 203 zero-emission yard trucks across 109 warehouses, 172 Class 8 electric trucks across 25 warehouses and 53 Class 4–7 electric trucks across nine warehouses.[92] It has also spurred adoption of nearly 340 charging stations.[93] SCAQMD's rule indicates that increased usage of Class 7 and 8 battery electric trucks is feasible, and seeks to ensure more of these trucks are on the road. SCAQMD has also released significant funding for electrification. For example, the SCAQMD has an approximately $500 million Invest Clean program, which had $178 million

[87] S. Coast Air Quality Mgmt. Dist., *Proposed Rule 2305: Warehouse Indirect Source Rule* (Nov. 10, 2019), http://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/warehouse-isr_prelim-1st-draft.pdf?sfvrsn=6.
[88] *Id.* at 2305-3.
[89] S. Coast Air Quality Mgmt. Dist., *Draft WAIRE Menu Technical Report,* at 1 (Mar. 3, 2020), http://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/waire-menu-technical-report_draft_3-3-20.pdf?sfvrsn=6.
[90] *Id.* at 2.
[91] *Id.* at 4.
[92] Sam Becker, *Southern California's novel warehouse rule is reducing truck pollution*, Env't Def. Fund (Nov. 21, 2024), https://blogs.edf.org/energyexchange/2024/11/21/southern-californias-novel-warehouse-rule-is-reducing-warehouse-pollution/; S. Coast Air Quality Mgmt. Dist., *Hybrid Mobile Source Committee Meeting* (Oct. 18, 2024), https://www.aqmd.gov/docs/default-source/Agendas/Mobile-Source/msc-agenda-101824.pdf.
[93] *Ibid.*

allocated to over $175 million for zero-emission infrastructure and $28 million zero-emission trucks.[94]

SCAQMD is not the only California agency attempting to increase the usage of battery-electric trucks in the state. On June 12, 2025, the Governor Newsom signed Executive Order N-27-25, reaffirming California's commitment to deploy zero-emission vehicle technologies to improve air quality, especially in communities disproportionately impacted by pollution.[95] Following the executive order, CARB launched Drive Forward, an initiative that will support the development of medium- and heavy-duty vehicle regulations, incentive programs, outreach and education, and complementary programs and policies that enable clean vehicle deployment.[96] Further, CARB oversees an over $200 million program designed to facilitate the transition to zero-emission freight fleets.[97] This amount has since grown much larger as a result of budget allocations. This CARB program funded the deployment of zero-emission semi-trucks done by the Port of Los Angeles and the SCAQMD, referenced above. CARB also oversees a grant program called the Carl Moyer Memorial Air Quality Standards Attainment Program.[98] This program provides funding to vehicles that have less particulate matter and NOx emissions than is currently required by state and federal law. In addition, CARB oversees the Air Quality Improvement Program ("AQIP"), which is almost exclusively used to provide financing for small fleet owners to purchase clean fleets.[99] On the local level, the Port of Los Angeles has heavily prioritized zero-emission trucks and infrastructure. Over the next three years, the Port will invest in clean trucks and supporting infrastructure to help transition the drayage fleet serving the Port to zero emissions by 2035.[100] And since April 2022, the Port of Los Angeles has

O21-14 cont'd

[94] S. Coast Air Quality Mgmt. Dist., *Issue Program Announcements for Battery Electric Class 8 Trucks,*
Cargo Handling Equipment and Charging Infrastructure for INVEST CLEAN Program (Aug. 1, 2025), https://www.aqmd.gov/docs/default-source/agendas/governing-board/2025/2025-aug1-003.pdf?sfvrsn=d7c06e7e_1.
[95] Exec. Dept. of State of Cal., Exec. Order N-27-25 (June 12, 2025), https://www.gov.ca.gov/wp-content/uploads/2025/06/CRA-Response-EO-N-27-25_-bl-formatted-GGN-Signed-6-11-954pmFinal.pdf?utm_medium=email&utm_source=govdelivery.
[96] Cal. Air Res. Bd., *Drive Forward*, https://ww2.arb.ca.gov/drive-forward (last visited Dec. 11, 2025).
[97] Cal. Air Res. Bd., *$200 Million in New Funding*, *supra* note 84.
[98] Cal. Air Res. Bd., *Carl Moyer Air Quality Standards Attainment Program*, https://ww2.arb.ca.gov/our-work/programs/carl-moyer-memorial-air-quality-standards-attainment-program (last visited Dec. 11, 2025).
[99] Cal. Air Res. Bd., *AQIP Formal Regulatory Documents*, https://ww2.arb.ca.gov/resources/documents/aqip-formal-regulatory-documents (last visited Dec. 11, 2025).
[100] Port of Los Angeles, *Port of Los Angeles Adopts Near-Term Clean Truck Spending Plan* (May 22, 2025), https://www.portoflosangeles.org/references/2025-news-releases/news_052225_ctf.
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collected approximately $123 million in Clean Truck Fund revenues to help operators purchase ZE trucks and develop supporting infrastructure.[101] As of March 2025, the Port has spent or allocated $93 million for deploying ZE trucks and building charging and fueling depots.[102] At a recent Clean Air Action Plan Quarterly Update on December 9, 2025, the Ports of Los Angeles and Long Beach provided even more significant funding derived from the Clean Truck Fund Rate. The following slide shows the most current revenue collections and notes that $2-$4 million will be collected each month.

Clean Truck Fund (CTF) Rate Status

- Collection began at both Ports on April 1, 2022
- Approximately $2-4 million collected by each port monthly
- As of October 2025, approximately $288 million has been collected by Ports
  - Approximately $156 million allocated to zero-emission (ZE) trucks, infrastructure, and demonstration projects

O21-14 cont'd

The Port of Los Angeles also received significant funds to launch another $75 million dollar program, which will fund another 250 electric trucks. The Port has communicated that it intends to launch the program in Q1 of 2026.

[101] *Ibid.*
[102] *Ibid.*
31

O21-14 cont'd

This is certainly not an exhaustive list of the grant programs and incentives available in California. Altogether, CARB indicates that more than a dozen California agencies issue hundreds of millions of dollars annually to support the deployment of heavy-duty vehicles.[103] These grant programs, regulations, and incentives further illustrate the feasibility of widespread usage of battery-electric semi-trucks at freight facilities. None of the TCO studies analyzed above incorporate these programs and regulations into their calculation. Even without considering any of these, the TCO of a battery-electric semi-truck is currently less than a diesel equivalent. When these programs, regulations, and incentives are also considered, the case for the feasibility of requiring Class 7 and 8 battery-electric semi-trucks at freight facilities becomes even stronger.

iv. Requiring the usage of class 7 and 8 battery-electric semi-trucks will reduce local air pollution.

The operation of Class 7 and 8 diesel semi-trucks within and around communities has devastating, sometimes deadly, air quality impacts. As mentioned above, diesel semi-trucks are significant sources of particulate matter and NO_X pollution. The impacts of these pollutants are so severe that the International Agency for Research on Cancer, which is part of the World

[103] Cal. Air Res. Bd, *Heavy-Duty Investment Strategy*, at D-90 (Sep. 20, 2019) https://ww2.arb.ca.gov/sites/default/files/2019-09/fy1920fundingplan-appd.pdf.
32

Health Organization, has classified diesel exhaust as carcinogenic to humans.[104] According to the California Office of Environmental Health Hazard Assessment ("OEHHA"), particulate matter pollution is linked to increased hospital visits, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory illnesses.[105] Children are especially susceptible to this harmful pollution, as their lungs and respiratory systems are still developing.[106] NO_X emissions are also quite harmful, and can damage lung tissue, lower the body's resistance to respiratory infection, and worsen chronic lung diseases. Further, NO_X reacts with other pollutants in the atmosphere to form ozone, a precursor to smog.[107]

Class 7 and 8 zero-emission semi-trucks almost fully eliminate the creation of these potentially deadly pollutants. As referenced above, zero-emission vehicles, including battery-electric trucks, have no tailpipe emissions. The only significant air pollutant associated with these semi-trucks is the particulate matter caused by braking. However, according to CARB, battery-electric trucks emit about 50 percent less particulate matter from braking than diesel semi-trucks, through the use of "regenerative braking." Therefore, requiring the usage of Class 7 and 8 zero-emission semi-trucks is not only economically and technologically feasible, but will provide significant health benefits to the people of Barstow and surrounding areas. Thus, requiring the usage of these trucks is not only required under CEQA as a feasible mitigation measure, but is a moral imperative. No person within the community should be subjected to asthma, lung cancer, or worse, when it is clearly possible to avoid this. O21-14 cont'd

v. Requiring usage of Class 7 and 8 battery-electric semi-trucks will aid California in reaching its GHG and air pollution reduction goals.

California has multiple stringent GHG and air pollution reduction goals, and electrification of freight fleets is a vital component to achieving these goals. California is mandated under the federal Clean Air Act to reduce its air pollution consistent with the National Ambient Air Quality Standards ("NAAQS").[108] Currently, the South Coast and Mojave Air Districts are out of compliance with the eight-hour and twenty-four-hour ozone standard.[109] According to CARB, an 80 percent reduction in truck and bus NO_X tailpipe emissions is required

[104] Am. Cancer Soc., *Diesel Exhaust and Cancer*, https://www.cancer.org/cancer/cancer-causes/diesel-exhaust-and-cancer.html#:~:text=The%20EPA%20classifies%20diesel%20exhaust,a%20%E2%80%9Cpotent ial%20occupational%20carcinogen.%E2%80%9D (last visited Dec. 11, 2025).
[105] Cal. Office of Health Hazard Assessment, *Health Effects of Diesel Exhaust* (May 21, 2001), https://oehha.ca.gov/air/health-effects-diesel-exhaust.
[106] *Ibid.*
[107] *Ibid.*
[108] ICF, *supra* note 28 at 3.
[109] *Ibid.*
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by 2031 from 2019 levels to meet the NAAQS for the South Coast region.[110] As mentioned above, diesel semi-trucks are a significant source of NO_x tailpipe emissions, whereas battery-electric semi-trucks have zero tailpipe emissions. Thus, requiring the usage of these vehicles at the Project site will aid California in achieving compliance with the federal NAAQS.

California also has aggressive GHG reduction goals. Senate Bill 32 mandates that GHG emissions be reduced 40 percent below 1990 levels by 2030. Executive Order S-3-05 mandates that GHG emissions be reduced 80 percent below 1990 levels by 2050. Executive Order B-55-18 mandates that California achieve economy-wide carbon neutrality by 2045. According to a report by the Energy Futures Initiative, meeting the goals for 2045 and 2050 will be "extremely challenging."[111] According to the ICF study mentioned above, deployment of 100,000 electric medium and heavy-duty vehicles is necessary to achieve both the 2030 and 2050 GHG reduction goals.[112] Heavy-duty vehicles, including diesel semi-trucks, are a significant source of GHG emissions. According to the Union of Concerned Scientists, heavy-duty vehicles constitute 10 percent of vehicles in the United States, but emit 28 percent of vehicle-related GHG emissions.[113] Battery-electric trucks, as shown above, have significantly less life cycle GHG emissions than diesel semi-trucks, and the GHG emissions from battery-electric trucks will continue to decrease as California increases the proportion of electricity generated by renewable sources. Thus, requiring usage of battery-electric semi-trucks at the Project site will aid California in meeting its aspirational GHG emissions reduction goals.

O21-14
cont'd

vi. Electrification of freight fleets has positive economic impacts for California.

In addition to the TCO calculation, the ICF study referenced above also analyzes the economic impacts associated with electrification of freight fleets in the state of California. The report concluded that widespread electrification has multiple positive economic impacts. For one, transitioning from petroleum fuels to electricity allows funds that would otherwise flow out of California's economy to be retained within the state.[114] Further, investment in battery-electric vehicles results in greater net employment, Gross Regional Product, and industrial activity per dollar invested, when compared to investment in natural gas vehicles.[115] Also, investment in the electrification of freight fleets results in a doubling of jobs in the medium and heavy-duty sectors

[110] *Ibid.*
[111] Energy Futures Initiative, *Optionality, Flexibility, and Innovation: Pathways for Deep Decarbonization in California*, at xvi (May 2019), https://efifoundation.org/wp-content/uploads/sites/3/2022/03/OptionalityFlexibilityInnovation_Report_compressed.pdf.
[112] ICF, *supra* note 28 at 28.
[113] Union of Concerned Scientists, *Ready for Work: 2.0 On the Road to Clean Trucks*, at 2 (Feb. 18, 2025) https://www.ucs.org/sites/default/files/2025-03/ready-for-work-2.pdf.
[114] ICF, *supra* note 28 at 6.
[115] *Ibid.*

relative to investment in natural gas and diesel vehicles.[116] These economic benefits are consistent with the findings of the LBNL. In a letter to CARB regarding its Advanced Clean Truck Rule, LBNL indicates that a mandate that manufacturers must sell 100 percent zero-emission vehicles across all truck classes would result in $49 billion in savings to the state economy compared to a "business-as-usual" scenario.[117] This failure to include all feasible mitigation violates CEQA. For all of these reasons, the City must analyze zero-emission heavy-duty trucks as a feasible alternative.

2. Partially Zero-Emission BIG Project Alternative

O21-14 cont'd

A Partially Zero-Emission BIG Project Alternative ("Partial ZE Alternative") is also plainly feasible under CEQA's definition. (Pub. Resources Code, § 21061.1.) The Connolly Memo also demonstrates that hybrid battery electric-diesel locomotive technologies are also technically feasible, commercially available, and cost-competitive with diesel locomotives. The Draft EIR must therefore evaluate a Partial ZE Alternative that includes: (1) a hybrid configuration in which a battery-electric locomotive operates in concert with Tier 4 diesel locomotives on the LA-Barstow corridor (see Connolly Memo at pp. 31–35); and (2) increasing proportions, over time, of zero-emission switcher locomotives for railyard operations, zero-emission rubber-tired gantry cranes, and zero-emission heavy-duty trucks.

The DEIR's failure to analyze a hybrid BEL–diesel alternative is notable because it is operationally proven, commercially available, and economically bounded. BNSF itself has already tested and validated this exact approach on a comparable California corridor. The technology pathway is not speculative; it is a strategy BNSF has already chosen to pursue.

III. THE DRAFT EIR'S TRUCK MILES TRAVELED ANALYSIS IS NOT SUPPORTED BY SUBSTANTIAL EVIDENCE AND MUST BE REDONE.

O21-15

The Draft EIR's Truck Miles Traveled analysis ("Trucks Analysis")—which underpins the Project's air quality, greenhouse gas, energy, and noise impacts analyses—is fundamentally flawed and not supported by substantial evidence. The Trucks Analysis relies on faulty calculations that conceal the true, localized impacts on Barstow and the surrounding region. It fails to disclose critical information, including where the Project will generate additional truck trips; omits sources, underlying data, and assumptions; and presents an incoherent, scattered document that is nearly impossible for the public and decisionmakers to navigate. Moreover, its conclusions rest on unenforceable assumptions that BNSF will not replace supposed truck trip reductions by increasing cargo volumes at other railyards. For these reasons and those detailed below, the Trucks Analysis must be redone. After a corrected Trucks Analysis is completed, the

[116] *Ibid.*
[117] Lawrence Berkeley Nat'l Lab'y, *Letter to CARB Regarding Proposed Amendments to the ACT Standard Yield $11 Billion in Savings and 50% Emissions Reductions over Original Standards* (May 20, 2020), https://www.arb.ca.gov/lists/com-attach/4122-act2019-AWBdOAZzAzMKYwFs.pdf.
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Draft EIR must be revised, with particular attention given to the air quality, energy, greenhouse gas, and noise impact analyses. O21-15 cont'd

A. The Trucks Analysis mispresents the Project's impacts by relying on nationwide figures for "Reduced On-Road Truck Trips" and "Reduced Diesel Fuel Usage," which mask the real, localized impacts on Barstow and the surrounding region.

The Trucks Analysis lies at the core of the BNSF BIG Railyard Draft EIR and is central to the accuracy of its air quality, greenhouse gas, energy, and noise impact assessments. The Draft EIR itself acknowledges that the Trucks Analysis "would be used to inform CEQA analysis of BIG's impacts in other relevant impact areas (e.g., Air Quality, GHG Emissions, Energy, and Noise)." (DEIR at 5.15-74.) It is improper for the Draft EIR to incorporate figures from the Trucks Analysis—such as "Reduced On-Road Truck Trips," which measures reductions across the nationwide road network—into its CEQA analyses of air quality, energy, noise, and GHG emissions, each of which has study areas limited to the BIG footprint and its immediate surroundings. In doing this, the Draft EIR misrepresents that the Project's impacts to air quality, energy use, greenhouse gas emissions, and noise will be less harmful than they actually are.

The Trucks Analysis explicitly admits that its scope is national: "BIG's [Truck Miles Traveled (TMT)] analysis is not limited to California's boundaries. The geographic scope of this analysis is the national road network." (*Id.* at 5.15-75–76.) It elaborates that: "As BIG is intended to serve the national market stream, specifically acting as a point of service for goods traveling from the Ports to destinations eastward across the United States, TMT savings are not limited to within California. Instead, the following TMT analysis reviews the bigger picture of BIG's TMT effects as goods travel from the Ports or their domestic origins to their final nationwide destinations." (*Ibid.*) O21-16

By contrast, the Draft EIR defines the study areas for each impact category narrowly:

- Energy: the BIG footprint and the Southern California Edison planning area (*Id.* at 5.6-19.)
- Air Quality: the BIG footprint, Mojave Desert Air Basin (MDAB), and Southern California Air Basin (SCAB) (*Id.* at 5.3-28.)
- Greenhouse Gases: the BIG footprint, off-site improvements, and rail corridor from the San Pedro Ports to BNSF's Needles station, and eastern destinations outside of California (*Id.* at 5.8-35.)
- Noise: the BIG footprint and nearby sensitive receptors (*Id.* at 5.12-15.)

Despite these localized study areas, the Draft EIR imports nationwide truck reduction figures into its impact analyses. This skewed data misleads the public and decisionmakers into believing the Project will reduce truck trips in the BIG footprint and surrounding region. But in reality, Appendix 5.15 of the Draft EIR reveals that the Project will actually add truck trips locally, increasing impacts on energy use, air quality, GHG emissions, and noise. (DEIR App. 5.15 BIG-1 at 144.) As Figure 34 below shows, the BIG Project will add 115,150 truck trips

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between the Project and Boron, 14,750 truck trips between the Project and the Central Valley, 24,600 truck trips between the Project and Arizona/Nevada, 49,150 truck trips between the Project and Victorville, 204,000 truck trips between Hub Cities and Nationwide Destinations, 92,100 truck trips between the Project and the Inland Empire, and 4,600 truck trips between the Project and the Ports, annually. (*Ibid.*) Taken all together, the BNSF BIG Railyard will add 504,350 truck trips annually. Yet the Draft EIR fails to account for these half a million annual truck trips added to the region, instead manipulating its calculations with nationwide data to obscure the Project's true local impacts.

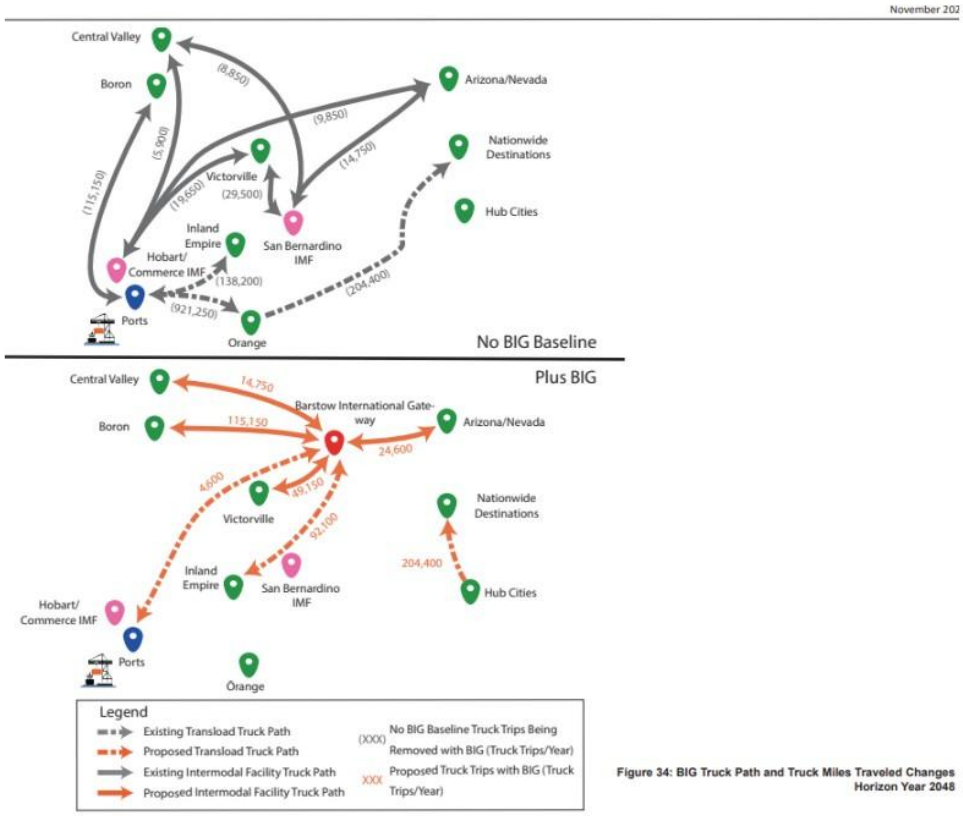

Figure 34: BIG Truck Path and Truck Miles Traveled Changes Horizon Year 2048

O21-16 cont'd

By improperly relying on nationwide truck miles traveled figures, the Draft EIR manipulates its calculations to suggest overall reductions in truck miles and diesel fuel usage. Even if such nationwide reductions were accurate, they obscure the fact that truck trips within

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the BIG footprint and immediate vicinities will rise. This misrepresentation is misleading, improper, and violates CEQA.

The Draft EIR must redo the Trucks Analysis to evaluate truck miles traveled within the BIG footprint and nearby communities. After correcting the Trucks Analysis, the City must redo the air quality, energy, GHG, and noise analyses so that they accurately reflect the Project's impacts to the region. The Draft EIR must also evaluate the Project's environmental impacts—including air quality, energy, greenhouse gas, and noise impact analyses—to each of the locations where the BNSF BIG Railyard will increase truck trips. O21-16 cont'd

B. The Trucks Analysis fails to disclose critical information about how and where the Project will increase truck trips.

CEQA requires that an EIR rely only on information that is included in the document or properly described and referenced. (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 442.) Yet the Draft EIR suggests—in the depths of Appendix 5.15—that the BIG Project will add truck trips to the surrounding vicinities, but it does not state this in a clear, comprehensible way. It also fails to identify the locations where truck trips will be added or include an analysis of the local impacts of these added truck trips. This does not meet CEQA's standards of public disclosure and must be corrected.

For example, Figures 32 through 34 show that the Project will add truck trips throughout the Inland Empire, Central Valley, San Pedro Bay Ports, and to other regions. (DEIR App. 5.15 BIG-1 at 142–44.) The Draft EIR must explicitly state that the Project will add truck trips, specify the destinations and truck routes where these truck trips will be added, quantify the number of trips added to which routes, and then analyze the resulting impacts on air quality, energy use, greenhouse gas emissions, noise, and all other environmental impacts to Barstow, the truck routes, and each of the locations where truck trips will be added. O21-17

In addition, the Draft EIR must provide transparent disclosure of truck trip volumes between all relevant locations. This includes both the baseline number of trips under the No BIG scenario and the incremental truck trips that BIG would add to each route. This corrected analysis must be incorporated directly into the impact analysis sections—not hidden in an appendix—and accompanied by a clear narrative explanation that allows the public and decisionmakers to fully understand the Project's consequences.

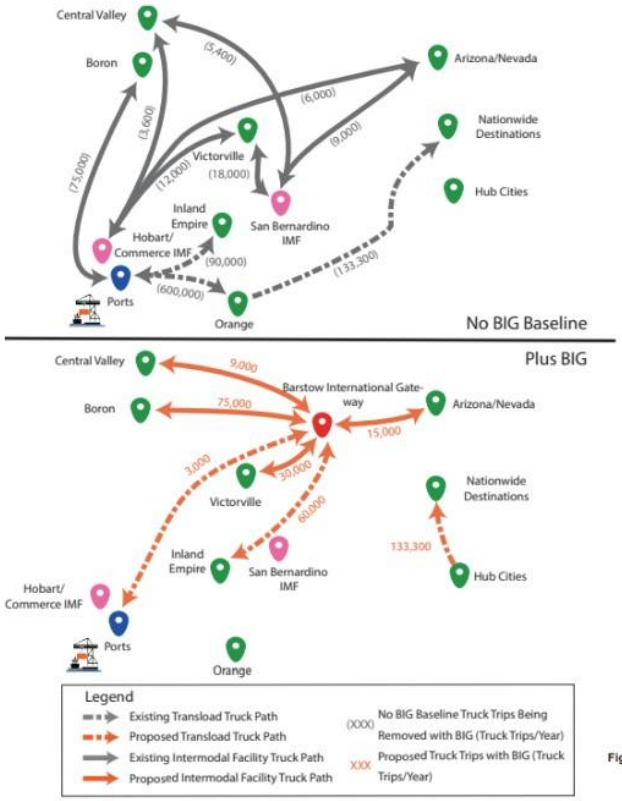

Figure 32: BIG Truck Path and Truck Miles Traveled Changes Opening Year 2028

O21-17 cont'd

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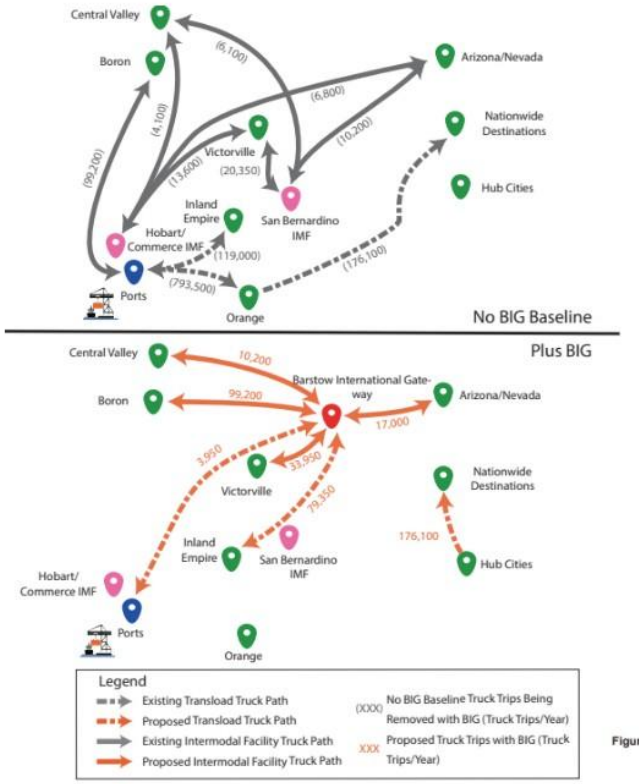

Figure 33: BIG Truck Path and Truck Miles Traveled Changes Interim Year 2033

O21-17
cont'd

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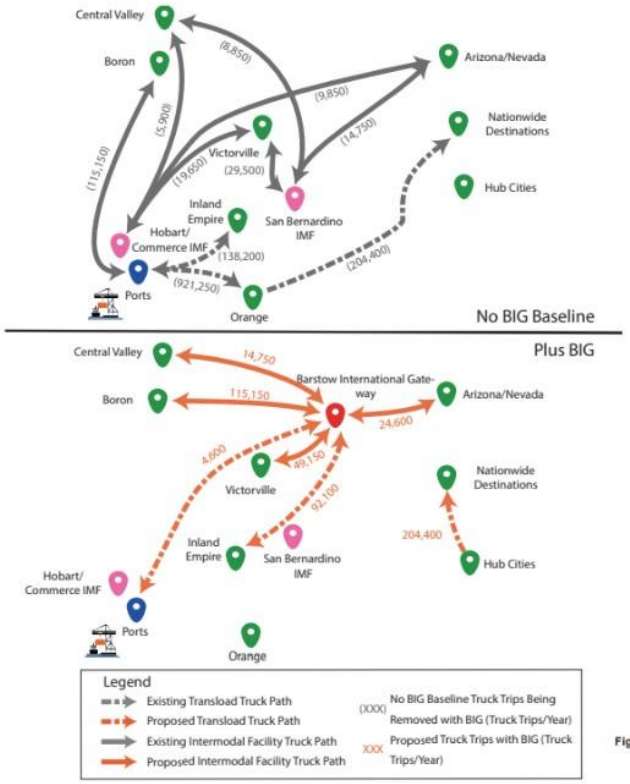

Figure 34: BIG Truck Path and Truck Miles Traveled Changes Horizon Year 2048

O21-17 cont'd

C. The Trucks Analysis fails to include sources, underlying data and assumptions for critical calculations.

CEQA requires that "[t]he EIR shall cite all documents used in its preparation including, where possible, the page and section number of any technical reports which were used as the basis for any statements in the EIR." (Cal. Code Regs., tit. 14, § 15148.) Yet the Draft EIR fails to cite sources for important calculations regarding truck miles traveled. This is a fundamental omission that CEQA does not permit.

O21-18

Numerous tables cite "Author Compilation (2025)" as the source, which the Draft EIR defines as:

> The term 'Author Compilation' throughout this report denotes information or data that is not directly referenced from a source. These values are synthesized from several sources and are the result of processing or calculations. Analysis

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> methodology, sources, and processes are typically discussed in the sections preceding or following the table.
>
> (DEIR App. 5.15 BIG-1 at 20.)

In fact, Appendix 5.15 cites "Author Compilation" 16 times without pointing to any underlying data, calculations, or assumptions. (See, e.g., *id.* at 141–45, 150–51.) The first instance where "Author Compilation" is cited as a source is in Table 3 of Appendix 5.15, below. (*Id.* at 141.) This lack of transparency prevents the public and decisionmakers from seeing what the City is basing its calculations and assumptions on, which means that readers are forced to blindly trust these critical calculations. CEQA requires much more than this. The Draft EIR must show its work.

Table 3: Summary of Annual Truck Miles Traveled

Scenario	Annual Truck Miles Traveled		
	Opening Year 2028	Interim Year 2033	Horizon Year 2048
No BIG Baseline – IMF	22,708,000	28,739,000	35,564,000
No BIG Baseline – Transload Warehouse Center	211,907,000	278,885,000	323,777,000
No BIG Baseline (Total)	***234,616,000***	***307,625,000***	***359,342,000***
Plus BIG – IMF	11,784,000	14,717,000	18,562,000
Plus BIG – Transload Warehouse Center	5,007,000	6,596,000	7,657,000
Plus BIG (Total)	***16,791,000***	***21,312,000***	***26,218,000***
Net Truck Miles Traveled Reduction	**-217,825,000**	**-286,312,000**	**-333,123,000**

Source: Author Compilation[4]. (2025).
Note: Estimates rounded to the nearest thousand.

O21-18 cont'd

The Draft EIR's energy analysis for BNSF BIG Railyard illustrates the problem. Table 5.6-13, "Projected Annual BIG Energy Consumption During Operations" includes a row titled "Reduced On-Road Truck Trips" for Project Years 2028, 2033, and 2048. (DEIR at 5.6-36.) That row subtracts millions of gallons of diesel fuel from the Project's energy calculations, concluding that the Project would reduce diesel consumption compared to the 2023 baseline by 9,375,961 gallons in 2028, 12,317,001 gallons in 2033, and 14,416,337 gallons in 2048. (*Ibid.*) These figures city only footnote 5, which states:

> Reductions in fuel consumption reflected in the unmitigated condition associated with reduced nationwide truck miles traveled, use of dedicated Tier 4 trains to transport containers between the Ports and BIG's intermodal facility, Tier 4 switcher locomotives, use of renewable diesel, and use of electric cargo-handling equipment.
>
> (*Id.* at 5.6-37 n.5.)

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Neither the table nor the footnote explains how these "Reduced On-Road Truck Trips" figures were derived, what assumptions were used, or where the underlying data can be found. No appendix is cited, no data is provided, and no calculations are included to support these massive assumptions. Yet these figures—9.3 million, 12.3 million, and 14.4 million gallons of diesel fuel usage—are the largest numbers in the entire table, and they form the basis for the Draft EIR's claim that the Project will reduce diesel fuel consumption compared to the baseline.

O21-18 cont'd

Given the magnitude of these conclusions, it is absolutely essential that the Draft EIR disclose the sources, assumptions, and methodologies underlying them. Without these disclosures, the analysis lacks substantial evidence, fails CEQA's core requirement of transparency, and violates CEQA.

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Table 5.6-13: Projected Annual BIG Energy Consumption During Operations		
Project Source	**Annual Operational Energy (Unmitigated)**	**Annual Operational Energy (Mitigated)**
ELECTRICITY CONSUMPTION		
Electricity Usage	GWh	
Electricity Usage[1]	145	145
Water Electricity[2]	0.1	0.1
Electricity Provided by Solar[3]	-61	-91
Total Electricity	85	53
FUEL CONSUMPTION4		
2028		
Diesel Use	Gallons	
On-Road Truck Trips	1,856,101	1,856,101
Locomotives	3,961,086	3,961,086
Off-Road Equipment	5,100,499	197,092
Reduced On-Road Truck Trips[5]	-9,375,961	-9,375,961
Operational Diesel Total	1,541,726	-3,361,680
Gasoline	Gallons	
On-Road Passenger Vehicle Trips	4,847,279	4,847,279
Off-Road Equipment	37,096	14,861
Operational Gasoline Total	4,884,375	4,862,140
2033		
Diesel Use	Gallons	
On-Road Truck Trips	2,335,066	2,335,066
Locomotives	4,406,417	4,406,417
Off-Road Equipment	5,100,499	214,966
Reduced On-Road Truck Trips	-12,317,001	-12,317,001
Operational Diesel Total	-475,020	-5,360,553
Gasoline	Gallons	
On-Road Passenger Vehicle Trips	6,270,303	6,270,303
Off-Road Equipment	37,096	16,808
Operational Gasoline Total	6,307,399	6,287,111
2048		
Diesel Use	Gallons	
On-Road Truck Trips	2,914,302	2,914,302
Locomotives	6,484,258	6,484,258
Off-Road Equipment	5,142,498	242,028
Reduced On-Road Truck Trips	-14,416,337	-14,416,337
Operational Diesel Total	124,721	-4,775,749
Gasoline	Gallons	
On-Road Passenger Vehicle Trips	7,190,103	7,190,103

O21-18 cont'd

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Table 5.6-13: Projected Annual BIG Energy Consumption During Operations		
Project Source	**Annual Operational Energy (Unmitigated)**	**Annual Operational Energy (Mitigated)**
Off-Road Equipment	53,710	21,946
Operational Gasoline Total	7,243,814	7,212,049

Notes:
1. Electricity usage is BIG specific consumption provided by 1898 & Co.
2. Water conveyance electricity based on CalEEMod Default data.
3. Unmitigated solar includes electricity offset by proposed solar farm and rooftop solar required by code. Mitigated solar includes combined offsets provided by proposed solar farm and rooftop solar and well as additional rooftop solar required by **MM BIG EN-1**.
4. Countywide fuel consumption data based on EMFAC2021 projections for each analysis year.
5. Reductions in fuel consumption reflected in the unmitigated condition associated with reduced nationwide truck miles traveled, use of dedicated Tier 4 trains to transport containers between the Ports and BIG's intermodal facility, Tier 4 switcher locomotives, use of renewable diesel, and use of electric cargo-handling equipment.

O21-18 cont'd

D. Information is scattered across the Draft EIR and buried in its appendices, such that key documents and calculations cannot be meaningfully accessed or understood by the public.

The Draft EIR fails to present information in a coherent and accessible manner. Key documents, data, and calculations are scattered across the document and buried deep within appendices, preventing the public and decisionmakers from meaningfully accessing or understanding the analysis. This scattered and disorganized presentation undermines transparency and violates CEQA's mandate that environmental review documents be comprehensible, accessible, and informative.

CEQA requires that EIRs be "organized and written in a manner that will be meaningful and useful to decisionmakers and to the public." (Pub. Resources Code, § 21003, subd. (b).) The California Supreme Court has made clear that "[t]he data in an EIR must not only be sufficient in quantity, it must be presented in a manner calculated to adequately inform the public and decision makers, who may not be previously familiar with the details of the project." (*Vineyard Area Citizens*, *supra*, 40 Cal.4th at p. 442.) "[I]nformation scattered here and there in EIR appendices or a report buried in an appendix" does not constitute "a good faith reasoned analysis." (*Ibid.*, quotations and citations omitted.) Likewise, courts have held that "decisionmakers and general public should not be forced to sift through obscure minutiae or appendices in order to ferret out the fundamental baseline assumptions that are being used for purposes of the environmental analysis." (*San Joaquin Raptor Rescue Center. v. County of Merced* (2007) 149 Cal.App.4th 645, 659.)

O21-19

The Draft EIR's Trucks Analysis illustrates this problem. This analysis underpins the air quality, energy, greenhouse gas, and noise sections, yet it is presented in a fragmented and misleading manner. Readers must shuffle between multiple documents to identify underlying data and calculations, in part because many sources are not properly cited. For example, the critical assumptions and data used to calculate "Reduced On-Road Truck Trips" diesel fuel usage in the energy analysis are not cited. Instead, readers must sift through a maze of appendices—including energy (Appendix 5.6 GP-1 Energy Modeling and Appendix 5.6 BIG-1 Energy Assessment), air quality (Appendix 5.3 GP-1 Air Quality & Greenhouse Gas Emissions Modeling, Appendix 5.3 BIG-1 Air Quality_Parts-1-8, and Appendix 5.3 BIG-1 Air

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Quality_Parts-9-18), and transportation (Appendix 5.15 GP-1 Transportation Study, Appendix 5.15 BIG-1 CEQA Assessment – Transportation Analysis, Appendix 5.15 BIG-2 LOS Assessment – Transportation Analysis_Part1, and Appendix 5.15 BIG-2 LOS Assessment – Transportation Analysis_Part2). This amounts to nearly 20,000 pages of materials that readers must scan simply to understand basic calculations and methodologies—information that should have been plainly referenced in each analysis. Even fundamental disclosures, such as the addition of local truck trips to the region, are buried in an appendix rather than clearly explained and cited in the main body of the Draft EIR. This kind of obfuscation violates CEQA's core requirements of clarity, accessibility, and good faith disclosure. The Draft EIR must be corrected to ensure that critical data, assumptions, and methodologies are transparently presented and properly cited in the body of the analysis.

O21-19 cont'd

E. It is improper for the Draft EIR to assume reductions in truck miles traveled and diesel fuel consumption at BNSF railyards across the region when BNSF has made no enforceable commitments to maintain current cargo volumes or to simply add truck traffic at those facilities.

The Trucks Analysis compares existing conditions to conditions under BIG and concludes that the BIG Project would replace diesel truck trips with diesel rail. However, this conclusion rests on a critical and unsupported assumption: that BNSF would not replace these 'reduced' truck trips by adding cargo throughput and truck trips at these other BNSF railyards across the region.

Put another way, without an enforceable mitigation measure requiring BNSF to refrain from replacing these trucks taken off the road with additional truck trips, there is nothing preventing BNSF from simply adding rail *and* keeping truck trips at other BNSF railyards. To rely on the Draft EIR's analysis, BNSF must make an enforceable commitment—that would be included here as a mitigation measure—that it will not replace these assumed truck trip reductions with additional truck trips at other BNSF railyards across the region.

O21-20

The Draft EIR states:

> Under existing conditions, the containers that would be served by the transload warehouse center are trucked from the Ports to transload facilities around the Los Angeles basin, Orange County, and the Inland Empire, and then trucked from the transload facilities to their final destinations across the United States. BIG would reduce the number of heavy-duty truck trips required to serve these transload containers by providing a train connection directly from the Ports to BIG's transload warehouse center (via BIG's IMF [intermodal facility] and electric hostlers) and from the transload warehouse center to nationwide hub cities near the containers' final destinations. The transload warehouse center would also serve a portion of containers destined to the Inland Empire from the Ports. Under existing conditions, these containers are transported by truck from the Ports to the Inland Empire. Under Plus BIG conditions, these goods would travel by train from the Ports to BIG's transload warehouse center (via BIG's IMF and electric

> hostlers), be transloaded, and then trucked from BIG's transload warehouse center to their destinations in the Inland Empire. The containers from BIG would then be re-filled with goods in the Inland Empire and transported by heavy-duty truck back to BIG's transload warehouse center, to be transloaded and sent east by train.
>
> Net IMF TMT reductions are calculated based on the forecast number of containers that would be trucked to BIG's IMF. Under existing conditions, these containers are served by BNSF IMFs in San Bernardino or Hobart, or do not use an IMF and are trucked directly to their destinations across the United States (nationwide destinations). To calculate TMT, the forecast number of containers trucked to the BIG IMF is multiplied by the number of heavy-duty truck trips per container and by the relevant trip distance per container for the No BIG Baseline or Plus BIG conditions.

O21-20 cont'd

(DEIR App. 5.15 BIG-1 at 130.)

The Draft EIR further states that BIG would reduce truck miles traveled by "1) increasing the use of trains for cargo transportation leaving the Port of Los Angeles and Port of Long Beach (Ports)[3]; and 2) providing an IMF closer to container origins and destinations than existing BNSF IMFs." (*Id.* at 20.) Yet this claim is qualified by footnote 3, which clarifies that reductions occur only to the extent truck trips are replaced by intermodal rail and electric hostlers operating internally within BIG's footprint. (*Id.* at 20 n.3.)

This conditional language underscores the flaw: the Draft EIR assumes reductions without securing enforceable commitments from BNSF. Absent such commitments, BNSF could simply reallocate truck traffic to its other facilities across the region, nullifying the purported benefits claimed in the Draft EIR. CEQA requires that assumptions underlying environmental analysis be supported by substantial evidence and enforceable mitigation, not speculative projections. The Draft EIR's reliance on unenforceable assumptions violates CEQA and must be corrected in the revised EIR.

F. The City must redo the Project's air quality, greenhouse gas, energy, and noise impact analyses after the Trucks Analysis is corrected.

O21-21

As the Draft EIR states, the Trucks Analysis informs the Draft EIR's analyses of the Project's air quality, greenhouse gas, energy, and noise impacts. (*Id.* at 5.15-74.) Because the Trucks Analysis is deeply flawed and must be corrected for all the above reasons, all of the environmental impact analyses that rely on it must be performed again as well, including at least the air quality, greenhouse gas, energy, and noise impact analyses.

IV. THE DRAFT EIR FAILS TO SUFFICIENTLY ANALYZE OR MITIGATE ENERGY IMPACTS.

O21-22

An EIR that concludes a project "may result in significant environmental effects due to wasteful, inefficient, or unnecessary consumption use of energy, or wasteful use of energy

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resources . . . shall mitigate that energy use." (Cal. Code Regs., tit. 14, § 15126.2, subd. (b).) CEQA requires that an EIR "shall include a detailed statement setting forth . . . measures to reduce the wasteful, inefficient, and unnecessary consumption of energy." (Pub. Resources Code, § 21100, subd. (b)(3); see Cal. Code Regs., tit. 14, § Div. 6 Ch. 3 App. F; Cal. Code Regs., tit. 14, § 15126.4, subds. (a)(1)(C), (c).)

Appendix F of the CEQA Guidelines establishes the framework for lead agencies to comply with during the EIR process. (*California Clean Energy Com. v. City of Woodland* (2014) 225 Cal.App.4th 173, 209.) Appendix F provides that: O21-22 cont'd

> The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include: (1) decreasing overall per capita energy consumption; (2) decreasing reliance on fossil fuels such as coal, natural gas and oil, and (3) increasing reliance on renewable energy sources.

(Cal. Code Regs., tit. 14, § Div. 6 Ch. 3 App. F.) Appendix F puts "particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy." (*Ibid.*) The Draft EIR fails to sufficiently analyze or mitigate the Project's energy impacts, as required by Appendix F.

GENERAL PLAN

A. The Draft EIR's finding that the General Plan's energy impacts would be less-than-significant is contradicted by its own evidence and unsupported by substantial evidence.

The Draft EIR's determination that the General Plan's energy impacts would be less than significant is not supported by substantial evidence. Its conclusion contradicts its own data showing substantial increases in diesel fuel usage and heavy-duty vehicle miles traveled (VMT), relies on unsupported assumptions about future fuel efficiency, improperly treats non-enforceable project design features as impact-reducing measures, and fails to include all feasible mitigation measures. O21-23

1. The Draft EIR concludes—without substantial evidence—that the General Plan would result in less-than-significant impacts to energy resources, despite a more than 60 percent increase in diesel fuel usage and a doubling of heavy-duty vehicle miles traveled.

The Draft EIR asserts that "[o]verall, energy impacts would be less than significant." (DEIR at 5.6-1 & 5.6-35.) But this unsubstantiated conclusion belies the data that plainly shows the General Plan would increase diesel fuel consumption by over 60 percent and more than double heavy-duty VMT—with 85 percent of those vehicles projected to run on diesel. (*Id.* at 5.6-34 & Appx. 5.6 GP-1 at 7.) The data confirm substantial increases in both vehicle activity and fuel consumption such that the only reasonable conclusion for the Draft EIR is that the General Plan will have significant energy impacts.

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As Table 5.6-11 shows, from the existing baseline year to 2048, operation-related annual VMT would increase by over 155 million gas miles—a 40 percent increase, and over 60 million diesel miles per year—a 95 percent increase. (*Id.* at 5.6-33–34.) Operation-related fuel usage would increase by nearly 6 million gallons of diesel, annually—a 61.75 percent increase, and over 1.2 million gallons of gas, annually—a 7.8 percent increase. (*Id.* at 5.6-34 & App. 5.6 GP-1 at 4.) Similarly, the Draft EIR shows heavy-duty VMT would more than double, increasing by 2.38 times, from baseline year to 2048. (*Id.* App. 5.6 GP-1 at 5–7.) The Draft EIR states that 85 percent of these heavy-duty vehicles in Project Year 2048 would use diesel fuel. (*Id.* App. 5.6 GP-1 at 7.)

These increases—particularly the 61.75 percent rise in diesel fuel consumption and the near-doubling of diesel VMT—are significant and cannot be reasonably be dismissed as "less than significant." CEQA requires the City to show its work, especially when the data flatly contradicts its unsubstantiated conclusions.

Table 5.6-11: Operation-Related Annual Fuel Usage

	Gas	Diesel	Compressed Natural Gas	Electricity
EXISTING BASELINE				
Vehicle Miles Traveled	386,159,753	63,480,237	2,765,769	12,422,540
Fuel Amount	15,646,576 gal	9,709,560 gal	500,384 gal	4,528,277 kWh
Fuel Efficiency	24.68 MPG	6.54 MPG	5.53 MPG	2.74 mi/kWh
PROJECT HORIZON YEAR 2048				
Vehicle Miles Traveled	541,710,832	124,232,062	2,664,870	86,897,894
Fuel Amount	16,870,447 gal	15,706,075 gal	363,406 gal	20,733,949 kWh
Fuel Efficiency	32.11 MPG	7.97 MPG	7.33 MPG	4.19 mi/kWh
NET CHANGE FROM EXISTING BASELINE				
Vehicle Miles Traveled	155,551,079	60,751,824	-100,899	74,475,355
Fuel Amount	1,223,871 gal	5,996,515 gal	-136,978 gal	16,205,672 kWh
Fuel Efficiency	7.43 MPG	1.37 MPG	1.81 MPG	1.45 mi/kWh

Notes: gal = gallon; kWh = kilowatt hour; MPG = mile per gallon; mi/kWh = mile per kilowatt hour
[1] Includes both VMT and TMT.

Source: **Appendix 5.3 GP-1: Air Quality and Greenhouse Modeling.**

The Draft EIR wrongly dismisses these substantial increases in energy consumption by suggesting that regulatory compliance "would contribute to more fuel-efficient vehicles and less demand in fuels" and the General Plan's policies "would contribute in minimizing overall VMT, and thus fuel usage associated with the proposed General Plan area." (*Id.* at 5.6-34.) To support this theory it points to project design features like "improving the pedestrian and bicycle network infrastructures" and "increasing transit service." (*Ibid.*) The document further states that "Circulation Element Policies CM-2.1, CM-2.2, CM-2.5, CM-2.6, CM-2.7, CM-2.8 and CM-29 would support improving the pedestrian and bicycle network infrastructures." (*Ibid.*)

This line of reasoning is misleading and inappropriate for several reasons. To start, adding pedestrian and bicycle improvements will not reduce diesel VMTs, as diesel vehicles are generally heavy-duty trucks, which the Project cannot realistically suggest would replace

O21-23 cont'd

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bicycles or pedestrians. But even if these PDFs were enforceable, the Draft EIR's calculations for operation-related annual fuel usage and VMT demonstrate a large increase in fuel usage and VMT from the baseline to 2048 that cannot be ignored. Moreover, the Draft EIR does not explain how the reasonings offered would reduce impacts to less-than-significant levels, even if they could contribute to some reductions. In addition, the above policies are unenforceable project design features (PDFs). PDFs are not binding or enforceable, and therefore cannot be treated as mitigation measures. (See *Lotus v. Dept. of Transportation* (2014) 223 Cal.App.4th 645, 655–56.) Therefore, the Draft EIR cannot treat them as reducing energy impacts for the Project. Finally, the Draft EIR does not explain why this increase in VMT and annual fuel usage results in less-than-significant impacts, as is required under CEQA. (DEIR at 5.6-33–34.) O21-23 cont'd

For all these reasons, the Draft EIR's energy impacts analysis is not supported by substantial evidence and must be redone.

2. The General Plan's energy analysis fails to analyze transportation fuel consumption from rail operations and must include this analysis.

The BNSF BIG Railyard depends on extensive locomotive operations, yet the Draft EIR's operation-related annual fuel usage analysis includes no accounting of diesel fuel consumption from rail operations. (*Ibid.*) This omission is significant. The Project would rely on a captive fleet of locomotives, switcher locomotives, and line-haul locomotives traveling to and from the East. All of this equipment would operate continuously 24 hours a day, 365 days per year. These operations certainly consume massive quantities of diesel fuel. O21-24

CEQA requires a complete and accurate assessment of a project's transportation energy demand. By failing to quantify diesel fuel consumption from rail operations—or even explain why this category of energy use was excluded—the Draft EIR violates CEQA's fundamental informational mandate. The EIR must evaluate rail-related diesel usage as part of its transportation energy analysis and disclose the resulting impacts.

3. The Draft EIR fails to include CARB's Advanced Clean Fleets regulation in its energy analysis.

CEQA requires that "[t]he EIR shall discuss any inconsistencies between the proposed project and applicable general plans, specific plans and regional plans." (Cal. Code Regs., tit. 14, § 15125, subd. (d).) Here, the Draft EIR fails to include information about CARB's Advanced Clean Fleets (ACF) regulation and how it applies to the General Plan and the BIG Project. This is improper and must be corrected. CARB has asserted that the state and local fleet provision in the ACF regulation remain in effect and that CARB is not required to request a waiver for the regulation pursuant to section 209 of the federal Clean Air Act to enforce as to State and local O21-25

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fleets.[118] Accordingly, an accurate discussion of the regulation and an evaluation of the General Plan and the BIG Project's consistency with CARB's ACF regulation is required. O21-25 cont'd

B. The Draft EIR's failure to mitigate the General Plan's energy impacts is improper.

1. The Draft EIR must include mitigation measures to reduce energy impacts.

For all the reasons discussed above, the Draft EIR's analysis of the General Plan's energy impacts is fundamentally flawed. These errors are so substantial that the General Plan's energy impacts are likely significant. As a result, CEQA requires the Draft EIR to identify and evaluate feasible mitigation measures to reduce those impacts.

CEQA imposes a substantive mandate that agencies may not approve a project with significant environmental effects when feasible mitigation measures or alternatives are available to substantially lessen or avoid those effects. (*County of San Diego v. Grossmont-Cuyamaca Community College Dist.* (2006) 141 Cal.App.4th 86, 98, quoting *Mountain Lion Foundation v. Fish & Game Com.* (1997) 16 Cal.4th 105, 134.) Before approving any project resulting in significant impacts, the lead agency must make one or more of the following findings for each significant effect: O21-26

> (1) Changes or alterations have been . . . incorporated into[] the project which mitigate or avoid the significant effects on the environment.
> (2) Those changes or alterations are within the responsibility and jurisdiction of another public agency . . . .
> (3) Specific economic, legal, social, technological, or other considerations . . . make infeasible the mitigation measures or alternatives identified in the [EIR].

(Pub. Resources Code. § 21081, subd. (a); see also *County of San Diego*, *supra*, 141 Cal.App.4th at p. 100.) A mitigation measure is "feasible" if it is "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." (Pub. Resources Code, § 21061.1.) Importantly, a measure cannot be properly labeled a mitigation measure unless it is at least partially effective in reducing the significance of the impacts at issue. (*Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, at 511 (hereafter *Friant Ranch*).) Because the Draft EIR identifies no such measures for the General Plan—despite evidence of substantial increases in energy consumption—it fails to comply with CEQA's core mandate.

[118] Cal. Air Res. Bd., *Advanced Clean Fleets Enforcement Notice*, (Dec. 28, 2023), https://ww2.arb.ca.gov/sites/default/files/2024-10/241025acfnotice_ADA.pdf.

2. The Project Design Features identified in the Draft EIR for the General Plan cannot be treated as enforceable mitigation measures.

The Draft EIR cites various General Plan policies—such as pedestrian and bicycle improvements (Policies CM-2.1, CM-2.2, CM-2.5, CM-2.6, CM-2.7, CM-2.8, CM-2.9), increased transit service (Policy CM-2.4), transportation demand management strategies (Policy CM-2.10), and land-use policies promoting walkability (Policies LU-2.1 and LU-3.2)—as measures that would reduce VMT and fuel usage. (DEIR at 5.6-34.) However, these policies are project design features, not mitigation measures, and CEQA does not permit the Draft EIR to treat them as if they were enforceable mitigation. O21-27

Under CEQA, all mitigation measures must be "fully enforceable through permit conditions, agreements, or other measures" to ensure they are actually implemented as a condition of development and not merely aspirational. (Pub. Res. Code § 21081.6, subd. (b); *Federation of Hillside & Canyon Assns. v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261.) CEQA's information mandate is not satisfied when an EIR blurs the line between project design features and mitigation measures.

C. The Draft EIR must include mitigation measures for the General Plan's energy impacts that are specific, enforceable, and effective.

For the aforementioned reasons, given the General Plan's substantial increases in diesel fuel usage and diesel VMTs, it will result in significant and unavoidable impacts to energy resources. To reduce these impacts to less-than-significant levels, the Draft EIR must adopt a suite of measures that directly targets the General Plan's reliance on fossil fuel transportation as well as approaches to support renewable generation.

The EIR should include the following mitigation measures to reduce the General Plan's energy impacts below significant levels. First, the General Plan must ensure that municipal fleets are transitioning to zero-emission vehicles in accordance with CARB's Advanced Clean Fleets regulation.[119] The Draft EIR's failure to do this violates CEQA and CARB's regulation. Second, the Draft EIR should incorporate as mitigation measures that project-related fleets transition to zero-emission vehicles and trucks. Third, it should also require that onsite solar photovoltaic (PV) systems be used for new development. Fourth, the Draft EIR should also include as mitigation that the General Plan adopt clear, enforceable GHG-reduction goals that align with state and regional decarbonization trajectories. Fifth, the Draft EIR should also promote the use of zero-emission locomotives and zero-emission trucks within its jurisdiction. O21-28

Finally, the Draft EIR for the General Plan should include a mitigation measure expanding the use of battery storage to support renewable energy generation and electric truck

[119] Cal. Air Res. Bd., *Advanced Clean Fleets Regulation – State & Local Government Agency Fleet Requirements Overview* (Jan. 26, 2024), https://ww2.arb.ca.gov/resources/fact-sheets/advanced-clean-fleets-regulation-state-local-government-agency-fleet.

charging. Microgrid-enabled charging hubs that strengthen the local grid are rapidly emerging.[120] Earlier this year, NFI Industries and Prologis Mobility launched an electric truck charging depot in Ontario, offering 10 charging ports that can charge up to 20 vehicles daily.[121] NFI installed a 1-megawatt solar array and 7 megawatt-hours of batteries at its Ontario, California warehouse. That microgrid will help supplement grid power for NFI's fleet of nearly 90 Class 8 electric trucks, which handle drayage operations between the ports and the Inland Empire. Prologis's Hub in Torrance, California—the largest heavy-duty electric truck charging facility in North America—operates 96 high-powered charging stalls on a 9-MW microgrid made up of six independent units with 18 megawatt-hours of onsite battery storage and 3 MW of renewable-gas and hydrogen-capable generation.[122] This configuration allows managed charging, peak-shaving, and full autonomous operation for hours without grid support, serving more than 300 medium- and heavy-duty trucks per day.[123] These examples directly refute the Draft EIR's premise that the necessary charging infrastructure is infeasible without major grid upgrades. The Draft EIR should include these and other mitigation measures to reduce the General Plan's energy impacts below significant levels.

O21-28 cont'd

BNSF BIG RAILYARD

D. The Draft EIR's analysis of the Project's energy impacts is flawed and unsupported by substantial evidence.

1. The Draft EIR does not consider renewable energy options when weighing its significance findings for operational and transportation energy impacts.

O21-29

As noted above, an EIR "shall include a detailed statement setting forth . . . measures to reduce the wasteful, inefficient, and unnecessary consumption of energy." (Pub. Resources Code, § 21100, subd. (b)(3); see Cal. Code Regs., tit. 14, § Div. 6 Ch. 3 App. F; Cal. Code Regs., tit. 14 § 15126.4, subds. (a)(1)(C), (c).) Appendix F of the CEQA Guidelines provides that among the environmental impacts that should be considered is "[t]he project's projected transportation energy use requirements and its overall use of efficient transportation alternatives." (Cal. Code Regs., tit. 14, § Div. 6 Ch. 3 App. F, subd. (II)(C)(6).) An EIR's "determination of whether the

[120] Jeff St. John, *Without enough utility power, California EV-truck depots try microgrids*, Canary Media (Jan. 17, 2025), https://www.canarymedia.com/articles/ev-charging/without-enough-utility-power-california-ev-truck-depots-try-microgrids; NFI, *NFI and Prologis Mobility Open EV Truck Charging Hub to Power Fleet Electrification* (Apr. 22, 2025), https://www.nfiindustries.com/about-nfi/news/nfi-and-prologis-mobility-open-ev-truck-charging-hub-to-power-fleet-electrification/.
[121] NFI, *supra* note 120.
[122] Prologis, *North America's Largest Heavy-Duty EV Charging Hub Powered by Microgrid* (June 11, 2024), https://www.prologis.com/insights-news/success-stories/north-americas-largest-heavy-duty-ev-charging-hub-powered-microgrid.
[123] *Id.*

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potential impact is significant is to be based on [a] discussion" of "whether any renewable energy features could be incorporated into the project." (*League to Save Lake Tahoe Mountain etc. v. County of Placer* (2022) 75 Cal.App.5th 63, 167, citing Cal. Code Regs., tit. 14, § 15126.2, subd. (b).) O21-29 cont'd

The Draft EIR's impact analysis is not based on an adequate discussion of whether any renewable energy features could be incorporated into the Project for transportation energy. The City estimates that—each year from transportation energy alone—BIG will consume over 10.9 million gallons of diesel starting in 2028, 11.8 million gallons of diesel starting in 2033, and 14.5 million gallons of diesel starting in 2048. (DEIR at 5.6-36.) Yet despite these massive numbers, the Draft EIR summarily concludes that "BIG would not operate in a manner that is inefficient, wasteful, or unnecessary," and that "BIG's energy consumption during construction and operations would not be wasteful, inefficient, or unnecessary." (*Id.* at 5.6-38.) O21-30

Not only do these conclusions lack substantial evidence, in part because they rely on the deeply flawed Trucks Analysis, but they do not make up for the City's failure to sufficiently evaluate the extent to which transportation could use renewable energy or reduced emission fuels, as required by Appendix F. (Cal. Code Regs., tit. 14, § Div. 6 Ch. 3 App. F, subd. (II)(C)(6).) Instead, the Draft EIR simply states that: "It should be noted that as the nature, timing, and extent of the incorporation of zero-emission and net zero emission vehicles cannot be determined at this time and any fuel consumption reductions associated with zero emission and net zero emission heavy-duty trucks were not utilized in this analysis." (DEIR at 5.6-38.) The Draft EIR does not even attempt to consider zero-emission or lower emitting locomotives or off-road equipment in its analysis. This violates CEQA and must be corrected.

2. The Draft EIR's energy analysis is unsupported by substantial evidence because it relies on the deeply flawed Trucks Analysis.

As discussed above in Section III, the Trucks Analysis suffers from numerous flaws that render its conclusions misleading and unsupported by substantial evidence. In particular, by relying on nationwide TMT figures, the Draft EIR manipulates the underlying calculations to create the false impression that the Project will reduce on-road truck trips to the Project area. In reality, tables buried in the back of Appendix 5.15 show that the BNSF BIG Railyard would increase on-road truck trips to the Project area and surrounding areas. The Draft EIR expressly acknowledges that the Trucks Analysis informs the energy analysis. (DEIR at 5.15-74.) Because the energy analysis is built on this erroneous foundation, the Trucks Analysis must be corrected and redone, and the energy analysis must then be revised using accurate data. O21-31

3. The Draft EIR's energy analysis fails to disclose or explain how diesel fuel usage from locomotive operations was calculated or how increasing locomotive operations and on-road truck trips will reduce diesel fuel usage. O21-32

The Draft EIR provides no meaningful explanation of how it derived its estimates of diesel fuel consumption from locomotive operations, depriving the public and decisionmakers of

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the information necessary to understand the Project's true energy impacts. Table 5.6-13 merely lists projected annual diesel usage—3,961,086 gallons in 2028, 4,406,417 gallons in 2033, and 6,484,258 gallons in 2048 (*id.* at 5.6-36)—without identifying the underlying methodology, assumptions, data sources, or operational parameters used to generate these figures. CEQA requires more than unexplained numbers; it requires disclosure of the analytical basis so that the public can meaningfully evaluate the Project's impacts and the accuracy of the agency's conclusions. By failing to provide this foundational information, the Draft EIR violates CEQA and renders its energy analysis unsupported by substantial evidence. O21-32 cont'd

Additionally, there is a massive gap in this analysis that fails to show how increasing locomotive operations and increasing on-road truck trips at BIG will reduce diesel fuel usage.

4. The Draft EIR must analyze energy impacts at BNSF San Bernardino, BNSF Hobart, and BNSF Commerce Railyards.

The Draft EIR explains that BIG's heavy-duty truck trips would process containers currently handled at BNSF's San Bernardino and Hobart/Commerce intermodal facilities. (*Id.* App. 5.15 BIG-2 at 138.) The Draft EIR further states that:

> It is assumed that in its secondary/other function (i.e., non-cross-dock function), the BIG IMF would only process intermodal freight which under current conditions is being processed at BNSF's San Bernardino or Hobart/Commerce IMFs. These heavy-duty truck trips already exist within the broader Southern California roadway network, but they would be rerouted to BIG; therefore, they are included in BIG's trip generation. **With BIG's implementation, these containers would be processed at BIG's IMF instead of at BNSF's San Bernardino or Hobart/Commerce IMFs (as under current conditions)** because BIG is closer to the container origins/destinations, or because travel distances are about the same but traveling to BIG would be the fastest route to an IMF due to traffic conditions, compared to traveling through the greater LA area to the San Bernardino or Hobart/Commerce IMFs.
>
> (*Ibid.*, emphasis added.)

O21-33

This analysis is incomplete. It does not address the energy implications of continued operations at the BNSF San Bernardino, BNSF Hobart or BNSF Commerce railyards, nor does it evaluate the foreseeable increase in regional freight activity that would result from adding the BIG Railyard to BNSF's system. Critically, the Draft EIR does not indicate that BNSF intends to close, downsize, or otherwise reduce operations at these existing facilities. In the absence of such a commitment, the only reasonable assumption is that the BIG Railyard would expand BNSF's overall processing capacity rather than merely shift existing activity.

Under this likely scenario, freight volumes at the BIG railyard would increase while the San Bernardino and Hobart/Commerce railyards continue to operate and potentially attract additional cargo. The Draft EIR must therefore evaluate the cumulative and systemwide energy

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impacts associated with operations at all three facilities. A complete and legally adequate EIR must assess these foreseeable energy impacts across the full BNSF network affected by the Project. If the EIR does not perform this analysis, then BNSF must provide a binding, enforceable commitment that it will reduce cargo volumes and truck trips from BNSF San Bernardino, BNSF Hobart, and BNSF Commerce. O21-33 cont'd

5. The Draft EIR must analyze the energy impacts to all cities and routes where truck traffic will increase due to BNSF BIG Railyard.

The Draft EIR fails to adequately disclose where and to what extent truck trips would increase along specific truck routes and within affected cities and regions. As discussed above, the Draft EIR must disclose specific information comparing the number of truck trips between locations under the No-BIG baseline and the total number of truck trips that the BIG Railyard would add to each route annually. Without this information, the public and decisionmakers cannot meaningfully understand the Project's regional and statewide energy implications.

Maps buried in the depths of the Transportation Appendix show that truck trips would increase across multiple regions of Southern California—many of which already experience severe air quality burdens, congestion, and cumulative environmental impacts. (DEIR App. 5.15 BIG-1 at 142–44.) Yet the Draft EIR does not analyze the energy impacts associated with these increases, nor does it evaluate the broader environmental consequences along the full length of the affected truck corridors.

The Draft EIR must analyze the environmental impacts to every region in California and beyond where heavy-duty diesel truck trips would increase as a result of the Project. At minimum, the EIR must evaluate impacts to the following locations, which the Draft EIR identifies as receiving substantial additional truck traffic by 2048: O21-34

- Central Valley: 14,750 truck trips/year
- Boron: 115,150 truck trips/year
- Arizona/Nevada: 24,600 truck trips/year
- Victorville: 49,150 truck trips/year
- Hobart/Commerce: 4,600 truck trips/year
- Inland Empire/San Bernardino: 92,100 truck trips/year
- Nationwide Destinations: 204,400 truck trips/year

A legally adequate EIR must analyze all environmental impacts along each of these truck routes and within each affected city and region. This includes impacts to air quality, energy, greenhouse gas emissions, transportation, traffic, and noise. Without this analysis, the Draft EIR fails to meet CEQA's fundamental requirement to disclose and evaluate the Project's full range of foreseeable environmental consequences.

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E. The Draft EIR's measures for mitigating BIG's energy impacts are vague, insufficient, unenforceable, deferred, and ineffective.

Because the Project's impacts to energy will be potentially significant (*id.* at 5.6-45), the EIR must propose and describe mitigation measures to minimize the significant environmental effects identified. (Pub. Resources Code, § 21002.1.) Under CEQA, public agencies "should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects." (*Id.*, § 21002.) A mitigation measure is "feasible" if it is "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." (*Id.*, § 21061.1.) The CEQA Guidelines add "legal" factors to this definition. (Cal. Code Regs., tit. 14, § 15364.) A potential mitigation measure cannot be properly labeled a mitigation measure unless it is at least partially effective in reducing the significance of the impacts at issue. (*Friant Ranch*, *supra*, 6 Cal.5th at p. 511.) O21-35

Courts have rejected an EIR's reliance on air quality mitigation measures as sufficient for satisfying the requirements of Appendix F. (*Ukiah Citizens for Safety First v. City of Ukiah* (2016) 248 Cal.App.4th 256, 265 ("[T]he city's reliance on mitigation measures designed to reduce greenhouse gas emissions is misplaced."); *City of Woodland*, *supra*, 225 Cal.App.4th at p. 207, n. 6 ("Although there is likely to be a high correlation between reducing greenhouse gas emissions and energy savings, this court cannot assume the overlap is sufficient under CEQA's study and mitigation requirements. . . . Air quality mitigation is not a substitute for energy analysis. Thus, we will not consider [the] mitigation measure[s] . . . in our discussion of mitigation measures addressing energy impacts," quotation marks omitted.) Yet here, the Draft EIR improperly relies on air quality mitigation measures MM BIG AQ-1 through AQ-6, MM BIG AQ-8 and MM BIG AQ-10 to mitigate emissions from the Project. This is not permitted under CEQA, and therefore must be corrected in the next iteration of the EIR.

Moreover, even if it were appropriate to consider the air quality mitigation measures included in the Draft EIR's energy analysis, many of the mitigation measures violate CEQA because they defer application, are unenforceable, and contain other problematic elements that render them ineffective or improper, as noted below in Section V.B.

F. The Draft EIR must include all feasible mitigation measures for the Project's energy impacts.

Even accepting the Draft EIR's flawed methodology, its own analysis concludes that the Project would consume approximately 14.5 million gallons of diesel fuel per year from on-road truck trips, locomotives, and off-road equipment. (DEIR at 5.6-36.) This level of diesel use constitutes a significant environmental impact, and the City is therefore obligated to adopt all feasible mitigation measures that would reduce it. O21-36

As discussed above in Section II and detailed extensively in the Connolly Memo, a range of commercially available, operationally proven, and economically viable zero-emission

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technologies could substantially reduce the Project's energy impacts. The City must incorporate mitigation measures requiring the use of:

- Zero-emission electric locomotives for the captive fleet operating on the LA-Barstow corridor (Connolly Memo at pp. 22–31, 35–46);
- Zero-emission electric switcher locomotives for railyard operations (*id.* at pp. 46–52);
- Zero-emission trucks serving the facility (*id.* at pp. 61–63);
- Zero-emission electric RTGs (*id.* at pp. 52–59).

O21-36 cont'd

In addition, the City must require the use of zero-emission transport refrigeration units (TRUs) and the installation of adequate charging infrastructure for medium- and heavy-duty trucks and passenger vehicles. This infrastructure is a feasible and necessary mitigation measure that will reduce the Project's energy impacts.

Finally, the Draft EIR states that "construction lighting would be provided by diesel powered portable light carts to provide lighting during nighttime construction activities," (DEIR 5.6-20), yet provides no explanation for why it did not evaluate any lower emission or zero-emission mitigation measures. The revised EIR must analyze and adopt feasible mitigation requiring zero-emission construction lighting equipment.

V. THE DRAFT EIR'S AIR QUALITY ANALYSIS AND MITIGATION MEASURES ARE INADEQUATE.

The Draft EIR's analysis of the General Plan's and BIG's air quality impacts is deeply flawed and legally deficient for all of the following reasons. The City must revise the EIR and incorporate all of the mitigation measures detailed below.

GENERAL PLAN

A. The Draft EIR's analysis of the General Plan's air quality impacts is legally deficient and unsupported by substantial evidence.

O21-37

1. The Draft EIR improperly segments and defers analysis of the proposed General Plan's air quality impacts.

In its discussion of air quality impacts, the Draft EIR asserts that "air quality emissions related to construction must be addressed on a project-by-project basis," and that while construction impacts associated with the BIG Project are evaluated separately, "it is not possible to determine whether the scale and phasing of individual projects would exceed the MDAQMD's short-term regional or localized construction emissions thresholds" for the General Plan as a whole. (DEIR at 5.3-75.)

This approach fundamentally misconstrues the purpose of a General Plan EIR. A General Plan is, by design, a long-range policy document intended to evaluate and disclose the

cumulative impacts of anticipated future development within the City of Barstow. CEQA does not permit an agency to avoid analyzing reasonably foreseeable impacts by segmenting them into future project-level reviews or by claiming that such impacts cannot be assessed at the programmatic stage. By deferring analysis of construction-related emissions and failing to evaluate whether buildout under the General Plan may exceed applicable MDAQMD thresholds, the Draft EIR improperly segments the Project and violates CEQA's requirement for a good-faith, reasonably foreseeable cumulative impact analysis. O21-37 cont'd

This deficiency must be corrected. The City must conduct a legally adequate, program-level assessment of air quality impacts associated with General Plan buildout and, based on that analysis, adopt additional mitigation measures capable of reducing air quality impacts to the region.

2. The Draft EIR for the General Plan improperly omits a Friant Ranch-type analysis.

A *Friant Ranch*-type analysis that connects the identified excessive pollution levels with actual human health impacts can and must be done. One of the most important analyses here would study the impact of the General Plan's nitrous oxides ("NOx") emissions on ozone formation in the Mojave Desert Air Quality Management District's (Mojave Desert), and the resulting cumulative impact of these air emissions on human health. The California Supreme Court, in the case *Sierra Club v. County of Fresno*, found that CEQA requires just such an analysis correlating increased air emissions to the probable resulting human health effects. (*Friant Ranch*, *supra*, 6 Cal.5th at pp. 519–22.)

To properly disclose the health impacts stemming from a project's air quality emissions, an EIR must describe the symptoms associated with exposure to different pollutants, "indicate the concentrations at which such pollutants would trigger the identified symptoms," and provide "some effort to explain the nature and magnitude of the impact" from the project itself. (*Id.* at p. 519; see Cal. Code Regs., tit. 14, § 15126.2, subd. (a).) It is important that the "connection be drawn" between the "potential project emissions and human health impacts." (*Friant Ranch*, 6 Cal.5th at p. 520.) If "the EIR as written makes it impossible for the public to translate the bare numbers provided into adverse health impacts or to understand why such translation is not possible at this time, . . . the EIR's discussion of air quality impacts [is] inadequate." (*Id.* at p. 521.) O21-38

The General Plan will impose extraordinary and harmful impacts on regional air quality. The Draft EIR acknowledges that implementation of the Plan would generate over 600 tons of NOx, 345 tons of VOC, and 1,665 tons of CO annually. (DEIR at 5.3-77.) It concludes that the General Plan Update would cause significant and unavoidable construction- and operation-related air quality impacts, while also exposing sensitive receptors to substantial concentrations of toxic air contaminants (TACs). At full buildout, the General Plan is projected to conflict with the Mojave Desert Air Quality Management Plan (AQMP) and to exceed the air basin's regional significance thresholds for VOC, NOx, and CO emissions. (*Id.* at 5.3-1–2.) Moreover, the Draft EIR concedes that the Plan would place sensitive receptors at risk, as new land uses facilitated by

the General Plan could introduce additional sources of TACs near existing or planned sensitive populations. (*Id.* at 5.3-1). O21-38 cont'd

Moreover, the Draft EIR concludes that the cumulative health risk impacts of the General Plan would be "significant and unavoidable." (*Id.* at 5.3-164–65.) At full buildout—including the BNSF BIG Railyard—the Plan will emit 4,035 pounds of NOx per day, equivalent to roughly 2 tons daily by 2048. (*Id.* at 5.3-76.) The Draft EIR further acknowledges that implementation of the General Plan would generate TACs contributing to elevated levels throughout the MDAB. (*Id.* at 5.3-164–65.)

Critically, the EIR admits that even if individual projects meet the project-level risk threshold of 10 in one million, they will still contribute to heightened cancer risk across the MDAB. In other words, the cumulative effect of General Plan implementation is considerable and harmful, compounding regional health burdens and intensifying risks for sensitive populations. (*Ibid.*) O21-39

Yet, despite acknowledging these severe impacts, the City failed to conduct the required *Friant Ranch* health impacts analysis for the General Plan. Instead, the City asserted that "at a program-level analysis, it is not feasible to quantify the increase in criteria air pollutants from stationary sources associated with the proposed project or meaningfully correlate how regional criteria air pollutant emissions above the MDAQMD significance thresholds correlate with MDAB-wide health impacts." (*Id.* at 5.3-82.)

This rationale is inadequate. The draft EIR's air quality analysis does not even attempt to discuss the health consequences of the pollutants it concedes will expose sensitive receptors to harm. As the California Supreme Court made clear in *Friant Ranch*, CEQA requires agencies to make a reasonable effort to connect emissions data to actual health outcomes. Generalized statements about air pollution's dangers are insufficient; the EIR must provide meaningful analysis that allows the public and decision-makers to understand how significant emissions translate into health risks. CEQA demands more than the City has provided here.

B. The Draft EIR's mitigation measures for the General Plan's air quality impacts are inadequate, unenforceable, and fail to meaningfully reduce severe regional pollution burdens.

The Draft EIR concludes that implementation of the proposed General Plan would result in significant and unavoidable air quality impacts, including emissions that exceed the Mojave Air District regional significance thresholds by staggering margins. As the Draft EIR states, "the proposed General Plan is considered to conflict with the AQMPs despite the additional policies in the proposed General Plan and would result in a potentially significant impact prior to any mitigation." (DEIR at 5.3-70.) These exceedances are beyond significant—they represent catastrophic pollution levels that will impose devastating and disproportionate health burdens on Barstow residents, including children, seniors, and workers already exposed to elevated regional pollution. O21-40

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The Draft EIR's modeling illustrates the magnitude of these impacts. Under 2048 existing conditions and land uses, NOx emissions will already exceed MDAQMD regional significance thresholds by almost 5.5 times. (*Id.* at 5.3-76.) However, under the proposed General Plan and BSNF BIG Railyard, NOx emissions would skyrocket to 4,035 pounds per day of NOx emissions, nearly 30 times the MDAQMD regional significance thresholds. (*Ibid.*) Likewise, VOC emissions under 2048 existing conditions will already exceed MDAQMD regional significance thresholds by 6.37 times. (*Ibid.*) Yet, under the proposed General Plan and BNSF BIG Railyard, VOC emissions would increase to 1,978 pounds per day of VOC emissions or 14-times the MDAQMD regional significance thresholds. (*Ibid.*) Similarly, under 2048 existing conditions and land uses, carbon monoxide (CO) will already exceed MDAQMD regional significance thresholds by 8 times. (*Ibid.*) However, under the proposed General Plan and BNSF BIG Railyard, CO emissions more than double to 9,408 pounds per day of CO emissions or more than 17 times the MDAQMD regional significance thresholds. (*Ibid.*)

O21-40 cont'd

The Draft EIR further states that implementation of the General Plan would generate TACs that "could contribute to elevated levels in the MDAB" and that, even if individual projects meet project-level risk thresholds, their cumulative emissions "would contribute to the higher levels of cancer risk in the MDAB" and therefore constitute a cumulatively considerable impact. (*Id.* at 5.3-123.)

These levels of pollution are clearly significant, yet the Draft EIR proposes only high-level, policy-based mitigation measures that are neither enforceable nor capable of reducing emission to less-than-significant levels. CEQA requires feasible, specific, and enforceable mitigation—not aspirational policy statements or deferred future actions.

1. The measures mitigating the General Plan's air quality impacts are vague, unenforceable, and insufficient.

Because the proposed General Plan would result in significant and unavoidable air quality impacts, CEQA requires the Draft EIR to identify and adopt mitigation measures that will minimize these impacts. (Pub. Resources Code, § 21002.1.) The Draft EIR fails this mandate. Many of the proposed measures improperly defer mitigation, lack enforceable standards, and rely on vague qualifiers that render them ineffective and legally inadequate.

O21-41

MM GP AQ-1 (Reduce Emissions from Construction Activities) is vague, unenforceable, and incomplete. MM GP AQ-1 repeatedly qualifies its requirements with the phrase "to the extent feasible." (DEIR at 5.3-79.) This language is impermissibly vague. Applicants cannot discern what actions are required, what constitutes "feasible," or who determines feasibility. CEQA prohibits such open-ended, discretionary mitigation. Further, subdivisions (a) through (p) lack any mechanism for verification or enforcement. The measure does not identify the responsible agency, the applicable permit, or the process for ensuring compliance. Without clear oversight and consequences for noncompliance, this measure is unenforceable. The EIR must cite to the authority or permit that would ensure oversight of this mitigation measure by a regulatory or similar body. Likewise, measure (e) is particularly deficient. It requires preparation of a fugitive dust control plan that "may include" certain measures. (*Id.* at 5.3-80.) This language

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is discretionary, nonbinding and therefore unenforceable. The measure also fails to specify how often it will be implemented. All these measures must be implemented daily to be effective. Finally, MM GP AQ-1 omits feasible mitigation measures, including requiring the use of zero-emission trucks and equipment. (See Sections II.D, IV.C, and V.E.) CEQA does not permit the City to ignore feasible, available mitigation.

MM GP AQ-2 (Reduce Emissions from Operations) is similarly vague, unenforceable and insufficient. (DEIR at 5.3-80–82.) It provides that mitigation "can include, but is not limited to" a list of options—leaving applicants with no clarity about what is actually required. This violates CEQA's requirement that mitigation measures be specific, enforceable, and capable of implementation. MM GP AQ-2 again relies on the qualifier "to the extent feasible," rendering it discretionary and unenforceable as there is no way for an applicant to know whether it is complying with this measure, and there is no clarity regarding what constitutes compliance. (*Id.* at 5.3-81.) Several subdivisions illustrate this problem:

- Subdivision (a) requires "an adequate number of electrical service connections" without defining what "adequate means. (*Ibid.*)
- Subdivision (b) requires energy storage and combined heat and power in "appropriate applications" without defining "appropriate." (*Ibid.*)
- Subdivision (f) requires "facilities to support electric charging stations" without specifying the number, type, or performance standards for those facilities. (*Ibid.*)

O21-41 cont'd

To be enforceable, MM GP AQ-2 must include clear, measurable requirements. Here, subdivision (f) should require applicants to ensure there is at least one electric charging station for every five electric passenger vehicles and per every five electric medium- and heavy-duty trucks. (See Section II.D.1.d.) MM GP AQ-2 also omits feasible mitigation measures including requiring the use of zero-emission trucks, zero-emission locomotives, and zero-emission refrigerated vehicles. The City must revise the EIR to make these corrections.

MM GP AQ-3 (Operational Health Risk Assessment) is also unenforceable and ineffective. This measure requires applicants to identify measures that would reduce cancer and noncancer risks to "an acceptable level" "to the extent feasible." (DEIR at 5.3-123.) Both phrases are vague, undefined, and discretionary, making the measure unenforceable under CEQA. The mitigation options listed in MM GP AQ-3 are likewise vague. "Restricting idling . . ., as feasible" provides no parameters. (*Ibid.*) While we support the proposal to "Electrify[] warehousing docks," this measure lacks any detail about required equipment or performance standards, and is therefore vague and unenforceable. (*Ibid.*) Similarly, "Requiring use of newer equipment and/or vehicles" is extremely vague and unenforceable. (*Ibid.*) Instead, this measure should require the use of zero-emission equipment and vehicles. Likewise, "Restricting off-site truck travel through the creation of truck routes" is too vague and therefore unenforceable. (*Ibid.*) This measure should specify that project applicants should solicit input from the local community through an accessible public process and establish truck routes that avoid homes and schools.

Finally, MM GP AQ-3 is ineffective because it does not actually reduce emissions. Conducting a health risk assessment alone is not mitigation. Instead, to be enforceable, this measure should require that any City approvals be contingent on the HRA demonstrating that cancer risks will not increase for the surrounding community, and must require implementation of all identified mitigation measures before project approval. O21-41 cont'd

2. The Draft EIR improperly treats unenforceable project design features as mitigation measures for the General Plan's air quality impacts.

The Draft EIR repeatedly relies on General Plan policies and design features as though they constitute enforceable mitigation for significant air quality impacts. For example, it states that the General Plan "includes policies that would require future developments to include design features to minimize air quality impacts and to achieve appropriate health standards." (*Id.* at 5.3-31.) It further asserts that implementation of the proposed General Plan policies "could contribute to reducing criteria air pollutant emissions." (*Id.* at 5.3-78.) The Draft EIR cites a range of energy conservation, energy efficiency policies, circulation, and land use policies—such as Policies OSC-8.1, OSC-8.2, OSC-8.4, S-2.8, CM-2.1, CM-2.2, CM-2.5 through CM-2.9, and LU-2.1 and LU-3.2—as evidence of mitigation. (*Ibid.*) O21-42

The Draft EIR claims that "the various goals and policies of the proposed General Plan . . . would contribute to reducing regional criteria air pollutant[s] during construction and operational phases of development projects." (*Id.* at 5.3-70.) It similarly claims that Policies OSC-3.3 and OSC-3.4 "would contribute to reducing emissions from construction equipment and vehicles to reducing construction-related fugitive dust emissions to the extent feasible." (*Id.* at 5.3-75.)

However, the Draft EIR cannot properly rely on project design features to mitigate the General Plan's air quality impacts. CEQA requires an EIR to distinguish between measures proposed by the project proponent and measures that the lead agency determines could reduce significant adverse impacts if imposed as conditions of project approval. (Cal. Code Regs., tit. 14, § 15126.4, subd. (a)(1)(A).) Because PDFs are not binding or unenforceable, they cannot be treated as mitigation measures. (See *Lotus*, *supra*, 223 Cal.App.4th at pp. 655–56.)

3. The Draft EIR must include all feasible mitigation measures to reduce the General Plan's air quality impacts.

CEQA requires the City to adopt all feasible mitigation measures that would directly reduce the General Plan's air quality impacts. As discussed above in Section II.D, the Draft EIR fails to incorporate several readily available, technologically feasible, and cost-effective measures that would substantially lessen these impacts. To comply with CEQA, the General Plan must include, at minimum, the following feasible mitigation measures: O21-43

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- Require municipal fleets to transition to zero-emission vehicles consistent with CARB's Advanced Clean Fleets regulation.[124] The Draft EIR's failure to incorporate this mandatory transition violates both CEQA and CARB's regulation.
- Require project-related fleets to transition to zero-emission vehicles and trucks (*see* Section II.D.1.d);
- Require onsite solar PV systems for new development;
- Adopt clear, enforceable GHG-reduction targets that align with state and regional decarbonization trajectories;
- Promote and facilitate the use of zero-emission locomotives and zero-emission trucks within the City's jurisdiction; and
- Expand the use of battery storage systems to support renewable energy generation and electric truck charging.

O21-43 cont'd

These measures are feasible, widely supported by existing technology and policy frameworks, and necessary to ensure that the General Plan meaningfully reduces its air quality impacts as CEQA requires.

BNSF BIG RAILYARD

C. The Draft EIR's analysis of the Project's air quality impacts is flawed and unsupported by substantial evidence.

1. The Draft EIR's air quality analysis for the Project is unsupported by substantial evidence because it relies on the deeply flawed Trucks Analysis.

As previously discussed in Section III, there are numerous flaws with the Trucks Analysis that make it deeply misleading and unsupported by substantial evidence. By relying on nationwide TMT figures, the Draft EIR creates the false impression that the Project will reduce on-road truck trips and emissions. (See, e.g., DEIR at 5.3-89–94.) Because the air quality analysis is built on this erroneous foundation, it must be corrected and redone using the appropriate data and supporting evidence after the Trucks Analysis is redone.

O21-44

2. The Draft EIR must analyze air quality impacts at BNSF San Bernardino, Hobart, and Commerce railyards.

The Draft EIR explains that BIG's heavy-duty truck trips would process containers currently handled at BNSF's San Bernardino, Hobart, and Commerce intermodal facilities. (DEIR App. 5.15 BIG-2 at 138.) Yet nowhere does the Draft EIR indicate that BNSF intends to

[124] Cal. Air Res. Bd., *Advanced Clean Fleets Regulation – State & Local Government Agency Fleet Requirements Overview* (Jan. 26, 2024), https://ww2.arb.ca.gov/resources/fact-sheets/advanced-clean-fleets-regulation-state-local-government-agency-fleet.

close, downsize, or otherwise reduce operations at any of these existing railyards. In the absence of a clear, enforceable commitment to reduce activity at these facilities, the only reasonable assumption is that the BIG railyard could increase BNSF's total regional processing capacity rather than simply shift existing operations.

Under CEQA, an EIR must evaluate the reasonably foreseeable environmental consequences of a project, including indirect and off-site impacts. (Cal. Code Regs., tit. 14, § 15126.2, subd. (a).) Because BIG may enable additional throughput at BNSF's existing San Bernardino, Hobart, and Commerce railyards, the Draft EIR must analyze the resulting air quality impacts at these locations. As discussed in Section IV.D, failing to evaluate these emissions renders the air quality analysis incomplete and unsupported by substantial evidence. O21-44 cont'd

3. The Draft EIR must analyze the air quality impacts to all the cities and routes where truck traffic will increase due to the Project.

As discussed in Section III, the Draft EIR must analyze all environmental impacts—including air quality impacts—to every region in California and beyond where heavy-duty diesel truck trips would increase as a result of the Project. At minimum, the EIR must evaluate impacts to the following locations, which the Draft EIR identifies as receiving substantial additional truck traffic by 2048: O21-45

- Central Valley: 14,750 truck trips/year
- Boron: 115,150 truck trips/year
- Arizona/Nevada: 24,600 truck trips/year
- Victorville: 49,150 truck trips/year
- Hobart/Commerce: 4,600 truck trips/year
- Inland Empire/San Bernardino: 92,100 truck trips/year
- Nationwide Destinations: 204,400 truck trips/year

(DEIR App. 5.15 BIG-1 at 142–44.)

4. The Draft EIR's air quality analysis contains contradictory information about whether the Project would operate Tier 4 switcher locomotives.

The Draft EIR's air quality analysis cannot be relied upon because it is internally inconsistent about whether the Project will operate Tier 4 switcher locomotives. Throughout the Draft EIR, the City repeatedly and unequivocally states that the Project will operate Tier 4 switcher locomotives. Yet the modeling assumptions used to calculate emissions tell a completely different story. In addition, the Draft EIR claims that operational emissions will be reduced by the use of Tier 4 switchers, but Tier 4 switchers are not included as a mitigation measure. These contradictions undermine the credibility of the emissions modeling, the mitigation analysis, and the Draft EIR's conclusions regarding operational air quality impacts. O21-46

The Draft EIR repeatedly represents that all switcher locomotives serving BIG will be Tier 4. For example:

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- "BIG includes various features which reduce operational emissions, including . . . Tier 4 switcher locomotives, the retirement of all existing switcher locomotives at the existing Barstow classification yard and the addition of six Tier 4 switcher locomotives . . . ." (*Id.* at 5.3-88.)
- "BIG's [diesel particular matter] emission reduction occurs from . . . using Tier 4 switcher locomotives . . ." (*Id.* at 5.3-161.)
- "The proposed block swap yard would allow for the transfer of multiple railcars, or 'blocks' of intermodal rail cars between trains via Tier 4 switcher locomotives." (*Id.* App. 5.3 BIG-1 at 10.)
- "BIG's block swap yard would disassemble and assemble lengthy blocks of railcars with intermodal containers to similar destinations utilizing Tier 4 switcher locomotives. . . Starting in BIG opening year 2028, BNSF will voluntarily retire all existing Tier 0/0+/1+ switcher locomotives at the unrelated existing Barstow classification yard, and in their place add six Tier 4 switcher locomotives." (*Ibid.*)
- "All switcher locomotives at BIG would be Tier 4 locomotives, and BNSF would also retire all existing Tier 0/0+/1+ locomotives at the unrelated existing Barstow yard and, in their stead, add six Tier 4 switcher locomotives." (*Id.* at 18.)

O21-46
cont'd

These statements leave no ambiguity. The Draft EIR claims the Project will operate a 100 percent Tier 4 switcher fleet. However, the Draft EIR's actual modeling assumptions contradict these statements. The Draft EIR states that locomotive emissions modeling relies on "Table 17 in Appendix 5.3 BIG-1 for locomotive assumptions." (*Id.* at 5.3-38.) Table 17 provides the fleet mix used in the emissions calculations. According to that table, the "With BIG" switcher locomotive fleet in 2028, 2033, and 2048 includes less than 0.4 percent Tier 4 locomotives—a direct contradiction of the Draft EIR's repeated assertions that all switchers will be Tier 4. (*Id.* App. 5.3 BIG-1 at 71.)

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Table 17: Locomotive Fleet Mix Forecast

U.S. EPA Tier Standard	Line-Haul Locomotives[1,2,3]				Switcher Locomotives[1,2]		
	Without BIG and With BIG			With BIG		With BIG	
	2028	2033	2048	Dedicated Fleet (All Years)[4]	2028	2033	2048
Uncontrolled (1973-1999)	0.0%	0.0%	0.0%	0.0%	18.0%	18.0%	13.0%
Tier 0 (2000-2001)	0.0%	0.0%	0.0%	0.0%	62.0%	62.0%	60.0%
Tier 0+	0.0%	0.0%	0.0%	0.0%	11.0%	11.0%	8.0%
Tier 1 (2002-2004)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Tier 1+	26.48%	22.12%	8.62%	0.0%	3.8%	3.8%	7.6%
Tier 2 (2005-2011)	0.0%	0.0%	0.0%	0.0%	1.0%	1.0%	1.0%
Tier 2+	37.01%	37.27%	38.05%	0.0%	4.0%	4.0%	10.0%
Tier 3 (2012-2014)	27.91%	28.10%	28.69%	0.0%	0.0%	0.0%	0.0%
Tier 4 (2015)	8.60%	12.52%	24.64%	100%	0.2%	0.2%	0.4%

Note:
1 Line-haul locomotives are 4,000 horsepower or higher; switcher locomotives are less than 2,300 horsepower.
2 Line-haul locomotive life is assumed to be 40 years; switcher locomotive life is assumed to be 70 years.
3 Based on 2023 report for the 1998 MOU and adjusted for full conversion of Tier 0 and 1 to Tier 1+ and Tier 2 to Tier 2+. Annual Tier 4 purchases with associated Tier 1 replacements based on 5-year historical average purchase rates.
4 As a part of BIG, cross-dock intermodal containers (i.e., those taken by rail from the Ports to BIG's intermodal facility) would be transported using a dedicated fleet of Tier 4 linehaul locomotives.

Sources: *BNSF locomotive inventory data.*

O21-46 cont'd

This is not a minor discrepancy. It means the Draft EIR's emissions modeling is based on a fleet that is 99.6 percent non-Tier 4, while the narrative text repeatedly claims the Project will operate 100 percent Tier 4 switchers. These representations cannot both be true.

The Draft EIR then compounds this contradiction by claiming substantial emission reductions from Tier 4 switcher locomotives in its mitigated emissions tables. Table 5.3-26 (Mitigated Operational Emissions within MDAB, pounds per day) attributes reductions to "MM BIG AQ-8 (Tier 4 Switchers)" and "MM BIG AQ-9 (Replace Tier 1+ locomotives)." (*Id.* at 5.3-98.) Table 5.3-27 (Mitigated Operational Emissions within MDAB, tons per year) repeats the same claim. (*Id.* at 5.3-101.) But this is simply incorrect. MM BIG AQ-8 and MM BIG AQ-9 have nothing to do with Tier 4 switchers or replacing Tier 1+ locomotives. As written, MM BIG AQ-8 concerns renewable diesel RTG cranes, and MM BIG AQ-9 concerns truck idling limits and truck route signage. (*Id.* at 5.3-106.)

In other words, the Draft EIR claims the Project will have large emission reductions based on Tier 4 switchers, but this is not reflected in the modeling or in the mitigation measures. This is the definition of an unsupported and misleading air quality analysis. CEQA does not allow agencies to rely on uncommitted, unenforceable, or internally contradictory assumptions to mask a project's true environmental impacts. Because the Draft EIR's locomotive assumptions, emissions calculations, and mitigation measures are fundamentally inconsistent, the air quality analysis is not supported by substantial evidence and must be corrected and recirculated.

Table 5.3-26: Mitigated Operational Emissions within MDAB (pounds per day)

Source	Pollutant (Maximum Pounds per Day) [1, 2]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
BIG Footprint Emissions	**311**	**449**	**1,021**	**5**	**264**	**78**
Reduced TMT Emissions (MDAB Only)[4]	-1	-122	-16	-1	-108	-30
Rail Corridor Emissions - No BIG (within MDAB)	1,919	53,861	16,699	59	969	940
Rail Corridor Emissions - With BIG (within MDAB)	2,016	56,795	17,706	63	1,012	981
Net Rail Corridor Emissions Change (MDAB Only)[5]	96	2,934	1,007	4	43	42
2048 Total BIG Operational Emissions	**406**	**3,261**	**2,012**	**7**	**198**	**90**
Existing Barstow Yard Switcher Replacement	-131	-821	-53	-0.26	-39	-38
Net 2048 Emissions	**275**	**2,441**	**1,959**	**7**	**159**	**52**
MDAQMD Threshold	**137**	**137**	**548**	**137**	**82**	**65**
Threshold Exceeded?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**No**

[1] Totals may not add up due to rounding.
[2] Mitigation measures include **MM BIG AQ-7** (sweeping paved areas), **MM BIG AQ-8** (Tier 4 Switchers), **MM BIG AQ-9** (Replace Tier 1+ locomotives), and **MM BIG AQ-10** (renewable diesel RTG cranes).
[3] Includes fugitive dust, break wear, and tire wear from fleet vehicles, on-site passenger cars, heavy-duty trucks, and cargo-handling equipment.
[4] BIG would improve goods movement and supply chain efficiency by transporting more containers with trains to reduce approximately 40,328 TMT per day in 2028, approximately 49,500 TMT per day in 2033, and approximately 59,305 TMT per day in 2048 from regional roadways; See **Appendix 5.15 BIG-1: Barstow International Gateway CEQA Assessment – Transportation Analysis**.
[5] MDAB only Corridor emissions per EnSafe, BNSF Barstow International Gateway Corridor Emissions Analysis, October 2025 (**Appendix 5.3 BIG-1, Appendix B**).

Source: Refer to **Appendix 5.3 BIG-1: Air Quality Technical Report**.

Table 5.3-27: Mitigated Operational Emissions Within MDAB (tons per year)

Source	Pollutant (Tons per Year)[1]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Rail Corridor Emissions - With BIG (within MDAB)	326	9,173	2,860	10	163	159
Net Rail Corridor Emissions Change (MDAB Only)[5]	16	474	163	1	7	7
2048 Total BIG Operational Emissions	**67**	**518**	**273**	**1**	**34**	**15**
Existing Barstow Yard Switcher Replacement	-24	-150	-10	-0.05	-7	-7
Net 2048 Emissions	**43**	**368**	**263**	**1**	**26**	**8**
MDAQMD Threshold	**25**	**25**	**100**	**25**	**15**	**12**
Threshold Exceeded?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**No**

[1] Totals may not add up due to rounding.
[2] Mitigation measures include **MM BIG AQ-7** (sweeping paved areas), **MM BIG AQ-8** (Tier 4 Switchers), **MM BIG AQ-9** (Replace Tier 1+ locomotives), and **MM BIG AQ-10** (renewable diesel RTG cranes).
[3] Includes fugitive dust, break wear, and tier wear from fleet vehicles, on-site passenger cars, heavy-duty trucks, and cargo-handling equipment.
[4] BIG would improve goods movement and supply chain efficiency by transporting more containers with trains to reduce approximately 40,328 TMT per day in 2028, approximately 49,500 TMT per day in 2033, and approximately 59,305 TMT per day in 2048; See **Appendix 5.15 BIG-1: Barstow International Gateway CEQA Assessment – Transportation Analysis**.
[5] MDAB only Corridor emissions per EnSafe, BNSF Barstow International Gateway Corridor Emissions Analysis, October 2025 (**Appendix 5.3 BIG-1, Appendix B**).

Source: Refer to **Appendix 5.3 BIG-1: Air Quality Technical Report**.

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O21-46 cont'd

MM BIG AQ-8	**Renewable Diesel RTG Cranes.** Rubber Tired Gantry (RTG) cranes shall be powered with renewable diesel. BNSF shall provide the City of Barstow with evidence demonstrating use of renewable diesel for RTG cranes prior to the issuance of certificate of occupancy.
MM BIG AQ-9	**Truck Idling Limits and Truck Route Signage.** Prior to the issuance of a tenant occupancy permit, the Planning Division shall confirm that all truck access gates and loading docks within the BIG site shall have posted signage posted that states: • Truck drivers shall turn off engines when not in use. • Truck drivers shall shut down the engine after two minutes of continuous idling operation. Once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged.

O21-46 cont'd

5. The Draft EIR's calculations for the Project's NOx emissions are inconsistent, and it does not explain the discrepancies.

The Draft EIR's calculations for the Project's NOx emissions are internally inconsistent, and the document does not explain or justify these discrepancies. Although the Draft EIR states that operations will occur 24 hours per day, 365 days per year, the reported conversion from pounds per day to tons per year do not align with the annual totals presented. (See DEIR at 1-4.) For example, Table 5.3-23 states that in 2048, unmitigated total BIG operational emissions within MDAB will be 3,738 pounds of NOx per day. (*Id.* at 5.3-91.) At continuously 24/7/365 operations, this daily rate converts to 682.18 tons of NOx per year. Yet Table 5.3-24 reports that unmitigated total BIG operational emissions within MDAB in 2048 will be 553 tons of NOx per year. (*Id.* at 5.3-93.) This represents a 129.18-ton shortfall, meaning the Draft EIR underreports annual NOx emissions by approximately 19 percent.

O21-47

The same problem appears in the mitigated scenario. Table 5.3-26 reports that in 2048, mitigated total BIG operational emissions within MDAB will be 3,261 pounds of NOx per year. (*Id.* at 5.3-98.) Using the same operating assumptions, this converts to 595.13 tons of NOx per year. However, Table 5.3-27 states that mitigated total BIG operational emissions within MDAB in 2048 will be 518 tons of NOx per year. (*Id.* at 5.3-101.) This is a 77.13-ton discrepancy, meaning the Draft EIR underreports mitigated annual NOx emissions by approximately 13 percent.

The Draft EIR does not reconcile these discrepancies, identify the assumptions underlying its calculations, or show the methodology used to derive the annual totals. Without transparent and internally consistent emissions calculations, the public and decision-makers cannot meaningfully evaluate the Project's air quality impacts. The Final EIR must correct these errors and clearly document its calculations.

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D. The Draft EIR performed a faulty and incomplete *Friant Ranch* health impact analysis for BIG.

To properly conduct a *Friant Ranch* health impacts analysis, an EIR must do more than list pollutant levels and describe the symptoms associated with exposure to different pollutants. It must identify the concentrations at which those symptoms are triggered and provide a reasonable effort to explain the nature and magnitude of the project's health impacts. (*Friant Ranch*, *supra*, 6 Cal.5th at p. 519; see Cal. Code Regs., tit. 14, § 15126.2, subd. (a).) Most critically, the analysis must draw a clear connection between the project's potential emissions and resulting human health impacts. (*Friant Ranch*, 6 Cal.5th at p. 520.) As the Supreme Court explained, if "the EIR as written makes it impossible for the public to translate the bare numbers provided into adverse health impacts or to understand why such translation is not possible at this time, . . . the EIR's discussion of air quality impacts [is] inadequate." (*Id.* at p. 521.)

Here, the Draft EIR acknowledges that the BIG Project would emit "substantial" regional emissions of VOCs, NOx, particulate matter (PM) and CO resulting in "significant and unavoidable" impacts to regional air quality. (DEIR at 5.3-74; *id.* at 5.3-120.) Even setting aside the serious flaws identified in the Trucks Analysis and throughout the air quality impacts analysis, the Project is projected to emit 368 tons of NOx and 43 tons of VOC annually—even after mitigation. (*Id.* at 5.3-101.) O21-48

Despite these acknowledged impacts, the City asserts that it is not capable of performing a *Friant Ranch* health impacts analysis, claiming that "[t]here is currently no methodology available that can accurately quantify regional health effects from NO2, O3, CO, or PM exposure associated with an individual project's emissions." (*Id.* at 5.3-115.)

This claim is patently incorrect. Multiple agencies have already performed *Friant Ranch*-style health impacts analyses for individual projects, demonstrating that such analysis is both technically feasible and legally required. These examples confirm that a meaningful health risk evaluation is possible and that the City's refusal to provide it deprives the public of essential information about the Project's true impacts. First, California State University Dominguez Hills ("CSUDH") conducted a *Friant Ranch* health impacts analysis for its Campus Master Plan, a project estimated to emit 240 pounds per day of NOx in unmitigated daily operational emissions. By comparison, BIG is projected to emit 2,917 pounds per day of unmitigated NOx emissions—more than ten times the CSUDH project's emissions. The CSUDH Final EIR explained its methodology in detail.[125] Ramboll US Corporation prepared the health effects analysis, focusing on ozone and fine particulate matter (PM2.5), which are the pollutants most closely linked to serious health outcomes and those modeled by the U.S. EPA's Benefits Mapping and Analysis Program (BenMAP).[126] Using the CAMx photochemical grid model, annual project emissions

[125] CSUDH Campus Master Plan Final EIR ("CSUDH Final EIR"), at 3.2-25 (Sep. 2019), https://www.csudh.edu/Assets/csudh-sites/fpdc/docs/campus-master-plan/2019/final-environmental-impact-report-09-11-19.pdf.
[126] *Id.* at RTC-29–30.
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were distributed across the South Coast Air Basin to estimate the change in concentrations of ozone and PM2.5 that would result from the addition of the master plan's emissions.[127] These results were then evaluated with BenMAP to quantify the health impacts of potential air pollution control strategies. This process is very similar to the use of CAMx and BenMAP by the Sacramento Metropolitan Air Quality Management District (Sacramento Air District).[128] To ensure a conservative, worst-case analysis, peak VOC emissions from construction were added to full build-out operational emissions of all other criteria pollutants from stationary and mobile sources.[129]

The CSUDH's Final EIR reported the following results:

> Based on the Ramboll analysis, PM2.5-related health effects attributed to the project include asthma-related emergency room visits (4.38 incidences per year), asthma-related hospital admissions (0.38 incidences per year), cardiovascular-related hospital admissions (excepting myocardial infarctions) (1.05 incidences per year), respiratory-related hospital admissions (2.44 incidences per year), mortality (10.31 incidences per year), and nonfatal acute myocardial infarctions (less than 0.53 incidences per year). Ozone-related health effects attributed to the project include respiratory-related hospital admissions (0.67 incidences per year), mortality (0.28 incidences per year), and asthma-related emergency room visits (lower than 3.38 incidences per year).[130]

O21-48 cont'd

The CSUDH Final EIR emphasized that these results were conservatively estimated, but nonetheless sufficient to inform the public of the health consequences of increased air pollution.[131] As the EIR noted, "regulatory agencies, including the USEPA, have judged that, even so, the results supply sufficient information to the public to allow them to understand the health effects of increases or decreases in air pollution."[132]

This example demonstrates unequivocally that a *Friant Ranch* health impacts analysis can be performed for individual projects and that it yields meaningful, actionable information. If CSUDH could provide such analysis for a project with far lower emissions, there is no justification for the City's refusal to do so here.

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[127] *Ibid.*
[128] *See* Mineta San Jose International Airport Master Plan Amendment Integrated Final EIR, *Supplemental Air Quality Impacts Analysis*, at 2 (Oct. 2019), https://www.sanjoseca.gov/Home/ShowDocument?id=61650.
[129] CSUDH Final EIR, App. B.4 at 4.
[130] *Id.* at RTC 30–31.
[131] *Ibid.*
[132] *Ibid.*
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Second, in 2020, the Sacramento Air District issued its "Guidance to Address the *Friant Ranch* Ruling for CEQA Projects in the Sac Metro Air District" (Sacramento Guidance).[133] The Guidance explains that it provides "information [that] can be used in environmental documents to provide a conservative estimate of the health effects of criteria pollutant emissions at the significance thresholds or below."[134] To develop this framework, the Sacramento Air District performed photochemical grid modeling, looking at over 40 locations in its jurisdiction where new projects could be sited, identified based on General Plan classifications, zoning, and other siting factors. The District then estimated generic emissions from such new projects and calculated the amount by which ambient air concentrations of pollutants would change when those emissions were added to the mix.

The Sacramento District then ran a health impacts model using those ambient concentration predictions as inputs to the model, enabling it to predict resulting health hazards. This enabled it to predict such things as rates of increases in asthma attacks based on increased ozone concentrations when a new project's emissions were added to the region's inventory and increased incidences of myocardial infarctions when PM2.5 emissions rose.[135] The Sacramento Guidance relied on the U.S. EPA's BenMAP.[136]

Third, the South Coast Air Quality Management District submitted comments on the EIR for BNSF's Southern California International Gateway (SCIG), expressly calling for the *Friant Ranch*-required health impacts analysis to be performed. In its comments, the South Coast AQMD emphasized the necessity of evaluating how the project's emissions would translate into actual health consequences for nearby communities. The South Coast AQMD stated:

> Although the SCIG project would result in significant localized and regional air quality impacts, the Revised Draft EIR fails to conduct the required health impact assessment. Specifically, the Revised Draft EIR claims there are no accepted methodologies for conducting a health impact assessment that could accurately quantify local health effects. This is unsupported. According to the U.S. EPA, BenMAP-CE is a proven computer program that estimates changes in the number of adverse health effects associated with a change in exposure to air pollution, specifically ground-level ozone and fine particles. In other words, BenMAP-CE can be used to estimate the resulting health impacts from change in ambient air pollutant concentrations for related health endpoints such as premature mortality, hospital admissions, and emergency room visits, and it can be used for both local- and regional-scale analyses. Concentrations at a project-level can be estimated by

O21-48 cont'd

[133] Sacramento Air Dist., *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District*, at 2 (Oct. 2020), https://www.airquality.org/LandUseTransportation/Documents/SMAQMDFriantRanchFinalOct2020.pdf.
[134] *Id.* at 2.
[135] *Id.* at 6–7.
[136] *Id.* at 4–5.
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> air dispersion model (e.g., AERMOD). The Revised Draft EIR has NO2, PM2.5, and PM10 concentrations, although underestimated, and these concentrations can be input into BenMAP-CE to estimate health effects. Both BenMap-CE and AERMOD are available for download on the U.S. EPA's website, and can be used to estimate the SCIG project's likely health consequences. Therefore, the Revised Draft EIR must be revised and recirculated to provide the necessary health impact assessment, or alternatively include a discussion to explain why the use of AERMOD and BenMap-CE models is not appropriate to provide such an analysis.[137]

It is misleading and inaccurate for the Draft EIR to claim with absolutely no cites that "[t]here is currently no methodology available that can accurately quantify regional health effects from NO2, O3, CO, or PM exposure associated with an individual project's emissions." (DEIR at 5.3-115.) O21-48 cont'd

Finally, the City also attempts to justify its failure to comply with *Friant Ranch* by invoking the South Coast AQMD's amicus curiae brief in that case. The City claims that South Coast AQMD "stated that it does not know of a way to accurately quantify health impacts caused by emissions produced on a scale as small as individual projects." (*Ibid.*) This argument is both irrelevant and misleading. As explained above, multiple agencies have successfully performed *Friant Ranch*-style health impacts analyses for individual projects with emissions far lower than those projected for BIG. Moreover, the City mischaracterizes what South Coast AQMD actually said in its amicus curiae brief. In its brief, South Coast AQMD wrote that "in some cases such [a *Friant Ranch*-type] analysis will be 'feasible'; in some cases it will not," and gave as an example of infeasibility "a project emitting only 10 tons per year of NOx or VOC." (Brief for South Coast Air Quality Management Dist. as Amicus Curiae, *Friant Ranch* (2018) 6 Cal.5th 502.) The BNSF BIG Railyard is not such a project. It is expected to emit 368 tons of NOx per year—orders of magnitude beyond the threshold South Coast AQMD identified as potentially infeasible. By the District's own reasoning, this is precisely the type of project where a *Friant* Ranch health impacts analysis is both feasible and required. The City's reliance on South Coast AQMD's brief is therefore misplaced. CEQA requires the City to perform a full *Friant Ranch* health impacts analysis for the BNSF BIG Railyard.

E. The Draft EIR's measures for mitigating BIG's air quality impacts are vague, unenforceable, and ineffective.

The Draft EIR acknowledges that—even after mitigation—BIG's operations would emit nearly 18-times the allowable daily NOx limit and twice the allowable daily PM limit. (DEIR at 5.3-97–98.) It likewise concedes that construction emissions would exceed allowable daily NOx O21-49

[137] SCAQMD, *Comment Letter on Revised Draft Environmental Impact Report for the Proposed Southern California International Gateway (SCIG) Project,* at 27 (Aug. 25, 2021), https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2021/lac210519-01/LAC210519-01.pdf?sfvrsn=81ad61_8.

limits by more than 37 times and allowable daily PM limits by 23 times. (*Id.* at 5.3-86.) CEQA requires the City to adopt all feasible mitigation measures capable of reducing these impacts to below levels of significance. The Draft EIR fails to meet this obligation.

Many of the proposed mitigation measures for BIG's air quality emissions lack enforceable standards or omit feasible and commercially available technologies, rendering them legally inadequate under CEQA. MM BIG AQ-1 (Fugitive dust emissions) contains no clear enforcement mechanism. (*Id.* at 5.3-104.) The Draft EIR does not identify who will verify compliance, how compliance will be monitored, or what consequences will follow noncompliance. Without these elements, the measure is unenforceable and ineffective. MM BIG AQ-3 (Reduce Exhaust Emissions from Off-Road Construction Equipment) should be strengthened to require use of zero-emissions construction equipment, which is widely available across machine classes and constitutes a feasible mitigation measure under CEQA.[138] MM BIG AQ-4 (Renewable Diesel (Construction)) violates CEQA's requirements. (DEIR at 5.3-105.) Because zero-emission construction equipment is commercially available and feasible, reliance on renewable diesel is inappropriate. Additionally, MM BIG AQ-4 is unenforceable as it is unclear who is responsible for determining whether a renewable diesel supplier exists within 200 miles, how that determination will be made, or what consequences apply if the requirement is not met. O21-49 cont'd

MM BIG AQ-5 (Reduce Exhaust Emissions from On-Road Construction Equipment) does not specify how compliance will be monitored or enforced, rendering it unenforceable. (DEIR at 5.3-106.) This measure must also be strengthened to require zero-emission on-road construction equipment, as it is feasible and effective.[139] MM BIG AQ-6 (Reduce the Potential Impact of Concrete and Asphalt Batch Plants) is ineffective and unenforceable because it does not require the City to verify that batch plants are sited at the required buffer distance from sensitive receptors. (*Ibid.*) Nor does it identify enforcement mechanisms or consequences for noncompliance. The measure must require City verification and specify that noncompliance will result in termination of plant operations and refusal to grant a permit for this purpose. MM BIG AQ-7 (Sweep Paved Areas) must specify who will verify compliance and how frequently. (*Ibid.*). Without these details, this measure is unenforceable. MM BIG AQ-8 (Renewable Diesel RTG Cranes) should be strengthened to require zero-emission RTGs, as detailed in the Connolly Memo, which demonstrates their commercial availability and feasibility. (*Ibid.*; Connolly Memo at pp. 52–59.)

MM BIG AQ-9 (Truck Idling Limits and Truck Route Signage) provides no meaningful enforcement mechanism. (DEIR at 5.3-106–07.) Simply informing truck drivers about "the importance of being a good neighbor by not parking in residential areas" is inadequate. The measure must include an enforcement mechanism to ensure that drivers do not park in residential

[138] ICCT, *Zero-emission construction machinery in China, 2025* (Sep. 2025), https://theicct.org/wp-content/uploads/2025/09/ID-443-%E2%80%93-ZE-Machinery_market-spotlight_final.pdf.
[139] *Ibid.*

areas. Also, this measure should specify how compliance will be monitored, how often monitoring will occur, and what enforcement actions will be taken when violations occur. MM BIG AQ-10 (Tier 4 Emergency Back-Up Generators) should be strengthened to require onsite renewable energy storage as backup generation. (*Id.* at 5.3-107.) Distributed energy systems, such as rooftop solar, on-site batteries, and modular microgrids, are already being deployed at industrial projects in Southern California, as explained in Section II.D.1.d.

MM BIG AQ-11 (Carl Moyer Truck Efficiency Improvements) should require vendor trucks serving the industrial buildings to operate zero-emission trucks, which are commercially available and cost competitive, as explained in Section II.D.1.d. (*Ibid.*) MM BIG AQ-14 (Future EV Charging Infrastructure) is vague and unenforceable because it lacks specificity regarding the number of chargers required, what constitutes a "logical location(s) on the site," and the timeline for installation. (*Ibid.*) To be enforceable, this measure must require the buildout of electric truck charging infrastructure, including at least one charger per five truck parking spaces. This measure is also unenforceable and vague as it does not define infrastructure "sufficiently sized to hold additional panels that may be needed in the future to supply power to trailers with TRUs." Instead, this measure must require installation of actual TRU charging infrastructure, and this measure should be split into two separate enforcement requirements.

O21-49 cont'd

F. The Draft EIR must include feasible mitigation measures for BSNF BIG Railyard's air quality impacts.

As discussed above in Section II.D.1 and detailed extensively in the Connolly Memo, a range of commercially available, operationally proven, and economically viable zero-emission technologies could substantially reduce the Project's air quality impacts. The City must incorporate mitigation measures requiring the use of:

O21-50

- Zero-emission electric locomotives for the captive fleet operating on the LA-Barstow corridor (Connolly Memo at pp. 22–31, 35–46);
- Zero-emission electric switcher locomotives for railyard operations (*id.* at pp. 46–52);
- Zero-emission trucks serving the facility (*id.* at pp. 61–63);
- Zero-emission electric RTGs (*id.* at pp. 52–59); and
- Zero-emission transport refrigeration units (TRUs).

VI. THE CITY FAILED TO PROPERLY ANALYZE AND MITIGATE GREENHOUSE GAS (GHG) EMISSIONS FOR THE GENERAL PLAN AND BIG PROJECT.

O21-51

A. The Draft EIR's analysis of the General Plan's GHG impacts is legally deficient and unsupported by substantial evidence.

The Draft EIR fails to accurately disclose the General Plan's GHG impacts because it relies on the fundamentally flawed Trucks Analysis. This error permeates the entire GHG

assessment for both the General Plan and the BIG Project, rendering the analysis legally inadequate under CEQA.

The Draft EIR's GHG emissions forecast for the General Plan, which includes BIG, is built on the Trucks Analysis' unsupported assumption that incorporates "Reduced On-Road Truck Trips." (DEIR at 5.8-57.) Footnote 1 in Table 5.8-10 "Horizon Year 2048 Proposed General Plan Area GHG Emissions Forecast" notes that "On-road transportation includes total VMT and TMT from BIG." (*Ibid.*) As explained in Section III, these assumed reductions are not grounded in substantial evidence and do not reflect realistic truck trip generation. By incorporating these inaccurate assumptions, the Draft EIR artificially depressed projected on-road transportation GHG emissions, making 2048 emissions appear significantly lower than they would be in reality. O21-51 cont'd

Because the Trucks Analysis undercounts TMT, the resulting GHG analysis is similarly undercounted and cannot be relied upon for informed decision-making. CEQA requires the City to correct the Trucks Analysis and then redo the GHG analysis for both the General Plan and BIG using accurate TMT figures.

B. The Draft EIR's measures for mitigating the General Plan's GHG impacts are insufficient, unenforceable, deferred, and ineffective.

The Draft EIR concludes that the General Plan would result in significant and unavoidable impacts to GHG impacts—even after mitigation. (*Id.* at 5.8-82.) This is especially alarming given that the Mojave Air District's GHG significance threshold is ten times higher than the comparable threshold used in the South Coast Air Basin. Even under this permissive standard, the General Plan's GHG impacts analysis fails. O21-52

The Draft EIR's own analysis makes the severity of the impact unmistakable. It finds that implementation of the General Plan, including the BIG Project, would increase GHG emissions by 134,471 MTCO2e per year—a 41 percent increase over existing conditions. (*Id.* at 5.8-57–58.) This increase would exceed the Mojave Air District's 90,718 MTCO2e per year (100,000-ton) significance threshold, with the vast majority of emissions coming from on-road mobile sources followed by rail. (*Ibid.*)

Even more troubling, the Draft EIR acknowledges that the City will not meet California's statutory climate targets. It provides that even with implementation of the General Plan's mitigation measures, "the City would not achieve the GHG reduction targets of AB 1279." (*Id.* at 5.8-59.) This reveals a fundamental flaw in the Draft EIR's mitigation framework. CEQA does not permit an agency to declare impacts significant and unavoidable while simultaneously failing to adopt all feasible mitigation measures, especially when those measures are vague, deferred, and unenforceable. The Draft EIR's approach falls far short of CEQA's requirements, and must be redone.

1. Project design features are not enforceable and therefore cannot be treated as mitigation measures.

The Draft EIR improperly relies on unenforceable General Plan policies—framed as PDFs—to claim reductions in GHG emissions. CEQA does not allow a lead agency to treat aspirational policy language or nonbinding project design features as mitigation. An EIR must clearly distinguish between features voluntarily proposed by the applicant and mitigation measures that the agency imposes as enforceable conditions of approval. (Cal. Code Regs., tit. 14, § 15126.4, subd. (a)(1)(A).) Policies that merely "encourage," "promote," or "support" certain outcomes are not enforceable commitments and therefore cannot reduce a project's significant impacts. Because PDFs are not binding or unenforceable, they cannot be treated as mitigation measures. (See *Lotus*, *supra*, 223 Cal.App.4th at pp. 655–56.) O21-53

The Draft EIR states that "[t]he proposed General Plan contains policies that would reduce emissions from the various GHG emissions sectors to the extent feasible," citing a range of Circulation, Land Use, Open Space, and Safety Elements, including CM-2.1 through CM-2.7 (pedestrian and bicycle network improvements), LU-2.1 and LU-3.2 (electric bike use and increased transit service), CM-2.10 (reducing passenger car VMT), OSC-8.1, OSC-8.4, S-2.8 and S-2.9 (healthy, resilient, and efficient buildings and heat-reflective surfaces), and OSC-8.2 (use of renewable energy). (DEIR at 5.8-58; *id.* at 5.8-66.) These PDFs cannot be treated as mitigation measures, and the DEIR must identify and impose actual, enforceable mitigation capable of reducing the General Plan's significant GHG impacts.

2. The Draft EIR fails to provide substantial evidence that the sole GHG mitigation measure it considered will sufficiently mitigate the General Plan's GHG emissions.

The Draft EIR does not provide substantial evidence that its only greenhouse gas mitigation measure—MM GP GHG-1—will meaningfully reduce the General Plan's significant GHG emissions. To begin with, MM GP GHG-1 is ineffective on its face. It does not identify any specific emission reductions, performance standards, or enforceable commitments. Instead, it creates an obligation that the Draft EIR immediately asserts it cannot meet. The measure states that the City will prepare a CAP "to align GHG emissions targets in the City with the GHG reduction targets of Assembly Bill (AB) 1279," yet the Draft EIR concludes on the very next page that even with MM GP GHG-1 and all air quality mitigation measures, "the City would not achieve the GHG reduction targets of AB 1279." (DEIR at 5.8-58–59.) This internal inconsistency demonstrates that the City has not, in fact, adopted mitigation capable of minimizing the General Plan's significant GHG impacts, as CEQA requires. (Cal. Code Regs., tit. 14, § 15126.4, subd. (a)(1).) O21-54

MM GP GHG-1 also unlawfully defers mitigation. It postpones all substantive action to a future CAP that may not be completed for 36 months after EIR certification and may not be updated for another five years. (DEIR at 5.8-58.) These timelines are far too slow to address the General Plan's immediate and long-term GHG impacts. CEQA allows deferral of details only so long as the agency commits itself to mitigation, adopts specific performance standards, and

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identifies the types of actions that could feasibly achieve those standards. (Cal. Code Regs., tit. 14, § 15126.4, subd. (a)(1)(B); *Cleveland Nat. Forest Foundation v. San Diego Assn. of Governments* (2017) 17 Cal.App.5th 413, 442–43.) MM GP GHG-1 satisfies none of these requirements. It does not commit the City to achieving AB 1279's targets, does not adopt performance standards, and does not identify the full range of feasible actions necessary to achieve meaningful reductions. As a result, it constitutes unlawful deferred mitigation.

The Draft EIR also fails to consider or adopt feasible mitigation measures that could substantially reduce GHG emissions. As discussed in Section II, the General Plan and BIG Project should incorporate widely available zero-emission technologies—including zero-emission trucks, locomotives, and rubber-tired gantry cranes. These measures are feasible, commercially available, and even economically advantageous in many circumstances. The Draft EIR's failure to adequately evaluate or adopt them, or to provide a reasoned explanation for rejecting them, violates CEQA's requirement to adopt all feasible mitigation. (Cal. Code Regs., tit. 14, § 15126.4, subd. (a)(1).)

O21-54 cont'd

Finally, MM GP GHG-1 lacks the enforceability CEQA requires. Mitigation measures must be "fully enforceable through permit conditions, agreements, or other legally-binding instruments." (Cal. Code Regs., tit. 14, § 15126.4, subd. (a)(1).) MM GP GHG-1 contains no enforcement mechanism, no identification of responsible parties, no monitoring requirements, and no consequences if the CAP is delayed, inadequate, or never adopted. It does not require annual reporting or any other mechanism to ensure compliance. Without these essential components, MM GP GHG-1 is unenforceable and therefore invalid under CEQA.

For all these reasons, the Draft EIR's reliance on MM GP GHG-1 as the sole mitigation measure for the General Plan's significant and unavoidable GHG impacts is legally inadequate. The City must revise the Draft EIR.

VII. THE DRAFT EIR FAILS TO SUFFICIENTLY ANALYZE OR MITIGATE NOISE AND VIBRATION IMPACTS.

O21-55

Noise is the second-largest environmental cause of health problems, just after air pollution.[140] Large-scale studies show that over time noise exposure increases the risk of high blood pressure, coronary heart disease, and heart attacks, as well as strokes, diabetes, dementia,

[140] Angelina Angelo, *Could everyday noise be affecting your health?* UC Davis Env't. Health Sci. Ctr. (Mar. 3, 2023), https://environmentalhealth.ucdavis.edu/blog/could-everyday-noise-be-affecting-your-health; Stephanie Dutchen, *Noise and Health: Noise pollution is more than a nuisance. It's a health risk*, Harvard Med., (Spring 2022), https://magazine.hms.harvard.edu/articles/noise-and-health.

and depression.[141] Noise pollution not only drives hearing loss, tinnitus, and hypersensitivity to sound, but can also cause or exacerbate cardiovascular disease, type 2 diabetes, sleep disturbances, stress, mental health and cognition problems, including memory impairment and attention deficit disorders, childhood learning delays, and low birth weight.[142] Chronic noise exposure contributes to about 48,000 new cases of heart disease in Europe each year and disrupts the sleep of 6.5 million people.[143] For children, noise pollution interferes with behavioral and cognitive development and speech and language development, and it decreases concentration, impairs memory retention, and increases blood pressure.[144] For adolescents, it can interfere with mental health.[145]

O21-55 cont'd

BIG would add unsafe levels of vibration to homes and schools that will suddenly be across the street from a rail mainline. The known impacts of train vibration on human health primarily relate to sleep disturbance and annoyance.[146] However, in Barstow, train vibrations present a unique health hazard. Residents in the disadvantaged unincorporated community of Sylvan Avenue report that existing train traffic vibrations drive snakes from the ground, increasing residents' snake encounters whenever a train goes by. Yet, the Draft EIR gets the analysis wrong both when setting its standard of significance for vibration and when estimating

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[141] Bianca Bosker, *Why Is Everything Getting Louder?*, The Atlantic, (Nov. 2019), https://www.theatlantic.com/magazine/archive/2019/11/the-end-of-silence/598366/; Minho Kim et al., *Road Traffic Noise: Annoyance, Sleep Disturbance, and Public Health Implications*, Am. J. of Preventive Med., (Oct. 2012), at 353–60, https://doi.org/10.1016/j.amepre.2012.06.014; Taeho Park et al., *The Public Health Impact of Road-Traffic Noise in a Highly-Populated City, Republic of Korea: Annoyance and Sleep Disturbance*, Sustainability, (Aug. 2018), at 2947 https://doi.org/10.3390/su10082947; Willy Passchier-Vermeer & Wim F. Passchier, *Noise Exposure and Public Health*, Envt. Health Persps., (Mar. 2000), at 123, http.//ehpnetl.niehs.nih.gov/docs/2000/suppl-1/123-131passchier-vermeer/abstract.html.
[142] Stephanie Dutchen, *supra* note 140.
[143] *Ibid.*
[144] Angelina Angelo, *supra* note 140; Kim T. Ferguson et al., *The physical environment and child development: An international review*, International Journal of Psychology, (June 2013), at 437–68, https://doi.org/10.1080/00207594.2013.804190; Michelle Raess et al., *Association between community noise and children's cognitive and behavioral development: A prospective cohort study*, Environment International, (Jan. 2022), at 106961, https://doi.org/10.1016/j.envint.2021.106961.
[145] Jongseok Lim et al., *Negative impact of noise and noise sensitivity on mental health in childhood*, Noise & Health, (Sep.–Oct. 2018), at 199–211, https://pubmed.ncbi.nlm.nih.gov/30516173/.
[146] Evy Öhrström et al., *Effects of Railway Noise and Vibration in Combination: Field and Laboratory Studies*, Proceedings of the Institute of Acoustics: 8th European Conference on Noise Control, (Oct. 2009), at vol. 31, pt. 3, https://www.diva-portal.org/smash/get/diva2:674179/FULLTEXT01.pdf.
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train speeds. As a consequence, it improperly categorizes BIG's vibration impacts as "less than significant" and fails to analyze or incorporate mitigation measures for its vibration impacts.

Both the General Plan Update and BIG would add unsafe levels of noise to neighborhoods that are already overburdened by noise pollution. (DEIR at 5.12-47.) Ambient noise at several of the sensitive receptors already exceeds County standards for noise. (*Ibid.*; DEIR App. 5.12 BIG-1 at 41.) And the General Plan Update and BIG would generate noise at levels that would dramatically increase the ambient noise at some of those receptors. (DEIR at 5.12-83.) Yet, the Draft EIR largely ignores these issues and fails to connect Project-related noise emissions with real-world impacts on nearby residents, in violation of CEQA. It proposes mitigation measures without substantial evidence and entirely neglects to consider a wide range of feasible mitigation measures that could effectively reduce both the General Plan's and BIG's impacts. O21-55 cont'd

GENERAL PLAN

A. The Draft EIR's mitigation measures for the General Plan's noise impacts are inadequate, unenforceable, vague, and fail to meaningfully reduce noise impacts.

Given the significant noise impacts documented in the Draft EIR, the City must include mitigation measures that minimize the General Plan's impacts. (Pub. Resources Code, § 21002.1.) The mitigation measures included in the Draft EIR violate CEQA because they defer application, are unenforceable, and contain other problematic elements that render them ineffective or improper. Further, the Draft EIR fails to include and consider all feasible mitigation measures for the General Plan's significant impacts.

1. MM GP NOI-1 (Construction Noise Measures)

O21-56

MM GP NOI-1 is unenforceable, ineffective, and insufficient as a mitigation measure for the General Plan's noise impacts. This measure is unenforceable because of the nine requirements in MM GP NOI-1, *all nine* of them only apply to instances where it is "feasible," "possible," or where an undefined "exception" has not been granted. (DEIR at 5.12-66 to -67.) This kind of "be quieter where you can" set of noise measures has already been rejected by a California Court of Appeal. (See *Sierra Watch v. County of Placer* (2021) 69 Cal.App.5th 86, 110.) In *Sierra Watch*, the inadequate mitigation measure required "operations and techniques to be replaced with quieter procedures (e.g., using welding instead of riveting, mixing concrete off-site instead of on-site) where feasible and consistent with building codes and other applicable laws and regulations." (*Sierra Watch*, *supra*, 69 Cal.App.5th at p. 110, internal quotation marks omitted.) The measure violated CEQA because it was "entirely vague." (*Ibid.*) The court particularly disliked the use of "where feasible," and understood that language to "only tell[] construction contractors to be quieter than normal when they can." (*Ibid.*) Ultimately, it was "not sufficient as a mitigation measure" because it deferred the determination of which construction procedures could be feasibly changed, how they could be modified to be quieter, and it offered no instruction on how either determination was to be made. (*Ibid.*)

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Likewise, in *Preserve Wild Santee v. City of Santee*, the court of appeal held that an EIR's mitigation measures were unlawful where they lacked "standards or guidelines" such that "the success or failure of mitigating the project's impacts to the [endangered species] largely depends on what actions the approved habitat plan will require to actively manage the [endangered species] within the preserve." (*Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 260, 281.) That the City and wildlife agencies still had to ultimately approve the habitat plan "d[id] not cure these informational defects." (*Ibid.*)

Here, the construction noise measures language in each of the measures contained in MM GP NOI-1 uses the same language or similar language to the "where feasible" language the court threw out in *Sierra Watch*. First, one component of this mitigation measure requires noise barriers "as necessary and feasible" where construction is anticipated for "prolonged periods," yet fails to define what a "prolonged period" might be. (DEIR at 5.12-67.) It also fails to define what would make a noise barrier "feasible." (*Ibid.*) Second, construction hours are limited "unless an exception is approved by the Community Development Director." (*Ibid.*) Yet, the Draft EIR defines no standards for how the Community Development Director is to determine whether to grant such an exception. Third, the use of the "best-available noise control techniques" is limited to "wherever feasible." (*Ibid.*) The Draft EIR includes no guidance for how to determine feasibility. Fourth, use of hydraulically or electrically powered impact tools is similarly limited to "wherever possible," with no guidance as to how to determine whether such use is "possible." (*Ibid.*) Fifth, stationary equipment is not defined and it is directed to be located "as far as feasible from nearby noise-sensitive uses." (*Ibid.*) The Draft EIR again fails to define what makes a distance feasible or infeasible and fails to define what it considers to be "stationary equipment." Sixth, the mitigation measure states that "[s]tockpiling shall be located as far as feasible from nearby noise-sensitive receptors." (*Ibid.*) Again, the feasibility of various distances is not defined. Seventh, the measure states that construction traffic shall be limited "to the extent feasible" to approved haul routes. (*Ibid.*) Feasibility is once again undefined. Further, the parameters for designating haul routes are undefined. Eighth, the measure limits the use of noise-producing signals "to the extent feasible." (*Ibid.*) Ninth, the measure states that where a contractor's authorized representative receives a complaint, they shall investigate and "take appropriate corrective action," but it fails to discuss what the standards are for determining what kind of action might be "appropriate." (*Ibid.*)

O21-56 cont'd

That is nine for nine of the measures listed out to mitigate the General Plan's noise impacts in MM GP NOI-1. Because nine of the nine enumerated measures are so vague and restricted to instances where it is "appropriate," or "feasible," or "possible," without defining when those terms apply according to any standards or guidelines, the measure inappropriately defers formulation of the mitigation measure and is unenforceable as written. (*Sierra Watch*, *supra*, 69 Cal.App.5th at p. 110.) MM GP NOI-1 is wholly insufficient to mitigate the impact of construction noise in the General Plan.

2. MM GP NOI-2 (On-Road Traffic Noise – Proposed General Plan)

O21-57

Like MM GP NOI-1 for construction noise, MM GP NOI-2 for on-road traffic noise inappropriately defers mitigation, is unenforceable, ineffective, and insufficient as a mitigation

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measure for the General Plan's noise impacts. Again, the "mitigation measure" is to promise nothing. To start, the Draft EIR seeks to establish, via the following unsupported statement, "*No feasible mitigation measures have been identified* that would substantially reduce impacts associated with a substantial increase in traffic noise levels for all roadways showing significant impacts." (DEIR at 5.12-73, emphasis added.) Having now stated that the people of Barstow are simply doomed to deal with significant noise due to the increased on-road traffic invited by the General Plan Update, the Draft EIR then lists out another set of mitigation measures for future "consider[ation]" that inappropriately defer mitigation and are vague and unenforceable. (*Ibid.*)

There are so many issues with a list of unspecified options for "consideration" as a "mitigation measure" that it is difficult to know where to begin. First, listing out mitigation measures to be "considered" at a later date is exactly the kind of "planning to plan" course of inaction that CEQA prohibits (as discussed above related to MM GP NOI-1). (*Sierra Watch*, *supra*, 69 Cal.App.5th at p. 110.) Furthermore, stating that something "shall be considered" is so vague as to render it essentially unenforceable and meaningless. What would it mean to actually consider something? We do not know because the Draft EIR does not say what would constitute sufficient consideration. Accordingly, the measure is unenforceable because there is no way to tell whether it has been met, whether consideration has been adequate. Even if this were sufficiently specific, it is ineffective and insufficient. Promising to consider something is not promising to do it. Therefore, for every possible measure that follows the Draft EIR's promise to "consider" it, the Draft EIR delivers nothing. Even the measures to be considered are impermissibly vague and unenforceable.

O21-57
cont'd

One of the options included in MM GP NOI-2 is that "special paving materials" be used to reduce the noise made when a vehicle drives over an area. (DEIR at 5.12-73.) However, the Draft EIR fails to specify what these special paving materials are, or by how much they reduce noise, making this measure unenforceable.[147] Down the list, the mitigation measures have the same problems.

Both mitigation measures for the General Plan Update's noise impacts contain the same fatal flaw: they each list poorly defined and thus deferred and unenforceable *potential* measures, put forward as single mitigation measures. This violates CEQA. Mitigation measures identified in an EIR are legally inadequate if they are so undefined that it is impossible to gauge their effectiveness and whether they have been performed. (*Sierra Watch*, *supra*, 69 Cal.App.5th at p. 110.) Likewise, where the measures lack anticipated management actions or standards or

[147] The analysis of the possible use of special paving materials is also lacking. The Federal Highway Administration requires consideration of special pavement be evaluated "for the pavement's full life cycle," which is not done here. (U.S. Department of Transportation, Federal Highway Administration, *Information: Highway Traffic Noise - Guidance on Pavement as a Noise Abatement Measure* (May 2017), https://www.fhwa.dot.gov/environMent/noise/regulations_and_guidance/pavement_guidance.cfm.)

guidelines for actions that might be taken, the EIR is legally inadequate. (*Preserve Wild Santee*, *supra*, 210 Cal.App.4th at p. 281.) The EIR must be redone and recirculated. O21-57 cont'd

3. The Draft EIR improperly treats unenforceable project design features as mitigation measures for the General Plan's noise impacts.

The Draft EIR repeatedly relies on General Plan policies and design features as though they constitute enforceable mitigation for significant noise impacts. For example, it states that the General Plan "includes policies that address stationary noise source compliance." (DEIR at 5.12-68.) It further asserts that implementation of these design features "would help to mitigate City impacts." (*Ibid.*) The Draft EIR cites a range of stationary noise policies—such as Policies S-4.2, S-4.3, and S-4.4—as evidence of mitigation. (*Ibid.*) O21-58

The Draft EIR cannot properly rely on project design features to mitigate the General Plan's noise impacts. CEQA requires an EIR to distinguish between measures proposed by the project proponent and measures that the lead agency determines could reduce significant adverse impacts if imposed as conditions of project approval. (Cal. Code Regs., tit. 14, § 15126.4, subd. (a)(1)(A).) Because project design features are not binding or enforceable, they cannot be treated as mitigation measures. (See *Lotus*, *supra*, 223 Cal.App.4th at pp. 655–656.)

4. The Draft EIR must include all feasible mitigation measures for the General Plan's noise impacts.

Instead of relying on inappropriately deferred measures, the City must develop a concrete, enforceable mitigation plan to address the noise impacts the Draft EIR anticipates from the General Plan Update. For construction-related noise, the Draft EIR should include all of the following measures: O21-59

1. Require factory-approved muffler systems on all stationary and construction equipment where available[148];
2. Remove the exception for nighttime use of heavy construction equipment or only grant exceptions for nighttime construction where it is impossible to complete the required work in the 7:00 A.M. to 7:00 P.M. window due to a task needing more than twelve consecutive hours to be completed;

[148] This should not be a stretch for BNSF. In the Draft EIR for BNSF's Ono Lead Track Extension, "[a]ll construction equipment, fixed and mobile, would be equipped with properly operating and maintained noise mufflers, consistent with manufacturer's standards to reduce noise levels." (City of San Bernardino, *BNSF Ono Lead Track Extension Project Draft EIR* 4.11-23, 45 (Mar. 2021), https://files.ceqanet.lci.ca.gov/268136-1/attachment/1aNmgd-OC7I_AdzJVgiv5JL0OVTas6RPGZWmT-ysrSPZ6yM0w0EzDUJNl67E9iWQMeLcSj_tOCL-F2dK0.)

3. Select a limited number of construction equipment staging areas that maximize distances between sensitive receptors and construction areas;[149]
4. Require all construction equipment to be maintained in good working order;
5. Require all internal combustion engine idling both on the site and at nearby queuing areas be limited to no more than five minutes for any given vehicle or machine and that signs be posted at the construction site and along queueing lanes to reinforce the prohibition of unnecessary engine idling;[150]
6. Require that the use of noise-producing signals, including horns, whistles, alarms, and bells be for safety warning purposes only and that backup alarms be replaced with human spotters;[151] and
7. Require the use of electric, rather than fossil-fuel-powered, equipment.

O21-59 cont'd

As for on-road traffic noise, the City should follow the lead of other cities when incorporating mitigation measures into its General Plan EIR. For instance, Pismo Beach requires commercial projects with the potential to generate excess noise in violation of the General Plan standards to conduct a noise study (with requirements for the noise study), to include traffic calming features, like digital speed monitors, flashing crosswalk beacons, and reduced speed limits as part of the project design.[152] Lassen County incorporates a similar set of mitigation measures, as well as vegetated berms.[153] Therefore, the Draft EIR should incorporate the following mitigation measures for on-road traffic noise:

1. Require commercial or industrial projects with the potential to generate excess noise in violation of the General Plan standards to conduct a noise study;
2. Require plans for commercial or industrial projects with identified impacts to noise to include the following traffic calming features: digital speed monitors, flashing crosswalk beacons, vegetated berms, and reduced speed limits as part of the project design; and
3. Prohibit nighttime deliveries to commercial and industrial sites near sensitive receptors.

[149] This element was incorporated as mitigation in the Draft EIR for the Ono Lead Track Extension. (*Ibid.*)
[150] Same as above. (*Id.* at 4.11-45.)
[151] Same. (*Ibid.*)
[152] City of Pismo Beach, *Noise Element Update* 20 (Oct. 2020), https://www.pismobeach.org/DocumentCenter/View/54099/Pismo-Beach-Final-Draft---Noise-Element-Update---102020.
[153] Lassen County, *Noise Element* 20–21 (Dec. 2021), https://www.lassencounty.org/sites/default/files/departments/planning_and_building_services/planning_docs/Lassen%20Noise%20Element%20December%202021.pdf.
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The City must redo and recirculate the Draft EIR's analysis of BIG's noise and vibration impacts. The Draft EIR's analysis of BIG's vibration impacts contains significant errors and analytical gaps. It begins by relying on the fundamentally flawed Trucks Analysis and then compounds that error by improperly narrowing its scope of review to just the project site and a handful of nearby sensitive receptors. Even within this artificially constrained study area, the Draft EIR uses inappropriate and unexplained inputs for its vibration modeling—inputs that likely artificially depress the anticipated vibration impact—and then improperly concludes that impacts will be less than significant by applying the wrong significance threshold. As a result, the Draft EIR fails to identify or evaluate feasible mitigation measures for BIG's vibration impacts. O21-60

The Draft EIR's noise analysis for BIG suffers from the same improperly limited geographic scope. On top of that, it projects an improperly high "No BIG" baseline level of future train traffic without providing substantial evidence to support that assumption. Despite this inflated baseline, the Draft EIR still finds that BIG will cause significant noise impacts even within its constrained study area, yet it fails to connect those impacts to the real-world health consequences that will be experienced by surrounding communities. The mitigation measures it proposes are plainly inadequate: they are ineffective, unenforceable, and supported only by bare conclusions instead of analysis and facts. As a result, the Draft EIR fails to include feasible mitigation measures. In sum, the Draft EIR's noise and vibration analyses must be redone, corrected, and recirculated for public review and comment.

B. The Draft EIR's finding that BIG's vibration impacts would be less-than-significant is erroneous.

The Draft EIR improperly concludes that BIG's operations would result in a less than significant vibration impact that will not require mitigation. (DEIR at 5.12-133.) This conclusion is unsupported. The Draft EIR fails to evaluate the full scope of BIG's vibration impacts, relies on an inappropriately low impact estimate, misapplies the Federal Transit Administration's methodology for establishing significance thresholds, and then fails to identify or analyze any mitigation measures at all. O21-61

1. The Draft EIR's study area to evaluate the vibration impacts from BIG is too small.

The Draft EIR states the study area for impacts concerning noise and vibration for BIG includes the BIG footprint and "nearby sensitive receptors." (*Id.* at 5.12-14.) This study area is too small and does not take into account the indirect effects of BIG in terms of vibration from trucks and trains felt along the freight corridors that feed into BIG.

As discussed in Section III, the Draft EIR must analyze all environmental impacts—including vibration impacts—to every region in California and beyond where heavy-duty diesel truck trips would increase as a result of the Project. At minimum, the EIR must evaluate impacts

to the following locations, which the Draft EIR identifies as receiving substantial additional truck traffic by 2048:

- Central Valley: 14,750 truck trips/year
- Boron: 115,150 truck trips/year
- Arizona/Nevada: 24,600 truck trips/year
- Victorville: 49,150 truck trips/year
- Hobart/Commerce: 4,600 truck trips/year
- Inland Empire/San Bernardino: 92,100 truck trips/year
- Nationwide Destinations: 204,400 truck trips/year

O21-61 cont'd

(DEIR App. 5.15 BIG-1 at 142–144.)

Likewise, the Draft EIR must analyze those impacts in the locations that it identifies as the sources of containers for BIG—Stockton, Los Angeles, San Bernardino, and Oakland. (DEIR at 3-54; *id.* at 3-53 [stating that BIG's intermodal facility would "add a new volume to the BNSF network"].) The increased number of trains required to serve BIG will generate noise and vibration impacts along the entire affected rail corridor, including port communities and the communities in and around Barstow. Nonetheless, the Draft EIR does not analyze these corridor-wide impacts at all. (See *id.* at 5.12-15.) By omitting these foreseeable off-site impacts, the Draft EIR fails to evaluate the scope of the Project's vibration impacts, and therefore does not comply with CEQA.

2. The vibration impact analysis for the Project fails to explain or justify its modelling inputs.

The Draft EIR estimates that BIG's train operations will generate a ground-borne vibration level of 73.44 VdB. (DEIR App. 5.12 BIG-1 at 137.) However, the modeling inputs used to reach this conclusion are internally inconsistent and therefore cannot constitute substantial evidence. CEQA does not permit an agency to rely on assumptions that contradict other portions of its own analysis, yet the Draft EIR does exactly that—most notably with respect to the anticipated speed of the trains on different track segments within the project footprint. By inexplicably selecting a lower train speed for its vibration modeling, the Draft EIR produces results that cannot be trusted.

O21-62

The Draft EIR identifies the nearest off-site structure as a residence located approximately 165 feet from the center of the mainline tracks along the west lead track alignment. It then assumes that trains on this track will be entering or exiting the BIG footprint and therefore traveling at reduced speeds, so it models a train speed of 50 miles per hour. (DEIR at 5.12-133, fn. 2.) However, this residence is 165 feet from *mainline* tracks, which the Draft EIR characterizes as "analogous to the interstate freeway system for vehicles, enabling long-distance travel to railyards across the country." (*Id.* at 3-6.) Indeed, in the noise section, the Draft EIR states that trains traveling on the mainline will be traveling at 70 miles per hour. (*Id.* at 5.12-33.) Because the residence is 165 feet from the mainline track, the Draft EIR's own logic dictates that the modeled train speed should have been 70 miles per hour, not 50.

This 29 percent decrease in the modeled speed is significant. Higher speeds result in higher vibration levels.[154] Yet the Draft EIR does not explain why it lowers these train speeds when modeling vibration impacts on nearby sensitive receptors or why its modeling contradicts its own glossary. Without a reasoned, evidence-based justification for its modeling inputs, the Draft EIR's vibration analysis does not rest on substantial evidence and therefore fails to comply with CEQA. O21-62 cont'd

3. The Draft EIR miscalculates the vibration threshold of significance and therefore misrepresents that BIG's vibration impacts are less significant.

The Draft EIR misapplies the Federal Transit Administration's methodology in determining the threshold of significance for vibration impacts from BIG's operations. Because it misapplies the methodology, the Draft EIR fails to answer the "relevant question" of the analysis because its inappropriate threshold of significance asks the *wrong* question. (*Friends of Oroville v. City of Oroville* (2013) 219 Cal.App.4th 832, 842) [an EIR must answer the "relevant question" posed by threshold].) An EIR based on evidence that is clearly inaccurate or erroneous, such as an erroneous threshold of significance, does not constitute substantial evidence. Therefore, the vibration analysis for BIG is unsupported by substantial evidence. (See *Citizens' Com. to Save Our Village v. City of Claremont* (1995) 37 Cal.App.4th 1157, 1171.) O21-63

Employing the very FTA manual the Draft EIR relies on, the appropriate threshold of significance for vibration impacts should be meaningfully lower than the one the Draft EIR applies. The manual's instructions are explicit. Under the FTA methodology, the user must first identify the relevant land use categories.[155] For BIG, those categories are Category 2 (residential) and Category 3 (institutional, such as schools and churches).[156] The next step is to determine the frequency of vibration events, such as train pass-bys.[157] The Draft EIR anticipates 24 daily freight train pass-bys in 2028 and 35 in 2048. (DEIR at 5.12-38.) However, as the FTA manual makes clear, the actual number of freight train pass-bys is not used to determine the appropriate threshold. Instead, for freight rail cars, the manual directs the user to apply the "frequent events category" in Table 6-2, regardless of the precise number of daily trains.[158] This instruction is unambiguous.

Applying this "frequent events category" results in a substantially lower threshold than the one applied in the Draft EIR. For Category 2 (residential) land uses, the applicable limit is 72 VdB.[159] For Category 3 (institutional) land uses, the limit is 75 VdB.[160] Despite this, the Draft EIR incorrectly applies the FTA criteria for "infrequent events" based on its interpretation of the

[154] FTA Noise & Vibration Manual at 114.
[155] *Id.* at 123–24.
[156] *Id.* at 124.
[157] *Id.* at 125.
[158] *Id.* at 129.
[159] *Id.* at 126.
[160] *Ibid.*

anticipated number of trains, (DEIR at 5.12-38), ignoring that the FTA manual instructs it to apply the "frequent events" category in scenarios dealing with vibration impacts from freight trains. The Draft EIR further states that "BIG operations would result in significant impacts if vibration levels are substantial enough to . . . result in vibration levels that are commonly accepted as an annoyance to sensitive land uses per FTA guidelines Table 6-3 and 6-4." (*Ibid.*) The Draft EIR includes these FTA Tables 6-3 and 6-4 as Tables 5.12-3 and 5.12-4 in the Draft EIR. (*Ibid.*) Table 6-3 (Table 5.12-3 in the Draft EIR) is the relevant threshold table here.

Using its flawed assumptions—including an improperly low modeling speed of 50 mph instead of 70 mph—the Draft EIR concludes that the ground-borne vibration impact from trains during operation would be 73.44 VdB. (*Id.* at 5.12-133; *id.* App. 5.12 BIG-1 at 137.) While this number falls below the Draft EIR's incorrectly selected 75 VdB threshold for residential buildings, it exceeds the *correct* FTA threshold of 72 VdB for Category 2 residential uses, as shown in Table 6-3.

O21-63
cont'd

Table 5.12-3: Ground-Borne Vibration and Noise Impact for Affected Communities Land Use Category

Land Use Category	Ground-Borne Vibration Impact Levels (VdB re 1 micro inch/second)			Ground-Borne Noise Impact Levels (VdB re 20 µPa)		
	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]
Category 1: Buildings where vibration would interfere with interior operations	65 VdB[4]	65 VdB[4]	65 VdB[4]	N/A[4]	N/A[4]	N/A[4]
Category 2: Residences and buildings where people normally sleep	72 VdB	75 VdB	80 VdB	35 dBA	38 dBA	43 dBA
Category 3: Institutional land uses with primarily daytime use	75 VdB	78 VdB	83 VdB	40 dBA	43 dBA	48 dBA

Notes:
[1] "Frequent events" are defined as more than 70 vibration events of the same kind per day.
[2] "Occasional events" are defined as between 30 and 70 vibration events of the same kind per day.
[3] "Infrequent events" are defined as fewer than 30 vibration events of the same kind per day.
[4] This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research would require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the heating, ventilation, and air conditioning systems and stiffened floors.
dB = decibel; N/A = not applicable; VdB = vibration velocity level, decibels; µPa = micropascals

Sources: FTA. 2018. Transit Noise and Vibration Impact Assessment Manual.

(*Id.* at 5.12-5.)

Because the Draft EIR applies the wrong significance threshold, its conclusion of no significant vibration impact is unsupported by substantial evidence. (*Id.* at 5.12-134.) Therefore,

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the City must redo its analysis of BIG's vibration impacts and revise the mitigation discussion. The impacts of this significant vibration should therefore be discussed in more detail and should address the types of structures at the sensitive receptors near BIG and the rail lines that feed into BIG, particularly since BIG will border at least one disadvantaged unincorporated community (the Sylvan Avenue community) and a historic state route (Route 66), which likely contains historic structures vulnerable to vibration damage. O21-63 cont'd

C. The Draft EIR fails to consider any mitigation measures for the Project's vibration impacts.

The Draft EIR wrongly concludes that BIG would result in a "less than significant impact" to ambient vibration levels, and therefore that "[n]o mitigation [is] required." (*Ibid.*) Yet, for all of the above reasons, the Draft EIR's vibration analysis underestimated the Project's vibration impacts to the area. Thus, the City must identify and adopt mitigation measures to reduce these impacts. O21-64

A revised EIR must adopt specific, enforceable, effective, and feasible mitigation measures to address BIG's significant vibration impacts, including all of the following:

- Installation of ballast mats;
- Regular rail maintenance and wheel truing;
- Installation of slab track for lead lines and for all locomotive operations within the site footprint combined with the use of high-resilience fasteners; and
- Use of a physical barrier (see Sections VII.E.2, VII.F.1, and VII.G below for discussion of noise barriers).

D. The Draft EIR fails to adequately analyze the noise impacts from BIG.

1. The Draft EIR's noise analysis for BIG is unsupported by substantial evidence because it relies on the deeply flawed Trucks Analysis.

As discussed above in Section III, the Trucks Analysis suffers from numerous flaws that render its conclusions misleading and unsupported by substantial evidence. In particular, by relying on nationwide TMT figures, the Draft EIR manipulates the underlying calculations to create the false impression that the Project will reduce on-road truck trips to the Project area. In reality, tables buried in the back of Appendix 5.15 show that the BNSF BIG Railyard would increase on-road truck trips to the Project area and surrounding areas. The Draft EIR expressly acknowledges that the Trucks Analysis informs the noise analysis. (DEIR at 5.15-74.) Because the noise analysis is built on this erroneous foundation, the Trucks Analysis must be corrected and redone, and the noise analysis must then be revised using accurate data. O21-65

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2. The Draft EIR employs an improperly narrow scope when considering BIG's noise impacts.

The Draft EIR here improperly limits analysis of BIG's noise impacts to the BIG footprint and "nearby sensitive receptors." (*Id.* at 5.12-15.) This fails to satisfy CEQA by excluding impacts that will occur indirectly as a foreseeable consequence of the project, particularly for those communities at the Ports and along the Alameda corridor. (See *El Dorado Union High School Dist. v. City of Placerville* (1983) 144 Cal.App.3d 123, 130–132; *City of Hayward v. Bd. of Trustees of Cal. State Univ.* (2015) 242 Cal.App.4th 833, 859.)

As discussed above in Section V.C.2, without enforceable commitments from BNSF assuring the public that it will not increase its total regional processing capacity, it is only reasonable to conclude that BNSF may actually increase its throughput in the region. Therefore, because BIG may enable additional throughput at BNSF's existing San Bernardino, Hobart, and Commerce railyards, the Draft EIR must analyze the resulting noise impacts at these locations. Failing to evaluate these impacts renders the noise analysis incomplete and unsupported by substantial evidence. (See *El Dorado Union High School Dist.*, *supra*, 144 Cal.App.3d at pp. 130–132; *City of Hayward*, *supra*, 242 Cal.App.4th at p. 859.) O21-66

As discussed in Section III, the Draft EIR must analyze all environmental impacts—including noise impacts—to every region in California and beyond where heavy-duty diesel truck trips would increase as a result of the Project. At minimum, the EIR must evaluate impacts to the following locations, which the Draft EIR identifies as receiving substantial additional truck traffic by 2048:

- Central Valley: 14,750 truck trips/year
- Boron: 115,150 truck trips/year
- Arizona/Nevada: 24,600 truck trips/year
- Victorville: 49,150 truck trips/year
- Hobart/Commerce: 4,600 truck trips/year
- Inland Empire/San Bernardino: 92,100 truck trips/year
- Nationwide Destinations: 204,400 truck trips/year

(DEIR App. 5.15 BIG-1 at 142–144.)

3. The Draft EIR should not have evaluated impacts against a baseline of hypothetical increases in daily train trips that exponentially rises year over year without sharing the evidence in support.

O21-67

The Draft EIR problematically evaluates BIG's noise impacts against hypothetical increases in daily train trips that rise at a rate unsupported by substantial evidence. (See, e.g., DEIR App. 5.12 BIG-1 at 51.) Where existing conditions change or fluctuate over time and it is necessary, a lead agency "may define existing conditions by referencing historic conditions, or conditions expected when the project becomes operational, or both, that are supported with substantial evidence. In addition, a lead agency may also use baselines consisting of both
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existing conditions and projected future conditions **that are supported by reliable projections based on substantial evidence in the record**." (Cal. Code. Regs., tit. 14, § 15125, subd. (a)(1), emphasis added.)

The Draft EIR assumes, without explanation or justification, that train traffic will increase year over year even without building BIG, ultimately leading to a 47.27 percent increase in daily train trips to the 2048 baseline. (DEIR App. 5.12 BIG-1 at 51.) It bases these projections on evidence that is not in the record and therefore denies meaningful public review of its noise analysis and the underlying evidence. (See *ibid*.) The Draft EIR does nothing to show that these projections are "reliable," nor does it point to "substantial evidence in the record" to support it. (Cal. Code. Regs., tit. 14, § 15125, subd. (a)(1).) This violates CEQA and the Draft EIR must be redone and recirculated. O21-67 cont'd

4. The Draft EIR does not sufficiently connect BIG's noise and vibration impacts to the health consequences of significant noise.

CEQA requires that an EIR "(1) includes sufficient detail to enable those who did not participate in its preparation to understand and to consider meaningfully the issues the proposed project raises . . . and (2) makes a reasonable effort to substantively connect a project's . . . impacts to likely health consequences." (*Friant Ranch*, *supra*, 6 Cal.5th at p. 510.) An EIR is legally inadequate where it fails to correlate the project's increased environmental impacts with the resulting adverse impacts on human health. (*Id.* at p. 518.) Because the Draft EIR fails to perform a *Friant Ranch* health impacts analysis for the Project's noise and vibration impacts, it does not satisfy CEQA and must be redone and recirculated. O21-68

While the Draft EIR discusses annoyance and hearing loss as potential health impacts of noise and vibration generally, it stops there. It does not grapple with the extensive body of scientific evidence demonstrating that chronic noise and vibration exposure has far broader health implications. It also does not connect BIG's specific noise and vibration levels, duration, and affected populations to the health risks faced by the people who would be exposed, in violation of its *Friant Ranch* obligations.

As discussed above, large-scale studies show that long-term noise exposure increases the risk of high blood pressure, coronary heart disease, and heart attacks, as well as strokes, diabetes, dementia, and depression.[161] Noise pollution not only drives hearing loss, tinnitus, and hypersensitivity to sound, but it can also cause or exacerbate cardiovascular disease, type 2 diabetes, sleep disturbances, stress, mental health and cognition problems, including memory impairment and attention deficit disorders, childhood learning delays, and low birth weight.[162] Chronic noise exposure contributes to about 48,000 new cases of heart disease in Europe each

[161] Bianca Bosker, *supra* note 141; Minho Kim, *supra* note 141; Taeho Park, *supra* note 141; Willy Passchier-Vermeer, *supra* note 141.
[162] Stephanie Dutchen, *supra* note 140.
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year and disrupts the sleep of 6.5 million people.[163] For children, noise pollution interferes with behavioral and cognitive development and speech and language development, and it decreases concentration, impairs memory retention, and increases blood pressure.[164] For adolescents, it can interfere with mental health.[165]

O21-68 cont'd

Yet the Draft EIR does not acknowledge, analyze, or correlate these well-established health consequences with the noise and vibration impacts generated by BIG. This omission violates CEQA's *Friant Ranch* requirement for an EIR to include a substantive, evidence-based connection between environmental impacts and human health outcomes. The noise and vibration analyses must therefore be revised to include this information and recirculated for public review.

5. The Draft EIR fails to explain why traffic noise without BIG is projected to exceed noise standards in 2033.

Without explaining why, the noise model anticipates that by 2033, even without BIG, the traffic noise will exceed the 45 dBA interior noise level standard. (DEIR App. 5.12 BIG-1 at 123.) The Draft EIR must explain its reasoning for why a model without BIG would exceed noise thresholds and it fails to do so. (See *Friant Ranch*, *supra*, 6 Cal.5th at p. 523 ["The general rule is that an EIR is required to provide the information needed to alert the public and the decision makers of the significant problems a project would create . . . ."]; *Natural Resources Defense Council, Inc. v City of Los Angeles* (2023) 98 Cal.App.5th 1176, 1210.)

O21-69

E. The Draft EIR's measures for mitigating BIG's noise impacts are vague, insufficient, unenforceable, deferred, and ineffective.

The Draft EIR must include mitigation measures that minimize BIG's significant noise impacts. (Pub. Resources Code, § 21002.1.) The mitigation measures included in the Draft EIR violate CEQA because they defer application, are unenforceable, and contain other problematic elements that render them ineffective or improper.

1. MM BIG NOI-1 (Construction Noise Logistics Plan)

O21-70

MM BIG NOI-1 requires "the implementing entity" to "demonstrate to the satisfaction of the City of Barstow Director of Public Works or City Engineer that BIG includes a Nighttime Construction Noise Logistics Plan." (DEIR at 5.12-128.) This "Construction Noise Logistics Plan" is essentially an informational document for the City. It does not require the Project to take any actions to mitigate nighttime construction noise. In the Construction Noise Logistics Plan, the City must only identify where nighttime construction will take place, the equipment to be used, and any noise reduction measures in place to minimize nighttime construction noise

[163] *Id.*
[164] Angelina Angelo, *supra* note 140; Kim T. Ferguson, *supra* note 144; Michelle Raess, *supra* note 144.
[165] Jongseok Lim, *supra note* 145.
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"where feasible." (*Ibid.*) MM BIG NOI-1 then lists noise reduction measures that this plan "may" include. (*Ibid.*) As with the General Plan mitigation measures, the Construction Noise Logistics Plan fails to satisfy CEQA because it is unenforceable, ineffective, and insufficient as a mitigation measure for BIG's noise impacts.

A noise mitigation measure must have concrete requirements. (*Sierra Watch*, *supra*, 69 Cal.App.5th at p. 110 [upholding a noise mitigation measure that contained concrete requirements but rejecting a vague noise measure that did not identify specific mitigation actions or performance standards].) Where a mitigation measure fails to set out standards that the entity commits to meet, the measure fails to satisfy CEQA. (*Friant Ranch*, *supra*, 6 Cal.5th at pp. 524–26 [finding mitigation measures sufficient where they specified the standards under which they would be satisfied].) Without specific criteria for the agency to apply in determining that an impact will be mitigated, the measure is insufficient and fails to satisfy CEQA. (See *ibid.*; see also *Citizens for a Sustainable Treasure Island*, *supra*, 227 Cal.App.4th at p. 1059; *Friends of Oroville*, *supra*, 219 Cal.App.4th at p. 838; *North Coast Rivers Alliance v. Marin Municipal Water Dist. Bd. of Directors* (2013) 216 Cal.App.4th 614, 630.) Finally, CEQA requires an EIR to commit to mitigation measures and not inappropriately defer them to a later date. (Cal. Code Regs., tit. 14, § 15126.4, subd. (a)(1)(B).) O21-70 cont'd

The Draft EIR improperly defers mitigation of construction noise under MM BIG NOI-1 by refusing to commit to "precise details regarding the proposed schedule, duration/hours, equipment type/quantity, and specific location of construction for nighttime construction activities." (DEIR at 5.12-79.) The Draft EIR fails to provide an explanation for why it cannot commit to this. Even if the Draft EIR does not commit to what it will be, it should at least commit to what it will not be, e.g., it can set limits on when nighttime construction might be or the type of equipment used. The EIR violates CEQA for failing to provide an explanation and for improperly deferring mitigation to the future.

MM BIG NOI-1 is also insufficient because it does not articulate the specific criteria the City will use to determine whether the applicant's actions comply with or fall short of the measure's requirements. (See *Friant Ranch*, *supra*, 6 Cal.5th at pp. 525–26; *Citizens for a Sustainable Treasure Island*, *supra*, 227 Cal.App.4th at p. 1059; see also *Friends of Oroville*, *supra*, 219 Cal.App.4th at p. 838; *North Coast Rivers Alliance*, *supra*, 216 Cal.App.4th at p. 630.) The only mandatory component of MM BIG NOI-1 is that the implementing entity "shall demonstrate to the satisfaction of the City of Barstow Director of Public Works or City Engineer that BIG includes a Nighttime Construction Noise Logistics Plan." (DEIR at 5.12-128.) The measures provide no enforceable direction regarding what noise-reduction actions will actually occur. Instead, it offers a menu of optional measures that "may" be implemented "where feasible," without defining feasibility, identifying the criteria the City will use to assess feasibility, or specifying the level of noise reduction required. Absent these essential elements, MM BIG NOI-1 lacks the specificity and enforceability CEQA requires and is therefore an improper mitigation measure.

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2. MM BIG NOI-2 (Noise Barriers)

MM BIG NOI-2 requires BIG to construct three noise barriers to mitigate BIG's noise impacts. These noise barriers are:

1. BAR-2: a 10-foot-high, approximately 700-foot-long absorptive noise barrier surrounding the BESS equipment in the northeastern portion of the solar farm (*Id.* at 5.12-129);
2. BAR-3: a 10-foot-high, approximately, 470-foot-long absorptive noise barrier surrounding the substation in the northeastern portion of the solar farm (*ibid.*); and
3. BAR-5: a 14-foot-high, approximately 150-foot-long absorptive noise barrier along the eastern and southern boundary of the emergency generators in the northeastern portion of the intermodal facility. (*Ibid.*)

The mitigation measure requires that the barriers be constructed "with a solid material with no gaps in the face of the wall or at the base" and that they be "designed to preclude structural failure due to such factors as winds, shear, shallow soil failure, earthquakes, and erosion." (*Ibid.*) Constructing the noise barriers will require a building permit, so review of whether the ultimately proposed noise barriers meet the above requirements will be in the hands of the City Building Official to review and approve all proposed designs prior to issuing a building permit. (*Ibid.*) Nonetheless, the Draft EIR anticipates that even with the installation of these noise barriers, the noise impact will be significant and unavoidable. (*Ibid.*)

O21-70 cont'd

The standards for the noise barriers in MM BIG NOI-2 lack the specificity of the standards to be applied for a temporary noise barrier in a different part of the Draft EIR, where the measure sets a standard that any barriers be constructed with a solid material "that has a density of at least 4 pounds per square foot with no gaps from the ground to the top of the barrier." (*Id.* at 5.12-67.) Setting a density standard is important because a material with a higher density is less likely to vibrate when in contact with sound waves and thus will transmit less noise through the substrate.[166] MM BIG NOI-2 could be improved if it were to further specify the density of materials to be used, such as the standard 4 pounds per square foot, or if it were to require the modeled noise barrier to result in a specified transmission loss. Likewise, the type of material used can have a meaningful impact on the effectiveness of a sound barrier. "Acoustical materials" is a broad term and should specify the anticipated noise dampening effect of the barrier. This mitigation measure should specify the acceptable options or the parameters for choosing acceptable options. It should also commit BNSF to maintaining the noise barriers—ensuring no gaps or damage occurs that might impact the barriers' efficacy. By failing to provide these details, the Draft EIR fails to provide the necessary facts or information to inform the public.

[166] Technicon Acoustics, *Mass Law & Sound Transmission Loss*, Technicon Acoustics (Aug. 10, 2023), https://www.techniconacoustics.com/blog/mass-law-sound-transmission-loss/.

BAR-5 is of particular concern because the Draft EIR appears to omit any substantive analysis of it. On at least six occasions, the Draft EIR states that "Barrier 5 (BAR-5) is . . . excluded from this analysis" because it would reduce noise from the emergency generators rather than BIG's general operations. (*Id.* at 5.12-84, 89, 94, 99, 104, 109.) Even though BAR-5 was incorporated as mitigation, the Draft EIR contains no analysis of its design, effectiveness, or contribution to overall noise reduction. This omission violates CEQA because it deprives the public the "opportunity to test, assess, and evaluate the data and make an informed judgment as to the validity of the conclusions to be drawn therefrom." (*Save our Peninsula Com. v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 131.) The absence of any description or discussion also renders the treatment of BAR-5 impermissibly vague. O21-70 cont'd

Further, the Draft EIR fails to address how, even with the two proposed noise barriers around the solar farm (BAR-2 and BAR-3), the interior noise levels at all affected receptors would still exceed the 45 dBA Ldn standard under windows-open conditions. The Draft EIR acknowledges that the maximum interior noise reduction achieved by BAR-2 and BAR-3 under Opening Year 2028 With BIG conditions would only be approximately 3.8 dBA—an attenuation level considered barely perceptible. (DEIR at 5.12-99.) The Draft EIR provides no modeling or technical analysis to substantiate these conclusions, in violation of CEQA's requirement for transparent, data-supported evaluation. It also fails to assess whether the barriers' placement is acoustically effective or whether their height is sufficient to yield any meaningful reduction in noise.

In sum, MM BIG NOI-2 is so vague that it is impossible for the public to gauge its effectiveness. This violates CEQA and the analysis must be redone and recirculated. (*Sierra Watch*, *supra*, 69 Cal.App.5th at p. 110.)

F. The Draft EIR's rejection of potential mitigation measures for BIG's noise impacts lacks substantial evidence, in violation of CEQA.

The Draft EIR considers and dismisses a number of mitigation measures for BIG's noise impacts using impermissibly bare conclusions and opinions that lack support from facts and analysis. But CEQA requires an EIR's analysis to go beyond bare conclusions and opinions and to support opinions and conclusions with facts and analysis. (*Friant Ranch*, *supra*, 6 Cal.5th at p. 522; *Natural Resources Defense Council, Inc. v. City of Los Angeles*, *supra*, 98 Cal.App.5th at p. 1210; *King & Gardiner Farms, LLC v. County of Kern* (2020) 45 Cal.App.5th 814, 869.) O21-71

1. Noise barriers

The Draft EIR considers a variety of noise barriers to mitigate BIG's operational noise (several of these discussed noise barriers are incorporated as part of MM BIG NOI-2), but it fails to explain how it chose to analyze the potential noise barriers it did and fails to support its decision to reject some of the considered noise barriers with the underlying facts and analysis.

To start, in conducting this analysis, the Draft EIR states that it modeled noise barrier heights and effectiveness using a tool called "SoundPLAN," but does not release the modeling

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results or the underlying inputs for that modeling tool. It simply states that "[t]he modeling results indicate the increased barrier heights would not achieve a large enough noise level reduction to bring interior noise levels below standards for the windows open condition, and thus, a potentially significant impact would occur." (DEIR App. 5.12 BIG-1 at 108.) This bare conclusion violates CEQA both because the "modeling results" it cites are not provided and because it fails to describe or discuss what constitute the mentioned "increased barrier heights." Without this kind of necessary support, the discussion of noise barrier modeling violates CEQA.

For example, the Draft EIR considers—and summarily rejects—two of the five analyzed noise barriers, BAR-1 and BAR-4. In rejecting them, the Draft EIR claimed that these barriers "were determined to be financially infeasible and therefore, are excluded from the mitigated noise analysis." (*Id.* at 5.12-84.) The Draft EIR provides no data, cost estimates, feasibility criteria, or supporting analysis for this conclusion, in violation of CEQA's requirement for reasoned, evidence-based decision-making.

O21-71 cont'd

The Draft EIR should also justify why it modeled BAR-1 at an unusually tall 20 feet—at least twice the height of the other modeled barriers, which range from 8 to 10 feet—and why it failed to evaluate a BAR-1 of comparable height to the others. This omission is particularly problematic because BAR-1's proposed location along Lenwood Road is closest to the noise source (BIG) and would offer the greatest protection to the sensitive receptors along the southeastern project boundary. (*Id.* at 5.12-86.) Other railyards demonstrate that barriers between 8 and 14 feet still provide meaningful reductions in lower-level noise (like freight car movement and coupling) at lower cost ($570–$880 per foot) than taller walls.[167] Indeed, the cost of BAR-1 is extremely high, likely due to its abnormally tall height.[168] The Draft EIR must justify why it selected a 20-foot configuration for BAR-1, rendering it prohibitively expensive, while declining to analyze more typical, lower-cost barrier heights that other jurisdictions have found effective.

The Draft EIR's analysis is likewise inadequate regarding constructing noise barriers at residences to mitigate noise. It dismisses this possibility outright because "BIG cannot willfully construct a noise barrier on a private property" and therefore concludes that "there are no feasible interior noise abatement measures for a windows open condition." (*Id.* at 5.12-104.) This conclusion lacks support. The Draft EIR offers no explanation as to the basis for this conclusion

[167] City of Albuquerque Council Services & NMDOT Rail Bureau, *San Jose Neighborhood Rail Yard Noise and Vibration Assessment* 1 (June 2022), https://www.cabq.gov/council/documents/sanjoserailyardnoiseassessment_r6_reduced.pdf (stating that a perimeter sound wall 17–22 feet high would substantially reduce locomotive and horn noise at the railyard but would be costly (~$2,500/linear foot) and potentially incompatible with residential scale. Walls of 8–12 feet could still provide significant reduction for lower-level noise (like freight car movement and coupling) at lower cost ($570–$880/ft).).

[168] *Id.* at 12 (showing the cost of a 20-foot concrete wall is $2,500/foot, much higher than its estimated cost of $570/foot for an 8-foot wall).

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and fails to address whether the Project could actually obtain permission from property owners to construct the requisite barriers. Again, this violates CEQA. O21-71 cont'd

2. Nighttime construction

The Draft EIR fails to explain why nighttime construction is necessary and, if it is, when it might be necessary. Of the thirteen areas of nighttime construction noise considered, six of them will exceed the nighttime noise threshold. (*Id.* App. 5.12 BIG-1 at 82.) The Draft EIR determines that even with implementation of its sole, unenforceable mitigation measure for nighttime construction noise, discussed above in Section VII.E.1, this construction "would exceed nighttime noise standards at nearby sensitive receptors." (*Id.* at 5.12-136.) O21-72

In support of this conclusion, the Draft EIR simply claims that "nighttime construction would be required throughout the BIG footprint during certain phases or periods to accommodate key activities required to maintain progress on BIG construction and rail operations (e.g., concrete foundation pouring for the transload warehouse center, east and west lead track work adjacent to the mainline tracks where the lead tracks would tie into the mainline tracks, etc.)." (*Id.* at 5.12-30.) Language like "certain phases" and "key activities" and the use of a general extender like "etc." is unreasonably vague. This conclusion is unsupported by facts and analysis, and therefore denies the public the opportunity to engage with the Project and its impacts, in violation of CEQA.

3. Rubberized asphalt

The Draft EIR states that by 2033 one roadway segment would experience noise levels that exceed the applicable land use noise standards at the nearest sensitive receptors and thus the BIG roadway traffic noise levels would result in a "potentially significant impact." (*Id.* at 5.12-116.) The Draft EIR goes on to state that using rubberized asphalt surfaces to reduce traffic noise for that less-than-a-mile segment of Main Street is infeasible on two grounds, and on each of the enumerated grounds the Draft EIR fails to provide substantial evidence in support of its conclusion that repaving this road is infeasible. O21-73

First, the Draft EIR claims the use of rubberized asphalt is practically infeasible because the City, and not the applicant, maintains the roadway. (*Id.* at 5.12-118.) The Draft EIR continues that even if it did, the differing maintenance schedule for rubberized asphalt versus regular asphalt makes maintenance too difficult for the City to coordinate. (*Ibid.*) After drawing this conclusion, however, the Draft EIR fails to consider the possibility that the applicant could contribute funding to repave and maintain this roadway. This is a practical and entirely achievable option that the Draft EIR improperly ignores. On at least two occasions, private projects have funded the resurfacing of problematic streets with rubberized asphalt to mitigate noise impacts from projects. In the EIR for a project expanding a sports center, one mitigation measure required the project applicant to "contribute fair-share funding" to repave streets with

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rubberized asphalt to reduce road noise.[169] In another EIR, a project applicant was likewise required to provide funds to the relevant local governing entity to repave the roadways impacted by the project.[170] The Draft EIR provides no real reason for why the Applicant cannot do the same here. If maintenance is an issue, then BNSF could also agree to provide ongoing funding to cover the maintenance needs of the new roadway surface.

Second, the Draft EIR states that noise impacts cannot be mitigated through rubberized asphalt because it is economically infeasible. According to the Draft EIR, the cost of repaving the problematic road length is not "roughly proportional" to the anticipated benefit of reducing a "barely perceptible noise level increase" that the Draft EIR has nonetheless anticipated to be a significant impact. (DEIR at 5.12-118.) Despite citing economic infeasibility as a reason to discount this solution, the Draft EIR does not state what the cost would be and does not estimate by how much the rubberized asphalt would reduce the noise level. (*County of San Diego v. Grossmont-Cuyamaca Community College Dist.* (2006) 141 Cal.App.4th 86, 108 ["Without evidence of the amount of any such cost, we must conclude there is no substantial evidence to support the District's claim that mitigation of the adverse project-related off-campus traffic impacts is economically infeasible."].) This blatantly violates CEQA. The analysis must thus be redone and the EIR recirculated. O21-73 cont'd

4. Construction of the 33kV transmission line

The Draft EIR is similarly opaque when it comes to considering and dismissing various noise barrier mitigation measures for BIG's construction phase. The Draft EIR states that temporary noise barriers during the construction of the 33kV transmission line are infeasible, and that a significant and unavoidable impact would occur during these activities. It states without support that "the only feasible mitigation to reduce construction noise levels would be to construct a temporary noise barrier to block the line of sight from the construction area to the nearest residences." (DEIR at 5.12-79.) After calling this "feasible mitigation," the Draft EIR states later in the same paragraph that such a temporary noise barrier "would be considered infeasible mitigation" and declines to incorporate it as mitigation in the project. (*Ibid.*) O21-74

Internal inconsistencies and contradictions like this are "fundamentally inadequate and misleading" and violate CEQA. (*San Joaquin Raptor Rescue Ctr.*, *supra*, 149 Cal.App.4th at p. 656.) This analysis must be clarified and recirculated.

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[169] City of Anaheim, *Honda Center Enhancement Project Draft EIR*, at 1-13, (Jan. 6, 2012), https://www.anaheim.net/DocumentCenter/View/3037/Executive-Summary.
[170] City of Newport Beach, *Newport Banning Ranch Draft EIR*, at 4.12-22, (Sep. 9, 2011), https://www.newportbeachca.gov/pln/CEQA_ARCHIVE/Newport%20Banning%20Ranch%20DEIR/Newport%20Banning%20Ranch_DEIR/Newport%20Banning%20Ranch_DEIR_September%202011/4.12%20Noise.pdf.
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G. The Draft EIR fails to include all feasible mitigation measures for BIG's noise impacts.

Beyond the deficiencies in the mitigation measures and analysis identified above, the Draft EIR misses easy wins to mitigate the Project's noise impacts. CEQA requires the City to adopt all feasible mitigation measures that would directly reduce BIG's noise impacts.

1. Traffic noise mitigation measures

To start, the Draft EIR fails to evaluate or adopt basic mitigation measures for BIG and the General Plan to address on-road traffic noise. The Draft EIR should have included those measures found in the Federal Highway Administration's traffic management measures, including time-use restrictions for certain vehicle types, modified speed limits, and exclusive lane designations. The Draft EIR also fails to consider acquisition of real property to serve as a buffer zone. (75 Fed.Reg. 39838 (July 13, 2010).) As noted above, the Draft EIR fails to consider seeking property owner consent to construct noise abatement measures such as noise barriers on private property, even though this is a California Department of Transportation Traffic Noise Analysis Protocol.[171] The EIRs for BIG and the General Plan Update should incorporate this feasible mitigation measure for all the properties impacted by BIG. O21-75

Similarly, the Draft EIR fails to consider the noise mitigation measures suggested in the FTA manual on noise and vibration, which advises the agency to first consider source mitigation measures such as:[172]

- Stringent vehicle and noise specifications with effective enforcement measures;
- Operational restrictions like speed reduction, reduction of nighttime operations, and reduction of warning horns and signals;
- Resilient or damped wheels;
- Vehicle skirts;
- Quiet fan design and fan placement;
- Preventative maintenance on rail systems;
- Turn radii greater than 1000 feet;
- Rail lubrication on sharp curves;
- Movable-point frogs;
- Engine compartment treatments; and
- Quiet zones.

[171] California Department of Transportation, *Traffic Noise Analysis Protocol*, at 3-11, (Apr. 2020), https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/traffic-noise-protocol-april-2020-a11y.pdf?utm.
[172] FTA Noise & Vibration Manual at 97–104.
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The FTA manual provides that if these source treatments are inadequate or infeasible, then the lead agency should consider path treatments such as:[173]

- Noise barriers close to vehicles;
- Noise barriers at row line;
- Alteration of horizontal and vertical alignments;
- Wayside horns;
- Acquisition of buffer zones;
- Ballast on at-grade guideway;
- Ballast on aerial guideway; and
- Vegetation and trees.

2. Intermodal facility noise mitigation measures

O21-75 cont'd

The Draft EIR recognizes that BIG will draw trucks to the Project site. (DEIR at 5.12-34.) Accordingly, it must mitigate the noise impacts from these trucks. The Draft EIR should adopt the mitigation measures in the Attorney General's guidance on warehouse projects, which include:

- Require the Applicant to orient and fully shield loading docks away from receptors with a doors-closed operations plan;
- Prohibit nighttime loading/queuing within 600 feet of residences;
- Require the Applicant to implement truck-route restrictions that avoid the nearest homes;
- Require the Applicant to use broadband (quiet) backup alarms;
- Impose a strict ≤2-minute idling rule with active enforcement;
- Require on-site queuing so trucks do not stage on public streets;
- Pave access roads with low-noise asphalt and post reduced speed signage nearby;
- Verify mufflers and acoustic shrouds are equipped on stationary equipment and surround any combustion equipment with temporary noise enclosures during construction; and
- Conduct post-occupancy noise monitoring.

[173] *Id.* at 104–08.

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In addition, as discussed above in Sections II.D, IV.C, and V.E, the use of electric trucks is a feasible mitigation for the Project-related noise impacts, and therefore should be incorporated into the EIR. Electric trucks are much quieter than diesel trucks.[174] Some studies have found noise reductions of up to 10 dBA.[175] The Project will generate a tremendous number of daily and annual truck trips. If those trips were not made by diesel trucks, but were instead made by electric trucks, the Project's air pollution, GHG emissions, and noise impacts would be significantly reduced. The City must therefore require the Applicant to mandate in its leases with subsequent lessees of the proposed warehouses that any commercial entity that utilizes such sites purchase and/or use electric vehicles, including heavy-duty electric trucks. (Pub. Resources Code, §§ 21081, 21100; Cal. Code Regs, tit. 14, § 15021, subd. (a).) Many other, similarly-situated warehouse projects across California have committed to adopting zero-emission truck fleets as quickly as is feasible, including, for instance, the Beaumont Pointe Project in Beaumont, California, which is approximately 35 miles of the proposed Project, among others.[176] Requiring a similar mitigation measure here, therefore, is feasible. (*Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 600.)

O21-75 cont'd

3. Railyard noise mitigation measures

O21-76

Finally, the Draft EIR should require the use of zero-emission locomotives, railyard equipment, and construction equipment to reduce the noise and vibration impacts at BIG and

[174] Marie Agnès Pallas et al., *Noise emission assessment of a hybrid electric mid-size truck*, Applied Acoustics, Feb. 2014, at 280–90, https://doi.org/10.1016/j.apacoust.2013.08.012; Giles Parkinson, *Sounds of silence: How quiet are heavy duty electric trucks?*, The Driven (Sep. 26, 2022), https://thedriven.io/2022/09/26/sounds-of-silence-how-quiet-are-heavy-duty-electric-trucks/.

[175] David Ibarra et al., *Noise emission from alternative fuel vehicles: Study case*, Applied Acoustics, Mar. 2017, at 58–65, https://doi.org/10.1016/j.apacoust.2016.11.010.

[176] City of Beaumont, *Beaumont Pointe Specific Plan: Final Environmental Impact Report* 2-24 (Nov. 16, 2023), https://lafco.org/wp-content/uploads/documents/beaumont-pointe/_BPSP%20Final%20EIR_2023_11-16.pdf (referring mitigation measures B-41 and B-42 therein and stating that they require that "all heavy-duty vehicles engaged in drayage to or from the project site to be zero-emission beginning in 2030" and that "tenants to use zero-emission light- and medium-duty vehicles as part of business operations.").

long the rail corridors impacted by the Project. Such technologies produce "significantly less noise and vibration."[177]

O21-76 cont'd

VIII. THE DRAFT EIR FAILS TO ADEQUATELY ANALYZE OR MITIGATE FORESEEABLE GROWTH-INDUCING IMPACTS FROM THE BIG PROJECT.

CEQA requires that an EIR discuss how a project could induce growth where it is reasonably foreseeable, which could include fostering economic or population growth, requiring construction of new service facilities, or encouraging activities that cause significant environmental effects. (Cal. Code Regs., tit. 14, §§ 15126, subd. (d), 15126.2, subd. (e), 15064, subd. (d); see also *Napa Citizens for Honest Government v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 368.) These impacts must be analyzed even if the extent of the growth is difficult to calculate. (*Napa Citizens for Honest Government*, 91 Cal.App.4th at p. 368.) Where "construction of the project [cannot be] easily undone, and [where] achievement of [the project's] purpose would almost certainly have significant environmental impacts, the project should not go forward until [growth-inducing] impacts [are] evaluated in the manner prescribed by CEQA." (*Ibid.*)

O21-77

The Draft EIR inappropriately focuses its growth-inducing impacts analysis on economic development, public services, and local land use changes. (DEIR at 7-32–34.) The Project is not akin to a housing or public service project where the impacts can be naturally confined to one area; the project here contemplates an expansion along a national freight rail line and is explicitly intended to expand the ability of the goods movement industry to move more cargo to and from the Ports of Los Angeles and Long Beach. As such, CEQA requires that the EIR discuss the reasonably foreseeable growth-inducing impacts in nearby regions such as Kern County.

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[177] Sustainable Procurement Platform, ICLEI – Local Governments for Sustainability, *Big Buyers Initiative Factsheet for Citizens*, https://sustainable-procurement.org/fileadmin/user_upload/Big_Buyers_Initiative/ZemCons/Big-Buyers-factsheet-citizens.pdf ("Zero emission equipment produces significantly less noise and vibration, which reduces the impact on workers' health and reduces nuisance to those living or working nearby. Reduced noise may allow for extended hours of construction work, leading to overall reduced project time."); Wabtec Corp., *Union Pacific Railroad Makes Largest Investment in Wabtec's FLXdrive Battery-Electric Locomotive* (Jan. 28, 2022), www.wabteccorp.com/newsroom/press-releases/union-pacific-railroad-makes-largest-investment-in-wabtec-s-flxdrive-battery-electric-locomotive ("Battery power is an ideal solution to reduce the environmental impact and costs of yard operations. Using the FLXdrive in the rail yard can significantly improve local air quality, as well as reduce noise by up to 70 percent for neighboring communities."); Clean Transp. Program, Cal. Energy Comm'n, *Port of Long Beach Zero Emissions Terminal Equipment Transition Project*, at 54 (Apr. 2024), https://www.energy.ca.gov/sites/default/files/2024-04/CEC-600-2024-042.pdf ("The eRTG cranes are significant improvements for operators and the environment, who immediately noticed the lack of diesel exhaust and noise in their cabs."). 102

Specifically, there is evidence that the Project would facilitate an inland port in Shafter, California, as the Project is located between the Ports of Los Angeles and Long Beach and Shafter along the BNSF rail line. Both Ports have signed memorandums of understanding with the City of Shafter and the Wonderful Company to advance the inland port project.[178] The Port of Long Beach has stated that the container depot and inland rail project would "serve as a hub for imports and exports arrive through or destined to" the Port. The Port's draft agreement states that the parties agree to "[w]ork jointly to collaborate with other supply chain stakeholders to advance the purpose of this MOU."[179] The Port of Los Angeles Memorandum of Agreement contains substantially similar language based on news reporting.[180]

O21-77 cont'd

For the EIR to operate as an informational document, it should include a discussion of how the project may impact cargo volumes in Shafter and other AB 617 communities that are also along BNSF rail line. The City should properly analyze the ripple effect this Project would have on freight cargo movement throughout the region beyond alleged job creation. Failure to do so is a violation of CEQA.

IX. THE CITY DENIED THE PUBLIC THE OPPORTUNITY FOR MEANINGFUL ENGAGEMENT ON THE GENERAL PLAN AND BIG PROJECT DRAFT EIR.

If approved, Barstow's proposed Project would be the largest railyard in the country, reaching almost 5,000 acres. (DEIR at 1-4.) It bears repeating that the proposed BIG Project would attract over 100,000 trucks per year by 2048, meaning one truck every three minutes, emitting over 300 tons of NOx per year operating nonstop. (*Id.* at 3-53.) As designed, this project includes no plans for electric locomotives, despite being designed with the overarching goal to "streamline moving containerized goods from the [Ports] . . . significantly reducing truck traffic and associated air emissions." (*Id.* at 2-1.)

O21-78

CEQA is designed to ensure informed decision-making through meaningful public engagement, providing communities with sufficient information to provide input and feedback on a proposed project. (*Laurel Heights*, *supra*, 47 Cal.3d at p. 392.) The Draft EIR fails to meet this requirement by providing inadequate public process for communities that will feel the wide range of impacts from the General Plan and BIG, such as but not limited to air quality, noise, vibrational, traffic, and safety hazard impacts.

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[178] Port of Los Angeles, *Port of Los Angeles Signs Agreement to Expand Exports through Central Valley* (June 26, 2025), https://portoflosangeles.org/references/2025-news-releases/news_062625_wonderful_moa; Port of Long Beach, Harbor Commission, *Meeting Minutes* 10 (Feb. 24, 2025), https://polb.granicus.com/MediaPlayer.php?view_id=77&clip_id=7786&meta_id=587453.
[179] Port of Long Beach, *Memorandum of Understanding* 3 (Feb. 24, 2025), https://polb.legistar.com/gateway.aspx?M=F&ID=1585d4f3-229f-4120-bf39-6a3bb419f5de.pdf.
[180] Port of Los Angeles, *supra* note 178.
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The complexity, technicality, and sheer length of the environmental documents—coupled with the fact that the Draft EIR combined its analysis of the General Plan with that of the BIG Project—demands that even more care be taken in providing a robust public process. CEQA demands more. Yet, the Draft EIR was published with the least amount of time required under CEQA, overlapping with several national holidays during an unprecedented government shutdown that left communities throughout the country scrambling to compensate for paused government assistance such as delayed or paused Supplemental Nutrition Assistance Program benefits. Although community groups timely applied for an extension of the deadline to comment, the City granted the one-week extension on the evening of Tuesday, December 30, 2025, after almost all of the federal holidays had passed and with less than one week left to the original deadline. Fast-tracking the environmental review process to advance an unprecedented rail expansion project that will change the face of not only Barstow, but California, makes it difficult, if not impossible, for the public to meaningfully evaluate potentially significant impacts in the environmental review documents for the General Plan and BIG.

The Draft EIR further limits meaningful public review and engagement by spreading key information across many chapters and hidden appendices and withholding critical public health analyses. Vital environmental review details such as growth-inducing impacts, traffic congestion, emergency preparedness and worker/community safety, project-level mitigation measures, and cumulative impacts, are analyzed in isolation from larger environmental and public impacts within San Bernardino County, making it challenging for the public to truly understand the significance and provide meaningful input on the General Plan and BIG Project.

O21-78 cont'd

In addition, the Draft EIR was only published in English, which denies monolingual Spanish speakers equal access to information that affects their lives and community. To make matters worse, the City of Barstow did not schedule a formal public hearing to detail findings in the Draft EIR and receive comments from the community. This decision effectively denies Barstow residents the opportunity to provide verbal public comments or public discussion on the Draft EIR.

These procedural deficiencies are particularly consequential in an environmental justice context. CEQA requires public agencies to actively facilitate participation with communities, especially environmental justice communities experiencing extreme pollution burdens. As is detailed more below, the Draft EIR does not show that sufficient outreach efforts were made to surrounding AB 617 communities throughout San Bernardino County—communities on the frontlines of BIG's footprint.

The Draft EIR lacks sufficient input and feedback from communities that will be hit hardest by BIG's direct and indirect impacts. Without meaningful public review, the Draft EIR cannot be responsive to the unique community needs of San Bernardino County residents, who are being asked to host an unprecedented rail expansion project, new warehouse facilities, and a flurry of heavy-duty truck traffic. At the very least, to ensure a meaningful public process, the Draft EIR must be revised, translated into Spanish, and recirculated to all Barstow residents and neighboring communities to solicit their comments on the General Plan and the Project's

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significant and unavoidable impacts. The City of Barstow should provide a subsequent comment period of at least 90 days (three months) for impacted residents to review and provide comments. O21-78 cont'd

X. THE DRAFT EIR FAILS TO SUFFICIENTLY ANALYZE OR MITIGATE CUMULATIVE IMPACTS FROM THE BIG PROJECT.

Under CEQA, the City must analyze a project's cumulative impacts together with the effects of past, present, and reasonably foreseeable future projects. (Cal. Code Regs., tit. 14, § 15130.) These cumulative effects expressly include the project's near-term contributions that may undermine long-term environmental goals. (Pub. Resources Code, § 21083.) A cumulative impact is potentially significant whenever it is "cumulatively considerable," even if the project's direct, individual effects appear limited. (*Ibid.*)

CEQA's regulatory framework also establishes clear requirements for how cumulative impacts must be analyzed. The discussion of cumulative impacts must meaningfully address the nature of the impacts, their severity, and their likelihood of occurring. (Cal. Code Regs., tit. 14, § 15130, subd. (b).) An EIR may conduct this analysis by identifying a list of relevant projects or by relying on a summary of projections contained in an adopted plan or related planning document. (*Ibid.*) Even when a lead agency concludes that cumulative impacts are less than significant, it must still provide a reasoned explanation for that conclusion within the environmental document. (*Sierra Club v. Gilroy City Council* (1990) 222 Cal.App.3d 30, 46–47, disapproved of on other grounds by *Western States Petroleum Assn. v. Superior Court* (1995) 9 Cal.4th 559.) O21-79

An EIR is inadequate if it fails to consider how a project's impacts may interact with existing baseline conditions to create or exacerbate significant cumulative effects. Even relatively small incremental contributions can be significant when added to an already serious environmental problem. For example, modest increases in ozone precursor emissions may be cumulatively considerable "in light of the serious nature of the ozone problem in this air basin." (*Kings County Farm Bur. v. City of Hanford* (1990) 221 Cal.App.3d 692, 718.)

A. The Draft EIR analyzes an unreasonably narrow cumulative project list, obscuring cumulative burdens on surrounding communities.

The Draft EIR's cumulative analysis for the BIG Project is unreasonably constrained and fails to comply with CEQA's requirements to evaluate the cumulative effects of reasonably foreseeable project development. Instead of identifying all relevant cumulative projects, the Draft EIR limits its analysis to only San Bernardino County projects with "formal applications." (DEIR at 6-3.) This artificially narrow scope excludes foreseeable growth and undermines CEQA's core purpose: to ensure that agencies meaningfully assess how a project contributes to broader environmental burdens. O21-80

Critically, the Draft EIR does not analyze the scale of new housing planned in the region or how that growth—combined with the Project's emissions and land use changes—would affect surrounding communities. Without an accurate cumulative project list or a realistic assessment of

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future development, the Draft EIR cannot determine whether displacement pressures would rise to the level of cumulatively significant impacts.

The Draft EIR recognizes that "BIG would displace approximately 108 dwelling units and approximately 325 persons." (DEIR at 5.13-49.) It then concludes that this displacement represents "only a small percentage" of the City's population and that displaced residents "would be able to relocate to existing housing in the BIG study area." (*Ibid.*) The Draft EIR concludes that "BIG would result in a less than significant impact concerning the displacement of people or housing" because "no change in population associated with the displacement of existing units is anticipated to occur." (*Ibid.*) This conclusion is unsupported and ignores substantial evidence of likely population growth and constrained housing supply. The Project itself is projected to generate "approximately 62,000 direct, indirect and induced construction jobs, including union construction jobs and approximately 15,000 direct, indirect, and induced operation jobs" over 20 years. (*Id.* at 1-5.) The Draft EIR also fails to reconcile these job projections with the region's limited housing stock, nor does it assess how induced growth may intensify displacement pressures. O21-80 cont'd

The Draft EIR also fails to consider how BIG and associated warehouse expansion in the region may entrench incompatible land uses, running counter to Bastow's 2021 Environmental Justice Element and General Plan goals.

Finally, the Draft EIR does not meaningfully analyze displacement as a cumulative impact and as a result fails to identify or evaluate feasible mitigation measures to address impacts associated with industrial displacement. This omission is inconsistent with San Bernardino County's Residential Anti-displacement & Relocation Assistance Plan (RARAP), which is expressly designed "to minimize the direct and indirect displacement of persons from their home."[181] By downplaying the cumulative community and environmental consequences of industrial displacement, the Draft EIR violates CEQA's requirement for a good-faith, reasoned analysis. The cumulative impacts analysis must be revised to incorporate a complete list of reasonably foreseeable projects, evaluate the Project's contribution to regional displacement pressures, and identify mitigation measures capable of reducing these cumulatively significant impacts.

B. The Draft EIR Fails to Adopt All Feasible Mitigation Measures for the Project's Cumulative Impacts. O21-81

When an EIR identifies a potentially significant environmental impact, CEQA requires the lead agency to adopt all feasible mitigation measures to reduce that impact to below

[181] San Bernardino County Dept. of Community Development and Housing, *Residential Anti-displacement & Relocation Assistance Plan (RARAP) Requirement* (as of Jan. 2026), https://www.sbcounty.gov/uploads/CDH/reports/other/RARAP.pdf.

significant levels. (Pub. Resources Code, § 21002; Cal Code Regs., tit. 14, § 15126.4, subd. (a)(1).) Here, although the Draft EIR states that the Project will result in significant cumulative impacts, it fails to identify or adopt feasible mitigation measures capable of reducing those impacts. The Draft EIR fails to evaluate basic mitigation measures, such as redesigning BIG's footprint and project design in consultation with Tribal Nations to steer development away from sensitive areas. Nor does it consider delaying development to first prioritize surveys led by surrounding Tribal Nations. Instead, the Draft EIR relies on strained reasoning, claiming that resources are "likely unknown" and that impacts "could occur," dodging accountability for creating stronger mitigation measures to avoid potential impacts. The City simply concludes that "[r]egardless of mitigation, due to the high likelihood of previously unidentified tribal cultural resources that could be impacted by ground-disturbing activities, and given physical impacts may cause adverse effects to said resources even with processes in place to address inadvertent discoveries, construction impacts to these resources could occur. No additional feasible mitigation exists." (DEIR at 6-49.) The Draft EIR's cursory analysis falls far short of CEQA's requirements for demonstrating feasibility. It is improper for the Draft EIR to simply conclude that no additional feasible mitigation is required.

The Draft EIR also fails to make a good faith effort to ensure consistency with the 2022 California Air Resources Board Scoping Plan, which charts a statewide path to carbon neutrality and requires an 85 percent reduction in anthropogenic greenhouse gas emissions below 1990 levels by 2045. (See Assem. Bill No. 1279 (2025–2026 Reg. Sess.).) Although the Draft EIR concedes that BIG's "cumulatively considerable contribution of toxic air contaminant emissions and combined effects of BIG and applicable cumulative projects would be a significant and unavoidable cumulative impact," it does not meaningfully evaluate feasible mitigation measures that could reduce these emissions. (DEIR at 6-30.)

O21-81 cont'd

For example, the Draft EIR fails to consider investing in zero-emission locomotive technologies, despite clear evidence that such technologies are feasible and commercially demonstrated. Pacific Harbor Line (PHL), a short line rail operator, has successfully deployed an EMD Joule battery-electric locomotive manufactured by Progress Rail, demonstrating the viability of zero-emission rail operations.[182] PHL's demonstration sets an important example for other rail companies that transitioning to a zero-emission electric locomotive fleet is possible.

PHL has also secured a Federal Railroad Administration Consolidated Rail Infrastructure and Safety Improvements (CRISI) award to deploy five zero-emission electric locomotives in the San Pedro Bay Port Complex—one of the nation's busiest port complexes. These electric locomotives will eliminate approximately 28.5 tons per year ("tpy") of NOx, 0.535 tpy of

[182] Anacostia Rail Holdings Company, *Pacific Harbor Line Moved Toward Zero-Emission Operations with More Green Locomotives; Receives 12th ASLRRA Safety Award* (Oct. 29, 2024), https://www.anacostia.com/news/pacific-harbor-line-moves-toward-zero-emission-operations-with-more-green-locomotives-receives-12th-aslrra-safety-award/.
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PM2.5, and 590 metric tons of carbon dioxide equivalent (CO2e) per year—demonstrating substantial, quantifiable air-quality and climate benefits for frontline communities.[183]

Despite acknowledging BIG's significant impacts on the surrounding community and environment, the Draft EIR fails to meaningfully examine or incorporate feasible mitigation measures to attempt to reduce the Project's contribution to regional non-attainment. This omission violates CEQA's requirement for a good-faith, reasoned analysis of feasible mitigation measures. The Draft EIR must be revised and recirculated to incorporate all feasible mitigation measures capable of reducing BIG's significant cumulative impacts.

O21-81 cont'd

XI. THE DRAFT EIR FAILS TO SUFFICIENTLY ANALYZE OR MITIGATE ENVIRONMENTAL JUSTICE IMPACTS.

GENERAL PLAN

A. The Draft EIR Must Include a Robust Environmental Justice Analysis to Evaluate the General Plan's Impacts Concentrated in Low-Income Communities of Color.

In 2016, the California Legislature enacted Senate Bill (SB) 1000, codified at Government Code section 65302, subdivision (h), to ensure that environmental justice is meaningfully integrated into local land-use planning. SB 1000 requires local governments—including the City of Barstow—to identify and address pollution burdens and other hazards that disproportionately impact low-income communities and communities of color. When a jurisdiction adopts or updates two or more elements of its general plan after January 1, 2018, it must identify "disadvantaged communities" within its planning area and adopt enforceable environmental justice policies. (Gov. Code, § 65302, subd. (h)(1)–(2).)

O21-82

Because Barstow is revising its General Plan, it is required to adopt either a stand-alone Environmental Justice Element or measurable, enforceable environmental justice policies integrated throughout the plan. Under SB 1000, "disadvantaged communities" includes: (1) areas identified by the California Environmental Protection Agency (CalEPA) pursuant to Section 39711 of the Health and Safety Code; or (2) "an area that is low-income . . . disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation." (Gov. Code, § 65302, subd. (h)(4)(A).) If a local government identifies one or more disadvantaged communities in its planning area, its general plan must include either an "environmental justice element" or measurable "related goals, policies, and objectives integrated into other elements" that "reduce the unique or compounded

[183] T.H.E. Impact Project, *Letter Supporting Ports Indirect Source Rule to South Coast Air Quality Management District* (Jan. 7, 2025), https://www.pacificenvironment.org/wp-content/uploads/2025/01/Port-ISR-Final-Ports-ISR-Letter-.pdf.

health risks in disadvantaged communities" by addressing topics like reducing pollution exposure, promoting public improvements, ensuring safe housing, and promoting meaningful public engagement. (*Id.*, § 65302, subd. (h)(1).)

The Draft EIR fails to clearly acknowledge whether the BIG Project is located adjacent to low-income communities and communities of color. One of the nearest census tracts (census tract #6071009500) is designated a Disadvantaged Community ("DAC") under SB 535 and ranks in the top 25 percent statewide for Pollution Burden according to CalEnviroScreen 4.0.[184] This predominantly Latino community has a poverty score of 90, which means that this community area has higher poverty than 90 percent of Californians, and includes numerous sensitive receptors, including children and the elderly. The tract carries an asthma score of 100 and cardiovascular score of 100, indicating the highest possible burden for both health indicators, with a total pollution burden score of 65.

O21-82 cont'd

Without this foundational information, the public cannot understand the existing baseline conditions or the likelihood that rezoning the area for industrial use will significantly worsen environmental and public health burdens. CEQA requires an EIR to disclose baseline conditions accurately so the public can meaningfully evaluate the severity of potential impacts. (*San Franciscans for Reasonable Growth v. City & County of San Francisco* (1987) 193 Cal.App.3d 1544, 1549.) The Draft EIR must identify all sensitive receptors surrounding BIG and analyze the pollution burdens they already face, and those they would likely experience if BIG is approved. As drafted, the Draft EIR omits critical information necessary for Barstow residents to fully understand the current level of pollution burden and associated health impacts in the community. The Draft EIR's shortcomings prevent the public from studying how BIG and associated warehouse development projects would worsen air quality and community health.

As previously mentioned, and illustrated below in Table 1, "Barstow Overview,"[185] multiple census tracts in Barstow and greater San Bernardino County are designated as DACs by CalEPA.

[184] Cal. off. of Env't Health Hazard Assessment, CalEnviroScreen 4.0, Data Dashboard, , https://experience.arcgis.com/experience/6b863505f9454cea802f4be0b4b49d62/ (last visited Dec. 25, 2025).
[185] City of Barstow, *Environmental Justice: Barstow General Plan Update* (Oct. 2023), https://storymaps.arcgis.com/stories/57bd23d4e87a45da96aaefcf1a22589c.
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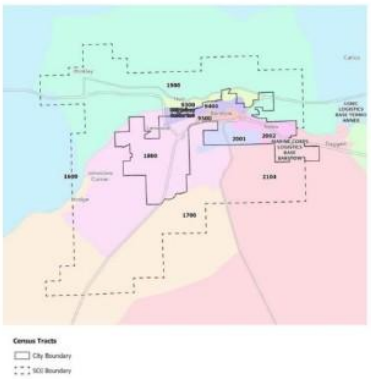
Table 1: Barstow Overview



CES4 SCORES BY CENSUS TRACT

Census Tract[1]	Population in City	Population in SOI	Composite Percentile	Pollution Burden Percentile	Population Characteristics Percentile
9500	7,941	0	87.2	65.1	93.6
9400	3,906	33	85.4	46.4	99.5
9300	125	1,044	70.7	32.1	93.6
2104	0	0	56.4	24.3	78.3
2002	5,882	0	82.8	67.9	84.6
2001	6,351	0	60.5	20.8	90.0
1900	115	2,339	78.2	59.0	83.4
1800	1095	6,231	62.2	37.5	74.6
1700[2]	0	0	81.3	71.8	79.1
1600[2]	0	0	56.9	54.0	53.4

1. Census tracts 9500, 9400, and 9300 preceded by 607100; all others preceded by 607101.
2. No residences are within Barstow's planning area.
Source: CalEPA 2021.

O21-82 cont'd

According to Barstow's Environmental Justice Story Map, "the majority of Barstow residents live in, or immediately adjacent to, census tracts that [currently] qualify as EJ communities and experience roughly comparable levels of pollution and/or socioeconomic burden."[186] Barstow is exactly the type of community that SB 1000 seeks to protect by requiring cities and counties to adopt enforceable environmental justice policies following revisions to a General Plan.

1. The General Plan lacks specificity on how disproportionate impacts will be measured and addressed, undermining SB 1000's core goals.

In 2021, Barstow approved a stand-alone Environmental Justice (EJ) Element that identified disadvantaged communities using CalEnviroScreen4.0 and committed to reducing pollution exposure.[187] This stand-alone EJ element seeks to: (1) increase health food access, (2) provide resources for physical activity and park accessibility, (3) limit pollution exposure and air quality, (4) enhance public facilities and emergency preparedness, (5) ensure safe and sanitary homes, (6) strengthen community engagement, and (7) address needs of disadvantaged communities including extreme heat adaption plans.[188] This EJ planning document defines policies crafted to guide discretionary approvals to ensure enforceability, and shape community development decisions in Barstow.

The Draft EIR, however, abandons the community-driven planning approach outlined in Barstow's 2021 EJ Element. Instead of integrating the 2021 EJ Element's commitments, the

[186] *Ibid.*
[187] *Ibid.*
[188] *Ibid.*

Draft EIR spreads vague, non-measurable policies throughout various chapters of the General Plan Update and BIG analysis without clear metrics to ensure progress and accountability. The Draft EIR uses CalEnviroScreen data as background with no meaningful integration of CalEnviroScreen significance thresholds to develop mitigation measures or provide Project Alternatives to safeguard community health. For example, the Draft EIR disregards the 2021 Barstow EJ Element's commitment to "[f]acilitate the involvement of community residents, businesses, and organizations in the development, adoption, and implementation of community health initiatives and consider their input throughout the decision-making process."[189] In so doing, the Draft EIR neglects the City's own 2021 EJ policies instead of using them to guide the City's comprehensive General Plan Update.

O21-82 cont'd

Here, the City's concerning decision to (1) walk back its commitment to maintain a stand-alone EJ Element and (2) inadequately address environmental justice in its General Plan not only violates Government Code section 65302, subdivision (h), it perpetuates a vicious cycle of concentrating pollution in communities already disproportionately burdened by toxic freight-related emissions.

We urge the City of Barstow to take immediate action to comply with SB 1000 by either updating its stand-alone EJ Element or revising the proposed General Plan Update to include clear, measurable, and enforceable policies that identify, measure, and equitably address disproportionate impacts. Doing so is essential to achieving SB 1000's core goal: integrating environmental justice into long-term planning and ensuring equitable land use decision-making.

BNSF BIG RAILYARD

B. The Draft EIR fails to analyze the BIG Project's impacts on AB 617 communities.

Lead agencies are encouraged to include Environmental Justice analyses in EIRs for projects that may impose significant and disproportionate impacts on nearby communities of color. As California Attorney General Xavier Becerra noted, "[s]imply designating an environmental impact as 'significant' does not excuse a lead agency from 'reasonably describ[ing] the nature and magnitude of the adverse effect."[190] Here, the Draft EIR omitted adequate analysis of AB 617 communities that are at clear risk of being significantly impacted by the BIG Project. CEQA does not limit baseline analysis to the narrow footprint of a project. Rather, it requires agencies to consider the project's broader "sphere of influence" and evaluate all "direct and indirect significant effects of the project on the environment . . . giving due

O21-83

[189] City of Barstow, *Environmental Justice Element*, at EJ-26 (2021), https://www.barstowca.org/home/showpublisheddocument/8685/638502496613170000.
[190] Cal. Atty. Gen., *Comment Letter on the San Bernardino Countywide Plan and Draft Environmental Impact Report* 10 (Aug. 15, 2019), https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/sb1000-letter-san-bernardino.pdf (citing *Cleveland Nat. Forest Foundation v. SANDAG* (2017) 3 Cal.5th 497, 514).
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consideration to both the short-term and long-term effects." (Cal. Code Regs., tit. 14, § 15126, subd. (a).)

San Bernardino/Muscoy has been formally selected by CARB as an AB 617 community for air monitoring and implementation of emissions reductions plans.[191] In addition, Bloomington, Fontana, and Rialto have been repeatedly recommended by air districts as communities in need of AB 617 resources and action.[192] The BIG Project would only intensify emissions and congestion throughout these communities by expanding BNSF rail operations and increasing heavy-duty truck traffic through AB 617 and adjacent communities.

O21-83 cont'd

The DEIR's failure to meaningful analyze BIG's impact on these communities by omitting them from the current baseline conditions misrepresents the existing environmental conditions in San Bernardino County and misses potentially significant impacts that could result from intensified cumulative pollution burdens. The Draft EIR must be revised to account for BIG's potential impacts on AB 617 communities and communities consistently nominated for AB 617 resources and action. At minimum, the Draft EIR must also provide feasible mitigation measures that address historic inequities such as inequitable access to safe drinking water, extreme heat, high air pollution, and shortened life expectancy that risk being further entrenched by BIG.

C. The Draft EIR's environmental justice policies are inadequate, and approval of BIG would violate Government Code Section 11135.

Although BIG is proposed in a low-income community of color already disproportionately burdened by pollution, the Draft EIR fails to meaningfully evaluate safer, feasible alternatives to diesel-fueled locomotives—such as zero-emission electric locomotives—and instead advances a project design that would intensify existing environmental inequities. The Draft EIR's land use planning analysis (see DEIR at 5.11-23) confirms that the "approximately 5,000-acre BIG footprint is in the western part of the City and southwestern part of the County." Comparing the Project site to community demographics outlined in Barstow's 2021 Environmental Justice Element makes clear that the very communities Barstow identified as priority zones to reverse decades of environmental injustice in its EJ Element are now the same communities at highest risk of being displaced and cloaked by an influx of diesel locomotives, diesel truck traffic, and warehouse expansions.

O21-84

CARB's 2024 analysis underscores the severity of these risks: "Lenwood Elementary School is located within less than 3,000 feet of the BIG Specific Plan's eastern boundary, and is already surrounded by existing toxic Diesel PM and NOx emission sources, which include

[191] Cal. Air Res. Bd., *AB 617 – 2018 Designated Communities, San Bernardino & Muscoy (SBM)*, https://www.aqmd.gov/nav/about/initiatives/environmental-justice/ab617-134/san-b (last visited Jan. 2, 2026).
[192] Cal. Air Res. Bd., *Consistently Nominated AB 617 Communities List* (Aug. 2023), https://ww2.arb.ca.gov/capp/resources/consistently-nominated-ab-617-communities-list.
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locomotive traffic along BNSF rail lines, the existing BNSF Barstow Railyard, and vehicular traffic along Interstate 15 (I-15) and State Route 58 (SR-58)." (See *id.* at 1-6.)

Cross referencing the Draft EIR land use and planning data (see *id.* at 5.11–23) with the 2021 Barstow Environmental Justice Element[193] shows that minority, low-income disadvantaged populations will bear the greatest harms from BIG's construction footprint and long-term operations. While the 2021 EJ Element envisioned large portions of western Barstow would remain open space, San Bernardino County communities are now grappling with the reality of a looming logistics hub and intensified rail activity reshaping their neighborhoods.

California defines environmental justice as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies." (Gov. Code, § 65040.12, subd. (e).) Government Code section 11135 prohibits discrimination in any program or activity receiving state funding, including actions that result in a disparate impact on the basis of race, ethnicity, age, or other protected characteristics. Government Code section 8899.50 requires the City of Barstow to affirmatively further fair housing by dismantling segregation patterns and removing barriers to equitable access to opportunity. This statute also prohibits Barstow from taking actions that run counter to its duty to affirmatively further fair housing.

O21-84 cont'd

Here, as previously discussed, the Draft EIR acknowledges that BIG would trigger a significant increase in polluting locomotives and truck traffic into predominantly low-income communities of color in San Bernardino County. In fact, CARB estimates that BIG would increase indirect emissions in low-income communities of color living near the Alameda Corridor in Southern California. BIG runs the risk of increasing cumulative pollution burdens in minority communities across the state, deepening already extreme public health disparities in Los Angeles County and San Bernardino County. Meanwhile, whiter and wealthier neighborhoods—such as those in Rancho Cucamonga and Alta Loma—would remain shielded from BIG's myriad air quality, noise, traffic, and displacement impacts.

By failing to meaningfully address these disproportionate burdens, the Draft EIR's environmental justice analysis is inadequate, and approval of the Project in its current form would violate Government Code section 11135's prohibition on discriminatory disparate impacts.

According to Carl Rosen, General President of the United Electrical, Radio & Machine Workers of America during written testimony for the Senate Committee on Environment and Public Works, Subcommittee on Clean Air, Climate, and Nuclear Safety:

> Rail yards are well-known as hotspots for pollution, and in urban areas they are often located in low-income communities of color. Neighborhoods surrounding

[193] *Environmental Justice Element, supra* note 189, at pp. EJ-8, EJ-17.

> high-traffic yards in California have a significantly elevated rate of cancer. When wind carries air from a yard into a residential area, airborne black carbon spikes to twice the normal level for an urban area. Children living near rail yards have twice the incidence of asthma of those living at least four miles away. Hundreds of UE members work in these unhealthy environments on a daily basis. Many of them live there as well. It is unconscionable that we let this go on when existing technology can mitigate the issue, and now commercially viable technologies like battery locomotives can all but eliminate it. [194]

Similarly, in the same hearing, Ivette Torres, Community Researcher Lead with People's Collective for Environmental Justice also shared: O21-84 cont'd

> The California Air Resources Board ran a rail health impacts study with community advocates and found that anyone living close to a railyard, rail line, or port is more likely to have a lower life span due to risks of cancer, dubbing these communities—our communities—as cancer clusters. [195]

Torres "worked with community members who live by the San Bernardino Intermodal facility to monitor both indoor and outdoor air quality. Community collected data revealed that inside their homes, where one should feel comfortable and safe, were levels of particulate matter 2.5 10x more than the EPA standard."[196]

These impacts will not skip over Barstow or the communities along the freight corridors impacted by BIG.

> The proposed BIG Specific Plan will be located near the existing 600-acre BNSF Barstow Railyard, which is the largest classification railyard west of the Rocky Mountains. Implementation of the BIG Specific Plan will expose nearby communities to elevated levels of air pollution, including Diesel PM and oxides of nitrogen (NOx). Diesel PM is a carcinogen and is linked to cancer and respiratory health effects such as asthma and premature mortality due to heart attacks and cardiopulmonary illnesses. [197]

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[194] *Cleaner Trains: Opportunities for Reducing Emissions from America's Rail Network: Hearing Before the Subcomm. on Clean Air, Climate, and Nuclear Safety of the Sen. Comm. on Envt. & Pub. Works*, 118th Cong. (July 26, 2023) (testimony of Carl Rosen, General President, United Elec., Radio & Mach. Workers of Am.).
[195] *Id.*, (testimony of Ivette Torres, Comty. Researcher Lead with People's Collective for Envt. Just.).
[196] *Ibid.*
[197] Cal. Air Res. Bd., *Comments on the NOP for the BIG Project*, at 3–4 (May 7, 2024), https://ww2.arb.ca.gov/sites/default/files/2024-11/CARB%20Comments%20-%20NOP%20for%20the%20Barstow%20International%20Gateway%20Project%20Specific%20Plan.pdf.
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BNSF and Barstow have been aware since at least May 2024 that AB 617 communities and DACs would be irreversibly harmed by BIG, but the Draft EIR fails to make this clear or detail neighborhoods that would be shouldering the most extreme pollution burden, especially in the areas of air quality, health impacts, and cumulative impacts. The Draft EIR does not properly analyze BIG's environmental impacts, especially regarding potentially significant cumulative impacts. The Draft EIR also fails to incorporate feasible mitigation measures to avoid concentrating the BIG Project footprint in communities already disproportionately burdened with air quality, vibration, noise, and traffic from increasing rail and warehouse operations. This failure disregards the rights of frontline low-income residents facing the proposed BIG Project and violates Government Code section 11135. O21-84 cont'd

XII. THE CITY MUST ALSO EVALUATE THE FOLLOWING ADDITIONAL IMPACTS FROM THE GENERAL PLAN AND THE BIG PROJECT.

In addition, the EIR must address the following concerns: (1) Proximity impacts from the proposed solar facility located immediately adjacent to residential parcels, including visual impacts, heat and glare impacts, noise impacts, and land-use compatibility; (2) Traffic safety impacts along Route 66, which is a two-lane roadway with no dedicated turn lanes. The EIR must evaluate these impacts, including identifying employee, service, and construction access points and their effect on emergency access and accident risk; (3) Impacts to residential property values, community character, and long-term neighborhood stability resulting from the General Plan and BIG's industrial, rail, logistics, and solar development; and (4) Comprehensive groundwater and water supply analysis addressing project water demand, including but not limited to impacts to community and private wells, long-term water availability, and enforceable protections for existing residents. O21-85

XIII. CONCLUSION

As detailed above, there are numerous flaws with the Draft EIR for the General Plan and the BIG Project. Each of these flaws must be fixed if the City wants to proceed with the General Plan Update and this Project. Several residents and organizations submitted multiple comment letters on the Barstow General Plan and BIG Project to express numerous concerns. The City of Barstow must respond directly to each concern conveyed in this letter and each of those comment letters directly. We appreciate your consideration of these comments. Please do not hesitate to contact us if you have any questions about this comment letter. O21-86

Sincerely,

Earthjustice
Yasmine Agelidis
Colleen Fitzgerrell

Natural Resources Defense Council
Alison Hahm

Backbone Campaign
Bill Moyer

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Center for Biological Diversity
Brendan Cummings
Shannon Labuschagne

Center for Community Action & Environmental Justice
Marven Norman

Center on Race, Poverty & the Environment
Natalia Ospina

Clean Water Action
Tolani Taylor

Country Club Road Community
Amy Loughridge

East Yard Communities for Environmental Justice
Taylor Thomas

Little Village Environmental Justice Organization
Melanie Minuche

Long Beach Alliance for Children with Asthma
Sylvia Betancourt

Moving Forward Network
Molly Greenberg

New Jersey Environmental Justice Alliance
Brooke Helmick

Sierra Club, San Gorgonio Chapter
Joz Sida

Silver Lakes Community
Lori DeRome

Solutionary Rail
Bill Moyer

Sylvan Avenue Community
Sherry Baily
Lou Adams
Jose Fernandez
Jordan Garrison
Carmela Gonzalez
April Marcum
Dena Martel
Richard Martel
Amy Violette
James Violette

Tallahassee Food Network/Greater Frenchtown Revitalization Council
Mary Mitchell

United Electrical, Radio & Machine Workers of America
Ryan Calbreath

Warehouse Workers for Justice
Griselda Chavez
West Long Beach Association
Theral Golden

Concerned Residents of the High Desert
Joseph Castro
Berna Blackwood
Richard Banbury[198]

[198] I am 88 years old, still mobile, and tuned in to the activities in my community. I believe it is very important for the City of Barstow to extend the time for considering and addressing the concerns raised in the EIR.

Appendix A

Comments on the City of Barstow General Plan and Barstow International Gateway Project Draft Environmental Impact Report

State Clearinghouse Number: 2024020501

I. Introduction and Executive Summary

This comment letter is submitted to assist the City of Barstow and the public in evaluating the technical adequacy of the Draft Environmental Impact Report (Draft EIR) for the Barstow International Gateway (BIG) Project. The purpose of this letter is threefold. First, it identifies critical omissions, inconsistencies, and unsupported assumptions in the Draft EIR's project description, emissions modeling, energy analysis, and cost disclosures that prevent meaningful public review. Second, it explains why these gaps undermine the Draft EIR's conclusions regarding environmental impacts and the asserted infeasibility of cleaner alternatives. Third, it summarizes feasible zero-emission and electrification alternatives that the Draft EIR did not adequately analyze, even though they are technically available, operationally realistic, and economically bounded within the Project's planning horizon.

At a fundamental level, the Draft EIR does not provide a clear, stable, and internally consistent description of how the Project would operate. Core operational inputs—such as corridor length, train weights by direction, locomotive duty cycles, yard equipment operating patterns, and power system constraints—are either inconsistently presented, incompletely disclosed, or embedded in fragmented technical appendices without a coherent explanation of how they are used across analyses. These inputs are not peripheral details. They are prerequisites for calculating emissions, modeling air quality and health risks, evaluating electrification feasibility, and comparing lifecycle costs across alternatives. Where such foundational information is unclear or withheld, the public cannot assess downstream conclusions.

O21-87

Several examples illustrate this problem. Eastbound train weights are disclosed, but westbound weights are not, even though directionality materially affects traction energy, regenerative braking, and emissions (Appendix 5.3 BIG-1 Air Quality Technical Report, Corridor Emissions Outside of California tables). The Draft EIR refers to "detailed duty cycle data" supplied by the applicant, yet provides only representative power settings rather than time-resolved operating profiles needed to assess sensitivity, charging feasibility, or lifecycle costs (Appendix 5.3 BIG-1 Air Quality Technical Report, p. 70). Table 17 presents a switcher fleet mix that appears inconsistent with narrative commitments to retire older locomotives, without clarifying which assumption was used in modeling (Appendix 5.3 BIG-1 Air Quality Technical Report, Table 17, p. 71).

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Similar issues arise in the Draft EIR's energy and power analysis. The document presents detailed hourly load profiles for individual equipment categories and calculates a coincident facility peak demand of approximately 64.9 MW, but does not disclose a transparent, project-wide, time-resolved operating description showing how all major loads interact over the year (Draft Environmental Impact Report, Table 5.6-14, p. 5.6-39). The Draft EIR repeatedly relies on an asserted 66-MW "power budget" to dismiss electrification alternatives, yet provides no interconnection study, transformer ratings, feeder limits, or written utility documentation establishing that figure as a binding physical constraint rather than a design assumption (Draft Environmental Impact Report, p. 5.3-111-5.3-113). The Battery Energy Storage System (BESS) is referenced but not specified with respect to power rating, energy capacity, duration, or dispatch strategy, making it impossible to evaluate whether it could mitigate peak demand or support electrified operations.

The Draft EIR's air quality and health risk analysis suffers from parallel transparency limitations. Although emissions and modeled concentrations are reported in numerous tables, the Draft EIR does not aggregate total project-related pollution by year and pollutant across the full footprint of the railyard and rail corridor. Nor does it provide a consolidated corridor-wide health risk context that accounts for existing rail sources affecting the same communities. The AERMOD dispersion modeling results are summarized, but the electronic input and output files requested by reviewing agencies are not provided, and key modeling inputs—such as source coordinates, complete generator stack parameters, and meteorological processing assumptions—are not disclosed in a form that allows independent replication. As a result, the public is asked to accept modeled outcomes without access to the assumptions and data that produced them.

O21-87 cont'd

These disclosure gaps directly affect the Draft EIR's treatment of alternatives. The document repeatedly characterizes zero-emission technologies as "too expensive" or infeasible, yet it does not disclose the full lifecycle costs of the diesel baseline against which alternatives are compared. Corridor-specific diesel fuel consumption is not reported; diesel price assumptions are not stated; electricity tariff assumptions, demand charges, and time-of-use effects are not modeled; and available federal, state, and utility incentives are largely ignored. Without consistent baseline cost inputs, the Draft EIR's economic comparisons are incomplete.

As detailed in the sections that follow, these deficiencies are not academic. When the Draft EIR's own data and publicly available benchmarks are applied transparently, multiple feasible zero-emission alternatives emerge that were not adequately analyzed. These include battery-electric line-haul locomotives operating on a dedicated LA–Barstow corridor, hybrid battery-electric/diesel consists that deliver near-term fuel and emissions reductions, intermittent catenary electrification focused on Cajon Pass, full corridor catenary electrification, battery-electric switcher locomotives at BIG, electric rubber-tired gantry cranes, and zero-emission drayage truck strategies consistent with deployments already occurring at the Ports of Los Angeles and Long Beach.

Taken together, the analysis presented in this letter demonstrates that the Draft EIR does not provide the level of disclosure necessary for the public or decision-makers to understand the Project's true environmental footprint or to meaningfully compare cleaner

alternatives. The omissions and inconsistencies identified here limit transparency, obscure cumulative impacts, and weaken the evidentiary foundation for conclusions regarding feasibility and cost. The remainder of this letter explains these issues in detail and presents quantitative, planning-level analyses showing that feasible zero-emission alternatives exist and should be evaluated in good faith using the Draft EIR's own data and widely accepted technical benchmarks.

II. Statement of Qualifications

I submit these comments as a transportation and energy policy expert with over 20 years of experience shaping U.S. infrastructure, sustainability, and clean energy frameworks. My career has spanned senior roles in the executive branch, the private manufacturing sector, and the U.S. Senate, giving me a specialized, 360-degree view of the intersection between freight rail operations, federal funding, and air pollution mitigation.

Currently, I serve as the Founder and Principal Consultant at Connolly Insights LLC. In this capacity, I provide technical and strategic guidance to environmental and transportation organizations and community stakeholders. My practice focuses specifically on navigating regulatory processes, analyzing and highlighting the air quality impacts of freight infrastructure on environmental justice communities, and translating complex federal rail policy into actionable protections for residents.

O21-87 cont'd

Previously, I served as the Senior Advisor for Climate and Sustainability at the Federal Railroad Administration (FRA). In this capacity, I served as a primary architect for the agency's environmental strategy, designing and launching FRA's first dedicated climate and resilience programs. My work focused heavily on air quality improvement; I led the development of initiatives to reduce locomotive pollution (specifically NOX and Particulate Matter) and oversaw the creation of data-driven mapping tools to identify and mitigate rail yard impacts on vulnerable communities.

Crucially, I was a primary contributor to the December 2024 report, *An Action Plan for Rail Energy and Emissions Innovation*, published jointly by the U.S. Department of Transportation and the U.S. Department of Energy. This document outlines the federal government's roadmap for modernizing freight rail and establishes current benchmarks for technological feasibility. These benchmarks are directly relevant to evaluating the technical validity of the alternatives analysis in this DEIR.

Before founding my firm, I served as Vice President and Head of Public Policy at Qcells North America, one of the nation's largest renewable energy manufacturers. In this role, I directed advocacy strategies regarding domestic content and supply chain resilience, unlocking significant investment in U.S. manufacturing. This experience provides me with technical insight into the battery and energy storage supply chains essential to zero-emission rail propulsion.

Prior to my executive branch service, I spent over a decade as a senior policy staff member in the U.S. Senate, including roles as a Senior Professional Staff Member for the Senate Foreign Relations Committee and Senior Policy Director for a senior member of the Senate Banking, Housing, and Urban Affairs Committee. During this time, I drafted

and negotiated major infrastructure legislation, including the transit title of MAP-21. My legislative portfolio also covered energy policy, including electricity regulation, giving me a holistic view of how federal energy policy intersects with transportation needs.

I hold a Certificate in Financing and Deploying Clean Energy from Yale University's Center for Business and the Environment, a Juris Doctor, cum laude, from New York University School of Law, and a Bachelor of Arts in Politics, High Honors, from Oberlin College.

The opinions expressed in this comment letter are offered in my capacity as a transportation, energy, and environmental policy expert. They reflect my technical assessment of the Draft EIR's data, assumptions, and analytical methods as compared to CEQA's disclosure and substantial-evidence standards. These comments are not offered as legal conclusions or legal advice, but as expert evaluations intended to assist the lead agency and the public in understanding the technical adequacy of the Draft EIR. See Appendix

III. CEQA Legal Framework and Governing Standards

This section outlines the CEQA legal standards governing the adequacy of the project description, substantial evidence, and lifecycle cost-based feasibility analysis. These requirements constitute the legal foundation for meaningful environmental review. When an EIR fails to meet these standards, it prevents the public and decision-makers from understanding the project's actual environmental costs and from evaluating whether cleaner alternatives are genuinely feasible.

O21-87 cont'd

A. Requirement for an Accurate, Stable Project Description

CEQA requires an Environmental Impact Report to be based on an accurate, stable, and finite project description. (*(County of Inyo v. City of Los Angeles (1977) 71 Cal.App.3d 185, 193.*) Without knowing what the project actually involves, no meaningful analysis of impacts or alternatives is possible. An EIR that withholds critical operational data, such as train weights, locomotive duty cycles, equipment specifications, or energy system parameters, fails to provide the stable foundation that CEQA demands.

The project description must be sufficiently detailed to permit meaningful environmental analysis. Just as you cannot calculate the fuel economy of a car without knowing its weight, engine specifications, and intended routes, you cannot evaluate the air quality impacts of a rail project without knowing train weights, locomotive duty cycles, and operational schedules. An EIR that asks the public to accept conclusions about environmental impacts without disclosing the underlying operational assumptions violates this fundamental CEQA requirement.

B. Substantial Evidence and Reproducibility

CEQA mandates that findings be supported by substantial evidence, defined as "facts, reasonable assumptions predicated on facts, and expert opinion supported by facts." (CEQA Guidelines § 15384(b).) Bare assertions do not qualify.

CEQA requires an EIR to supply enough data to permit the reader to understand, and to check for accuracy, the agency's analysis. (CEQA Guidelines § 15151.) This reproducibility requirement serves a critical function: it allows the public, reviewing agencies, and decision-makers to verify that the EIR's conclusions follow logically from its inputs. When an EIR relies on proprietary data, undisclosed assumptions, or modeling inputs that are never revealed, the analysis becomes a black box that no one can verify.

CEQA also requires an EIR to be a "good-faith effort at full disclosure." (CEQA Guidelines § 15151.) This means more than simply presenting conclusions; it requires transparency about how those conclusions were reached. When emissions modeling relies on "detailed duty cycle data" that are never disclosed, or when air quality dispersion modeling is presented without the source coordinates, stack parameters, or meteorological data needed to replicate the results, the EIR fails this good-faith disclosure requirement.

The substantial evidence requirement applies with equal force to an EIR's rejection of alternatives. An agency may not simply assert that a cleaner alternative is infeasible; it must provide evidence sufficient to support that conclusion. Conclusions that rest on undisclosed assumptions or incomplete data do not provide substantial evidence as that term is defined under CEQA, because they cannot be independently verified.

C. Feasible Alternatives and Lifecycle Cost Considerations

CEQA requires an EIR to do far more than list environmental impacts; it must identify "feasible alternatives" that would substantially lessen those impacts. (CEQA Guidelines § 15126.6(a).) This requirement is not optional. As the California Supreme Court has explained, the alternatives analysis is the "core of an EIR." (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.)

O21-87
cont'd

CEQA defines "feasible" alternatives as those "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." (CEQA Guidelines § 15364.) Critically, cost alone does not excuse an agency from analyzing an environmentally superior option. Courts have rejected attempts to dismiss alternatives solely on grounds of added expense, explaining that economic infeasibility requires substantial evidence and cannot rest on a project applicant's unwillingness to pay. (*Save Round Valley Alliance v. County of Inyo* (2007) 157 Cal.App.4th 1437, 1461.)

This principle has important implications for how costs must be evaluated. An agency cannot dismiss an alternative as "economically infeasible" simply because it carries a higher upfront price tag than the proposed project. California courts have established that economic infeasibility requires evidence that the additional costs are so severe that they would render the project impractical to proceed. (*Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587.) When an agency relies on cost estimates to reject an alternative, those estimates must be accurate and complete, which includes accounting for available public funding, incentives, and subsidies that would reduce the net cost to the applicant.

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A proper CEQA cost comparison requires evaluating lifecycle costs, not merely upfront capital expenditures. This means including both one-time capital costs and long-term operating costs, such as fuel expenditures, through the project horizon. An EIR that quantifies the capital costs of clean alternatives while concealing the capital and fuel costs of the diesel baseline structurally biases decision-making toward the most polluting option by making it appear cost-free by comparison.

O21-87 cont'd

Courts have also held that when an agency fails to discuss the availability of funding that could make a mitigated alternative economically feasible, the resulting cost analysis is legally deficient. (*City of San Diego v. Board of Trustees of California State University* (2015) 61 Cal.4th 945.) Where federal grants, state incentives, utility programs, or tax credits exist specifically to subsidize the clean technologies an EIR dismisses as too expensive, failing to account for these funding sources artificially inflates the apparent cost of alternatives and undermines the integrity of the feasibility analysis.

Under CEQA Guidelines §15126.6 and §15364, an alternative that is technologically feasible, operationally realistic, and economically achievable must be analyzed in good faith. An EIR may not declare a cleaner alternative infeasible merely by asserting impossibility; it must show its work. Where the EIR provides neither the foundational data nor the engineering analysis to evaluate whether an alternative can succeed, its rejection of that alternative lacks substantial evidence.

IV. Inadequate Project Description and Missing Information

O21-88

This section demonstrates that the Draft EIR fails to disclose core operational, energy, emissions, and cost information required to evaluate impacts and alternatives under CEQA, resulting in analyses that are incomplete, internally inconsistent, and not supported by substantial evidence.

A. Missing and Inconsistent Rail Operations Data

The Draft EIR fails to clearly and consistently describe basic rail operating parameters, such as corridor length, train weights, and locomotive configurations, undermining all downstream emissions, energy, and cost analyses.

1. Incomplete Disclosure of Train Weights and Directional Operations

O21-89

The Draft EIR does not disclose key rail operational inputs required to model emissions and evaluate alternatives for the LA-Barstow corridor. For example, the Draft EIR discloses an eastbound gross train weight of 5,903.26 short tons (Appendix 5.3 GP-1: Air Quality and Greenhouse Gas Emissions Modeling, "Corridor Emissions Outside of California"), but provides no corresponding westbound train weight, despite acknowledging that westbound movements differ materially due to export or empty container consists. This omission is critical because directionality and mass are foundational to energy recovery in regenerative braking. Without westbound weights,

energy use, emissions, and the significant potential for regenerative braking recovery, essential for battery-electric locomotive (BEL) performance, cannot be accurately calculated. O21-89 cont'd

2. Missing Locomotive Duty Cycles, Dwell Time, and Power Configuration Data

The Draft EIR states that locomotive emissions modeling relied on "detailed duty cycle data" and locomotive power settings provided by BNSF (Appendix 5.3 BIG-1 Air Quality Technical Report, p. 69). While the Draft EIR does disclose the representative power settings used in the emissions calculations, such as modeling mainline line-haul locomotives at Notch 5, yard and switching operations at Notch 2, and lead track movements at Notch 3, these inputs function as simplified proxies rather than disclosed duty-cycle distributions (Appendix A: Air Quality and Greenhouse Gas Emissions Modeling Data).

The Draft EIR does not disclose the underlying duty-cycle information necessary to understand how locomotives actually operate over time, including the percentage of time spent at each notch, how power settings vary by train weight, grade, or direction of travel, or how operating profiles change across hours of the day or seasons. Without this information, the public cannot evaluate whether the assumed power settings reasonably reflect real-world operations, nor can it assess how sensitive emissions, energy consumption, charging feasibility, or lifecycle costs are to changes in those assumptions. O21-90

This is critical because the evaluation of electrification alternatives, battery sizing, charging time, and electricity demand requires time-resolved operating profiles. By disclosing only representative notch settings without the underlying duty-cycle distributions, the Draft EIR limits the ability of decision-makers and the public to independently assess the feasibility and impacts of zero-emission alternatives.

Similarly, the Draft EIR fails to disclose locomotive power configurations, including distributed power arrangements or variations in consist makeup across operating conditions. These omissions are critical because power configuration directly affects fuel burn and the feasibility of battery-electric or hybrid alternatives. Furthermore, the document does not explicitly disclose how long locomotives are available for charging at either the Ports or the Barstow International Gateway, though it implies locomotives spend substantial time at terminals between assignments (Air Quality Technical Report, Appendix 5.3 BIG-1, pp. 67-70; Appendix 5.8 BIG1 Greenhouse Gas Emissions Assessment, pp. 75-80). Without these inputs, neither the public nor decisionmakers can independently reproduce the emissions modeling or assess the technical feasibility of zero-emission charging schedules.

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3. Internal Inconsistency Regarding Switcher Fleet Composition (Table 17 vs. Narrative Commitments)

Table 17 of the Draft EIR ("Locomotive Fleet Mix Forecast") indicates that in the Horizon Year 2048, a substantial share of switcher locomotive activity remains attributable to uncontrolled and Tier 0 engines, with those older technologies comprising the majority of the modeled switcher fleet mix (Air Quality Technical Report, Appendix 5.3 BIG-1, Table 17, pp. 71). At the same time, the narrative text elsewhere states that, beginning in the BIG opening year 2028, BNSF will retire all existing Tier 0/0+/1+ switcher locomotives at the existing Barstow Classification Yard and replace them with six Tier 4 switcher locomotives as a project feature (Air Quality Technical Report, Appendix 5.3 BIG-1, p. 10). The Draft EIR does not explain how these two statements are reconciled for the purpose of modeling. If the Table 17 fleet mix was used to derive emission factors, then the narrative commitment to retire older switchers is not reflected in the modeling. Conversely, if the Tier 4 replacement was modeled, then Table 17 misrepresents the assumptions underlying the results. This lack of clarity renders the analysis incomplete and inconsistent with CEQA's requirement for a clear, stable, and internally coherent description of the project (CEQA Guidelines §§ 15120, 15124). O21-91

B. Missing Yard Locomotive Duty Cycles and Alternative Reasonable Operating Patterns

The Draft EIR does not disclose yard locomotive duty cycles or explore other reasonable operating patterns.

1. Missing Duty Cycles for Yard Locomotives

The Draft EIR discloses peak hours of operation and average daily profiles for many categories of yard and terminal equipment, including cranes, hostlers, forklifts, and building loads (Appendix 5.3 BIG-1 Air Quality Technical Report, p. 67, Table 15). It also explains the arithmetic used to derive a three-to-one ratio of battery-electric switchers to diesel switchers based on assumed charging duration and continuous 24-hour operations. O21-92

However, the Draft EIR does not disclose a time-resolved duty cycle or hourly energy profile for switcher locomotives themselves comparable to those provided for other major electric loads. Nor does it evaluate how alternative charging rates, staggered charging schedules, or higher-power chargers would affect fleet size, peak demand, or operational feasibility. Instead, the analysis relies on a single set of assumptions, most notably the use of 400-kW chargers (when higher capacity chargers are available), without sensitivity testing or evaluation of commercially available higher-power charging options.

As a result, although individual assumptions are disclosed in isolation, the Draft EIR does not provide sufficient transparency to understand how switcher electrification would interact with other facility loads, solar generation, or battery storage over the course of a day. This limits the ability of the public and decision-makers to evaluate whether the three-to-one switcher ratio reflects an inherent operational requirement or merely the product of conservative and untested modeling assumptions. O21-92 cont'd

2. Failure to Consider Other Reasonable Operating Conditions

The Draft EIR does include detailed hourly load profiles, diversity factors, and coincident-demand modeling to calculate a facility-wide peak electrical demand of 64.9 MW for the Project as designed (Appendix 5.6 BIG-1 Energy Assessment). The analysis links this peak to shift schedules, opportunity charging assumptions, and second-by-second modeling of high-power equipment such as widespan cranes (Appendix 5.6 BIG-1 Energy Assessment).

However, the Draft EIR's analysis evaluates only whether the specific operating assumptions chosen by the Project proponent fit within an asserted 66-MW power budget. It does not disclose whether the modeled peak represents a worst-case condition, how sensitive the peak is to reasonable variations in charging schedules or equipment sequencing, or whether alternative operating strategies could materially reduce coincident demand. The public is shown the final peak number, but not the range of outcomes that could result from different, but foreseeable, operational choices. O21-93

This limitation is especially consequential for the evaluation of electrification alternatives. While the Draft EIR integrates diversity factors and staggered charging for cranes, hostlers, and forklifts, it evaluates battery-electric locomotive charging as a fixed, additive load rather than integrating it into the same coincident-demand framework (Appendix 5.3 BIG-1 Air Quality Technical Report, pp. 176-178). As a result, the conclusion that electrification would exceed the Project's power budget rests on untested assumptions about simultaneity and charging behavior that differ from those applied to other major electrical loads.

Finally, although the Draft EIR repeatedly refers to a 66-MW "power budget" allocated by Southern California Edison, it does not disclose any interconnection study, transformer ratings, feeder limits, or written utility correspondence establishing that limit as a binding physical constraint (Appendix 5.3 BIG-1 Air Quality Technical Report, p. 179). Without that documentation, it is not possible to distinguish between a modeled design choice and an unavoidable grid limitation.

Taken together, these omissions do not negate the Draft EIR's electrical modeling, but they do limit its usefulness for evaluating whether alternative operating strategies or

electrification scenarios could be feasible within, or with modest modification to, the Project's assumed power framework.

O21-93 cont'd

3. Failure to Provide Adequate Hour-by-Hour Energy Data or Seasonal Changes

Although the Draft EIR includes selected hourly modeling results and representative "average daily" load profiles for certain facility components, it does not provide a transparent, project-wide hour-by-hour operating description showing how the Project functions across the full year. The Draft EIR does not disclose an integrated 8,760-hour load profile that shows how electricity demand from locomotives, yard equipment, buildings, and vehicle charging coincides during each hour of operation, nor does it explain how these combined loads vary across seasons in a manner that can be independently evaluated (Appendix 5.6 BIG-1 Energy Assessment).

This matters because electricity costs, grid impacts, and the feasibility of electrification depend not only on total annual energy use but on when energy is consumed relative to peak demand periods and available on-site resources. While the Draft EIR identifies a modeled facility peak demand of approximately 64.9 MW and asserts that on-site solar generation and a Battery Energy Storage System (BESS) will help manage peak loads, it does not disclose the hourly operating assumptions used to produce that peak or explain how solar output and battery discharge align with the hours when electricity is most constrained and expensive (Appendix 5.17 BIG-1 Utility Assessment, p. 65). Without this information, the public cannot evaluate whether the Project would, in fact, rely on grid power during peak periods, whether the BESS is appropriately sized, or whether alternative operating or charging strategies could materially change the outcome.

O21-94

A similar transparency gap exists for air quality. The Draft EIR appropriately uses AERMOD to model short-term concentrations and reports maximum 1-hour pollutant levels for comparison with state and federal standards (Appendix 5.3 BIG-1 Air Quality Technical Report, pp. 78, 133–139). However, the Draft EIR does not disclose the underlying hour-by-hour operating schedules that drive those modeled results, such as when trains, switcher locomotives, cargo-handling equipment, and truck traffic are assumed to operate simultaneously. As a result, the public cannot assess how representative the modeled "worst-case" hour is of routine operations, how frequently overlapping sources occur, or how changes in operational assumptions would affect short-term exposure.

This information is particularly important for pollutants such as nitrogen dioxide (NO_2), which can cause acute respiratory effects over short exposure periods even when annual averages remain below significance thresholds. CEQA requires that an EIR present information in a manner that allows decision-makers and the public to meaningfully understand and evaluate environmental impacts, rather than relying solely on conclusory

model outputs without access to the assumptions that produce them (*Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 514–515).

By not disclosing integrated, time-resolved operating assumptions for energy use and emissions, the Draft EIR prevents meaningful evaluation of peak electricity demand, battery adequacy, time-of-use costs, and short-term air-quality risks. Consequently, key conclusions regarding power feasibility, cost impacts, and health effects rest on operational assumptions that are not transparent and cannot be independently reviewed or tested.

O21-94 cont'd

C. Inadequate Energy and Power System Description

The Draft EIR asserts power infeasibility without disclosing the technical basis for its conclusions, including grid constraints, storage capabilities, and load-management strategies.

1. Unsupported Assertion of a 66-MW Import "Cap"

The DEIR's rejection of electrification alternatives rests on a "66-megawatt power budget" allegedly allocated by Southern California Edison (SCE). The DEIR asserts that BIG's modeled peak load of 64.9 MW "maximized the allocated power budget," leaving no capacity for battery-electric locomotives or expanded electric yard equipment (Appendix 5.3 BIG-1 Air Quality Technical Report, p. 77). However, the DEIR provides no underlying SCE interconnection study, no load-flow analysis for the Tortilla Substation, and no written communication from SCE establishing that 66 MW is a firm limit. The project's modeled peak demand is itself a product of the proponent's chosen equipment mix and modeling choices; by treating this as an immutable physical constraint without documentation, the DEIR improperly narrows the alternatives analysis.

O21-95

2. Failure to Specify Battery Energy Storage System (BESS) Capabilities

The Project Description mentions a Battery Energy Storage System (BESS) designed to "maximize the on-site usage of solar power," but the DEIR never discloses fundamental technical specifications needed to evaluate whether this system could support electrification (Appendix 5.17 BIG-1 Utility Assessment, p. 65). Missing parameters include the BESS power rating (MW), energy capacity (MWh), duration (e.g., 2-hour or 4-hour), and dispatch strategy. Without these fundamentals, it is impossible to evaluate whether the BESS could mitigate peak loads or shift solar generation to support evening charging requirements.

O21-96

D. Failure to Disclose Baseline Fuel, Energy, and Capital Cost Inputs

The Draft EIR does not disclose the baseline fuel, electricity, or capital cost assumptions necessary to conduct lifecycle comparisons among project alternatives.

O21-97

1. No Corridor-Specific Diesel Fuel Disclosure

The Draft EIR fails to disclose diesel fuel consumption for the LA-Barstow line-haul corridor separately, reporting only aggregate locomotive diesel consumption for the entire BIG rail system, including within the footprint of BIG (DEIR Ch. 50-58 Environmental Analysis, Table 5.6-13, p. 5.6-36). To evaluate the electrification alternatives rejected by the DEIR as "too expensive," the specific fuel expenditure for the LA-Barstow operations must be isolated. By presenting aggregated fuel totals, the DEIR obscures one of the largest recurring operating costs of the project baseline. O21-98

2. No Diesel Price or Renewable Diesel Assumptions Disclosed

The Draft EIR never discloses the diesel price assumptions underlying its operational modeling. It does not state whether fuel costs reflect on-highway diesel, bulk railroad contract pricing, or renewable blends, each of which carries materially different costs. This lack of disclosure prevents independent verification of fuel cost impacts. O21-99

3. No Electricity Tariff Assumptions or TOU Treatment

The Draft EIR's Utility Assessment discloses annual energy consumption, peak demand, and time-varying load profiles, but it does not translate those electrical characteristics into operating costs. The document does not identify which Southern California Edison tariff would apply to BIG, does not disclose applicable demand charges or time-of-use energy rates, and does not quantify how on-site solar generation and battery energy storage would reduce exposure to on-peak pricing (Appendix 5.17 BIG-1 Utility Assessment). O21-100

Without identifying tariff assumptions or modeling electricity costs, the Draft EIR provides no basis for comparing the lifecycle operating costs of diesel and electric alternatives. Because electricity costs are driven not only by total energy use but by demand charges and the timing of consumption, these undisclosed inputs are fundamental to evaluating whether electrified alternatives would increase or reduce operating costs over time.

E. Fragmented Emissions and Health Risk Presentation Prevents Meaningful Public Review

This section explains why the Draft EIR makes it difficult for the public to understand how much pollution the BIG project will actually create, who will be affected, and how often harmful conditions may occur. Although the Draft EIR contains many technical tables and modeling results, the information is scattered across multiple chapters and appendices and is not presented in a clear, complete, or transparent way. Instead of showing the full picture of the project's pollution and health impacts in one place, the Draft EIR requires readers to piece together fragments of data on their own. This O21-101

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fragmented approach obscures the cumulative scale of emissions, hides how different pollution sources interact over time, and prevents meaningful public review of real-world exposure conditions. As explained below, these presentation and disclosure gaps make it difficult to understand the Project's true environmental footprint and limit the public's ability to evaluate the severity and frequency of its air quality impacts.

1. Fragmented Reporting of Criteria Pollutants

The Draft EIR reports emissions in narrow, fragmented tables that separate construction emissions from operational emissions and further subdivide operational pollution by source category, facility component, and air basin (Appendix 5.3 BIG-1 Air Quality Technical Report, pp. 111–121). While individual tables report emissions for specific components or locations, the Draft EIR does not present a clear, consolidated accounting of total project-related emissions for key pollutants such as nitrogen oxides (NOx), fine particulate matter (PM2.5), or diesel particulate matter (DPM) across the full Project footprint, including both the railyard and the rail corridor.

As a result, the public is required to piece together emissions from multiple chapters and appendices to understand the Project's overall pollution burden. This fragmented presentation obscures the cumulative scale of emissions and makes it difficult to understand the total increase in pollution attributable to the Project, particularly for pollutants of greatest health concern.

O21-101 cont'd

2. Lack of Consolidated Health Risk Burden

The air quality analysis does not provide a consolidated or corridor-wide accounting of health risk sufficient to place project-related impacts in context. Although Appendix 5.3 reports modeled concentrations at selected receptors, the Draft EIR evaluates health risks only at the Project level and does not disclose a cumulative diesel particulate matter (DPM) burden across the broader rail corridor. As a result, the analysis does not allow the public to understand how Project-related emissions interact with existing rail-related sources affecting the same communities.

In addition, the Draft EIR evaluates health risks only at the Project level and does not assess cumulative diesel particulate matter (DPM) exposure along the broader rail corridor. Major railyards such as Hobart, Commerce, and San Bernardino, each identified by CARB as a significant source of rail-related DPM, operate along the same corridor and affect many of the same downwind communities (*CARB Railyard Health Risk Assessment Program,* 2008–2011). The Draft EIR does not provide a corridor-wide cumulative health-risk summary that accounts for these existing sources. As a result, the analysis obscures the total diesel-related health burden in an already overburdened airshed and limits the public's ability to understand the Project's contribution to cumulative exposure.

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3. Inadequate Disclosure of AERMOD Modeling Inputs and Assumptions

The Draft EIR relies on the AERMOD dispersion model to estimate pollutant concentrations and health risks from Project-related emissions. AERMOD is a physics-based model that calculates how pollutants disperse from specific sources under defined atmospheric conditions. In practical terms, it functions like a weather model for pollution: just as a weather forecast depends on disclosed inputs such as temperature, wind speed, and atmospheric stability, AERMOD depends on transparent disclosure of source locations, emission rates, source geometry, and meteorological inputs. Without access to these inputs, modeled concentration results cannot be independently verified or meaningfully evaluated.

Although the Draft EIR summarizes modeling outputs and describes the general modeling approach, it does not disclose the full set of inputs necessary to reproduce or validate the air quality analysis. The Draft EIR does not provide the electronic AERMOD input and output files requested by reviewing agencies, nor does it disclose key source-level parameters in a form that allows independent replication. These omissions include the precise geographic coordinates and spatial extents of locomotive idling areas and yard equipment, as well as complete stack parameters for the 39 emergency diesel generators, including stack height, exit velocity, and exhaust temperature. Appendix 5.3 lists generator horsepower ratings but does not disclose the stack characteristics required by AERMOD to calculate plume rise and dispersion (Appendix 5.3). O21-102

While the Draft EIR reports maximum modeled 1-hour pollutant concentrations for criteria pollutants such as NO_2 and CO, it does not disclose the underlying hour-by-hour emission rate profiles that generate those results. The public, therefore, cannot determine how often short-term pollution peaks occur, how multiple emission sources overlap in time, or how changes in operating schedules would affect short-term exposures. This limitation is particularly important for evaluating acute health risks, which depend on the timing and coincidence of emissions rather than annual averages alone (Appendix 5.3).

The Draft EIR likewise does not provide sufficient detail regarding the meteorological inputs used for AERMOD modeling. It does not identify the specific surface and upper-air meteorological stations, the modeling years selected, or key processing parameters such as surface roughness length, albedo, and Bowen ratio that materially influence dispersion outcomes. (U.S. EPA, Guideline on Air Quality Models, 40 C.F.R. Part 51, Appendix W, Section 8.4) Without this information, neither the representativeness of the meteorological data nor the sensitivity of the results to modeling assumptions can be evaluated.

These omissions persist despite explicit scoping requests from South Coast AQMD for complete electronic modeling files and underlying input data necessary to enable

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independent technical review (Appendix 2-1: NOP, NOP, & Scoping Meeting Letters, p. 121). The California Attorney General likewise emphasized the need for disclosure of locomotive operational assumptions and modeling inputs so that emissions analyses could be meaningfully evaluated by the public and decision-makers (Appendix 2-1: NOP, NOP, & Scoping Meeting Letters, pp. 21–32). By withholding these foundational inputs, the Draft EIR asks the public to accept modeled outcomes without access to the assumptions and data that produced them. As presented, the air quality analysis functions as a black box, limiting transparency and preventing independent verification of the Project's claimed air quality and health risk conclusions.

O21-102 cont'd

4. Incomplete Treatment of Short-Term Exposure and Secondary Pollutants

Although the Draft EIR models and reports selected short-term concentrations for certain pollutants, it does not present a coherent or transparent analysis of how short-term exposure risks and secondary pollutant formation arise from the Project's actual operating patterns. This omission limits the public's ability to understand the frequency, duration, and cumulative nature of acute exposure events associated with Project operations.

The air quality analysis relies on AERMOD dispersion modeling to estimate maximum 1-hour concentrations for nitrogen dioxide (NO_2) and carbon monoxide (CO), and reports those maximum modeled values for construction and operational years (Appendix 5.3 BIG-1 Air Quality Technical Report). However, the Draft EIR discloses only the single highest modeled concentration at each receptor, without providing contextual information about how often such concentrations occur, how long elevated concentrations persist, or whether multiple high-emission activities overlap during the same hours (Appendix 5.3 BIG-1 Air Quality Technical Report).

O21-103

Short-term exposure risks are driven not only by absolute peak values, but by the temporal coincidence of emissions from multiple sources operating simultaneously. Project operations include line-haul trains, switchers, yard equipment, trucks, and stationary sources that may operate concurrently during peak periods. While the Draft EIR states that AERMOD modeling accounts for combined emissions from all modeled sources, it does not disclose the hour-by-hour emission rate profiles or operational schedules that determine when those overlaps occur (Appendix 5.3). As a result, the public cannot evaluate whether short-term pollution peaks represent rare edge cases or recurring conditions associated with routine operations.

In addition, the Draft EIR does not provide a consolidated discussion of secondary pollutant formation associated with Project emissions. Nitrogen oxides (NO_x) emitted by locomotives, trucks, and diesel equipment contribute to the formation of ozone (O_3) and secondary particulate matter ($PM_{2.5}$) downwind, particularly under the high-sunlight

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conditions characteristic of the Mojave Desert Air Basin. While the Draft EIR quantifies primary NO_x emissions and evaluates compliance with 1-hour NO_2 standards, it does not assess how Project-related NO_x emissions may contribute to secondary ozone or secondary $PM_{2.5}$ formation at the corridor or regional scale (Appendix 5.3 BIG-1 Air Quality Technical Report).

The omission of a clear secondary pollutant discussion is particularly consequential given that the Draft EIR relies on future baseline projections that show substantial increases in corridor-wide NO_x emissions by 2028 absent the Project (Appendix 5.3 BIG-1 Air Quality Technical Report, p. 118). Without a transparent explanation of how these projected emissions interact with atmospheric chemistry to form secondary pollutants, the public cannot meaningfully assess the Project's contribution to short-term air quality degradation beyond the immediate vicinity of individual receptors.

O21-103 cont'd

Taken together, the Draft EIR's focus on isolated maximum concentrations, without disclosure of underlying temporal emission patterns or discussion of secondary pollutant formation, obscures the practical implications of short-term exposure risks. This approach limits the ability of decision-makers and the public to understand how Project operations translate into real-world exposure conditions, particularly for sensitive populations exposed to repeated or overlapping pollution events.

F. Several Deficiencies Were Detailed in Agency Scoping Letters

Four expert public agencies submitted formal scoping comments identifying specific information gaps and analytical concerns that they advised should be addressed in the Draft EIR. These comments placed the lead agency and the DEIR preparers on notice regarding areas where additional disclosure or analysis was needed to support meaningful environmental review. Table 2 summarizes key themes raised by each agency and compares them to the treatment of those issues in the Draft EIR. (Appendix 2-1: NOP, NOP, & Scoping Meeting Letters)

Table 2: Agency Scoping Comments and Unresolved Issues in the Draft EIR

O21-104

Agency	Key Issues Raised in Scoping Comments	Issues Remaining Unresolved in the Draft EIR
California Attorney General	Clear description of train operations; transparency in modeling assumptions; evaluation of the full freight movement chain	Incomplete explanation of corridor length assumptions; undisclosed westbound train weights; limited transparency regarding modeling assumptions

CARB	Evaluation of battery-electric locomotives, zero-emission switchers, and hybrid or partial electrification strategies; consideration of CARB feasibility work	No alternatives analysis incorporating CARB's April 2024 feasibility study; no modeled BEL, hybrid, or partial-electrification alternatives
U.S. EPA	Analysis of zero-emission locomotives and yard equipment; integration of solar and battery storage in alternatives	No specification of BESS capacity (MW/MWh); no alternatives analyzing solar-supported rail electrification; electrification dismissed based on undocumented power constraints
SCAQMD	Transparent dispersion modeling assumptions; adequate cumulative air-quality context	No corridor-wide cumulative emissions or health-risk summary; limited disclosure of modeling assumptions necessary for independent evaluation

O21-104 cont'd

These agencies represent the public entities with the greatest technical and statutory expertise in air quality, climate impacts, and environmental review. The Draft EIR does not substantively resolve many of the underlying issues identified. As a result, the Draft EIR's conclusions regarding emissions, feasibility of alternatives, and comparative impacts rely on assumptions that were specifically questioned during scoping and remain insufficiently disclosed for public review.

G. Consequences of Missing Information for CEQA Review

Because the Draft EIR omits or inconsistently presents foundational operational, energy, emissions, and cost information, its conclusions regarding environmental impacts and the feasibility of alternatives cannot be independently evaluated by the public. CEQA requires an EIR to function as an informational document that clearly discloses the assumptions, inputs, and reasoning underlying its analyses, rather than asking readers to accept conclusions without access to the underlying data (CEQA Guidelines §§ 15120, 15124, 15151). Where conclusions about environmental impacts or asserted "economic infeasibility" rest on undisclosed or unclear operational assumptions, baseline fuel and energy costs, or modeling parameters, the analysis effectively operates as a black box. These unresolved gaps materially weaken the reliability of downstream feasibility determinations and lifecycle cost comparisons for cleaner alternatives, and they limit the

O21-105

ability of decisionmakers and the public to meaningfully assess the Project's environmental tradeoffs.

O21-105 cont'd

V. The Diesel Baseline: Costs and Impacts the Draft EIR Fails to Disclose

This section reconstructs the true lifecycle cost of the diesel baseline assumed by the Draft EIR but never transparently disclosed. The DEIR dismisses cleaner locomotive alternatives, such as battery-electric line-haul locomotives, as "too expensive," yet it never discloses the capital or operating cost of the diesel-only plan it proposes for the LA-Barstow corridor. This represents a fundamental gap in the analytical record presented to the public and decision-makers. CEQA requires an EIR to provide enough information for the public and decision-makers to understand the costs, impacts, and feasibility of the baseline project so that alternatives can be meaningfully compared. Here, the DEIR withholds the cost of the diesel fleet, the number of locomotives BNSF must procure, and the fuel cost for the LA-Barstow operation, even though this is one of the largest recurring costs in the entire project.

O21-106

Importantly, the Draft EIR's failure to disclose the capital and operating costs of its own diesel baseline is not merely an informational gap; it is an omission that prevents meaningful comparison of alternatives under CEQA. By omitting the costs of the diesel-only project it proposes, the Draft EIR structurally biases the alternatives analysis. CEQA requires that the baseline project be described with sufficient detail, including cost-relevant operational characteristics, so that alternatives can be meaningfully compared on equal footing.

The following analysis attempts to reconstruct, from the DEIR's own fragments, the actual cost of BNSF's baseline Tier 4 proposal, something the EIR was required to do but did not.

A. Dedicated Tier 4 Line-Haul Fleet Assumptions

The DEIR describes a system in which loaded international containers are placed onto trains at on-dock rail facilities at the Ports of Los Angeles and Long Beach, travel 174 miles via the Alameda Corridor and BNSF's mainline, and terminate at the Barstow International Gateway (BIG), where they are transloaded by zero-emission hostlers into 53-foot domestic containers. Outbound trains then depart BIG for the national rail network.

O21-107

To accomplish this, BNSF commits to a Dedicated (Captive) Fleet of 100 percent Tier 4 line-haul locomotives operating exclusively between the Ports and BIG. (Appendix 5.3 BIG-1 Air Quality Technical Report, p. 73) The DEIR further projects the number of locomotives that must be in service pulling trains on a typical day:

- **2028:** 14.4 locomotives/day (approximately 3 trains/day). (Air Quality, p. 323.)
- **2033:** 19.1 locomotives/day (approximately 4 trains/day). (Air Quality, p. 324.)
- **2048:** 21.9 locomotives/day (approximately 5 trains/day). (Air Quality, p. 325.)

These daily in-service counts do not represent the total captive fleet size. Railroads must maintain spare locomotives for reliability, inspections, and maintenance outages. The Federal Transit Administration and industry practice generally assume a 20-25 percent spare ratio for fleets of this type. (See FTA Circular 9030.1C.)

Applying a conservative 20 percent spare factor yields total dedicated fleet requirements of approximately 17-18 locomotives in 2028, 23-24 locomotives in 2033, and 26-28 locomotives in 2048. The DEIR does not disclose these numbers.

O21-107 cont'd

B. Capital Costs of Diesel Line-Haul Locomotives

CARB's 2022 Technology Feasibility Assessment identifies Tier 4 line-haul locomotives at $3-3.5 million per unit for modeling purposes. (CARB, Technology Feasibility Assessment for the Proposed In-Use Locomotive Regulation, 2022, p. 5-15.) Industry procurement sources show even higher market prices: the 2024 Freight & Passenger Locomotive Buying Guide lists the Wabtec ET44AC and EMD SD70ACe-T4 at $3.8-4.2 million each. ("How to Choose Locomotives," SmartBuy, 2024.)

Using this combined range, the Tier 4 capital costs for the total fleet are as follows:

O21-108

Year	Fleet Size (with spares)	Unit Cost Range	Capital Cost Range
2028	17-18 locomotives	$3.0-4.2M	$51-76 million
2033	23-24 locomotives	$3.0-4.2M	$69-101 million
2048	26-28 locomotives	$3.0-4.2M	$78-118 million

These are baseline capital costs that the DEIR never discloses.

C. Diesel Fueling Infrastructure Costs

The DEIR also omits the cost of diesel fueling infrastructure, which is required because the Dedicated Fleet must be fueled at both the Ports and at or near BIG. CARB's Line-Haul Freight Rail OEC Report estimates capital costs of approximately $200,000 per locomotive dwelling in the peak hour for fueling facilities, including pumps, tanks, containment, and safety systems. (CARB, Transitioning to a Zero or Near-Zero Emission Line-Haul Freight Rail System, 2016, p. 88.)

O21-109

Based on DEIR operational assumptions (3-5 trains/day, 4 locomotives per train), it is reasonable to expect 4-6 locomotives dwelling at each terminal during peak fueling periods. Thus, fueling infrastructure costs are approximately $1.6-2.4 million for both terminals at the typical range, and up to $3.2 million if peak dwell reaches 8 locomotives. Again, the DEIR discloses none of this.

D. Derivation of Corridor-Specific Diesel Fuel Consumption

The DEIR does not disclose diesel fuel consumption for the LA-Barstow line-haul corridor separately. Instead, it reports only aggregate locomotive diesel consumption for the entire BIG rail system, combining line-haul and switcher operations. (DEIR Ch. 50-58 Environmental Analysis, Table 5.6-13, p. 5.6-36.) However, the DEIR does provide sufficient information to derive a reasonable estimate of line-haul diesel use by subtracting switcher fuel consumption using the DEIR's own switcher counts and fuel assumptions.

Table 5.6-13 reports total locomotive diesel consumption of approximately 3,961,086 gallons in 2028, 4,406,417 gallons in 2033, and 6,484,258 gallons in 2048. The Greenhouse Gas Emissions Assessment assumes that each diesel switcher consumes approximately 50,000 gallons per year. (Appendix 58 BIG1 GHG Assessment, p. 83.) Using the DEIR's stated BIG switcher counts of eight in 2028 and twelve in 2048 (Appendix 5.3 BIG-1 Air Quality Technical Report, pp. 178-179), and interpolating to approximately nine switchers in 2033, estimated switcher diesel use is 400,000 gallons in 2028, 450,000 gallons in 2033, and 600,000 gallons in 2048.

Subtracting switcher consumption from total locomotive diesel yields estimated line-haul diesel consumption as shown below: O21-110

Year	Total Locomotive Diesel (DEIR)	Estimated Switcher Diesel (per year)	Estimated Line-Haul Diesel (per year)
2028	3,961,086 gal	400,000 gal	≈3,561,000 gal
2033	4,406,417 gal	450,000 gal	≈3,956,000 gal
2048	6,484,258 gal	600,000 gal	≈5,884,000 gal

Under this DEIR-derived method, approximately 85-90 percent of locomotive diesel consumption is attributable to the LA-Barstow line-haul corridor. This estimate is conservative because any additional locomotive movements embedded in the aggregate DEIR total would further overstate line-haul fuel use rather than understate it.

E. Diesel Fuel Costs from 2028 to 2050

Using the estimated line-haul diesel volumes above and interpolating between analysis years, the LA-Barstow corridor consumes on the order of 3.6-5.9 million gallons of diesel per year as operations ramp up. Over the 23-year period from 2028 through 2050, this corresponds to approximately 90-110 million gallons of diesel fuel attributable to the corridor. O21-111

The Draft EIR never discloses what diesel price assumptions, if any, underlie its operational modeling. It does not state whether fuel costs are assumed to reflect on-highway diesel, off-road diesel, bulk railroad contract pricing, or renewable diesel blends—each of which carries materially different cost implications. Nor does the Draft EIR identify whether its emissions and cost modeling assumes petroleum diesel or renewable diesel, despite expressly stating that renewable diesel usage will increase over time. This lack of disclosure prevents independent verification of fuel cost impacts and further undermines the transparency and reproducibility of the Draft EIR's analysis.

The DEIR does not disclose the amount BNSF will pay for diesel or renewable diesel. However, applying conservative diesel price assumptions of $3.00-$4.00 per gallon (U.S. Energy Information Administration, Short-Term Energy Outlook), lifetime diesel fuel expenditures for the LA-Barstow corridor are approximately:

- **Low case:** 90 million gallons × $3/gallon ≈ **$270 million**
- **High case:** 110 million gallons × $4/gallon ≈ **$440 million**

These costs are unavoidable, recurring, and expose the Project to long-term fuel price volatility for as long as the corridor relies on diesel traction. The DEIR does not disclose this corridor-specific fuel burden, despite using the corridor to dismiss electrification alternatives.

O21-111 cont'd

F. Lifecycle Cost Summary for the Diesel Baseline

The following table summarizes the total undisclosed costs of BNSF's diesel baseline:

Cost Category	Low Estimate	High Estimate	Notes
Capital Costs			
Tier 4 Locomotive Fleet	$78 million	$118 million	Dedicated 2048 fleet acquisition
Fueling Infrastructure	$2 million	$3 million	Diesel storage and dispensing facilities
Capital Subtotal	**$80 million**	**$121 million**	
Operating Costs			

O21-112

Diesel Fuel (2028-2050)	$270 million	$440 million	23-year fuel expenditure at projected consumption rates
Total Diesel Baseline Cost	**$350 million**	**$561 million**	

O21-112 cont'd

This total, ranging from approximately $350 million to $561 million, represents the true cost of BNSF's DEIR baseline: a diesel-only, Tier 4 fleet operating the LA-Barstow route over the project's planning horizon. It is a figure the DEIR never discloses to decision-makers or the public.

This gap in the analysis is consequential. CEQA requires that environmental documents provide sufficient information to allow meaningful comparison of the environmental and economic implications of feasible project alternatives. By quantifying the costs of alternatives while concealing the costs of the preferred diesel baseline, the DEIR does not provide the disclosure necessary to allow meaningful comparison of alternatives. The result is a document that structurally biases decision-making toward the most polluting option by making it appear cost-free by comparison.

VI. Zero-Emission and Electrification Alternatives: Technical and Economic Feasibility

This section presents simplified, planning-level scenarios intended to test whether cleaner locomotive and electrification alternatives are plausibly feasible, not to substitute for the detailed engineering and environmental analysis that CEQA requires in an EIR. The scenarios that follow use conservative assumptions and high-level modeling to demonstrate that zero-emission and electrified options fall within a reasonable range of technical and economic feasibility. Their purpose is to show that these alternatives warrant full, good-faith evaluation in the environmental review process, not to provide final designs or definitive cost estimates.

O21-113

The deficiencies identified in Sections IV through VI are not isolated to the diesel baseline. The same missing operational and cost inputs—such as complete train-weight disclosure, duty cycles, power configurations, fuel and electricity price assumptions, and time-varying load profiles—also affect the evaluation of every electrification alternative discussed below. As a result, the Draft EIR's conclusions regarding the infeasibility, cost, or emissions impacts of zero-emission alternatives rest on the same undisclosed or incomplete assumptions that undermine its analysis of the baseline project. Where those foundational inputs are missing, this section uses reasonable, transparent assumptions solely to illustrate that cleaner alternatives are sufficiently credible to require thorough analysis under CEQA.

A. Battery-Electric Line-Haul Locomotives (BEL-Only)

Based on the limited information provided in the DEIR, it appears that BEL-only operations are technically feasible and economically competitive for the LA-Barstow corridor.

Battery-electric locomotives (BELs) are particularly well-suited for the LA-to-Barstow corridor, and CARB's 2024 *Zero-Emission Train Feasibility Analysis: Port of Los Angeles to Barstow* demonstrates that BELs can successfully operate this route using commercially available locomotive platforms, even for long, double-stack intermodal trains traversing Cajon Pass. CARB's analysis explicitly accounts for the corridor's steep grades, segment-by-segment traction demands, and substantial regenerative-braking opportunities on downhill sections. Because the DEIR proposes a dedicated, captive fleet operating in a continuous round-trip cycle between the Ports and the Barstow International Gateway, and because the DEIR assumes different train weights than those used in CARB's reference case, we update CARB's one-direction feasibility analysis below to reflect both the round-trip operational pattern and the DEIR-specific train weight assumptions. Aligning the feasibility analysis with the DEIR's own operational and mass assumptions provides a more accurate assessment of BEL performance under the Project as proposed and further confirms that BELs are a technically viable and operationally robust alternative for the LA-Barstow corridor. O21-114

1. Route Topography and Energy Modeling

CARB's 2024 feasibility analysis divides the Port of Los Angeles to Barstow route into five segments based on the elevation profile. From the port (about 17 feet above sea level) to the Cajon Pass summit (about 3,800 feet), the route climbs a total of roughly 3,783 feet, then descends about 1,140 feet to Victorville and another 580 feet to Barstow. In the reverse direction, a train starting at Barstow climbs about 1,800 feet back up to Cajon Pass, then descends the full 3,783 feet into the Los Angeles basin. The eastbound LA to Barstow leg has a much larger net climb than the westbound Barstow to LA leg. O21-115

CARB's analysis reports that, for a heavy 130-car double-stack train, the traction energy at the wheels required for a one-way Port of Los Angeles to Barstow trip is approximately 44.5 megawatt hours (MWh).

2. Updated CARB Analysis Using DEIR Weights

a. Eastbound Train Weight and Traction Energy

Appendix 5.3 of the BIG Draft EIR states that the Corridor Emissions Analysis assumes an eastbound gross tonnage of 5,903.26 short tons per train between the Ports and Barstow. This includes both locomotives and railcars with containers. With about four locomotives per intermodal train at roughly 240 short tons each (960 tons total), the remaining approximately 4,943 tons is the combined weight of railcars, containers, and cargo. O21-116

CARB's reference train is heavier at approximately 7,240 short tons. Scaling CARB's traction energy calculation by the mass ratio (5,903.26/7,240 ≈ 0.815) gives a traction energy at the wheels of approximately 36.3 MWh for the DEIR weight eastbound. Applying CARB's 90 percent drivetrain efficiency, the needed battery output for one eastbound LA to Barstow trip at the DEIR train weight is approximately 40.3 MWh.

O21-116 cont'd

b. Westbound Train Weight and Traction Energy

The DEIR does not disclose westbound train weights, but if the train returns westbound with empty containers, the westbound gross tonnage is approximately 960 tons (locomotives) plus 2,470 tons (car plus empty containers), or about 3,430 short tons—roughly 58 percent of the eastbound weight. The westbound train climbs only about 1,800 feet (from Barstow to Cajon Pass) compared to 3,783 feet eastbound. The total westbound traction energy at the wheels is approximately 16.0 MWh, equivalent to about 17.8 MWh of battery output at 90 percent efficiency.

Combining the two directions, the DEIR weight train requires about 52.3 MWh of traction energy at the wheels per full LA to Barstow to LA cycle, and about 58.1 MWh of battery output, before accounting for regenerative braking.

3. Regenerative Braking

Modern BELs can use regenerative braking to convert gravitational energy back into stored electrical energy. On the eastbound leg, the loaded train descends about 1,800 feet from Cajon Pass to Barstow (approximately 8.0 MWh of gravitational energy). On the westbound leg, the lighter train descends about 3,783 feet from Cajon Pass into the LA basin (approximately 9.7 MWh). Combined, approximately 17.7 MWh of gravitational energy is available for regeneration over a full round trip.

O21-117

Assuming a conservative net regenerative efficiency of 60 percent, the net energy stored back into the batteries per round trip is approximately 10.6 MWh. Subtracting this from the 58.1 MWh of battery output yields a net grid-supplied energy requirement of approximately 47.5 MWh per train per full LA to Barstow to LA cycle.

Table 1: Round-Trip Energy Requirements (DEIR Weights)

Parameter	Value
Eastbound battery output	40.3 MWh
Westbound battery output	17.8 MWh
Total round-trip battery output	58.1 MWh
Regenerative braking recovery (60%)	10.6 MWh
Net grid-supplied energy per round trip	**47.5 MWh**

4. BEL Consist Options

Progress Rail SD70J-BB

The Progress Rail SD70J-BB provides approximately 5.7 MW of traction power per locomotive and has a usable battery energy of approximately 10.44 MWh per unit (Progress Rail technical specifications, cited in CARB, Zero-Emission Train Feasibility Analysis, 2024; CARB, Technology Feasibility Assessment for the Proposed In-Use Locomotive Regulation, 2022, App. F).

A four-unit SD70J-BB consist therefore provides approximately 22.8 MW of traction power and 41.8 MWh of usable onboard battery energy. This is sufficient to meet the 40.3 MWh eastbound battery-output requirement derived above for the DEIR-weight train. Under the regenerative-braking-adjusted round-trip duty cycle, each SD70J-BB locomotive supplies approximately 11.9 MWh of net grid-supplied energy per operating day.

Wabtec FLXdrive Heavy Haul

The Wabtec FLXdrive Heavy Haul provides approximately 3.2 MW of continuous traction power per locomotive and is equipped with a battery system in the 7–8 MWh class. For conservative heavy-haul operations, usable daily energy is reasonably assumed to be approximately 6.12 MWh per unit to reflect depth-of-discharge limits and battery-life considerations, consistent with the operational context described in CARB's Zero-Emission Train Feasibility Analysis and DOE's Rail Energy & Emissions Action Plan (CARB, Zero-Emission Train Feasibility Analysis, 2024; U.S. DOE, Rail Energy & Emissions Action Plan, 2024). O21-117 cont'd

With this usable-energy value, a six-unit FLXdrive consist provides approximately 19.2 MW of traction power and 36.7 MWh of usable battery energy, which is insufficient to meet the DEIR-weight eastbound requirement. An eight-unit FLXdrive consist, however, provides approximately 25.6 MW of traction power and 49.0 MWh of usable battery energy, which is sufficient to meet the 40.3 MWh eastbound requirement and to support round-trip operations when regenerative braking is included.

Under the regenerative-braking-adjusted round-trip duty cycle, the net grid-supplied energy requirement of approximately 47.5 MWh per train per day is distributed across eight FLXdrive locomotives, or approximately 5.9 MWh per locomotive per operating day.

5. Dwell Windows

The Draft EIR does not explicitly disclose locomotive charging dwell times. However, it provides sufficient information on operating schedules to infer available dwell windows. The DEIR states that BIG operates 24 hours per day in three shifts and that the dedicated fleet requires an average of 14.4, 19.1, and 21.9 locomotives per day in service in 2028, 2033, and 2048, respectively, to move 3, 4, and 5 trains per day (Air Quality Technical Report, Appendix 5.3 BIG-1, pp. 328-330). O21-118

These figures imply that each trainset completes roughly one round trip per day, leaving substantial time at terminals between assignments. With a 24-hour operating day and one round trip per trainset, each locomotive has on the order of 10–12 hours per day when it

is not hauling a train and is potentially available for charging across the two terminals combined.

O21-118 cont'd

6. Charging Infrastructure and Compatibility

High-capacity chargers for rail applications are projected to generally fall in the 1-2 MW range. Currently, the 1.4 MW (1400 kW) EMD Joule Charging Station from Progress Rail is the fastest locomotive charger on the market, but the technology is evolving rapidly, and faster chargers are expected soon. (Progress Rail, EMD Joule Charging Station, Product Data Sheet (2024); U.S. Department of Energy (DOE), Rail Energy and Emissions Action Plan, p. 32 (March 2024)). Using the DEIR-consistent energy requirement of approximately 11.9 MWh of net grid energy per SD70J-BB per day, charging would require about 6 hours at a 2 MW charger (11.9 MWh ÷ 2 MW ≈ 6 hours) or about 12 hours at a 1 MW charger. Even under the more conservative 1 MW assumption, the required charging duration fits within the inferred 10-12 hour daily dwell window, particularly because dwell time is distributed across both the origin and destination terminals rather than concentrated at a single location.

O21-119

Table 2: Charging Time Requirements by Platform

Platform	At 2 MW Charger	At 1 MW Charger
SD70J-BB (11.9 MWh/day-4 unit consist)	~6 hours	~12 hours
FLXdrive HH (5.9 MWh/day - 8 unit consist)	~3 hours	~6 hours

When modeled with only the charging technologies that exist in practice today, both SD70J-BB and FLXdrive BEL consists can be fully recharged within normal operational dwell periods at Los Angeles and Barstow. BELs are compatible with the DEIR's own operational assumptions using today's 1-2 MW commercial charging systems, highlighting that zero-emission alternatives were feasible but never evaluated by the DEIR.

7. BEL Capital Costs

The total number of battery-electric locomotives required is driven by three inputs disclosed in the Draft EIR: (1) the number of trains per day serving BIG, (2) the number of locomotives required per train consist, and (3) the need for spare locomotives to ensure reliable 24-hour operations. The Draft EIR projects approximately three trains per day in 2028, four trains per day in 2033, and five trains per day in 2048 for the dedicated Ports-

O21-120

to-BIG service (Appendix 58 BIG-1 Greenhouse Gas Emissions Assessment, pp. 328-330).

For the Progress Rail SD70J-BB platform, each train requires a four-locomotive consist to meet the DEIR-weight traction and energy requirements. This results in 12 active locomotives in 2028 (3 trains × 4 units), 16 active locomotives in 2033 (4 × 4), and 20 active locomotives in 2048 (5 × 4). Applying a standard 20 percent spare ratio—consistent with Class I railroad practice to account for charging, maintenance, inspections, and operational contingencies—yields total fleet requirements of approximately 15 units in 2028, 20 units in 2033, and 25 units in 2048.

For the Wabtec FLXdrive Heavy Haul platform, each train requires an eight-locomotive consist due to lower usable battery energy per unit. This results in 24 active locomotives in 2028 (3 trains × 8 units), 32 active locomotives in 2033 (4 × 8), and 40 active locomotives in 2048 (5 × 8). Applying the same 20 percent spare ratio yields total fleet requirements of approximately 30 units in 2028, 40 units in 2033, and 48 units in 2048.

O21-120 cont'd

Progress Rail SD70J-BB fleet (four locomotives per train):

- 2028: 3 trains × 4 = 12 active units; +20% spares (≈3) → 15 SD70J-BBs
- 2033: 4 trains × 4 = 16 active units; +20% spares (≈4) → 20 SD70J-BBs
- 2048: 5 trains × 4 = 20 active units; +20% spares (≈5) → 25 SD70J-BBs

Wabtec FLXdrive Heavy Haul fleet (eight locomotives per train):

- 2028: 3 trains × 8 = 24 active units; +20% spares (≈6) → 30 FLXdrives
- 2033: 4 trains × 8 = 32 active units; +20% spares (≈8) → 40 FLXdrives
- 2048: 5 trains × 8 = 40 active units; +20% spares (≈8) → 48 FLXdrives

Using planning-level capital cost ranges of approximately $7–8 million per SD70J-BB and $6–7 million per FLXdrive locomotive (CARB, Technology Feasibility Assessment for the Proposed In-Use Locomotive Regulation, 2022; U.S. DOE, Rail Energy & Emissions Action Plan, 2024), the resulting fleet-only capital cost at 2048 build-out is approximately $175–200 million for the SD70J-BB option and $288–336 million for the FLXdrive option.

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Charger Requirements

Because a 2 MW charger can operate continuously, the number of locomotives each charger can serve over a 24-hour period depends on the per-locomotive daily charging time derived from the net grid energy requirement and charger power:

- **Progress Rail SD70J-BB:**
  `Net grid energy ≈ 11.9 MWh per locomotive per day →`
  `11.9 MWh ÷ 2 MW ≈` **6 hours per locomotive,** `allowing`
  `24 hours ÷ 6 hours ≈` **4 locomotives per charger per day**

- **Wabtec FLXdrive Heavy Haul:**
  `Net grid energy ≈ 7.9 MWh per locomotive per day →`
  `7.9 MWh ÷ 2 MW ≈` **4 hours per locomotive,** `allowing`
  `24 hours ÷ 4 hours ≈` **6 locomotives per charger per day**

Applying these service rates to the fleet sizes required to support projected train volumes yields the following charger requirements across the project horizon.

O21-120 cont'd

Table 3: Charger Requirements by Platform and Year (2 MW chargers)

Platform	2028	2033	2048
SD70J-BB	4 chargers	5 chargers	7 chargers
FLXdrive HH	4 chargers	5 chargers	6 chargers

8. Cost Estimates for BELs and Chargers

The Draft EIR does not disclose purchase prices for either locomotives or charging infrastructure. However, CARB and the U.S. Department of Energy provide reasonable planning-level cost benchmarks for zero-emission locomotive technology.

CARB's 2022 Technology Feasibility Assessment for the Proposed In-Use Locomotive Regulation uses a representative capital cost of $5–6 million per zero-emission locomotive for regulatory economic modeling purposes (CARB, Technology Feasibility Assessment for the Proposed In-Use Locomotive Regulation, 2022, p. 5-15). This baseline reflects earlier-generation zero-emission platforms and does not fully account for the larger battery packs and higher continuous traction power required for heavy-haul, mainline service.

Manufacturer disclosures, trade-press reporting, and recent pilot procurements indicate that large, heavy-haul battery-electric locomotives fall above this baseline. Publicly available sources consistently place Progress Rail's SD70J-BB in the range of $7–8 million per locomotive, and Wabtec's FLXdrive Heavy Haul in the range of $6–7 million per locomotive, reflecting differences in platform architecture, battery configuration, and traction power (U.S. DOE, Rail Energy & Emissions Action Plan, 2024, p. 30; Railway

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Age, "Wabtec FLXdrive Battery-Electric Locomotive: Lessons from the Barstow–Stockton Pilot," 2022).

Charging infrastructure costs are likewise not disclosed in the Draft EIR. Planning-level cost estimates from early megawatt-class rail charging projects and comparable high-power utility installations indicate installed costs on the order of $1.5–2.0 million per charger, inclusive of power electronics, switchgear, civil works, and interconnection (U.S. DOE, Rail Energy & Emissions Action Plan, 2024, pp. 25–32; Railway-News, "US: BNSF Orders Four EMD SD70J Locomotives from Progress Rail," 2022).

Applying these cost ranges to the corrected fleet sizes required at full build-out yields the following capital cost estimates.

Table 4: BEL Fleet Capital Costs (2048 Build-Out)

Component	SD70J-BB Option	FLXdrive Option
Fleet size (2048)	25 units	48 units
Unit cost	$7-8 million	$6-7 million
Fleet capital cost	$175-200 million	$288–336 million
Charger capital cost	$12-32 million	$12-32 million
Total BEL Capital Cost	**$190-232 million**	**$300–368 million**

O21-120 cont'd

9. BEL Electricity Costs (2028-2050)

A BEL corridor replaces diesel fuel with electricity. Using CARB's 2024 Zero-Emission Train Feasibility Analysis for the Port of Los Angeles to Barstow corridor, scaled to the DEIR's train weights and round-trip operations, the net grid-supplied energy requirement for a BEL corridor is approximately 47.5 MWh per train round trip.

Applying the DEIR's projected corridor volumes of approximately 3 to 5 trains per day yields annual corridor electricity demand on the order of approximately 52 to 87 GWh/year (47.5 MWh per round trip × 3 to 5 round trips per day × 365 days/year). Over the 23-year period from 2028 through 2050, a reasonable planning estimate for average corridor electricity demand is approximately 70 GWh/year, reflecting ramp-up over time. Assuming an electricity price range of $0.10–$0.22 per kWh, lifetime corridor electricity costs are therefore:

- approximately $161 million in the low case (70 GWh/year × 23 years × $0.10/kWh) and
- approximately $354 million in the high case (70 GWh/year × 23 years × $0.22/kWh).

(See Appendix 2: Planning-Level Electricity Cost Ranges for an All-Electric BIG (2028–2050) for the analysis on projected electricity costs)

10. Lifecycle Cost Comparison: BEL-Only vs Diesel Baseline

Diesel Baseline Costs (From DEIR)

As stated above, the DEIR does not disclose diesel fuel consumption for the LA-Barstow line-haul corridor separately. But using the data provided we extrapolated that over the 23-year period from 2028 through 2050, 90-110 million gallons of diesel fuel would be used to fuel the locomotive fleet between LA and Barstow.

Applying conservative diesel price assumptions of $3.00-$4.00 per gallon (U.S. Energy Information Administration, Short-Term Energy Outlook), lifetime diesel fuel expenditures for the LA-Barstow corridor are approximately $270 million in the low case (90 million gallons at $3/gallon) and $440 million in the high case (110 million gallons at $4/gallon).

O21-120 cont'd

Summary Comparison

The Tier 4 diesel corridor requires approximately $70-95 million in capital investment for locomotives and fueling infrastructure, plus $270-440 million in diesel fuel purchases through 2050, for a total lifecycle cost of approximately $350–$561 million.

By contrast, the battery-electric locomotive (BEL) corridor requires higher upfront capital investment, but substantially lower operating energy costs:

- The Progress Rail SD70J-BB option requires approximately $190–232 million in total capital investment, inclusive of locomotives and commercially available 1–2 MW charging infrastructure, and incurs approximately $70–175 million in electricity costs over the same period. This yields a total lifecycle cost of approximately $260–$407 million.
- The Wabtec FLXdrive Heavy Haul option requires approximately $300–368 million in total capital investment, inclusive of locomotives and charging infrastructure, and likewise incurs approximately $70–175 million in electricity costs. This yields a total lifecycle cost of approximately $370–$543 million.

Table 5: Lifecycle Cost Comparison: Diesel vs. BEL Corridor (2028-2050)

Scenario	Capital Costs	Energy Costs	Total Lifecycle
Tier 4 Diesel Corridor (DEIR Baseline)	$70-95 million	$270-440 million	**$350–$561 million**
BEL Corridor (SD70J-BB)	$190-232 million	$70-175 million	**$260-407 million**
BEL Corridor (FLXdrive)	$300–368 million	$70-175 million	**$370–$543 million**

O21-121

This analysis—based on the Draft EIR's own locomotive totals, the Draft EIR's switcher fuel assumptions, and CARB's corridor energy modeling—demonstrates that battery-electric locomotives are economically competitive with, and in many cases cheaper than, the diesel baseline for the LA–Barstow corridor on a lifecycle basis.

Even under conservative assumptions, the SD70J-BB BEL option produces lifecycle costs well below the diesel baseline. The FLXdrive Heavy Haul option, while more capital-intensive due to its larger fleet requirement, remains within the same lifecycle

cost range as the diesel alternative while eliminating long-term exposure to diesel fuel price volatility and significantly reducing emissions.

Under CEQA Guidelines §15126.6, an alternative that is technologically available, operationally workable, and economically achievable must be evaluated in good faith. The BEL corridor alternatives meet that standard. Moreover, BNSF itself has already demonstrated confidence in this technology by operating Wabtec's FLXdrive battery-electric locomotive in revenue freight service and by ordering four battery-electric SD70J-class locomotives from Progress Rail for deployment in Southern California (Railway-News, "US: BNSF Orders Four EMD SD70J Locomotives from Progress Rail," 2022)

O21-121 cont'd

The BEL option is not only feasible—it is affordable.

B. Hybrid BEL–Diesel Consists

This subsection evaluates hybrid locomotive configurations that provide near-term diesel reductions with modest capital investment. A hybrid configuration in which a battery-electric locomotive (BEL) operates in consist with Tier 4 diesel locomotives on the LA–Barstow corridor represents a practical, commercially proven alternative that the Draft EIR fails to examine. This approach is particularly relevant for CEQA because it uses commercially available technology, it aligns with the DEIR's dedicated fleet concept, it is an approach BNSF has already tested in revenue service, and it delivers measurable diesel fuel and emissions reductions without requiring full corridor catenary or a complete BEL fleet on day one.

1. The DEIR Baseline and Why a Hybrid Alternative Is Appropriate

O21-122

The DEIR assumes a dedicated "captive fleet" operating between the Ports and the Barstow International Gateway, and specifies that this fleet is 100% Tier 4 line-haul locomotives. (Air Quality Technical Report, Appendix 5.3 BIG-1, p. 71) It further projects that 14.4, 19.1, and 21.9 locomotives per day must be in service hauling trains to meet throughput in 2028, 2033, and 2048, respectively. (Appendix 5.3 BIG-1 Air Quality Technical Report, pp. 328-330.)

This dedicated-fleet design is unusually favorable for a hybrid BEL approach because it creates repeatable routes, predictable dwell windows, and consistent operating patterns. The DEIR itself notes a 24-hour operating environment split across three shifts (Appendix 5.3 BIG-1 Air Quality Technical Report, p. 8), which supports scheduled charging and trainset rotation.

2. Two Hybrid Consist Scenarios the DEIR Should Have Analyzed

Because the DEIR does not disclose the high-resolution distributions or specific distributed power arrangements found in detailed train-handling simulations, it is not possible for the public to confirm whether BNSF's assumed performance margins require four locomotives per train at all times. Accordingly, a reasonable CEQA analysis should present both a conservative hybrid case that preserves the DEIR's implied consist size and

a sensitivity case that reflects the possibility that one BEL can substitute for one diesel unit in a four-unit consist. Both cases are feasible alternatives that would materially reduce diesel use.

- **Scenario A (Conservative hybrid, 4 units/train):** 3 Tier 4 diesels + 1 BEL per trainset.
- **Scenario B (Lean hybrid, 3 units/train):** 2 Tier 4 diesels + 1 BEL per trainset (sensitivity case).

3. Fleet Quantities at Build-Out (2048)

At build-out, the DEIR implies roughly five trains per day on the corridor. (Appendix 5.3 BIG-1 Air Quality Technical Report, p. 309.) To compare fleet needs consistently, we assume five trainsets in daily service and apply a conservative 20% spare ratio for maintenance and reliability. Scenario A keeps four units per train, so it uses 20 locomotives in daily service; Scenario B uses three units per train, so it uses 15 locomotives in daily service.

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Hybrid Case (2048 build-out)	In-service trainsets/day	Locos per train	In-service locos/day	Total fleet incl. 20% spares
Scenario A: 3 diesel + 1 BEL	5	4	20	24
Scenario B: 2 diesel + 1 BEL	5	3	15	18

Breaking those totals into diesel and BEL units yields the following planning-level fleet inventories. Under Scenario A, diesels represent 75% of the consist and BELs 25%. Under Scenario B, diesels represent 67% and BELs 33%.

Hybrid Case	Total Diesels (incl. spares)	Total BELs (incl. spares)	Notes
Scenario A (4 units/train)	18	6	24 total × 75% diesel / 25% BEL
Scenario B (3 units/train)	12	6	18 total × 2/3 diesel / 1/3 BEL

4. Charging Infrastructure for Hybrid Operation

Hybrid operation requires fewer chargers than a full BEL corridor because only a small number of BELs are in the fleet and because the diesels still supply a share of the traction energy. Using 1–2 MW charger technology, a practical minimum configuration is one 2 MW charger at the LA terminal and one 2 MW charger at BIG, allowing charging to occur during dwell at both ends. (Air Quality Technical Report, Appendix 5.3 BIG-1, pp. 67–70.) A 2 MW charger can serve multiple locomotives per day on a rotating schedule. A CEQA analysis should present a low case of two chargers total (one at each terminal) and a high case of four chargers total (two at each terminal).

5. Fuel Savings: Anchored to BNSF's Own CARB-Supported Pilot

Fuel savings in the hybrid configuration are not speculative. BNSF has already demonstrated hybrid BEL operation in a CARB-supported pilot on the Barstow–Stockton corridor using a Wabtec FLXdrive locomotive (with a smaller battery than today's model) in consist with diesel locomotives. DOE's Rail Energy & Emissions Action Plan summarizes this pilot and reports approximately 11–12% diesel fuel savings relative to a modeled all-diesel baseline. (U.S. DOE, Rail Energy & Emissions Action Plan, 2024, p. 30.) This empirical result provides a conservative benchmark for fuel savings in a hybrid deployment on the LA–Barstow corridor. O21-123

Applying that benchmark to the DEIR's own diesel baseline fuel-cost range for 2028–2050 ($270–$440 million, as derived in the preceding section) yields avoided diesel expenditures on the order of $32–$53 million over the project horizon at 12% savings. Higher savings are plausible if the BEL share of traction energy increases (as in Scenario B), but 12% is a defensible, demonstrated minimum.

6. Capital Costs: Hybrid Fleet and Chargers

The DEIR does not disclose procurement costs. For consistency with the diesel baseline section, Tier 4 diesel locomotives are valued at $3.0–$4.2 million per unit based on CARB's Tier 4 cost inputs and industry procurement references. (CARB, Technology Feasibility Assessment, 2022, p. 5-15; How to Choose Locomotives, 2024, p. 12.) BEL capital costs are valued at $7–$8 million per SD70J-class BEL, consistent with CARB's zero-emission baseline and DOE/trade reporting for heavy-haul battery platforms. (CARB 2022, p. 5-15; DOE 2024, p. 30.) Installed 2 MW charger costs are assumed at $1.5–$2.0 million each. (DOE 2024, pp. 25–32.)

Case	Diesels (units)	BELs (units)	Chargers (2 MW)	Capital Cost Range
Scenario A (4 units/train)	18	6	2–4	$99–$132 million

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Scenario B (3 units/train)	12	6	2–4	$81–$106 million

BNSF's current procurement also supports near-term feasibility: BNSF has ordered four battery-electric SD70J-class locomotives from Progress Rail with megawatt-class charging systems for Southern California yards, confirming that the railroad is already investing in this technology. (Railway-News, 2022, https://www.railway-news.com/us-bnsf-orders-four-emd-sd70j-locomotives-from-progress-rail/.)

7. Lifecycle Cost Comparison: Hybrid BEL–Diesel vs. Diesel Baseline

The hybrid alternative is not intended to replace the full BEL corridor analysis; rather, it is a practical intermediate step that provides measurable diesel reductions immediately using proven technology. When lifecycle costs are compared to the diesel baseline reconstructed in the preceding section, the hybrid approach demonstrates favorable economics while delivering meaningful environmental benefits.

The diesel baseline, as established above, carries a total lifecycle cost of $350–$561 million from 2028 through 2050, comprising $80–$121 million in capital costs (locomotives and fueling infrastructure) and $270–$440 million in diesel fuel purchases. O21-123 cont'd

For the hybrid scenarios, capital costs are somewhat higher due to the inclusion of BELs and charging infrastructure, but operating fuel costs are reduced by the demonstrated 12% savings from hybrid operation. The following table presents the lifecycle cost comparison:

Scenario	Capital Costs (locomotives + infrastructure)	Diesel Fuel Costs (2028–2050)	Total Lifecycle Cost (2028–2050)
Diesel Baseline (DEIR)	$80–$121 million	$270–$440 million	**$350–$561 million**
Hybrid Scenario A (3 diesel + 1 BEL)	$99–$132 million	$238–$387 million (12% reduction)	**$337–$519 million**
Hybrid Scenario B (2 diesel + 1 BEL)	$81–$106 million	$238–$387 million (12% reduction)	**$319–$493 million**

As the table demonstrates, the hybrid configurations are cost-competitive with the diesel baseline across the full range of assumptions. Scenario A, the conservative case that

maintains the DEIR's four-locomotive consist, yields lifecycle costs of $337–$519 million, compared to $350–$561 million for the diesel baseline. Scenario B, which assumes the BEL can substitute for one diesel unit, yields even lower lifecycle costs of $319–$493 million.

These figures likely understate the economic advantage of the hybrid approach for several reasons. First, the 12% fuel savings benchmark is derived from BNSF's Barstow–Stockton pilot, which involved terrain and operating conditions similar to but not identical to the LA–Barstow corridor. The steep grades of Cajon Pass offer substantial regenerative braking opportunities that could increase the BEL's contribution to traction energy and reduce diesel consumption beyond the 12% benchmark. In addition, the Barstow-Stockton pilot used BEL locomotives with smaller batteries than today's models. Second, the analysis does not account for available federal and state incentives (such as CORE vouchers, DERA grants, and LCFS credits) that would reduce the net capital cost of BEL procurement. Third, the analysis does not credit the reduced maintenance costs associated with BELs, which have fewer moving parts and lower per-mile maintenance burdens than diesel locomotives. O21-123 cont'd

The DEIR's failure to analyze a hybrid BEL–diesel alternative is notable because it is operationally proven, commercially available, and economically bounded. BNSF itself has already tested and validated this exact approach on a comparable California corridor. The technology pathway is not speculative; it is a strategy BNSF has already chosen to pursue.

Under CEQA Guidelines § 15126.6, the EIR must evaluate feasible mitigation measures and alternatives supported by substantial evidence. A hybrid BEL–diesel corridor option meets that standard. It should have been analyzed quantitatively, including its fleet plan, charger needs, fuel savings, and lifecycle costs compared to the diesel baseline. The DEIR's complete omission of this alternative, despite BNSF's own demonstrated experience with hybrid operations, represents a significant analytical deficiency that prevents meaningful comparison of project alternatives.

C. Full Corridor Catenary Electrification

This subsection evaluates full corridor electrification as a capital-intensive but low-operating-cost alternative. In addition to battery-electric locomotive alternatives and intermittent catenary configurations, a full overhead catenary electrification of the rail corridor between the Ports of Los Angeles and the Barstow International Gateway represents a technically mature and well-understood zero-emission option that the DEIR dismisses without meaningful analysis. Full electrification would eliminate the use of diesel locomotives entirely on this corridor, replacing Tier 4 engines with electric locomotives drawing continuous power from an overhead contact system (OCS). Such systems are the global standard for high-throughput freight corridors and have been deployed reliably for decades in Europe and Asia. O21-124

Globally, overhead catenary electrification is the norm rather than the exception for heavy freight rail, including operations comparable in scale and intensity to the LA–

Barstow corridor. Switzerland has achieved effectively 100 percent electrification of its national rail network, encompassing both passenger and freight traffic, including heavy Alpine freight routes with grades and tunnel constraints comparable to Cajon Pass (International Union of Railways (UIC), Railway Handbook 2023; Swiss Federal Railways (SBB), Energy Strategy and Infrastructure Overview). India is rapidly approaching full electrification of its entire broad-gauge freight network, with more than 90 percent of route-kilometers electrified as of 2024 and a national commitment to 100 percent electrification specifically to reduce diesel fuel use and operating costs on long-haul freight corridors (Government of India, Ministry of Railways, Year End Review 2023–24). Indian Railways routinely operates double-stack container trains under 25 kV AC catenary using high-rise overhead equipment (OHE), demonstrating that overhead electrification is fully compatible with the high-clearance intermodal freight operations proposed for the Barstow International Gateway when designed to modern international standards (Indian Railways, DFCCIL Annual Report 2023). Across Europe, freight rail networks in countries such as Germany, Austria, the Netherlands, and Sweden rely predominantly on electrified mainlines for heavy freight movement, with electrification rates exceeding 70–90 percent and standard use of catenary for intermodal and bulk freight (European Commission, Statistical Pocketbook on Transport, 2023). These international examples demonstrate that catenary electrification is a mature, proven technology for freight rail, including long-distance, high-tonnage, and intermodal service, and cannot reasonably be dismissed as speculative or impractical for the LA–Barstow corridor.

1. System Description and Infrastructure Requirements

O21-124 cont'd

A catenary project for the approximately 174-mile corridor from the Port of Los Angeles to Barstow would involve installation of overhead contact wire, traction power substations at regular intervals, feeder and return circuits, and targeted clearance adjustments at bridges and tunnels. Electric locomotives would draw power continuously from the overhead wire, eliminating the need for onboard fuel storage, diesel engines, or large battery packs.

Full catenary electrification offers several inherent advantages over other zero-emission approaches. Electric locomotives provide high continuous tractive effort on steep grades such as Cajon Pass without the performance limitations associated with battery state-of-charge management. The system avoids the weight penalty of large onboard battery packs, allowing more payload capacity per train. Maintenance costs are lower because electric locomotives have fewer moving parts than diesel engines. And the infrastructure, once installed, has a service life measured in decades with relatively modest ongoing maintenance requirements.

2. Capital Cost Ranges for Corridor Electrification

Published cost estimates for rail electrification in California vary widely depending on whether they reflect regulatory placeholders or actual infrastructure costs. CARB's 2016 Transitioning to a Zero or Near-Zero Emission Line-Haul Freight Rail System in California used a high-end planning estimate of approximately $50 million per mile,

largely derived from the total project cost of the Caltrain passenger electrification program. (CARB, Transitioning to a Zero or Near-Zero Emission Line-Haul Freight Rail System in California (2016) p. 20.) Applied mechanically, this produces a notional cost of approximately $8.7 billion for the LA–Barstow corridor.

When passenger-specific elements are excluded, and the analysis is limited to the overhead contact system itself, technical and advocacy analyses estimate OCS installation costs closer to $12 million per mile in a U.S. regulatory environment. Californians for Electric Rail identifies this lower figure by isolating Caltrain's wire-and-power infrastructure costs. (Californians for Electric Rail, Frequently Asked Questions, 2023.) Applying this adjusted cost yields an estimated capital cost of approximately $2.1 billion for electrifying the 174-mile corridor.

International experience suggests that even lower costs are achievable where electrification is standardized and delivered at scale. Indian Railways has reportedly achieved electrification costs on the order of roughly $200,000 per mile. ("Railways targets full electrification with Rs 35,000 crore plan," The Economic Times, October 16, 2017) The International Transport Forum reports costs as low as 0.5-2 million euros per kilometer (or $0.9–3.5 million per mile) for overhead catenary costs. (International Transport Forum (ITF), Enhanced Non-Urban Passenger Rail Infrastructure, OECD, 2020) But a more conservative figure from Solutionary Rail states that freight electrification can be delivered for approximately $2.5–$5 million per mile in mature markets. (Solutionary Rail & Backbone Campaign, Solutionary Rail: A People-Powered Campaign to Electrify America's Railroads (2016) p. 55.) Applied to the LA–Barstow corridor, this implies a range of roughly $435 million to $870 million.

O21-124
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The wide range of cost estimates reflects differences in labor costs, regulatory requirements, project delivery methods, and whether electrification is treated as a one-off project or part of a programmatic buildout. For purposes of this analysis, three cost scenarios are presented: an international-standard scenario using $2.5–$5 million per mile, a moderate U.S. scenario using $12 million per mile, and a high-end U.S. scenario using $50 million per mile.

3. Electric Locomotive Fleet Requirements and Costs

Full catenary electrification requires procurement of electric locomotives to replace the Tier 4 diesel fleet assumed in the DEIR. Electric freight locomotives are commercially available from multiple manufacturers and are the standard motive power on electrified freight corridors worldwide.

The fleet size requirements are comparable to the diesel baseline: approximately 17–18 locomotives in 2028, 23–24 locomotives in 2033, and 26–28 locomotives at full build-out in 2048, including a 20% spare ratio.

Electric locomotive costs vary by manufacturer and specification, but are generally comparable to Tier 4 diesel locomotives on a per-unit basis. Industry sources indicate electric freight locomotive costs in the range of $4–$6 million per unit for modern AC-

traction designs. Using the midpoint of this range ($5 million per unit) and the 2048 build-out fleet of 26–28 locomotives yields electric locomotive capital costs of approximately $130–$140 million.

This is modestly higher than the $78–$118 million estimated for the Tier 4 diesel fleet in the baseline analysis, but the difference is small relative to the infrastructure costs and is offset by the elimination of diesel fueling infrastructure (approximately $2–$3 million in the diesel baseline).

4. Electricity Costs for Full Catenary Operation

Full catenary electrification would permanently eliminate diesel fuel consumption for LA–Barstow line-haul service. Based on the DEIR's own locomotive diesel consumption projections, fuel costs for this corridor are on the order of $270–$440 million between 2028 and 2050 under reasonable bulk rail diesel price assumptions. (DEIR Ch. 50–58 Environmental Analysis, Table 5.6-13) These costs recur annually and expose the Project to long-term fuel price volatility. Corridor electrification would avoid these costs entirely, substituting grid electricity that can increasingly be supplied by renewable resources.

Under a full corridor catenary configuration, all traction energy for the LA–Barstow line-haul corridor is supplied directly from the electric grid via overhead contact wire rather than from on-board batteries or terminal charging. Importantly, this changes the delivery mechanism for electricity but not the total traction energy required to operate the corridor. As demonstrated in CARB's 2024 Zero-Emission Train Feasibility Analysis and updated here using the Draft EIR's train weights and round-trip operating assumptions, net traction energy demand remains approximately 47.5 MWh per train round trip after accounting for regenerative braking (CARB, Zero-Emission Train Feasibility Analysis: Port of Los Angeles to Barstow, 2024).

Applying the Draft EIR's projected train volumes of approximately 3 to 5 round trips per day yields annual corridor electricity demand on the order of 50–90 GWh/year, with a reasonable planning-period average of approximately 70 GWh/year as operations ramp up between 2028 and 2050. Using a blended electricity price range of $0.10–$0.22 per kWh, reflecting large-customer time-of-use tariffs mitigated by operational flexibility and Barstow's strong solar resource (see Appendix 2), total electricity expenditures for full corridor electrification are therefore approximately $161 million in the low case and $354 million in the high case over the 23-year period from 2028 through 2050.

5. Lifecycle Cost Comparison: Full Catenary vs. Diesel Baseline

The following table compares the lifecycle costs of full corridor catenary electrification to the diesel baseline established in the preceding section. Three catenary cost scenarios are presented to reflect the wide range of published estimates.

Capital Cost Components:

O21-124
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Component	International Standard ($2.5–$5M/mile)	Moderate U.S. ($12M/mile)	High-End U.S. ($50M/mile)
Catenary Infrastructure (174 miles)	$435–$870 million	$2,088 million	$8,700 million
Electric Locomotive Fleet (28 units)	$130–$140 million	$130–$140 million	$130–$140 million
Capital Subtotal	**$565–$1,010 million**	**$2,218–$2,228 million**	**$8,830–$8,840 million**

O21-124 cont'd

Lifecycle Cost Comparison (2028–2050):

Scenario	Capital Costs	Operating Energy Costs (2028–2050)	Total Lifecycle Cost (2028–2050)
Diesel Baseline (DEIR)	$80–$121 million	$270–$440 million (diesel fuel)	**$350–$561 million**
Full Catenary (International costs)	$565–$1,010 million	$161–$354 million (electricity)	**$726–$1,364 million**
Full Catenary (Moderate U.S. costs)	$2,218–$2,228 million	$161–$354 million (electricity)	**$2,379–$2,582 million**
Full Catenary (High-end U.S. costs)	$8,830–$8,840 million	$161–$354 million (electricity)	**$8,991–$9,194 million**

6. Analysis of Lifecycle Cost Results

The lifecycle cost comparison reveals that full corridor catenary electrification is more capital-intensive than the diesel baseline under all cost scenarios, but the magnitude of the difference varies dramatically depending on construction cost assumptions.

International-Standard Costs ($2.5–$5 million per mile): At international construction standards, full catenary electrification carries a lifecycle cost of $726 million to $1.37 billion, approximately 2–3 times the diesel baseline. While this represents a significant cost premium, it is not so large as to render the alternative economically infeasible, particularly when weighed against the substantial environmental benefits of eliminating all diesel emissions on the corridor. Moreover, international experience demonstrates that these cost levels are achievable when electrification is delivered programmatically rather than as isolated projects.

Moderate U.S. Costs ($12 million per mile): At moderate U.S. construction costs, full catenary electrification carries a lifecycle cost of approximately $2.4–$2.6 billion, roughly 5–7 times the diesel baseline. This represents a substantial cost premium that would require significant policy justification, though it remains within the range of major infrastructure investments that have been undertaken for environmental and strategic reasons.

High-End U.S. Costs ($50 million per mile): At the high-end U.S. cost estimate derived from Caltrain passenger electrification, full catenary electrification would cost approximately $9 billion, roughly 16–26 times the diesel baseline. This scenario reflects the "gold-plated" approach that CARB has acknowledged includes costs not applicable to freight-only corridors. It should not be used as a basis for rejecting catenary electrification without first analyzing why freight electrification should cost as much as passenger electrification with stations, signaling, and rolling stock.

O21-125

7. Factors Favoring Full Catenary Not Reflected in Lifecycle Costs

The lifecycle cost comparison presented above does not account for several factors that would improve the economic case for full catenary electrification:

Avoided Fuel Price Volatility: The diesel baseline exposes the project to 22 years of diesel price risk. The lifecycle cost analysis assumes diesel prices of $3.00–$4.00 per gallon, but prices have historically fluctuated well outside this range. Full electrification eliminates this volatility entirely, providing cost certainty over the project horizon.

Available Federal and State Incentives: The Infrastructure Investment and Jobs Act and the Inflation Reduction Act provide substantial funding for rail electrification projects. The Railroad Rehabilitation and Improvement Financing (RRIF) program can finance up to 75% of total project costs at low interest rates. (DOT RRIF Eligibility and Application.) CRISI grants fund rail modernization, including electrification. These programs could substantially reduce the net capital cost to BNSF.

Extended Infrastructure Life: Catenary infrastructure has a service life of 50–75 years with proper maintenance, far exceeding the 23-year analysis period used in this comparison. When amortized over the full useful life of the infrastructure, the per-year cost of catenary is substantially lower than suggested by the 2028–2050 analysis window.

Capacity for Growth: Once installed, catenary infrastructure can support increased train frequencies without proportional increases in operating cost. If LA–Barstow traffic grows beyond the DEIR's projections, the fixed infrastructure cost is spread over more train-miles, improving the economics of electrification.

Network Effects: Full electrification of the LA–Barstow corridor could serve as the foundation for broader electrification of BNSF's Southern California network, including connections to the Ports, the Alameda Corridor, and routes eastward. The marginal cost of extending electrification to adjacent segments is lower once the initial infrastructure and expertise are in place.

Public Health Benefits: Full catenary electrification eliminates all diesel emissions on the corridor, including NOx, PM2.5, and diesel particulate matter. The public health benefits of eliminating these emissions in communities along the route, including environmental justice communities near the Ports and in the Cajon Pass region, are substantial but not quantified in the lifecycle cost comparison.

O21-125 cont'd

8. CEQA Significance

While full catenary electrification entails higher upfront capital costs than diesel or battery-electric options, it is a proven, commercially mature technology with the strongest long-term emissions and operating-cost performance. Given global freight experience, the availability of right-of-way, the magnitude of avoided diesel fuel costs, and BNSF's demonstrated financial capacity, full electrification of the LA–Barstow corridor is a feasible zero-emission alternative that warrants serious analysis in the EIR.

The DEIR's failure to analyze full catenary electrification, despite explicit direction from CARB and EPA to evaluate electrification options, represents a significant analytical deficiency. The document does not disclose catenary cost estimates, does not evaluate the tradeoff between higher capital costs and lower operating costs, does not consider available federal financing and incentives, and does not explain why a technology deployed successfully on freight corridors worldwide should be dismissed as infeasible for a single route operated by one of the most profitable railroads in North America.

O21-126

An EIR must evaluate a reasonable range of alternatives that would feasibly attain most of the project's basic objectives while avoiding or substantially lessening any significant environmental effects. Full catenary electrification meets this standard. It would achieve all of the project's freight-movement objectives while eliminating the significant air quality and greenhouse gas impacts associated with diesel operations. The DEIR's complete omission of this alternative does not represent a good-faith evaluation of environmentally superior options.

D. Intermittent Catenary with BELs

This subsection explains how strategic electrification of key corridor segments reduces charging needs and lifecycle cost. In addition to full catenary electrification and pure battery-electric operation, a hybrid approach combining intermittent catenary with battery-electric locomotives (BELs) represents a particularly practical and cost-effective zero-emission alternative for the LA–Barstow corridor. This approach, sometimes referred to as "partial" or "strategic" electrification, focuses fixed infrastructure investment on the most energy-intensive segments of the route while relying on batteries for the remainder. The Draft EIR fails to analyze this middle-ground alternative despite explicit direction from CARB and EPA to evaluate electrification options.

1. Conceptual Design: Where Intermittent Catenary Would Be Installed

For the LA–Barstow corridor, the most logical candidate for intermittent catenary is the Cajon Pass climb and associated high-power segments. As documented in CARB's 2024 Zero-Emission Train Feasibility Analysis, the climb from the Los Angeles Basin to Cajon Pass, approximately 3,783 feet of elevation gain, dominates traction-energy demand for eastbound trains. (CARB, Zero-Emission Train Feasibility Analysis: Port of Los Angeles to Barstow, 2024.) Electrifying this limited segment would allow locomotives to draw continuous power precisely where diesel fuel consumption and NOx emissions are highest.

O21-127

Outside the Cajon Pass segment, BELs would operate in battery mode on flatter terrain and downhill sections, using regenerative braking to recover energy during descents. This architecture mirrors hybrid electrification strategies already deployed on freight corridors in Europe and evaluated by U.S. agencies for mountainous routes.

2. Cost Implications Relative to Full Catenary

Because intermittent catenary electrifies only a fraction of the total route length, its capital cost is dramatically lower than full corridor electrification. Full catenary for the 174-mile LA–Barstow corridor was previously estimated at approximately $400 million to $8 billion, depending on cost assumptions and degree of U.S. "gold-plating."

By contrast, electrifying only the Cajon Pass and immediate approaches, on the order of 25–35 miles, would reduce infrastructure costs proportionally. Using the same unit-cost ranges applied above, intermittent catenary would likely fall in the range of roughly $60–180 million at international-standard costs ($2.5–$5 million per mile), or $300–420 million using conservative U.S. infrastructure benchmarks ($12 million per mile). In either case, intermittent catenary is substantially cheaper than full corridor electrification while capturing a large share of its benefits.

3. Implications for BEL Fleet Size and Battery Capacity

The same number of BELs used in the updated BEL-only analysis would be required to meet the DEIR’s projected train volumes: approximately 15–25 SD70J-BB units or

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approximately 30–48 FLXdrive Heavy Haul units at full build-out. What changes is not fleet size, but battery utilization.

With catenary available on the steepest grades, BELs would draw power directly from the overhead wire during the most demanding portions of the trip. This reduces the depth of battery discharge per trip and therefore reduces the required onboard battery capacity. Shallower discharge cycles improve battery longevity, reduce replacement costs, and allow manufacturers to optimize locomotives with smaller or less stressed battery packs.

4. Reduced Charging Infrastructure and Dwell Requirements

Intermittent catenary also reduces the need for stationary charging infrastructure at terminals. Intermittent catenary shifts a portion of the traction energy supply from terminal charging to en-route grid power on Cajon Pass, reducing battery cycling depth and reducing terminal charging requirements, even if total corridor electricity demand remains of a similar order.

As a result, fewer 1–2 MW chargers are needed, charging sessions are shorter, and locomotives spend less time tied to chargers during dwell windows. This further eases integration with the DEIR's asserted 66-MW import limit and reduces capital investment in charging hardware compared to a pure BEL scenario.

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5. Diesel Fuel Savings Compared to the DEIR Baseline

Even without full electrification, intermittent catenary combined with BELs would eliminate diesel fuel use for line-haul service on the LA–Barstow corridor. As shown in the diesel baseline analysis, the DEIR's own projections imply locomotive diesel fuel expenditures of approximately $270–440 million between 2028 and 2050 under bulk rail diesel price assumptions. (DEIR Ch. 50–58 Environmental Analysis, Table 5.6-13, p. 5.6-36.) An intermittent-catenary BEL system would avoid all of those fuel costs, while requiring substantially less fixed infrastructure than full catenary.

6. Capital Cost Estimates for Intermittent Catenary with BELs

The capital costs for an intermittent catenary system with BELs consist of three primary components: the catenary infrastructure on Cajon Pass, the BEL fleet, and reduced charging infrastructure at terminals.

Catenary Infrastructure (25–35 miles on Cajon Pass):

- International-standard costs ($2.5–$5 million/mile): $60–$180 million
- Conservative U.S. benchmark ($12 million/mile): $300–$420 million

BEL Fleet (using Progress Rail SD70J-BB as reference): As established in the full BEL analysis, a Progress Rail SD70J-BB fleet for the corridor requires 15–25 units at full build-out, with capital costs of $175–$200 million.

However, with intermittent catenary supplying power on the most demanding segments, there is potential to reduce onboard battery capacity requirements. This could yield modest cost savings per locomotive, but to be conservative, this analysis maintains the full BEL cost assumptions.

Charging Infrastructure: With catenary providing a significant share of traction energy, fewer chargers are required at terminals. A reasonable estimate is 3–5 chargers total (compared to 7–14 for the pure BEL scenario), at $1.5–$2.0 million per installed 2 MW charger. This yields charging infrastructure costs of approximately $5–$10 million.

Electricity Costs (2028–2050): Under an intermittent-catenary configuration, traction energy is supplied partly from overhead catenary on Cajon Pass and partly from stationary charging at the Los Angeles and Barstow terminals. Importantly, this changes where electricity is delivered, but not the total traction energy required to operate the corridor. As demonstrated in the BEL-only analysis, net grid-supplied traction energy for the LA–Barstow corridor remains approximately 47.5 MWh per train round trip after accounting for regenerative braking.

Applying the Draft EIR's projected train volumes of approximately 3 to 5 round trips per day yields annual corridor electricity demand on the order of 50–90 GWh/year, with a reasonable planning-period average of approximately 70 GWh/year as operations ramp up between 2028 and 2050. Using a blended electricity cost range of $0.10–$0.22 per kWh, reflecting large-customer time-of-use tariffs mitigated by on-site solar, battery energy storage, and smart charging (see Appendix 2), total electricity expenditures for intermittent catenary with BELs are therefore approximately $161 million in the low case and $354 million in the high case over the 23-year period from 2028 through 2050.

O21-127 cont'd

7. Lifecycle Cost Comparison: Intermittent Catenary with BELs vs. Diesel Baseline

The following table compares the lifecycle costs of an intermittent catenary with the BEL system to the diesel baseline established in the preceding section. Two catenary cost scenarios are presented: one using international-standard unit costs and one using conservative U.S. infrastructure benchmarks.

Scenario	Capital Costs	Operating Energy Costs (2028–2050)	Total Lifecycle Cost (2028–2050)
Diesel Baseline (DEIR)	$80–$121 million	$270–$440 million (diesel fuel)	**$350–$561 million**
Intermittent Catenary + BEL (International costs)	$240–$390 million	$161–$354 million (electricity)	**$401–$744 million**

Intermittent Catenary + BEL (U.S. benchmark costs)	$480–$630 million	$161–$354 million (electricity)	**$641–$984 million**

The lifecycle cost comparison reveals several important findings.

First, when intermittent catenary is constructed at international-standard unit costs ($2.5–$5 million per mile), the total lifecycle cost of the intermittent catenary with BEL alternative overlaps substantially with the diesel baseline. While the low-end cost of the intermittent catenary alternative ($401 million) exceeds the diesel baseline's low-end estimate ($350 million), the two ranges remain comparable across much of the distribution, particularly when diesel price volatility, unpriced health impacts, and available electrification funding are considered.

Second, even under conservative U.S. infrastructure benchmarks ($12 million per mile), the intermittent catenary alternative remains economically bounded rather than prohibitive. The higher capital cost reflects U.S.-specific construction inefficiencies.

Third, the lifecycle cost comparison does not account for several factors that would further favor the intermittent catenary alternative:

- **Avoided fuel price volatility:** The diesel baseline exposes the project to 23 years of diesel price risk, while the electrified alternative locks in more stable electricity costs.
- **Available incentives:** Federal programs such as CRISI, RRIF, and the Inflation Reduction Act provide substantial funding for rail electrification that would reduce net capital costs.
- **Reduced battery replacement costs:** Shallower discharge cycles enabled by en-route catenary charging extend battery life and reduce replacement frequency.
- **Air quality benefits:** The intermittent catenary alternative eliminates all diesel emissions on the LA–Barstow corridor, providing substantial public health benefits in communities along the route, particularly in the Cajon Pass region, where locomotive emissions are highest.

O21-127 cont'd

8. Operational Advantages of Intermittent Catenary

Beyond lifecycle cost considerations, intermittent catenary offers several operational advantages that the DEIR fails to consider.

Reduced Terminal Congestion: With locomotives receiving a substantial energy charge while climbing Cajon Pass, less time is required for stationary charging at terminals. This reduces locomotive dwell time, increases fleet utilization, and eases scheduling constraints.

Performance on Grades: Electric traction from overhead catenary provides high continuous tractive effort on steep grades, superior to battery-only operation, where

discharge rates must be managed to preserve battery life. This can improve train handling and reduce travel time on the most challenging portion of the corridor.

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Grid Integration: Catenary systems can incorporate regenerative braking energy from descending trains, feeding power back into the grid or into other ascending trains. On the LA–Barstow corridor, where loaded eastbound trains climb to Cajon Pass while lighter westbound trains descend, this creates opportunities for energy recovery that pure battery systems cannot fully capture.

9. CEQA Significance

Intermittent catenary with BELs represents a middle-ground alternative that captures the largest emissions and fuel-cost benefits of electrification at a fraction of the capital cost of full corridor wiring. It leverages the DEIR's own assumptions of a dedicated, closed-loop fleet and predictable operating pattern, reduces battery requirements, shortens charging time, and dramatically lowers reliance on diesel fuel.

Despite explicit direction from CARB and EPA to evaluate electrification options, the DEIR provides no analysis of this approach. The intermittent catenary with BEL alternative meets all of these criteria:

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- **Technologically feasible:** Both catenary electrification and battery-electric locomotives are proven technologies deployed in freight rail service worldwide.
- **Operationally realistic:** The approach aligns with the DEIR's dedicated fleet concept and predictable corridor operations.
- **Economically bounded:** Lifecycle costs are comparable to the diesel baseline when international construction standards are applied, and remain within a reasonable range even under conservative U.S. cost assumptions.

The DEIR's failure to analyze intermittent catenary, therefore, represents a significant omission that prevents meaningful comparison of project alternatives and does not provide for good-faith evaluation of cleaner options.

VII. Zero-Emission Yard and Terminal Equipment

This section evaluates feasible zero-emission alternatives for yard and terminal equipment that the Draft EIR inadequately addressed.

A. Switcher Locomotives at BIG

This subsection compares diesel and battery-electric switcher strategies using CARB-consistent replacement ratios and lifecycle costs. The Air Quality Technical Report states that "it is anticipated that BIG would utilize approximately eight switchers to support the facility in 2028" and that "in 2048, the number of switchers to support the facility increases to twelve." (Appendix 5.3 BIG-1 Air Quality Technical Report, pp. 178–179.) These are the baseline diesel switcher counts used in the DEIR's operational analysis for the BIG facility.

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The DEIR's alternative discussion asserts that three BEL switchers would be required per diesel switcher (Appendix 5.3 BIG-1 Air Quality Technical Report, p. 179), but provides no duty-cycle or charging analysis supporting that ratio.

Unlike line-haul locomotives, switcher locomotives operate entirely within confined railyard boundaries and do not undertake long-distance trips. Their duty cycles consist of short movements, frequent stops, and repeated idle periods while assembling, breaking, or repositioning railcars within the yard. Because switchers never leave the BIG facility, they are not subject to the range constraints that apply to line-haul service. Battery-electric switchers operating at BIG would remain in close proximity to charging infrastructure at all times and could recharge opportunistically during idle periods, shift changes, or low-activity windows between switching tasks. This operational profile allows battery-electric switchers to maintain full availability.

Multiple rail operators have implemented or received regulatory approval for one-for-one replacement of diesel switcher locomotives with battery-electric switchers, demonstrating that a 3:1 replacement ratio is not an inherent technological requirement. Examples include:

- The California Air Resources Board approved Union Pacific's replacement of three Tier 0+ diesel switcher locomotives with three battery-electric switchers (one Wabtec FLXswitch and two Progress Rail EMD Joule units) under CARB's case-by-case locomotive determination process, explicitly treating the battery-electric units as direct functional replacements for the diesel locomotives they displaced (CARB Case-by-Case Determination for Locomotives, Determination No. 2022-15).
- Tacoma Rail has implemented publicly funded projects structured as diesel switcher replacement with battery-electric switchers on a one-for-one basis, including state and federal grant agreements that specify scrappage of an existing diesel switcher locomotive and its replacement with a single zero-emission battery-electric switcher performing the same switching function (KVI News, "Tacoma Authorizes $4M in Federal Grants to Purchase Two Electric Locomotives," January 25, 2024).
- Palmetto Railways has publicly stated that it is converting two diesel switcher locomotives into two lithium-ion battery-electric locomotives, maintaining equivalent switching capacity on a unit-for-unit basis (Palmetto Railways, Press Release, 2023).
- Watco and its technology partners have likewise reported conversion of individual diesel end-cab switchers into individual battery-electric switchers for terminal operations, again reflecting a one-for-one functional replacement rather than fleet multiplication (Medha Rail USA, Press Release, 2022).

Taken together, these regulatory approvals, grant agreements, and conversion projects demonstrate that battery-electric switchers are routinely treated as direct substitutes for diesel switchers in captive yard service. They contradict the Draft EIR's assertion that three battery-electric switchers are required to replace one diesel switcher, an assumption that is not borne out by real-world regulatory determinations or operating practice.

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For a conservative comparison allowing for charging time, we will apply a modest availability adder of 1.2 to 1. This section analyzes both the diesel baseline and a CARB-consistent BEL alternative to demonstrate that zero-emission switchers are not only feasible but economically competitive with the diesel strategy the DEIR assumes.

1. Diesel Switcher Strategy at BIG: Capital and Fuel Costs

Capital Cost: CARB's 2022 Technology Feasibility Assessment identifies a representative capital cost of approximately $2.7 million per Tier 4 switcher locomotive for Class I railroads. (CARB, Technology Feasibility Assessment for the Proposed In-Use Locomotive Regulation, Appendix F, Table 5 (2022).) Applying that cost to BIG's switcher fleet yields the following capital requirements:

Year	Switchers at BIG	Unit Cost Assumption	Capital Cost
2028 (opening)	8	$2.7M per Tier 4 switcher (CARB 2022)	$21.6 million
2048 (build-out)	12	$2.7M per Tier 4 switcher (CARB 2022)	$32.4 million

O21-129 cont'd

Fuel Cost: The DEIR assumes each switcher consumes approximately 50,000 gallons of diesel per year. (Appendix 58 BIG1 Greenhouse Gas Emissions Assessment, Table 18, p. 83.) Because BIG grows from eight switchers in 2028 to twelve by 2048, lifetime fuel use through 2050 is estimated by (a) linearly ramping from 8 to 12 switchers over 2028–2048 (21 years) and (b) holding 12 switchers for 2049–2050. This produces an average of 10 switchers over the first 21 years and 12 switchers for the last 2 years.

The calculation proceeds as follows:

- Switcher-years, 2028–2048: ((8 + 12) ÷ 2) × 21 = 10 × 21 = 210 switcher-years.
- Switcher-years, 2049–2050: 12 × 2 = 24 switcher-years.
- Total switcher-years, 2028–2050: 234.
- Diesel gallons: 234 switcher-years × 50,000 gal/year = 11.7 million gallons.

Using a $3–$4 per gallon planning range for diesel, lifetime diesel purchases at BIG are approximately:

- **Low case:** `11.7M gal × $3/gal` **≈ $35.1 million**
- **High case:** `11.7M gal × $4/gal` **≈ $46.8 million**

2. Diesel Switcher Baseline: Lifecycle Cost Summary

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Combining capital and fuel costs for the diesel switcher strategy yields the following baseline:

Cost Category	Low Estimate	High Estimate	Notes
Capital Cost (12 Tier 4 switchers)	$32.4 million	$32.4 million	Build-out fleet at CARB unit cost
Diesel Fuel (2028–2050)	$35.1 million	$46.8 million	11.7 million gallons at $3–$4/gal
Total Diesel Switcher Lifecycle Cost	**$67.5 million**	**$79.2 million**	

This is the cost that the DEIR never discloses and against which zero-emission alternatives must be compared.

3. BEL Switcher Strategy at BIG: Fleet Sizing, Chargers, and Costs

O21-129 cont'd

Applying our conservative 1.2 to 1 replacement ratio to BIG yields approximately 8–10 BEL switchers in 2028 (replacing 8 diesels) and 12–14 BEL switchers by 2048 (replacing 12 diesels). The modest range reflects a one-for-one replacement with a small availability adder, where operationally prudent.

Capital Cost: CARB's 2022 feasibility assessment provides planning-level costs for zero-emission switchers and associated charging infrastructure: $3.4 million per zero-emission switcher and $0.3 million per switcher for charging infrastructure. (CARB, In-Use Locomotive Emission Inventory, Appendix G, Table 4, p. 13 (2022)) Using those CARB inputs, the BEL capital ranges for BIG are:

Year	BEL Switchers	BEL Capex ($3.4M)	Charging Infra ($0.3M)	Total Capex
2028 (opening)	8–10	$27.2–$34.0 million	$2.4–$3.0 million	$29.6–$37.0 million
2048 (build-out)	12–14	$40.8–$47.6 million	$3.6–$4.2 million	$44.4–$51.8 million

Operating Electricity Cost: Using CARB's mid-range benchmark of 0.7 GWh/year per BEL switcher, electricity use is estimated by ramping the BEL fleet in parallel with diesel switchers (8→12 in the low case; 10→14 in the high case) over 2028–2048 and holding at the 2048 level for 2049–2050. This yields total electricity consumption of approximately 163.8–196.0 GWh over 2028–2050.

Applying a blended electricity price range of $0.10–$0.22 per kilowatt-hour, reflecting large-customer time-of-use tariffs mitigated by on-site solar generation, battery energy storage, and charging optimization, total operating electricity costs are approximately (See Appendix 2):

- **Low fleet case (8→12 BELs):** $16.4 million to $36.0 million
- **High fleet case (10→14 BELs):** $19.6 million to $43.1 million

4. Lifecycle Cost Comparison: Diesel vs. BEL Switchers

The table below compares full lifecycle costs (capital plus operating energy) for switcher operations at the Barstow International Gateway (BIG) under the diesel strategy assumed in the Draft EIR and a CARB-consistent battery-electric locomotive (BEL) switcher strategy. For the diesel case, capital costs reflect the twelve-switcher build-out assumed by 2048, and fuel costs reflect the ramped diesel consumption from 2028 through 2050. For the BEL case, capital costs reflect a twelve- to fourteen-unit BEL fleet with associated charging infrastructure at full build-out, and electricity costs reflect the ramped 2028–2050 electricity consumption calculated using a blended $0.10–$0.22 per kWh price assumption (See Appendix 2).

O21-129 cont'd

Scenario (BIG switchers only)	Capital Cost	Energy Cost (2028–2050)	Total Lifecycle Cost (2028–2050)
Diesel Switchers (DEIR baseline)	$32.4 million (12 Tier 4 switchers)	$35.1–$46.8 million (diesel fuel)	$67.5–$79.2 million
BEL Switchers (CARB-consistent)	$44.4–$51.8 million (12–14 BEL switchers + charging)	$16.4–$43.1 million (electricity)	$60.8–$94.9 million

The lifecycle cost comparison shows that BEL switcher operations are cost-competitive with the diesel baseline across a wide range of assumptions. At the low end of the electricity price range and fleet size, BEL switchers have an estimated lifecycle cost of approximately $60.8 million, compared to $67.5 million for diesel switchers, a difference of roughly $6.7 million, or about 10 percent.

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At the high end of the electricity price range and fleet size, BEL lifecycle costs rise to approximately $94.9 million. Even in this conservative case, the comparison remains informative because the BEL scenario avoids long-term diesel fuel price volatility, materially reduces local air pollutant emissions, and aligns with CARB's long-term zero-emission rail strategy. The Draft EIR does not present any comparable lifecycle cost analysis for its diesel baseline, making this comparison essential for evaluating feasible alternatives under CEQA.

5. Factors Favoring BEL Switchers Not Reflected in Lifecycle Costs

The lifecycle cost comparison presented above does not account for several factors that would further improve the economic case for BEL switchers:

Available Incentives: CARB's Clean Off-Road Equipment Voucher Incentive Project (CORE) provides point-of-sale vouchers for zero-emission off-road equipment. Eligible equipment includes railcar movers and switcher locomotives, which can receive vouchers of up to $1 million per unit. (CARB CORE Eligibility.) For a fleet of 12–14 BEL switchers, CORE vouchers alone could reduce net capital costs by $12–$14 million, dramatically improving the economics of the BEL strategy.

O21-129 cont'd

LCFS Credits: By operating electric switchers, BNSF would generate Low Carbon Fuel Standard (LCFS) credits based on the electricity dispensed. These credits provide a continuous revenue stream that effectively lowers the operating cost of electricity. (CARB LCFS Credit Generation.) The DEIR's failure to calculate this revenue stream in its lifecycle cost analysis undermines the evidentiary basis for the Draft EIR's finding of economic infeasibility.

Reduced Maintenance Costs: BEL switchers have fewer moving parts than diesel locomotives and lower per-hour maintenance burdens. While maintenance cost differentials are not quantified in this analysis, they would favor the BEL alternative over the project's 23-year operating horizon.

Avoided Fuel Price Volatility: The diesel baseline exposes switcher operations to 22 years of diesel price risk, while the electrified alternative provides more stable and predictable operating costs.

Air Quality Benefits: BEL switchers eliminate all diesel emissions within the BIG facility, including NOx, PM2.5, and diesel particulate matter. This is particularly significant because switchers operate continuously within the yard, creating localized pollution hotspots that affect workers and nearby communities.

6. The DEIR's Inflated Replacement Ratio Is Unsupported

The DEIR's assertion that three BEL switchers would be required per diesel switcher is inconsistent with CARB's published work or actual use cases and is unsupported by any

disclosed analysis. The DEIR provides no duty-cycle data, charging feasibility study, or operational analysis to justify this 3:1 ratio.

CARB's statewide switcher electrification programs, including CORE voucher determinations and regulatory feasibility assessments, support one-for-one replacement with modest availability adders where warranted. Zero-emission switchers are already in commercial service at ports and railyards throughout California, demonstrating that the technology can meet real-world operational demands without tripling fleet size.

O21-129 cont'd

By inflating the replacement ratio without evidentiary support, the DEIR artificially increases the apparent cost of the BEL alternative, biasing the analysis toward the diesel baseline. This approach does not fulfill the requirement that alternatives be evaluated based on substantial evidence rather than unsupported assumptions.

7. CEQA Significance

The DEIR provides no comparable charging-and-cost analysis and relies on an inflated three-for-one assumption that is inconsistent with real world practice and real world operational schedules. A properly sized BEL switcher alternative is feasible, quantifiable, and should have been analyzed in good faith.

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Zero-emission switchers at BIG would eliminate all diesel emissions from yard operations, resulting in a significant reduction in air quality impacts. The alternative is technologically available (zero-emission switchers are in commercial service today), operationally feasible, and economically achievable (lifecycle costs are lower than the diesel baseline). The DEIR's failure to evaluate this alternative with accurate assumptions and transparent cost comparisons represents a significant analytical deficiency.

B. RTGs and Cargo-Handling Equipment

This subsection demonstrates that electric RTGs and cargo-handling equipment are commercially proven and cost-effective. In the Air Quality Technical Report, all rubber-tired gantry cranes (RTGs) at BIG are modeled as diesel-operated cargo-handling equipment. Table 15 lists "RTG Cranes" under "Operational Diesel Equipment," with seven RTGs in 2028, eight in 2033, and ten in 2048, and these units are carried through the criteria-pollutant and GHG inventories as long-term diesel emitters. (Appendix 5.3 BIG-1 Air Quality Technical Report, p. 67.) Nowhere in the DEIR is there any quantitative analysis of an electric RTG alternative, despite the fact that the same appendices explicitly assume that other large cranes (widespan RMGs) will be fully electric. (Appendix 5.3 BIG-1 Air Quality Technical Report, p. 181.) Instead of evaluating electric RTGs, the DEIR simply treats them as permanently diesel and folds them into its generalized "we have no more power" narrative tied to an asserted 66-MW "power budget." (DEIR, 5.3 115) That is not an alternatives analysis; it is an assumption.

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1. Electric RTGs Are Already in Commercial Service at the Ports

In reality, electric rubber-tired gantry cranes (eRTGs) are in commercial service today at the very ports that will feed BIG. At the Port of Long Beach's Pier J terminal, SSA Marine completed a multi-year project converting nine conventional rubber-tired gantry cranes into 100 percent grid-tied electric eRTGs (BusinessWire/AJOT, SSA Marine Converts 9 Diesel-Powered Rubber-Tired Gantry Cranes to Electric at the Port of Long Beach Pier J Terminal, Oct. 31, 2022). The CEC's final project report for the Port of Long Beach transition project reports that the nine eRTGs were estimated to save approximately 225,000 gallons of diesel fuel (CEC Report, Port of Long Beach Zero-Emissions Terminal Equipment Transition Project, CEC-600-2024-042, p. 78). That implies roughly 25,000 gallons of diesel avoided per eRTG per year (225,000 ÷ 9).

The San Pedro Bay Ports' Cargo-Handling Equipment Feasibility Assessment further confirms that grid-tied electric RTGs are both technically viable and economically bounded under real-world operating conditions. In its 2021 update, the Ports compared the 15-year total cost of ownership (TCO) for baseline diesel RTGs and grid-connected electric RTGs operating in Southern California Edison territory. The analysis found that a new diesel RTG has an estimated 15-year TCO of approximately $2.43 million, while a grid-connected electric RTG has a TCO of approximately $2.67 million over the same period—an incremental difference of roughly $240,000, driven primarily by California's higher industrial electricity rates rather than equipment cost (San Pedro Bay Ports, 2021 Cargo-Handling Equipment Feasibility Assessment, § 9.6.2, p. 91). Importantly, the same assessment concludes that when available incentive programs are applied, including Low Carbon Fuel Standard (LCFS) credits and funding under the Clean Off-Road Equipment (CORE) program, the net present value of grid-electric RTGs becomes lower than diesel RTGs by approximately $200,000–$300,000 per unit over 15 years, making electric RTGs not only feasible but economically preferable on a lifecycle basis (San Pedro Bay Ports, 2021 Cargo-Handling Equipment Feasibility Assessment, §§ 9.6.1, p. 90). O21-132

In other words, at the Port of Long Beach and Port of Los Angeles, the ports and terminal operators are not asking whether eRTGs are possible; they are already doing it, and their own technical work shows that grid-electric RTGs are cost-competitive or cheaper than diesel over their working lives.

2. Diesel RTG Baseline: Fuel Consumption and Costs at BIG

The SSA Marine project at Pier J provides a realistic benchmark for fuel use and savings. Converting nine diesel RTGs to electric at Pier J is expected to eliminate 225,000 gallons of diesel each year, or about 25,000 gallons per RTG per year. If BIG builds out to ten diesel RTGs in 2048 as the DEIR assumes, and if each has a similar duty cycle, the RTG fleet at BIG would consume on the order of:

- `10 RTGs × 25,000 gallons/year ≈` **250,000 gallons of diesel per year**

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Considering the operating period from 2028 through 2050 (23 years), and accounting for the ramp-up from seven RTGs in 2028 to ten RTGs by 2048, the cumulative diesel consumption for BIG's RTGs can be estimated as follows:

- Average RTG count over the period: approximately 8.5 RTGs
- `Total diesel consumption: 8.5 RTGs × 25,000 gal/year × 23 years ≈` **4.9 million gallons**

At fuel prices of $3.00–$4.00 per gallon, consistent with U.S. Energy Information Administration projections for the medium term, the lifetime diesel fuel cost for the RTG fleet alone would fall in the range of:

- **Low case:** `4.9 million gal × $3/gal ≈` **$14.7 million**
- **High case:** `4.9 million gal × $4/gal ≈` **$19.6 million**

3. Electric RTG Alternative: Electricity Consumption and Costs

By contrast, electric RTGs require electricity instead of diesel. Using SSA's Pier J project as a guide, those nine RTGs displaced 225,000 gallons of diesel per year. Translating that to energy, one gallon of diesel holds about 40 kWh of chemical energy. (U.S. DOE, Alternative Fuels Data Center, "Fuel Properties Comparison," 2023.) At a conservative 30–35 percent diesel engine efficiency, 225,000 gallons corresponds to roughly 2.7–3.2 GWh per year of traction work across nine RTGs, or approximately 0.3–0.4 GWh per RTG per year. A grid-tied electric RTG with an 85–90 percent drivetrain efficiency would need on the order of 0.35–0.45 GWh/year of electricity to do the same work.

O21-132 cont'd

For ten eRTGs at BIG, that implies around:

- 3.5–4.5 GWh of electricity per year

Over 23 years, accounting for the ramp-up in RTG count, cumulative electric RTG electricity use would be approximately:

- `Average of 8.5 eRTGs × 0.4 GWh/year × 23 years ≈` **78–85 GWh total**

Using the electricity cost methodology established in Appendix 2, which accounts for large-customer time-of-use tariffs, on-site solar generation, BESS dispatch, and Barstow's strong solar resource, a planning-level electricity cost range of $0.10–$0.22 per kWh is applied. The low case reflects optimized procurement with substantial solar and storage integration, while the high case reflects unoptimized grid purchases at prevailing California industrial rates. (See Appendix 1, Planning-Level Electricity Cost Ranges for an All-Electric BIG.)

Applying this range, the lifetime electricity cost for electric RTGs is:

- **Low case:** 78 GWh × $0.10/kWh = **$7.8 million**

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- **High case:** 85 GWh × $0.22/kWh = **$18.7 million**

4. Capital Cost Comparison: Diesel vs. Electric RTGs

The San Pedro Bay 2021 Feasibility Assessment provides capital cost benchmarks for both diesel and electric RTGs. New diesel RTGs cost approximately $2.0–$2.5 million per unit, while new grid-connected electric RTGs cost approximately $2.3–$2.8 million per unit, reflecting the additional cost of electrical systems and grid connection infrastructure. (San Pedro Bay Ports, 2021 Cargo-Handling Equipment Feasibility Assessment, Section 9.6.2, p. 91.)

For a BIG-scale fleet of ten RTGs at build-out:

RTG Type	Unit Cost Range	Fleet Capital Cost (10 units)
Diesel RTG	$2.0–$2.5 million	$20–$25 million
Electric RTG	$2.3–$2.8 million	$23–$28 million

O21-132 cont'd

The capital cost premium for electric RTGs is approximately $3–$5 million for the entire fleet, a modest increment that is recovered through fuel savings over the equipment's operating life.

5. Lifecycle Cost Comparison: Diesel vs. Electric RTGs

The following table compares the full lifecycle costs (capital + energy) for BIG's RTG fleet under the diesel strategy versus an electric RTG alternative over the 2028–2050 period.

Scenario	Capital Cost (10 RTGs)	Energy Cost (2028–2050)	Total Lifecycle Cost (2028–2050)
Diesel RTGs (DEIR baseline)	$20–$25 million	$14.7–$19.6 million (diesel fuel)	**$34.7–$44.6 million**
Electric RTGs	$23–$28 million	$7.8–$18.7 million (electricity)	**$30.8–$46.7 million**

The lifecycle cost comparison demonstrates that electric RTGs are cost-competitive with diesel RTGs across the full range of assumptions. At the low end, electric RTGs cost approximately $30.8 million compared to $34.7 million for diesel, a savings of $3.9 million or 11%. Even at the high end of the electricity cost range, electric RTGs ($46.7

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million) cost only marginally more than diesel RTGs ($44.6 million). When BIG optimizes its electricity procurement through on-site solar, BESS, and time-of-use scheduling—as the Appendix 2 analysis demonstrates is feasible—electric RTGs are clearly the more economical choice.

6. Total Cost of Ownership Analysis from San Pedro Bay Ports

The San Pedro Bay Ports' own analysis provides additional confirmation that electric RTGs are economically competitive. The 2021 Feasibility Assessment estimates:

- **Diesel RTG 15-year TCO:** $2.43 million per crane
- **Grid-electric RTG 15-year TCO (SCE territory):** $2.67 million per crane (about $240,000 more)

(San Pedro Bay Ports, 2021 Cargo-Handling Equipment Feasibility Assessment, Section 9.6.2, p. 90.)

This difference of roughly 10 percent is modest. Crucially, the same report notes that when LCFS credits and CORE incentives are applied (up to $500,000 per crane), grid-electric RTGs become less expensive overall than diesel and diesel-hybrid RTGs, by approximately $200,000–$300,000 per unit on a net-present-value basis.

O21-132
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For a BIG-scale fleet of ten RTGs, that implies:

Scenario	15-Year Fleet TCO (pre-incentive)	15-Year Fleet TCO (post-incentive)
Diesel RTG	~$24.3 million	~$24.3 million (no incentives available)
Electric RTG	~$26.7 million	~$21–$24 million

Extrapolated over a 20–23 year horizon, and considering that electric RTGs have lower variable operating costs and are eligible for zero-emission incentives that diesel RTGs are not, the lifecycle costs of electric RTGs are at least comparable to diesel and very likely lower, particularly when fuel and maintenance savings are fully counted.

7. The DEIR's Load Curve Data Contradicts Its RTG Rejection

The DEIR tells the public that zero-emission RTG cranes are not feasible at BIG because they would supposedly require too much electricity and exceed the project's "power budget." (Air Quality Technical Report, Appendix 5.3 BIG-1, p. 181.) But the actual technical documents attached to the DEIR show that electric RTGs do not operate at

maximum load all day, there are long periods of low or moderate demand, and their peak loads are predictable and manageable.

In the Energy Assessment (Appendix 5.6 BIG-1 Energy Assessment, Figure 22, pp. 14-16), BNSF's consultants include explicit, hour-by-hour electrical load curves for electric RTGs showing how RTG power demand rises and falls during a typical day. These figures demonstrate that electric RTGs have variable, not constant, power usage with long periods of low or moderate demand and predictable, manageable peak loads.

The Energy Assessment explicitly includes electric RTGs in its 24-hour load modeling, yet the DEIR never discusses:

- The existence of these RTG load curves
- What they show about actual power demand patterns
- Whether they undermine the rejection of electric RTGs
- Whether electric RTGs could operate under the project's proposed solar + BESS system
- Whether smart charging or non-coincident load management would resolve any peak issues

This kind of omission misleads the public about what the technical record actually shows.

O21-132 cont'd

8. Available Electric RTG Technologies

Modern rubber-tired gantry cranes (RTGs) are commercially available in multiple zero-emission configurations that are already deployed at major container ports worldwide. These configurations include cable-reel electric RTGs, which remain continuously connected to grid power while retaining full yard mobility through an automated cable reel system; conductor-bar RTGs, which draw electricity from electrified rails or conductor bars embedded in the yard surface; battery-hybrid RTGs, which use onboard battery systems to enable zero-emission operation during crane movements while recharging during idle periods or when connected to shore power; and fully battery-electric RTGs, which rely on large onboard battery packs capable of supporting full-shift operations without external power connections (San Pedro Bay Ports, Cargo-Handling Equipment Feasibility Assessment, 2021 Update, pp. 22-27).

These zero-emission RTG technologies are not experimental. Electric RTGs are already in widespread commercial service at the Ports of Los Angeles and Long Beach, as well as at the Ports of Oakland, Seattle, and Vancouver, and at numerous international container ports in Europe and Asia (Port of Long Beach, Pier J Zero-Emission Terminal Project Description, 2022; San Pedro Bay Ports, Clean Air Action Plan Update, 2017; International Association of Ports and Harbors, Port Equipment Electrification Case Studies, 2020). Major RTG manufacturers, including ZPMC, Konecranes, and Liebherr, now market electric and hybrid RTGs as their standard offerings for new terminal procurements. (Konecranes, E-RTG Product Overview, 2021; ZPMC, Electric RTG Technical Specifications, 2020).

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Despite the maturity and widespread adoption of these technologies, the Draft EIR does not acknowledge the availability of modern zero-emission RTG configurations and does not evaluate any electric RTG alternative using contemporary specifications or operating data. This omission is significant given that electric RTGs represent a well-established, commercially deployed technology that is directly relevant to the Project's cargo-handling operations and emissions profile.

9. Integration with BIG's Proposed Solar and BESS Infrastructure

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The DEIR's rejection of electric RTGs is particularly unjustified given that the project already proposes substantial on-site solar generation and battery energy storage. The Utility Assessment describes a 21 MW solar farm on 140 acres, 6.4 MW of Title 24-required rooftop solar (increasing to 23.4 MW under Mitigation Measure EN-1), and a Battery Energy Storage System (BESS) designed to "maximize the on-site usage of solar power." (Appendix 5.17 BIG1 Utility Assessment, p. 65.)

Electric RTGs are well-suited to integration with solar and storage systems because their load profiles are predictable and their peak demands occur during daylight hours when solar generation is highest. As demonstrated in Appendix 2, the combination of on-site solar and optimized procurement can reduce effective electricity costs to the $0.10/kWh to $0.22/kWh range, making electric RTGs substantially more economical than diesel over the project life. The DEIR never analyzes whether the proposed solar and BESS infrastructure could support electric RTG operations, instead dismissing the technology based on an undocumented assertion about grid import limits.

10. CEQA Significance

The DEIR's RTG analysis fails in several critical ways:

First, it locks in diesel RTGs without evaluating an electric RTG alternative, even though the Ports of Los Angeles and Long Beach are already running electric RTGs and have published detailed TCO and infrastructure cost analyses showing electric RTGs are feasible and competitive.

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Second, it does not disclose or examine lifetime fuel costs for BIG's RTGs, even though a simple calculation using the Pier J fuel savings data shows that BIG's RTG fleet could burn millions of gallons of diesel and tens of millions of dollars in fuel over the project life if left un-electrified.

Third, it fails to consider that BIG's on-site solar and BESS infrastructure, as already proposed in the Utility Assessment, could directly support electric RTG operations, moving RTG energy demand away from diesel and onto a cleaner, increasingly renewable grid.

Fourth, the DEIR's own Energy Assessment includes detailed RTG electrical load curves and operating profiles. That information demonstrates that electric RTGs are not speculative, but rather are already quantified in terms of power demand, duty cycle, and

peak load. The DEIR's dismissal of electric RTGs, without applying its own disclosed load data, is therefore unsupported by substantial evidence and undermines the credibility of the alternatives analysis.

Given the scale of the RTG fleet at BIG and existing real-world deployments at POLA and POLB, an electric RTG alternative is plainly "feasible" and "available." The technology is commercially proven, the costs are well-documented by the San Pedro Bay Ports' own feasibility assessments, and the lifecycle economics favor electric RTGs when the electricity cost assumptions from Appendix 2 are applied. The DEIR's failure to analyze that alternative, and its reliance on unsupported assertions about power limitations, renders its treatment of RTGs deficient.

O21-133 cont'd

VIII. Cleaner Locomotive Deployment as a Feasible Project Alternative

The Draft EIR fails to evaluate a feasible and potentially effective alternative for reducing rail-related air pollution associated with the Barstow International Gateway: the use of cleaner locomotives for all rail traffic serving and passing through BIG, not solely the dedicated Los Angeles–Barstow trains. While the Draft EIR assumes a "dedicated fleet" of Tier 4 locomotives for the direct port-to-BIG shuttle, it does not analyze whether BNSF could operate cleaner locomotives more broadly within the Mojave Desert Air Basin as part of the Project design. This omission is significant given the magnitude of rail traffic that will move through Barstow as a result of the Project and the region's existing air quality burden.

O21-134

The Draft EIR implicitly assumes that locomotive emissions outside the dedicated shuttle are fixed and unavoidable. It does not consider an alternative in which BNSF deploys newer, lower-emission locomotives for the additional line-haul traffic generated by BIG, rather than relying on the existing national fleet mix. As a result, the Draft EIR does not evaluate whether project-related emissions could be reduced through operational decisions that are well within the railroad's control.

A. Demonstrated Feasibility of Cleaner Fleet Operations

The feasibility of operating cleaner locomotive fleets within defined geographic areas has already been demonstrated in California. For more than two decades, Class I railroads have successfully managed and tracked cleaner locomotive deployment in the South Coast Air Basin pursuant to voluntary agreements with the California Air Resources Board. Under the 1998 South Coast Rail Emission Reduction Agreements, BNSF and Union Pacific committed to operating locomotive fleets that meet defined average emission performance levels within the basin, supported by detailed tracking of locomotive activity, fuel use, and megawatt-hours of operation (CARB, "Rail Emission Reduction Agreements," 2024; CARB, "2021 Line-Haul Locomotive Emission Inventory," 2021).

O21-135

These agreements demonstrate a critical point relevant to this Project: railroads are capable of geofencing cleaner locomotive operations, tracking compliance, and adjusting fleet deployment to meet regional air quality objectives. The Draft EIR does not examine

whether a similar operational approach could be applied to the Mojave Desert Air Basin as part of the BIG Project alternatives analysis.

The effectiveness of cleaner fleet deployment strategies is well documented. CARB's evaluations of major South Coast railyards show substantial reductions in diesel particulate matter cancer risk during the period when cleaner locomotives, trucks, cargo-handling equipment, and fuels were introduced (CARB, "Technology Assessment: Freight Locomotives," November 2016). These reductions were achieved through a combination of regulations, voluntary agreements, and incentives, not through technological breakthroughs that are unavailable today.

O21-135 cont'd

B. Relevance to the Mojave Desert Air Basin

The need to examine cleaner locomotive deployment is especially acute in the Mojave Desert Air Basin. The Western Mojave Desert Nonattainment Area is classified as "Severe" nonattainment for eight-hour ozone standards (EPA Green Book, 2025). Nitrogen oxides from locomotives are a major precursor to ozone formation, and the Draft EIR acknowledges that rail operations associated with BIG will materially increase NOx emissions in the basin.

Despite this context, the Draft EIR does not analyze whether project-related rail traffic could be served by a cleaner subset of the BNSF fleet, nor does it assess how such an operational alternative could reduce NOx emissions in a region already subject to stringent air quality planning requirements (CARB, "Western Mojave Desert Air Quality Plans," 2024). The omission is particularly notable given that the Project will effectively concentrate rail activity through Barstow, creating a defined corridor in which cleaner locomotive deployment could meaningfully reduce emissions.

O21-136

The health implications of increased NOx and diesel particulate matter in this region are well established. San Bernardino County experiences elevated asthma-related health burdens, particularly among children: 2022 data show pediatric asthma hospitalization rates of approximately 9.6 per 10,000 residents aged 0–17 and 15.1 per 10,000 for ages 0–4 (KidsData.org, Asthma Hospitalization Rate by Age Group — San Bernardino County, 2022), and research on the broader Inland Empire reports higher emergency department visit and hospitalization rates for pediatric asthma compared to statewide averages. These conditions underscore the importance of evaluating feasible operational alternatives that could reduce locomotive emissions in the Mojave Desert Air Basin.

C. Failure to Evaluate a Reasonable Operational Alternative

The Draft EIR's alternatives analysis does not examine whether deploying cleaner locomotives more broadly for BIG-related traffic is feasible, effective, or economically reasonable. It does not analyze the emissions reductions that could be achieved through such an approach, nor does it compare those reductions to other mitigation measures discussed in the document. Instead, the Draft EIR treats non-dedicated locomotive emissions as a fixed background condition, even though the Project itself is responsible for increasing rail traffic through the basin.

O21-137

Cleaner locomotive deployment is not speculative, experimental, or outside the control of the Project applicant. It is an operational strategy that has been implemented in California for decades and is directly relevant to the emissions increases identified in the Draft EIR.

By failing to evaluate this alternative, the Draft EIR does not provide decision-makers or the public with a complete picture of the range of options available to reduce rail-related pollution associated with the Barstow International Gateway. A revised analysis that examines cleaner locomotive deployment as a project alternative would materially improve the environmental review by aligning the Project's design with demonstrated practices for reducing rail emissions in overburdened air basins.

O21-137
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IX. Zero-Emission Truck Alternative

The DEIR's treatment of a zero-emission truck alternative is both legally and technically deficient. The document acknowledges that hundreds of heavy-duty diesel truck trips will serve BIG every day, distinct from the internal zero-emission hostlers: 594 daily heavy-duty truck trips in 2028, 753 in 2033, and 929 in 2048 (Appendix 5.3 BIG-1 Air Quality Technical Report, Table 19, p. 76). Yet when the DEIR evaluates a mitigation measure titled "Zero/Near-Zero Emission Trucks" that would require these drayage trucks to be zero-emission, it dismisses it under "Mitigation Measures Considered but Determined Infeasible" (Appendix 5.3 BIG-1 Air Quality Technical Report, p. 180). The reasons provided, that there is no electric-truck power capacity, no physical space for chargers, no legal authority to require zero-emission trucks, and that zero-emission trucks are "speculative," are all contradicted by current technology, existing regulations, and the multi-decade timeframe of this project.

On power availability, the DEIR argues that the facility's alleged 66-MW "power budget" from Southern California Edison is already exhausted by electric hostlers and cranes, and that adding truck charging would require transmission-level upgrades taking 7–10 years (Appendix 5.3 BIG-1 Air Quality Technical Report, p. 179). That argument wrongly assumes that all truck charging must occur at BIG and that there is no flexibility in where or when trucks charge. In reality, heavy-duty electric trucks are typically charged at off-site depots and yards, not at every individual customer facility. For example, 4 Gen Logistics is deploying 41 Volvo VNR Electric drayage trucks between the Port of Long Beach and Inland Empire warehouses, with charging concentrated at its own depot (Volvo Trucks North America, "4 Gen Logistics to Deploy 41 Volvo VNR Electric Trucks to Service the Port of Long Beach," 2022). Tradelink Transport has likewise deployed 15 Volvo VNR Electric trucks for port drayage, again relying on a dedicated depot for overnight charging (Tradelink Transport Deploys 15 Volvo VNR Electric Trucks for Sustainable Drayage Operations at Ports of Los Angeles and Long Beach, 2025; Commercial Carrier Journal, 2025). Nothing in the DEIR explains why the many independent and carrier fleets serving BIG could not follow this well-established depot model, nor why the entire charging burden must be placed entirely on the BIG substation.

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The DEIR's space-constraint argument is equally unconvincing. It claims the yard cannot accommodate truck charging due to a grade-separated overcrossing, slopes, and

track geometry, and asserts that placing chargers north of the tracks would force trucks to enter the yard and cause congestion (Appendix 5.3 BIG-1 Air Quality Technical Report, p. 180). Yet the DEIR never quantifies how much space would actually be needed for a modest number of high-power truck chargers, nor does it consider that charging infrastructure can be built in adjacent logistics parks, truck depots, or off-site areas that already host truck parking. Current commercial truck chargers typically range from 150 kW to 350 kW for depot and opportunity charging. ABB, for example, lists its Terra 184 180 kW DC fast charger at about $80,000 per unit (hardware only), and ABB's own fleet charging guidance indicates fully installed costs for DC fast chargers in the $20,000–$150,000 per unit range depending on power and site complexity (ABB, "Commercial Fleet EV Charging," 2024). A modest depot-style station with, for example, 20–30 such chargers would require on the order of one to two acres of paved space—comparable to existing truck parking areas—and capital costs in the $2–5 million range. The DEIR offers no evidence that this scale of infrastructure is physically impossible in or around BIG; it simply assumes it is.

On technology and legal authority, the DEIR's analysis is frozen in time. It stresses that California currently lacks the legal authority to mandate zero-emission trucks due to Congressional and presidential actions and that it is "entirely speculative" whether ZE trucks will be widely available to independent contractors (Appendix 5.3 BIG-1 Air Quality Technical Report, p. 180). That ignores the rapid global maturation of heavy-duty electric trucks. An ICCT meta-study of zero-emission truck costs finds that current battery-electric Class 8 trucks are priced between $200,000 and $800,000, depending on range, with costs expected to fall by as much as 40 percent by 2030 due to declining battery and powertrain costs (ICCT, "A Meta-Study of Purchase Costs for Zero-Emission Trucks," 2022). Major OEMs—Volvo, Daimler, BYD, Tesla—are all delivering or piloting battery-electric Class 8 trucks in California today, including the Volvo VNR Electric, Daimler eCascadia, BYD 8TT, and others, and hundreds of such trucks are already in drayage service at POLA/POLB and Inland Empire warehouses. Over the multi-decade horizon of the BIG project, it is unreasonable—and contrary to CARB's own forecasts—to treat this fast-evolving sector as static or to assume that zero-emission trucks will remain rare or "speculative" through 2048.

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From a lifecycle cost standpoint, recent analyses show that the total cost of ownership (TCO) of battery-electric trucks is converging with, and in some duty cycles under California conditions already beating, diesel trucks. An International Council on Clean Transportation (ICCT) TCO study of long-haul battery-electric trucks in the United States estimates that a typical 1 MW DC fast charger costs about $300,000 per unit (hardware plus installation), and that the levelized infrastructure cost is around 4–5 cents per kWh when spread over a 10-year life (ICCT, Total Cost of Ownership for Alternative Powertrain Long-Haul Trucks in the United States, 2023, Table 8). When combined with declining battery costs and lower per-mile energy costs, depot-based battery-electric trucks achieve TCO parity or better in many applications by the 2030s. Given that BIG's diesel drayage trucks will still be operating—and burning fuel—well into the 2040s under the DEIR's assumptions, it is not credible to reject a zero-emission truck alternative simply on the basis of current price points or temporary federal uncertainty about California's authority.

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In sum, the DEIR's treatment of a zero-emission truck alternative is deficient in three ways. First, it does not quantify what truck-charging infrastructure would actually require in terms of power, space, or cost; instead, it invokes a generalized "66-MW cap" with no supporting SCE study and assumes all charging must occur at BIG. Second, it ignores the ongoing deployment of heavy-duty electric trucks and charging infrastructure at the Ports of Los Angeles and Long Beach and Inland Empire depots, where fleets are already operating tens of battery-electric drayage trucks supported by real-world charging systems. Third, it treats technology and regulation as static through 2048, despite ICCT TCO projections and global trends showing that zero-emission trucks will be mainstream in drayage well before BIG reaches its full operational horizon. In sum, the DEIR's failure to rigorously evaluate zero-emission trucks is a significant analytical defect. O21-138 cont'd

X. Incentives and Net Lifecycle Cost Reductions

A. Available Incentive Programs

The DEIR systematically rejects zero-emission alternatives, including battery-electric locomotives (BELs), electric RTGs, and zero-emission drayage trucks, on the grounds of economic infeasibility. However, this rejection relies on a flawed "sticker price" analysis that presents the gross capital cost of clean technology while failing to account for the massive array of federal, state, and utility incentives currently available to offset these costs. By presenting these costs in a vacuum, without deducting available grants, tax credits, and infrastructure subsidies, the DEIR artificially inflates the cost of clean alternatives and provides a misleading economic comparison of better alternatives. O21-139

The DEIR rejects electrification based on implied capital costs while ignoring hundreds of millions of dollars in grant funding specifically appropriated by Congress and the California Legislature to subsidize exactly the technologies the DEIR rejecting.

B. Federal Programs

The DEIR fails to analyze the historic levels of federal funding for rail decarbonization provided by the Infrastructure Investment and Jobs Act (IIJA) and the Inflation Reduction Act (IRA).

1. FRA Consolidated Rail Infrastructure and Safety Improvements (CRISI) The Federal Railroad Administration's CRISI program is a primary mechanism for rail modernization. The program explicitly funds projects to improve the safety, efficiency, and reliability of freight rail, including the "rehabilitating, remanufacturing, procuring, or overhauling of locomotives" specifically for emissions reduction. While CRISI grants are usually awarded to smaller railroads, BNSF could partner with a public entity like the City of Barstow to become eligible and pursue CRISI grants to fund the capital difference between Tier 4 diesel locomotives and battery-electric units. Recent awards demonstrate the scale of this opportunity: in 2023, Tacoma Rail received over $4 million to replace diesel switchers with battery-electric locomotives and install charging infrastructure. (FRA Discretionary Grant Programs, https://railroads.dot.gov/grants) O21-140

2. EPA Clean Ports Program The EPA Clean Ports Program provides $3 billion to fund zero-emission equipment and infrastructure at ports. Crucially, the program's 2024 guidance explicitly defines "Dry Ports"—intermodal truck-rail facilities like BIG—as eligible facilities if they handle sufficient freight volume. BNSF is an eligible partner for these grants, which can cover up to 90% of the cost for zero-emission cargo handling equipment (like electric RTGs), drayage trucks, and railyard switchers. The DEIR rejects electric equipment without analyzing whether this $3 billion fund could offset the infrastructure costs. (EPA Clean Ports Program, https://www.epa.gov/ports-initiative/clean-ports-program)

3. DOT Railroad Rehabilitation & Improvement Financing (RRIF) The DEIR overlooks financing mechanisms designed to make infrastructure upgrades manageable. The RRIF program provides long-term, low-interest loans and loan guarantees specifically for the development of railroad infrastructure, including the acquisition and rehabilitation of intermodal or rail equipment. RRIF can finance up to 75% of total project costs. This financing could be applied to the capital-intensive portions of the project, such as the construction of an intermittent catenary on Cajon Pass or necessary grid upgrades. (DOT RRIF Eligibility and Application, https://www.transportation.gov/buildamerica/financing/rrif/applying-rrif)

4. EPA Diesel Emissions Reduction Act (DERA) Additionally, the EPA's DERA program provides funding to reduce emissions from locomotives, including replacing older units with newer zero-emission technologies. DERA grants can reimburse up to 45% of the cost of a zero-emission switcher locomotive replacement. This program has a proven track record of funding marine vessel and drayage truck replacements that yield significant NOx reductions. (EPA DERA National Grants, https://www.epa.gov/dera/national)

O21-140 cont'd

C. State and Utility Incentives Omitted

Beyond federal support, the DEIR fails to account for California's robust suite of zero-emission incentive programs.

1. CARB Clean Off-Road Equipment Voucher Incentive Project (CORE) Administered by CARB, CORE provides point-of-sale vouchers for zero-emission off-road equipment. Eligible equipment includes railcar movers and switcher locomotives, which can receive vouchers of up to $1 million per unit. Cargo handling equipment, such as RTGs, is also eligible for up to $500,000 per unit, plus additional funding for infrastructure. By ignoring this program, the DEIR dismisses electric switchers and cranes as too costly, disregarding the fact that state funding is available to drastically reduce their upfront capital cost. (CARB CORE Eligibility, https://ww2.arb.ca.gov/our-work/programs/clean-off-road-equipment-voucher-incentive-project)

2. CARB Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP) Similarly, the HVIP program provides substantial vouchers for Class 8 zero-emission drayage trucks. Base vouchers for Class 8 trucks are $120,000, with small fleet vouchers reaching up to $330,000 per truck. Fuel cell trucks are eligible for even higher

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amounts, up to $420,000. The DEIR dismisses zero-emission trucks as "speculative," ignoring that this funding is actively deploying these very technologies today. (California HVIP Eligible Vehicles, https://californiahvip.org/vehicles/)

3. Trade Corridor Enhancement Program (TCEP) The California Trade Corridor Enhancement Program provides funding for infrastructure improvements on federally designated freight corridors. Recent awards include over $13 million for rail system efficiency and emission reduction projects at the Port of Los Angeles. As a critical link in the national supply chain, the LA-Barstow corridor is a prime candidate for TCEP infrastructure grants to support rail electrification or charging infrastructure. (California Trade Corridor Enhancement Program, https://catc.ca.gov/programs/trade-corridor-enhancement-program)

4. SCE Charge Ready Transport Program The DEIR claims that electrical infrastructure constraints make electrification infeasible, but fails to analyze utility programs designed to pay for those exact upgrades. The Southern California Edison (SCE) Charge Ready Transport program provides "make-ready" infrastructure support. Under the "SCE-Built" option, the utility designs, builds, and pays for the infrastructure on both sides of the meter at no cost to the customer. Alternatively, customers can receive a rebate covering up to 80% of customer-side infrastructure costs. This program could offset millions of dollars in infrastructure costs for the drayage truck charging and electric hostler charging stations the DEIR deems "infeasible." (SCE Charge Ready Transport, https://crt.sce.com/program-details)

5. Low Carbon Fuel Standard (LCFS) Credits Furthermore, by operating electric locomotives and equipment, BNSF would generate Low Carbon Fuel Standard (LCFS) credits. These credits provide a continuous revenue stream that effectively lowers the operating cost of electricity. Owners of EV chargers are eligible to generate credits based on the amount of fuel dispensed, which can then be sold on the open market. The DEIR's failure to calculate this revenue stream in its lifecycle cost analysis renders its finding of "economic infeasibility" legally invalid. The City must revise the DEIR to include a "Net Cost" analysis that factors in these available incentives. (CARB LCFS Credit Generation, https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard/lcfs-credit-generation-opportunities)

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XI. Applicant Financial Capacity

BNSF is not operating on thin margins or struggling to finance capital projects. Its parent company's SEC filings show that it is one of the most profitable transportation companies in North America, with profit margins that look more like a major tech platform than a trucking carrier.

According to Berkshire Hathaway's most recent Form 10-K, BNSF generated $23.44 billion in revenue and $5.03 billion in net earnings in 2024, for a net profit margin of roughly 21 percent (Berkshire Hathaway Inc., Form 10-K for the year ended Dec. 31, 2024, BNSF segment table). That result is not a one-off: Berkshire's 2023 annual report shows BNSF earned $5.09 billion on $23.88 billion of revenue in 2023, essentially the

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same 21 percent margin. Quarterly results confirm the pattern. In the third quarter of 2024, BNSF reported $5.88 billion in operating revenue and $1.38 billion in net earnings, an annualized margin again in the low-20s (Berkshire Hathaway Inc., Form 10-Q for the quarter ended Sept. 30, 2024, BNSF segment data). In other words, after paying all wages, fuel, maintenance, depreciation, interest, and taxes, BNSF is consistently clearing about one dollar of pure profit for every five dollars of revenue.

When that level of profitability is set alongside BNSF's peers, its financial capacity becomes even clearer. United Parcel Service (UPS), one of the most efficient and respected logistics firms in the world, reported $90.96 billion in revenue and $6.71 billion in net income in 2023, a net margin of roughly 7.4 percent (UPS, Form 10-K for the year ended Dec. 31, 2023, Statements of Consolidated Income). J.B. Hunt Transport Services, a leading trucking and intermodal carrier, reported $12.09 billion in 2024 revenue and $570.9 million in net earnings, a net margin of only about 4.7 percent (J.B. Hunt Transport Services, Inc., Form 10-K for the year ended Dec. 31, 2024, Management's Discussion and Analysis). Compared to these trucking and parcel giants, BNSF's roughly 21 percent margin is three to five times higher—a level of profitability that few transportation companies approach.

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Even when compared to a global technology leader, BNSF does not look underpowered. Alphabet Inc. (Google), often cited as one of the most profitable companies in the world, reported $350.0 billion in revenue and $100.1 billion in net income in 2024, for a net margin of about 28.6 percent (Alphabet Inc., Form 10-K for the year ended Dec. 31, 2024, Executive Overview table). BNSF's twenty-plus percent margin is not far behind a company like Google, and it is dramatically higher than the margins of UPS and J.B. Hunt. Financially, BNSF sits in a small group of firms that routinely generate double-digit net margins and billions in annual profits.

BNSF's capital-spending patterns underscore how much room it has to invest in cleaner operations. Berkshire's 2024 annual report notes that BNSF spends billions of dollars per year in capital expenditures—over $3 billion annually in recent years—to maintain and expand its network (Berkshire Hathaway Inc., 2024 Form 10-K, BNSF MD&A). These investments are already part of business as usual and are funded out of current earnings. Against that backdrop, the additional capital needed to electrify switchers, adopt battery-electric line-haul locomotives on a single corridor, deploy electric RTGs, and support zero-emission truck infrastructure at BIG is modest. For a railroad earning about $5 billion per year in net profit with a net margin in the low-20s, the suggestion that it cannot afford to build the project in a green fashion is not credible. CEQA's feasibility standard explicitly takes economic factors into account; here, BNSF's own SEC-reported financials show that it has more than enough capacity to fund zero-emission alternatives and mitigation measures at BIG without jeopardizing its financial health.

XII. Information Required for a Complete and Reproducible Analysis

To allow for a true understanding by the public of the Project and to enable a robust alternatives analysis, the Draft EIR should be revised to include all the information noted previously, including the following information:

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- Full operational locomotive data, including westbound tonnage, duty-cycle distributions, and dwell times
- Identification of which switcher fleet assumptions underlie emissions and health-risk modeling
- All AERMOD and Corridor Emissions Model electronic input and output files
- Integrated, facility-wide coincident load modeling outputs and time-series data sufficient to reproduce peak demand results
- Battery Energy Storage System specifications, including MW rating, MWh capacity, duration, and dispatch logic
- Complete solar generation analysis, including maximized and sensitivity scenarios
- All crane and RTG electrification assumptions and associated load curves
- Full diesel generator specifications, including stack parameters and modeling inputs
- Disclosure of hour-by-hour emission rate profiles and operational overlap assumptions used to generate short-term concentration results
- Corridor-wide cumulative health-risk assessment incorporating major railyards and rail traffic growth
- Ozone formation and secondary pollutant modeling
- Comprehensive, lifecycle-based analysis of feasible electrification alternatives
- Economic analysis incorporating available federal, state, and utility incentives
- Sensitivity analysis of charging power assumptions and operational strategies
- Discussion of regulatory and permitting pathways that could affect implementation timelines

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XIII. Conclusion

Taken together, the record demonstrates that the Draft EIR omits and inconsistently presents foundational information necessary to understand the Project and evaluate its impacts. Across core subject areas, including rail operations, energy demand, emissions modeling, cost assumptions, and cumulative health impacts, the Draft EIR relies on undisclosed inputs, unresolved internal inconsistencies, and single-scenario assumptions that cannot be independently verified. These gaps are not minor or isolated; they affect nearly every downstream conclusion regarding feasibility, cost, emissions, and public health.

The concerns raised in this letter are reinforced by detailed scoping and comment letters from CARB, EPA, the California Attorney General, and South Coast AQMD, agencies with specific technical expertise in air quality, climate policy, and environmental review. Those agencies requested clearer operational assumptions, reproducible modeling inputs, and meaningful evaluation of zero-emission and electrification alternatives. The Draft EIR, as currently structured, does not fully respond to those requests or explain why the requested analyses could not be performed.

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As a result, the Draft EIR does not provide a clear, stable, and transparent description of how the Project would actually operate, how emissions and energy use would occur over time, or how feasible alternatives would compare on a lifecycle basis. Without that

information, the public cannot meaningfully assess the Project's environmental consequences, and decision-makers cannot evaluate the relative merits of the proposed design versus cleaner, potentially feasible alternatives.

A revised environmental analysis that discloses complete operational inputs, reconciles internal inconsistencies, provides reproducible modeling data, and evaluates electrification and other zero-emission strategies on an equal footing would materially improve the informational value of the document. Only with that level of transparency can the environmental review serve its intended purpose of informing public understanding and supporting well-reasoned decision-making.

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Respectfully submitted,

/s/

Hal Connolly

Founder & Principal Consultant

Connolly Insights LLC

Submitted as expert technical comments on the Draft Environmental Impact Report for the Barstow International Gateway Project

Appendix 1: Resume

HAL CONNOLLY
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SUMMARY

Transportation and energy policy expert with over 20 years of experience across the federal executive branch, U.S. Senate, and private manufacturing sector. Former Senior Advisor at the Federal Railroad Administration (FRA) responsible for designing the agency's first climate resilience programs and mapping tools for railyard pollution. Primary contributor to federal roadmaps on freight rail decarbonization. Deep expertise in statutory analysis, environmental reviews, and the feasibility of zero-emission propulsion systems.

EXPERIENCE

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Connolly Insights LLC, Washington, DC
Founder & Principal Consultant | Aug 2024 – Present

- Provide technical and strategic advice to environmental organizations and community stakeholders regarding freight rail policy and infrastructure projects.
- Analyze regulatory filings to identify gaps in air quality modeling and mitigation proposals.
- Advise clients on grantmaking opportunities to reduce air pollution.

Qcells North America, Washington, DC
Vice President, Head of Public Policy and Government Relations | 2023 – 2024

- Directed federal policy strategy for one of the nation's largest renewable energy manufacturers, overseeing supply chain resilience and domestic content compliance.
- Analyzed industrial capacity for energy storage and battery manufacturing, providing insight into the supply chain realities required for heavy-industry decarbonization (relevant to battery-electric locomotive feasibility).
- Secured favorable guidance on Inflation Reduction Act (IRA) incentives, unlocking $3 billion in U.S. manufacturing investment.

Federal Railroad Administration (USDOT), Washington, DC
Senior Advisor for Climate and Sustainability | 2022 – 2023

- Served as a primary contributor to *An Action Plan for Rail Energy and Emissions Innovation* (Dec 2024), a joint U.S. DOT and U.S. DOE report establishing federal benchmarks for locomotive technology and decarbonization pathways.
- Designed and launched the FRA's first dedicated climate and sustainability program, embedding decarbonization priorities into agency planning and grant criteria.
- Oversaw the development of data-driven mapping tools to identify rail yard pollution impacts on environmental justice communities, facilitating targeted mitigation strategies.

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The Climate Reality Project, Washington, DC
Policy Director; SVP, Programs (2015–2022)

- Managed an $11 million budget and a 30-person team to advance federal climate policy and clean transportation advocacy.
- Spearheaded technical advocacy for the creation of the National Climate Bank ($27B) within the Inflation Reduction Act.
- Led public engagement campaigns supporting strong EPA emissions standards for light and heavy-duty vehicles.

U.S. Senate – Foreign Relations Committee & US Senate Personal Office, Washington, DC
Senior Professional Staff Member; Senior Policy Director; Legislative Counsel | 2007 – 2015

- Drafted and helped pass the transit title of MAP-21, creating new transit-oriented development programs, expanding FTA safety oversight, and securing $70M annually in additional transit formula funding for New Jersey.
- Led Senate office efforts to secure a $60B Superstorm Sandy relief package, including infrastructure and resilience funding.
- Drafted and passed the Energize Africa Act, improving energy access in Africa, emphasizing distributed solar.

Cahill Gordon & Reindel LLP, New York, NY
Associate, Commercial Litigation | 2002 – 2006

- Litigated complex antitrust and insurance cases; developed the rigorous analytical skills necessary for reviewing detailed regulatory filings and environmental assessments.

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EDUCATION

Yale University – Center for Business and the Environment
Certificate, Financing and Deploying Clean Energy, 2022

New York University School of Law
J.D., cum laude, 2002

Oberlin College
B.A., Politics, High Honors, 1997

AREAS OF EXPERTISE

- Freight Rail Decarbonization & Technology
- Environmental Review & Air Quality Analysis
- Department of Transportation and Surface Transportation Board (STB) Regulatory Processes
- Federal Infrastructure Funding
- Supply Chain & Manufacturing Policy

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Appendix 2: Planning-Level Electricity Cost Ranges for an All-Electric BIG (2028–2050)

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This section provides a planning-level estimate of the effective cost of electricity for a fully electrified Barstow International Gateway (BIG) under both the unmitigated and mitigated solar scenarios described in the Draft EIR. The purpose is not to predict a precise tariff outcome, but to establish a defensible range of electricity costs that reflects (1) utility imports under time-of-use (TOU) pricing, (2) on-site solar generation costs, (3) the use of battery energy storage (BESS) and scheduling to mitigate on-peak exposure, and (4) Barstow's excellent solar resource. Because the DEIR does not provide 8,760-hour load profiles or BESS specifications, this analysis uses transparent assumptions anchored in DOE and EIA benchmarks and the DEIR's own annual energy figures.

1. Energy supply assumptions from the DEIR

The BIG Utility Assessment provides the following relevant annual energy figures:

- Ground-mounted solar farm: 21 MW producing approximately 49,200 MWh/year (Appendix 5.17 BIG1 Utility Assessment, Table 16, p. 65).
- Rooftop solar (Title 24): 6.4 MW in the unmitigated case (Appendix 5.17 BIG1 Utility Assessment, p. 66).
- Additional rooftop solar under Mitigation Measure MM BIG EN-1: +17 MW, yielding approximately 23.4 MW of rooftop PV in the mitigated case (Appendix 5.17 BIG1 Utility Assessment, Table 16, p. 65).
- Total facility load (existing electric demand): approximately 145,258 MWh/year (Appendix 5.17 BIG1 Utility Assessment, Table 16, p. 65).

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Using the implied capacity factor of roughly 26.7 percent from the 21 MW solar farm, total annual on-site PV generation is approximately 64–68 GWh/year in the unmitigated case (21 MW farm + 6.4 MW rooftop) and approximately 100–105 GWh/year in the mitigated case (21 MW farm + 23.4 MW rooftop).

2. All-electric annual load and PV share

As shown in the preceding analysis, converting the Project's diesel energy use to electricity and adding existing electric loads yields an all-electric annual demand of approximately 377 GWh/year in the Horizon Year 2048.

• Unmitigated PV supplies roughly 17 percent of total annual energy.
• Mitigated PV supplies roughly 28 percent of total annual energy.

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3. Utility import price assumptions (TOU-mitigated)

For utility-supplied electricity, this analysis uses a planning-level blended price range that reflects large-customer TOU tariffs mitigated by BESS and smart scheduling. As an anchor, the U.S. Energy Information Administration reports an average California industrial retail electricity price of 21.53 cents/kWh in 2024 (EIA, Electric Power Monthly, Table 4).

With PV and BESS deployed to shift charging and other flexible loads out of the most expensive on-peak windows, a reasonable long-run effective import price range is approximately $0.12–$0.25 per kWh.

4. On-site solar generation cost assumptions

For on-site solar generation, this analysis relies on U.S. Department of Energy PV cost benchmarks. DOE reports utility-scale PV levelized costs of roughly $47/MWh nationally and notes that desert Southwest locations such as Barstow typically experience approximately 30 percent lower LCOE due to higher insolation. Rooftop commercial PV benchmarks are higher but similarly benefit from desert solar resources (U.S. DOE, PV Cost Benchmark Q1 2024). O21-146 cont'd

To reflect BIG's mix of ground-mounted and rooftop PV, a conservative on-site solar cost range of approximately $0.035–$0.07 per kWh is used.

5. Blended electricity cost ranges

The effective all-in electricity cost is calculated as a weighted average of utility imports and on-site PV generation, using the PV shares described above.

Scenario	PV share of energy	Import share	Assumed import price range	Assumed PV cost range	Resulting all-in electricity cost range
Unmitigated DEIR solar	≈17%	≈83%	$0.12–$0.25/kWh	$0.035–$0.07/kWh	≈$0.11–$0.22/kWh
Mitigated DEIR solar (MM BIG EN-1)	≈28%	≈72%	$0.12–$0.25/kWh	$0.035–$0.07/kWh	≈$0.10–$0.20/kWh

6. CEQA implications

These ranges demonstrate that, even under conservative assumptions, the effective cost of electricity for an all-electric BIG falls in a plausible and bounded range that is comparable to the cost of diesel energy displaced. Importantly, the DEIR does not perform any comparable analysis. It does not disclose TOU tariffs, demand charges, or O21-147

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BESS dispatch strategies, nor does it evaluate how on-site solar and storage can reduce exposure to on-peak pricing.

An agency may not dismiss electrification alternatives based on conclusory claims about power costs or grid limits without substantial evidence. The simple arithmetic shown here—using the DEIR's own energy figures and publicly available DOE and EIA cost benchmarks—demonstrates that electricity cost is not a barrier to full electrification at BIG and should have been analyzed explicitly in the Draft EIR.

O21-147
cont'd

Appendix B

Southern California Edison Transportation Electrification Program Advisory Council

September 12, 2025

Energy for What's Ahead®

SOUTHERN CALIFORNIA EDISON®

VIRTUAL MEETING EMERGENCY PROTOCOL

Follow these steps when a virtual or hybrid meeting attendee is incapacitated.

BEFORE THE MEETING STARTS — ASSIGN ROLES

- Who will call ESOC? **(626-815-5611)**
- Who will contact the leader?
- Who will stay on the call with the employee?
- Identify the location of employees who may be in transit or out in the field and feel comfortable providing that information.

1. A medical emergency occurs or seems to be occurring.
2. If you know the employee's location, call 911.
3. Call Edison Security Operations Center (ESOC) at **626-815-5611.**
4. If 911 has not been called, ESOC will contact 911 to dispatch emergency services to employee's location.
5. Contact the employee's leader.
6. Remain on the line with the employee until emergency services arrives.

If the employee is a supplemental worker, ESOC will contact the vendor to provide known information; if unavailable, 911 will be contacted.

SOUTHERN CALIFORNIA EDISON® Energy for What's Ahead® | Edison Safety

Energy for What's Ahead®

Agenda

Topic	Presenter
Welcome & Agenda	Jeannie Nguyen
Safety Moment	Myk Cruz
Charge Ready Schools and Parks (AB 1082/1083)	Alex Vandenbroek
Charge Ready Transport	Arron Calvache
Charge Ready Light Duty	Alex Vandenbroek & Karen Siman-Tov
Q&A	

SCE welcomes questions from all participants; however, we cannot share non-public or confidential information in this forum. Questions that warrant further discussion can be sent to eMobility@sce.com and our team will respond in a timely manner.

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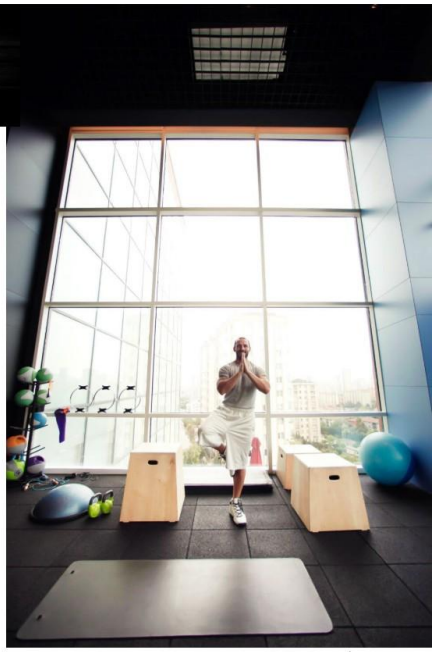
STAY FIT, STAY SAFE!



Physical Activity Benefits

Incorporating stretch breaks and short walks reduces injury risks and boosts overall energy levels at work.

Nutrition and Hydration

Providing healthy snacks and promoting hydration helps employees stay focused and alert throughout the workday.

Mental Wellness Practices

Mindfulness exercises and deep breathing help manage stress and prevent burnout among employees.

Wellness Challenges

Fun, goal-oriented wellness challenges promote physical fitness and team camaraderie in the workplace.

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Charge Ready Schools and Parks (AB 1082/1083)

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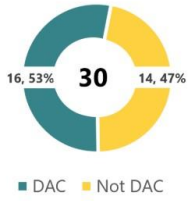
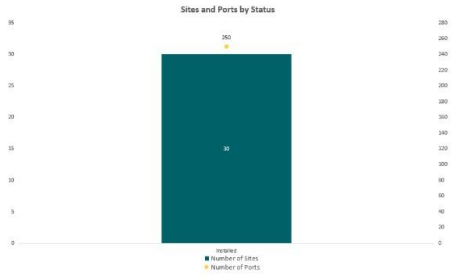
Charge Ready Schools Pilot

Pilot Background

- Pilot was kicked off November 2020
- Pilot goal of 250 ports
- Pilot goal of 40% DAC sites





Status of Projects

- Program is fully committed
  - 30 schools for 250 ports
  - 16 of the 30 are in disadvantaged communities (DACs)
  - One site is a tribal community (Bishop Paiute Education Center)
- Two schools (one school district) elected for the customer own and operate model
  - All remaining sites are SCE owned and operate
- Program to date installs: 250 ports across 30 sites
  - Final site was installed in June 2025
- Program challenges have included: long district approval and permit timelines, long lead time on switchgear and other equipment delivery, personnel changes, and continued vandalism (cable theft)
- EV Education Pilot Program
  - Run by our partner, The Energy Coalition with a goal of enrolling educators at participating schools to teach EV curriculum.
  - As of program conclusion in June: 35% of participating schools engaged, 17 educators enrolled from 11 schools reaching ~2,000 students

Data as of August 31, 2025

Energy for What's Ahead® | 6

Charge Ready Parks Pilot

Pilot Background

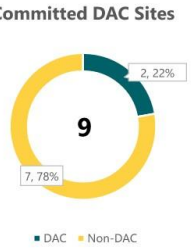
- Master Agreement executed April 2022
- Pilot goal of 120 Level 2 ports and 10 Direct Current Fast Charging (DCFC) ports

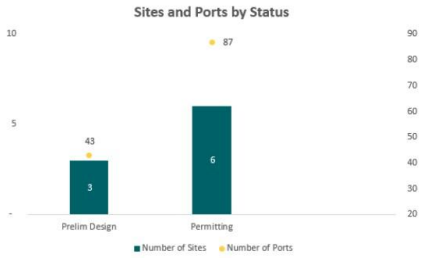
Pilot Status

- Advice Letter on reallocation of funds for DACs approved in June 2023
- Funds have been committed for 9 sites with a total of 120 Level 2 ports and 10 DCFC ports
  - 22% of sites are located in a DAC

Site Progress Update

- SCE and Department of State Parks are proceeding with 9 sites (120 Level 2 ports, 10 DCFC ports)
- Sites are in design and permitting and we hope to begin construction in early 2026
- Challenges: short staffed state park districts, re-designs, power availability for DCFC, long timelines for environmental review





Data as of August 31, 2025

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Charge Ready Transport

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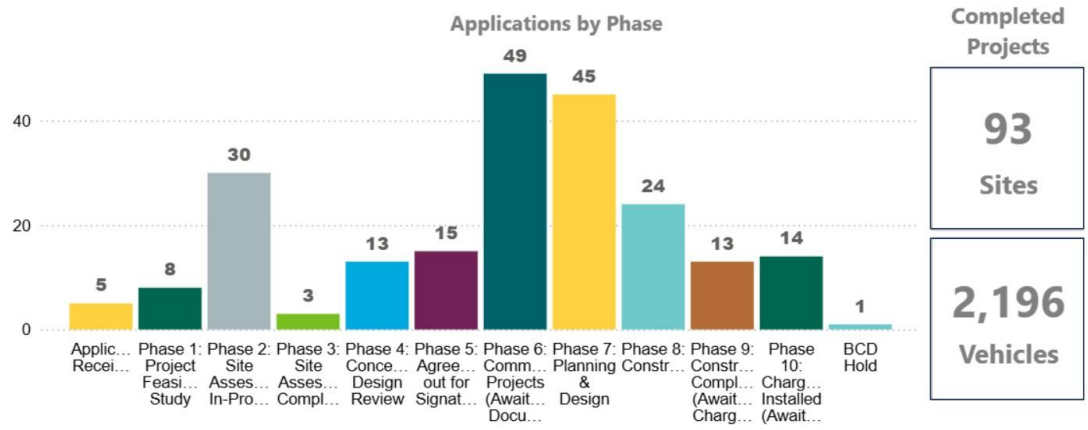
Charge Ready Transport: Current Progress

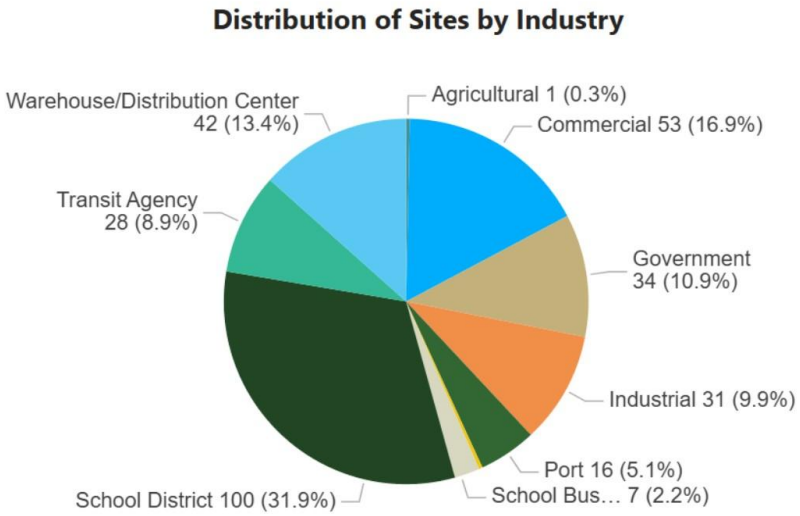
- SCE was working with **313** active sites to potentially support approximately **6,835** MDHD electric vehicles



Data as of September 4, 2025

Energy for What's Ahead® | 9

Charge Ready Transport: Site Characteristics



Data as of September 4, 2025

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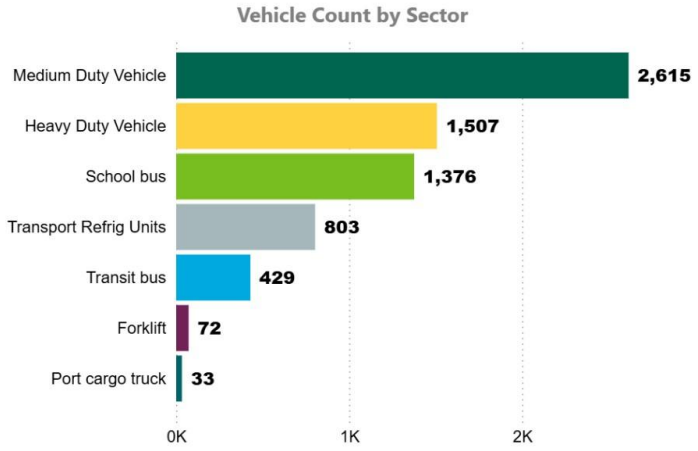
Charge Ready Transport: Site Characteristics



Data as of September 4, 2025

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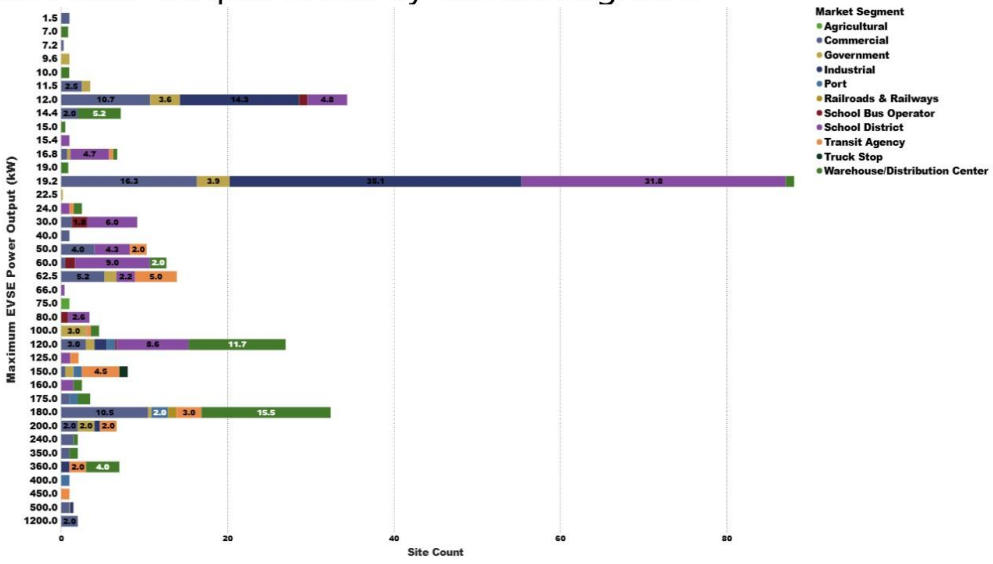
EVSE Power Output Levels by Market Segment



Data as of September 4, 2025

Note, figures reflect active, committed sites with signed CRT Program Agreements. Partial site counts represent sites with multiple types of charging equipment.

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Recent Regulatory Filings

CRT Extension Request

- SCE requested to extend the CRT Program until funds are exhausted
- Filed July 1, 2025
- AL is suspended for 120 days beginning July 30, 2025

Portable Tesla Charger Temporary Deviation Request

- SCE requested a temporary deviation that will enable CRT customers to use non-ISO 15118 compliant chargers to serve Tesla Semis until 3 months after a compliant charger is added to the APL or 24 months from the effective date of the Advice Letter, whichever comes first
- Filed July 21, 2025
- AL is suspended for 120 days beginning August 20, 2025

Charge Ready (Light Duty)

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Charge Ready Light Duty – 22,200 Make-Ready Level 2 Ports

Applicants include government customers, small and large businesses, destination centers, hotels, multifamily dwellings, and more. Public, workplace, and fleet parking are represented.

- Largest applicant business segment is multifamily, followed by government, schools, and workplaces.

Committed Sites	867	Committed Multifamily (MF) Ports	48%
Committed Ports	16,695	DAC Ports	54%

Committed customers have signed agreements with SCE to proceed with the project. This total includes both Charging Infrastructure and Rebate, Customer Make Ready, and Small Site Rebate agreements. These numbers do not include sites that have applied but have not yet signed agreements.

Installed Sites	332	Sites are considered installed when SCE's infrastructure is complete, and the site is ready for the customer to place their charging stations in.
Installed Ports	5,680	Since the Q1 2025 PAC meeting, SCE has installed 848 ports.

Program Update: On September 13, 2024, SCE received approval from CPUC (AL 5334E) to accept applications for the Level 2 make-ready programs through December 31, 2026, pending program availability.
Incentive Levels: Program incentive levels remain unchanged; L2 EV Charger Rebate is fully subscribed.

Data as of August 31, 2025

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Charge Ready Light Duty – New Construction Rebate

Applicants include multifamily dwellings that are in development or have a received a Certificate of Occupancy after January 1, 2017.

Committed Sites	108	DAC Ports	25%
Committed Ports	5,468	Since the Q 2 2025 PAC meeting, 1,300 ports have been committed.	

Committed customers have signed agreements with SCE to proceed with the project. These numbers do not include sites that have applied but have not yet signed agreements.

Rebate Issued Sites	33	Sites are considered rebate issued when customer has installed EV charging stations.
Rebate Issued Ports	315	

Program Update: New Construction Rebate program is a 4-year program that accepted applications through July 12, 2025. New applications are no longer accepted. Participants have 36 months, from their Reservation of Funds date to complete charger installation and request their incentive.

Data as of August 31, 2025

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Charge Ready Light Duty – DCFC

Applicants include local governments, small and large businesses, restaurants, and destination centers. All sites are required to be publicly accessible with short dwell times (less than 2 hours)

- Largest applicant business segment is small and large retail

Applications Received	232	Committed Sites	12	DAC Ports	45%
Ports Requested	2,022	Committed Ports	94	MF Adjacent Ports	89%

Program targeting to install **205 DCFC** ports.

Program is no longer accepting new applications; third application window will be considered based on application commitments from the first two windows.

Program guidelines were updated in Q2 to allow for up to 350 kW capacity chargers, subject to power availability.

Site assessments are underway, and program agreements are being offered to a subset of applications, while other applications remain on hold to ensure the program does not get oversubscribed

- Applications are screened and approved to undergo Desktop Review based on CPUC and program criteria
  - DAC status, proximity to MF, potential number of visitors, vehicle traffic, proximity to existing DCFC stations
- 11 applications for 61 ports have been offered a program agreement and are awaiting signature
  - 12 site commitments for 94 ports received as of August 31, 2025

Data as of August 31, 2025

Third Party Evaluator Public Presentations

Energy for What's Ahead®

SOUTHERN CALIFORNIA EDISON®

Upcoming Public Presentations: 2024 Program Evaluations

Charge Ready Transport, Charge Ready Schools, and Charge Ready Parks

Date: *Wednesday, September 17th from 11:00 am – 12:30 pm PT*

Join the meeting here:

Join the meeting now
Meeting ID: 274 238 804 305 4
Passcode: 72VN7KM9
Dial in by phone
+1 978-746-6050,,863276616# United States, Lowell
Find a local number
Phone conference ID: 863 276 616#

Charge Ready Light-Duty Program

Date: *Friday, September 26th from 9:30 am – 11:00 am PT*

Register Here for Charge Ready Light Duty Webinar

Please note registration is required to attend the Charge Ready Light Duty Webinar

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Q&A

Energy for What's Ahead®

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Contact Information

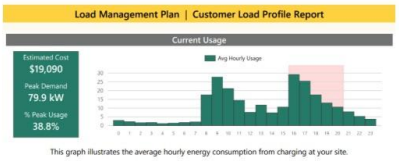
Program	Name	Email
General PAC Contact	eMobility	eMobility@sce.com
Business Development & Partnerships (BD&P) - Sr. Manager	Maricela Carlos	Maricela.Carlos@sce.com
BD&P - Medium/Heavy Duty Vehicles; Schools/Government	Jason Groves	Jason.Groves@sce.com
BD&P – Transportation Electrification Advisory Services	Maricela Carlos	Maricela.Carlos@sce.com
Electrification Data Analytics, Manager	Eddie Muñoz	Eduardo.Munoz@sce.com
Charge Ready (Light Duty)	Lauren Neff	Lauren.Neff@sce.com
Charge Ready Schools & Parks	Dani Mahrer	Dani.Mahrer@sce.com
Charge Ready Transport	Brad Hooker	Brad.Hooker@sce.com
Pre-Owned EV Rebate California Clean Fuel Reward	Brett Palmquist	Brett.Palmquist@sce.com

Energy for What's Ahead® | 21

TE Advisory Services: Overview

- Program Overview
  - Approved through 2026, TEAS is a $4.8M program providing customers with enhanced education, tools, and support to transition to transportation electrification.
  - The program provides the following services:
    - EV Readiness Studies (EVRS)
    - Load Management Plans (LMP)
    - Online Tools
    - Educational Webinars and Events

- Program Status Updates
  - Since August 2021, 1,142 EV Readiness Studies (EVRS) have been completed for multi-family, commercial and medium- and heavy-duty fleet customers. 42% of the studies completed are in disadvantaged communities.
  - 312 EVRS completed YTD.
  - 20 LMP completed since program launch in April 2025.



Energy for What's Ahead® | 22

RESPONSES TO COMMENT LETTER O21, EARTHJUSTICE

Commenter raises some concerns about the Draft EIR's analysis that are best addressed by sharing technical and scientific information, which is provided below. Additionally, the following expert reports have been included in the administrative record to substantiate discussions included in the Draft EIR and are available on the City website:

- *Market Benefits of the Barstow International Gateway (Market Benefits Report)*, prepared by Bradley Womack, et. al, dated November 2025.
- *Zero Emission Trucks Feasibility Evaluation for Barstow International Gateway (ZE Truck Feasibility Report*), Kimley-Horn, et al. dated April 24, 2026.
- *A Power Plan for the Barstow International Gateway (Power Budget Memorandum)*, Burns & McDonnell, dated March 2026.
- *Feasibility of Electric Rubber Tire Gantry (RTG) Canes Technical Memorandum (eRTG Feasibility Memorandum*), Prepared by Rod Haney (Managing Member of Transport Equipment Consulting, LLC), dated March 2026.
- *Feasibility Analysis of New Propulsion Locomotive Technologies and Overhead Catenary for the BIG Project* (*BEL and Catenary Feasibility Analysis*), Prepared by Michael E. Iden. P.E., dated March 2026.
- *Operational and Economic Feasibility for BEL Switchers and Linehauls (BEL Economic Feasibility Memorandum*), Burns & McDonnell, et al., dated March 13, 2026.
- *Operational Feasibility of Power Swapping BEL Linehaul Locomotives at BIG and Other Operational Challenges for BEL Switchers (Power Swapping Memorandum*), by Travis Thowe (BNSF Director of Network Strategy) and Mike Swaney (BNSF Director of Advanced Energy Innovation), dated February 27, 2026.
- *Analysis of BELs: San Pedro Bay Ports to Barstow* (*Benchmark Report*), prepared by Garrett Anderson, Benchmark Data and Control, dated March 2026.
- *BIG's Viability Due to Suggested Zero-Emission Mitigation Measures* (*Zero-Emission Impacts on BIG Viability*), prepared by Brad Womack (BNSF), dated April 2026.
- *Capacity at BNSF Los Angeles Hobart and San Bernardino* (*BNSF Hobart and San Bernardino Railyard Capacity Memorandum*), prepared by Ryan Sickler, dated March 9, 2026.
- *BNSF Barstow International Gateway Corridor Emissions Model Analysis Errata* (CEM Errata), prepared by Michael Choi, dated February 2026.
- *Regional Air Quality Modeling and Health Impact Analysis for the Barstow International Gateway* (*HIA Report*) (BlueScape), dated April 2026.
- *Market Benefits of the Barstow International Gateway* (*Market Benefits Report*), prepared by Bradley Womack, et. al, dated November 2025.

O21-1 This is a general comment that includes introductory remarks, a summary of CEQA provisions and case law, and serves to introduce more specific comments which are responded to in detail below. Comment noted pertaining to the attached technical report by Hal Connolly, referred as the "Connolly Memo," which is also addressed below.

O21-2 This is a general comment with a summary of CEQA provisions and case law, and serves to introduce more specific comments which are responded to in detail below. As a result, no specific response is provided here. Specific comments regarding the Project Description are responded to below. See also **Consolidated Response 03** concerning recirculation of the Draft EIR.

O21-3 This is a general comment with a summary of CEQA provisions and case law, and serves to introduce more specific comments which are responded to in detail below. As a result, no specific response is provided here. Specific comments regarding future impacts of BIG are responded to below.

O21-4 The commenter asserts that the EIR failed to analyze the impacts from what the commenter describes as a reasonably foreseeable scenario in which BNSF would "replace" the truck trips in Southern California that would be reduced or eliminated by approval of BIG by directing new ("additional") truck trips to its existing IMFs at Hobart and San Bernardino, thereby increasing BNSF's total regional cargo volumes and truck trips above what they would be without BIG. As discussed below, substantial evidence demonstrates that such a scenario is not a reasonably foreseeable consequence of approval of BIG, and so CEQA does not require that the EIR analyze it.

As shown in the *Capacity at BNSF Los Angeles Hobart and San Bernardino Railyards,* March 9, 2026, memorandum, existing BNSF facilities are able to process forecasted growth through 2048 without expansion, even in the absence of BIG, and therefore BIG is not proposed or needed to remove an existing impediment to BNSF's capacity to process forecasted growth. Furthermore, BIG would not empower BNSF to somehow "replace" the truck trips that would be eliminated as an effect of BIG approval. As a common rail carrier, BNSF does not initiate truck trips and therefore cannot "increase truck activity." BNSF accepts and processes containers by customers, and it is up to the customer to utilize BNSF rail transport compared to heavy-duty truck transport based on key differences in service (timing, cost, and consistency) between the two modes. BIG is proposed to increase rail transport competitiveness over truck transport; however, this competitive benefit over heavy-duty trucks only applies to containers processed at BIG (due to the direct rail transport from the Ports, closed loop transload operation, and being contained within a single site, reducing dray distance to almost zero). None of these benefits extend to other existing BNSF facilities, thus, BIG would result in no changes to the transportation options to customers at these existing BNSF facilities. It is therefore speculative, and not reasonably foreseeable, that the commenter's suggested changes to other BNSF facilities would occur.

Furthermore, BNSF's Hobart, Commerce, and San Bernardino facilities primarily serve parcel and less-than-truckload (LTL) freight, which are long-established, rail-served segments of the

supply chain (*BNSF Hobart and San Bernardino Railyard Capacity Memorandum).* They are also located close to the Los Angeles and Inland Empire warehouse base, where most transloading activity, for the Transload to Rail mode, occurs today. BIG is proposed to serve a different and underserved market. BIG is designed to capture a percentage of freight that, today, is not served by rail. By offering a purpose-built solution, BIG seeks to increase the value of rail to customers shipping these goods. As noted in the *Market Benefits Report*, BIG provides:

- Direct on-dock rail service from the Ports to BIG, eliminating dray steps
- On-site transloading, eliminating 30–60-mile drays
- A closed-loop, single-entity operating model, reducing fragmentation and variability
- Reduced dwell, higher reliability, and faster cycle times
- Scalable outbound domestic rail service to national destinations

These features directly address the shortcomings that discourage today's long-haul truck freight from using Transload to Rail. As the *Impacts on BIG's Viability Due to Additional Suggested Zero-Emission Mitigation Measures, April 2026* explains, without an integrated rail-and-transload solution, shippers utilize the Transload to Long-Distance Truck mode because it can be cheaper, faster, and more reliable than traditional Transload to Rail. BIG is designed specifically to change that value equation. Given these value changes would not occur at BNSF's Hobart, Commerce, and San Bernardino facilities, there is no reason to anticipate that customers would shift additional volume to those facilities, and the commenter has not submitted any substantial evidence to support this assumption. See Response to L17-15.

As explained in the Draft EIR, the proposed project would replace truck trips to and from the Ports with transportation by rail (see **Draft EIR Section 3.0**). Therefore, the Draft EIR properly included the removal of these truck trips as part of BIG's analysis. The Draft EIR is not required to presume that BNSF, a railroad company which does not initiate truck trips, would somehow effectuate an increase in truck trips at its other facilities as a result of BIG. State CEQA Guidelines § 15064(d) state that a lead agency "shall consider direct physical changes in the environment which may be caused by the project and reasonably foreseeable indirect physical changes in the environment which may be caused by the project." The State CEQA Guidelines § 15064(d) define a direct physical change as "a physical change in the environment which is caused by and immediately related to the project." The State CEQA Guidelines § 15064(d) define an indirec t physical change as "a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project." However, the State CEQA Guidelines § 15064(d) also advise against speculating regarding indirect changes, stating that, "an indirect physical change is to be considered only if that change is a reasonably foreseeable impact which may be caused by the project. A change which is speculative or unlikely to occur is not reasonably foreseeable."

Specific comments regarding potential for increased growth at other BNSF facilities are addressed in **Response O21-20** below. The detailed discussions of these issues below demonstrate that the Draft EIR properly analyzes BIG's impacts by considering those changes

that would result from BIG's implementation, and therefore that the analysis in the Draft EIR is consistent with CEQA requirements. Furthermore, any increases in rail and truck activity as a result of market demand would not be affected by BIG; see **Response L17-18**. Any operational changes that occur beyond BIG are therefore not changes caused by BIG and are thus beyond the scope of the Draft EIR's impact analysis. See also **Consolidated Response 12,** concerning the Project Description and enforceability.

O21-5 The commenter contends that the Draft EIR does not account for the impacts of increased operations at the Barstow Classification Yard, asserting that BIG would necessarily require the expansion of the existing facility. As noted in **Consolidated Response 13** concerning requests for additional analysis and substantial evidence, commenters are advised to support assertions that the lead agency should conduct additional analysis or review with data or other factual references. This is because the lead agency's CEQA conclusion must be based on substantial evidence in the record and not speculation. Here, the commenter has not pointed to any facts or data that support its contention that the Draft EIR's analysis is flawed. Nonetheless, in addressing commenter's concerns, consistent with State CEQA Guidelines § 15125(a), the Draft EIR discloses the existing conditions at the Barstow Classification Yard and explains why no expansion is required or proposed to meet BIG's heavy maintenance needs (see **Draft EIR Section 3.0: Project Description** pages 3-48 to 3-49). The following provides additional justification regarding the ability of the existing Barstow Classification Yard to handle the additional maintenance from BIG without expansion.[1] For the dedicated locomotive fleet, BNSF would perform daily locomotive fueling, sanding and inspections at the BIG facility on designated tracks within the design footprint. For Major Maintenance of the dedicated locomotive fleet, maintenance would be performed at BNSF's Barstow Classification Shops. BNSF has capacity at its Barstow Classification Shop to perform maintenance for all Tier 4 locomotives added as a result of BIG.

There are two types of Major Maintenance events performed at the Barstow Classification Shops. The first is scheduled maintenance which are semi-annual and annual events for each locomotive as regulated by the Federal Railroad Administration (FRA). The second is unscheduled maintenance events which are those where the locomotive is not performing as expected and maintenance is done off schedule.

Between 2019 and 2024, BNSF reduced the number of locomotives in its fleet by 855[1] or approximately 10%. These reductions tend to be older locomotives with higher unscheduled maintenance events. Correspondingly, BNSF saw an average of 12% reduction in scheduled and unscheduled maintenance events at Barstow Classification shop during that period.

Barstow Classification Loco Inspections	2019	2020	2021	2022	2023	2024	Reduction
Total Locomotive Maintenace Events	8,130	7,355	6,341	6,546	6,776	7,185	11.6%

Source: BNSF Mechanical Locomotives Released Data – at Barstow Classification Shop

1 *Personal communication, BNSF.* January 30, 2026.

Even though total semi-annual and annual inspections have declined during this period, BNSF has retained the capability to perform inspections and maintain locomotives at the Barstow Classification Shop.

Fueling, Per Communication with BNSF:

1) Increasing renewable fuel from 1% to 10% does not require additional infrastructure at the existing Barstow Classification Yard.
2) Renewable and traditional diesel would be mixed and delivered via Direct to Locomotive (DTL) at the BIG facility for locomotives in the dedicated fleet and BIG switchers.
3) Any locomotives that would fuel at BIG today would continue to fuel at the existing locations and not require additional infrastructure.
4) BNSF confirms existing tank storage for diesel and renewable diesel is sufficient and could support as much as four times the number of fueling events performed today.

Maintenance, per communication with BNSF:

1) Major locomotive maintenance events (6-month and 12-month) would be handled at the existing Barstow maintenance facility and would not require additional infrastructure given the facility has substantial available capacity.
2) Routine daily maintenance (sanding, fueling, inspection) would be handled at BIG as part of the design.
3) Any minor maintenance would be performed at BIG on the designated track and location within the design footprint.
4) BNSF confirms it has sufficient capacity to maintain the Tier 4 fleet for the switchers and Port to BIG IMF movements at its Barstow shop facility.

If at such time the Barstow classification yard maintenance facility would become capacity-constrained, BNSF would not invest in additional infrastructure but would reallocate some of the locomotives assigned to the Barstow shop facility to other maintenance shop facilities in its network (which includes using Hobart in Los Angeles).

This supplemental information clarifies and expands upon analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid. Please also see **Consolidated Response 03**, concerning recirculation of the Draft EIR.

O21-6 The private airstrip is for private use only, associated with an adjacent residence. Therefore, there is no need to relocate the airstrip as part of BIG. The Draft EIR acknowledges the private airstrip as part of existing conditions, but it is not feasible to analyze impacts of relocating the airstrip without knowing where the private owners may relocate it, if at all. State CEQA Guidelines § 15145 states that if a lead agency "finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact." In this case, the Draft EIR cannot speculate if the private airstrip would be relocated or where it might be relocated to, and the Draft EIR is not required to assess potential impacts of moving the airstrip to an unidentified location. Impacts associated with demolition of the airstrip are analyzed as part of BIG in the Draft EIR. As stated above, any impacts on regional

air traffic would be entirely speculative, and, therefore, CEQA does not require their analysis. Please see also **Consolidated Response 13** concerning requests for additional analysis and speculation.

O21-7 This is a general comment with a summary of CEQA provisions and case law, and serves to introduce more specific comments which are responded to in detail below. As a result, no specific response is provided here. Specific comments regarding the Project Description are addressed below. Specifically, the Draft EIR's truck trip analysis is discussed in **Response O21-4**, and its train trip analysis is discussed in **Response O21-9**. See also **Consolidated Response 12** concerning the Project Description and enforceability.

O21-8 The comment asserts that there are inconsistencies in the Draft EIR with the number of trucks, truck trips, and containers stated to be served by BIG. Each number referenced by this comment is described in further detail below to reconcile perceived inaccuracies and provide clarification.

Draft EIR Section 3.7.5: Rail Yard states that BIG would expect to serve 297 trucks per day in 2028, 377 heavy-duty trucks per day in 2033, and 465 heavy-duty trucks per day in 2048. (**Draft EIR** page 3-51.) These daily estimates conservatively use a 13% seasonal surcharge factor which is described in **Draft EIR Appendix 5.15 BIG-2** (pages 138 to 139 and 142). Daily truck numbers also assume that just 50% of trucks accessing BIG would leave with a container to balance empties or to continue the transport of goods, which is also described in **Draft EIR Appendix 5.15 BIG-2** (pages 140 and 142).

To reconcile the number of daily trucks served by BIG with the number of annual containers which would access BIG by truck, the seasonal surcharge must first be removed from the number of daily trucks (to determine the *average* number of trucks per day), then the number of containers per truck must be adjusted to account for the fact that the analysis conservatively assumes just 50% of trucks would depart BIG with a container. To reconcile the total number of annual containers served by BIG with the number of daily trucks served by BIG, the following conversion can be used:

$$\#\ annual\ containers = \frac{\#\ daily\ trucks}{1.13} * 365\ \frac{days}{yr} * \frac{1\ container}{1.5\ trucks}$$

Applying this conversion to the daily numbers of trucks referenced **in Draft EIR Section 3.7.5 Rail Yard**, rounded to the nearest 1,000, results in 64,000 containers in 2028, 81,000 containers in 2033, and 100,000 containers in 2048.

The comment asserts that these numbers do not match the "Subtotal of Containers arriving/departing BIG via Heavy-Duty Truck" in **Draft EIR Table 3-13:Table 3-13: BIG IMF and Block Swap Estimated Annual** Container Volumes (pages 3-53). This line in **Draft EIR Table 3-13** is double the number of containers calculated from the number of trucks per day because it is the sum of the number of containers entering BIG, plus the number of containers departing BIG; if *one* container enters BIG and then departs BIG, it would therefore be represented *twice* in this total because it enters once, then exits once. It is noted that the table referenced in this comment misstates the number of containers served by BIG in the

year 2033, as it is shown as 80,000, when it should be 81,000. The **Draft EIR Section 3.0: Project Description** (pages 3-53) has been revised as shown below and as shown in **Final EIR Section 3.0: Errata to the Draft EIR.**

Table 3-13: BIG IMF and Block Swap Estimated Annual Container Volumes

	Containers per Year			Notes
	2028	2033	2048	
BIG INTERMODAL FACILITY AND BLOCK SWAP YARD				
Containers arriving at BIG via Train (Eastbound)	1,084,000	1,216,000	1,513,000	
Containers Departing BIG via Train (Eastbound)	1,036,400	1,149,088	1,441,769	
Containers arriving at BIG via Train (Westbound)	1,036,400	1,149,088	1,441,769	
Containers departing BIG via Train (Westbound)	1,084,000	1,216,000	1,513,000	
Subtotal of Containers arriving/departing BIG via Train	4,240,800	4,730,176	5,909,538	Subtotal of containers arriving/departing by Train
Containers arriving at BIG via Heavy-Duty Truck	64,000	80,000 81,000	100,000	Of this, 67 percent are existing containers transported by trucks that, without BIG, would travel a longer distance to a different BNSF intermodal facility. By arriving at the BIG IMF, the total truck miles traveled is reduced for those containers.
Containers departing BIG via Heavy-Duty Truck	64,000	80,000 81,000	100,000	Of this, 67 percent are existing trucks transported by truck that, without BIG, would travel a longer distance to a different BNSF intermodal facility. By arriving at the BIG IMF, the total truck miles traveled is reduced for those containers
Subtotal of Containers arriving/departing BIG via Heavy-Duty Truck	128,000	~~160,000~~ 162,000	200,000	Subtotal of containers arriving/departing by truck
Total Estimated Annual Containers processed at BIG	**4,368,800**	**~~4,890,176~~** **4,892,176**	**6,109,538**	Total estimated annual containers arriving/ departing via Heavy-Duty Truck and Train at BIG

The comment calls attention to a typo in **Draft EIR Section 5.6.6 Project Impacts and Mitigation Measures**. The Draft EIR, page 5.6-41, has been revised as shown below and as shown in **Final EIR Section 3.0: Errata** to the Draft EIR.

> Additionally, BIG would transport almost all containers with trains instead of heavy-duty trucks, which would substantially reduce ~~eliminate almost all~~ truck trips and truck miles traveled (TMT).

The comment states that **Draft EIR Appendix 5.15 BIG-1** (pages 142 to 144) show that "BIG would add more than half a million truck trips annually." This comment does not consider the "No BIG Baseline" portions of the figures on the referenced pages, referring only to the

number of proposed truck trips in the "Plus BIG" scenario. Comparing these values to the No BIG Baseline numbers of truck trips represented in the referenced figures, it becomes apparent that BIG reduces the number of truck trips related to the goods which would be processed by BIG by over 600,000 in 2028 and over 900,000 in 2048. The discussion regarding inconsistencies between the number of truck trips added to the roadway network due to BIG and other, more general, statements that BIG would reduce the number of trucks and truck miles traveled, can be addressed with the comparison of proposed trucks under the Plus BIG and No BIG Baseline scenarios.

This supplemental information provided clarifies and expands upon analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid. Please also see **Consolidated Response 03** concerning recirculation of the Draft EIR.

O21-9 The comment asserts that there are inconsistencies in the Draft EIR with the number of trains stated to be served by BIG. As noted in **Consolidated Response 13**, concerning requests for additional analysis and substantial evidence, commenters are advised to support assertions that the lead agency should conduct additional analysis or review with data or other factual references. This is because the lead agency's CEQA conclusion must be based on substantial evidence in the record and not speculation. Here, the commenter has not pointed to any facts or data that support its contention that the Draft EIR's analysis is flawed. Nonetheless, the commenter's concerns are addressed below.

The perceived inconsistencies result from the comment mixing different metrics, different geographic extents, different time periods (day vs. night), and different train categories that are each reported for different analytical purposes in the Draft EIR and its technical appendices. When each value is read in its intended context, the Draft EIR is internally consistent, and the project description is stable.

The Draft EIR distinguishes between:

5) "Trains serving BIG" (i.e., Project-related train movements that are directly attributable to BIG operations), and

6) "Total trains on the mainline" (i.e., all rail traffic passing through the study area on the existing rail corridor, including BNSF and other operators as applicable, during day and night).

These are not interchangeable numbers. "Trains serving BIG" is a subset of the total trains on the mainline.

Draft EIR Section 5.12: Noise and **Draft EIR Appendix 5.12 BIG-1: Noise and Vibration** are consistent regarding the number of daily BIG train trips:

- Opening Year 2028: 24 trains serving BIG per day
- Interim Year 2033: 27 trains serving BIG per day
- Horizon Year 2048: 34 trains serving BIG per day

The numbers above represent trains attributable to BIG operations and do not represent the total mainline traffic volume. The values cited by the commenter (24 daily freight train pass-bys in 2028 and 35 in 2048) are the Draft EIR's BIG-related train volumes (i.e., trains serving BIG) for the opening and horizon years. These are the values used to describe the operational scale of BIG-related train activity. The Draft EIR also identifies an interim condition (i.e., 2033) for trains serving BIG.

The commenter references 45.3 existing trains, which is the total number of average daily trains trips along the existing mainline (including BNSF and other rail agencies). The 134.9 trains per day in 2048 figure cited by the comment also describes the total mainline traffic, not BIG-serving trains.

The 37 train trips mentioned in the comment represents Interim Year 2033 daily train trips along the mainline in the daytime; there would also be approximately 16 nighttime train trips, totaling 51 daily train trips along the mainline. These numbers are not BIG-serving train counts and instead represent mainline train volumes used for a specific noise modeling scenario. These train numbers reflect daytime pass-bys within the defined modeling period. The comment omits that the appendix's modeling also accounts for nighttime train pass-bys, which must be added to the daytime value to obtain a 24-hour total.

The train numbers are presented in an appendix table for a specific analytical purpose and reflect inclusion of various train categories, different counting locations within the BIG footprint, or different assumptions about the number of train segments counted as they traverse multiple modeled links. The existence of multiple tables does not mean that the project description is unstable; it reflects that the Draft EIR contains multiple analytic inputs presented across different sections and appendices due to the complex nature of the project and the detailed nature of the analysis. As a result, the Project Description is neither unstable nor needs to be revised. Please also see **Consolidated Response 03**, concerning recirculation of the Draft EIR.

O21-10 This is a general comment with a summary of CEQA provisions and case law and serves to introduce more specific comments which are responded to in detail below. As a result, no specific response is provided here. See **Consolidated Response 14** concerning consideration of a range of reasonable alternatives**.** Specific comments regarding the Project's Alternatives analysis are responded to below in **Responses O21-11** through **O21-14**.

O21-11 This comment includes a summary of CEQA provisions and case law, which does not require a response. The Comment further states that the Draft EIR did not analyze a reasonable range of alternatives for the GPU update. See **Consolidated Response 14** concerning consideration of a range of reasonable alternatives. As explained in the Consolidated Response, the Draft EIR was prepared in compliance with State CEQA Guidelines § 15126.6, which state that an EIR shall describe a range of reasonable alternatives to the Project, or to the location of the Project, which would feasibly attain most of the basic objectives of the Project but would avoid or substantially lessen any of the significant effects of the Project. The alternatives in the Draft EIR constitute a reasonable range of alternatives for the proposed General Plan

because, per State CEQA Guidelines § 15126.6(c), the alternatives considered could avoid or lessen one or more of the GPU's significant impacts, meet most of the basic project objectives and are potentially feasible.

The commenter suggests revising the Draft EIR to analyze two additional alternatives, a mixed use alternatives and a land use buffering alternatives, for the General Plan. At the outset, it is unclear what commenter means by a "mixed use alternative"; the letter discusses some specific master-planned retail and industrial projects, but does not explain how the co-location of industrial, retail, office and restaurant uses on a project-specific basis would be translated as part of a general plan update alternative. The Draft EIR also analyzes the inclusion of mixed-use development. The land use designation of Diverse Use is mixed-use development and was evaluated in the Draft EIR as both the No Project Alternative, and the No BIG/Proposed General Plan Reduced Development Alternative (see pages 8-51 of the Draft EIR). As explained in the analysis in **Draft EIR Table 8-5: No Proposed General Plan/2015 General Plan Alternative: Ability of Alternative to Meet Project Objectives** (pages 8-65), neither Alternative would meet the job creation projected for the proposed project.

With respect to the buffering alternative, the Draft EIR, as discussed on pages 8-39, includes an analysis of the "BIG Flipped Concept Alternative," which would locate warehouse operations between the rail yard operations and Main Street to increase the distance of the rail yard operations from sensitive receptors, effectively creating a buffer. Including a General Plan alternative that would include the same scenario would be a variation of this alternative, which is not required to be analyzed under CEQA.[2]

Regarding the example provided by the comment of BNSF's Logistics Park Kansas City terminal, BNSF implemented autostrads—fully automated straddle carriers—that transport containers through the hub, in the Logistics Park Kansas City intermodal hub operation in 2020. However, these autostrads are no longer in operation on BNSF's network, as they did not provide the required operational benefits to keep them in operation (Scott Hernandez, personal communication).

O21-12 The commentor is correct in that findings are required before any project approval. Findings are not required to be part of the Draft EIR but are part of the consideration process for the proposed project and would be made available to the decision makers as part of the meeting materials. See **Consolidated Response 02** concerning significant and unavoidable impacts and the Statement of Overriding Considerations.

There is a typographical error just before **Draft EIR Table 8-6: No BIG/Proposed General Plan Reduced Development Alternative Ability of Alternative to Meet Project Objectives** (pages 8-73). The error is corrected in **Final EIR Section 3.0 Errata to the Draft EIR** as follows:

[2] *Residents Ad Hoc Stadium Comm. v. Board of Trustees* (1979) 89 Cal.App.3d 274, 286; see also *Cherry Valley Pass Acres & Neighbors v. City of Beaumont* (2010) 190 Cal.App.4th 316, 355-56 (rejecting need to analyze every variation on the alternative continuum for housing project)

> "…the proposed General Plan with No BIG Alternative would not fulfill ~~any~~ most of the proposed General Plan objectives…"

These changes do not change the analysis in the Draft EIR and the Draft EIR's conclusions remain valid.

Some of the General Plan objectives would be met to a lesser extent. Although this text is in error, pages 8-113 accurately concludes that the No Big/Proposed General Plan Reduced Development Alternative is the environmentally superior alternative. See also **Consolidated Response 12-03** concerning enforceability of the Project components and mitigation measures for the Project.

The comment questions the basis for the reasoning underlying the discussion of No BIG/Proposed General Plan Reduced Development Alternative, and in particular the basis for the statement that up to 10 million square feet of warehousing could be developed by 2048 within the City SOI. As stated in the DEIR (pages 8-66) in Chapter 8, Alternatives, 10 million square feet is a reasonable projection based on regional economic data, market trends and discussions with property owners. An example of market trends data supporting demand for truck-based warehousing in Barstow can be found in information published by the San Bernardino Economic Development Agency (County EDA) in April 2024 https://main.sbcounty.gov/2024/04/11/the-future-of-transportation-and-logistics-is-here/), which shows more than 4.5 million square feet of new warehousing completed in the High Desert between 2020 and 2024. The High Desert market in the context of logistics is also known as the Inland Empire North and includes Victorville, Hesperia, Adelanto, Apple Valley, and Barstow. The County EDA and its citations of real estate experts further state that the trend to push north along the I-15 corridor would continue with "factors driving industrial developers and tenants northward into the desert including available labor, product price, transportation networks, available new space, and the growing desire by workers to shorten their commute." Additionally, CBRE is quoted as saying "the availability of land on larger tracts is driving movement of this industry to the High Desert." The City received confirmation of these regional trends from various property owners and developers approaching the City to inquire about the potential for new warehousing development, both to the west of I-15 and in the very northeast of Barstow, over the course of public outreach for the GPU. CBRE is a recognized source comprised of real estate industry experts, thus, qualifies as substantial evidence.

In terms of land area, 10 million square feet of warehousing facilities, which can occupy between 25% and 50% of a parcel depending upon the amount of parking and circulation space needed, would occupy roughly 450 to 900 acres. While there are more than 4,000 acres of vacant land in western Barstow, as stated in the Draft EIR (pages 8-67) of Chapter 8, Alternatives, previously approved plans elsewhere in the High Desert contain an abundance of appropriately zoned land for warehousing, which may reduce the total development potential for warehousing in Barstow. Given the abundance of large, vacant parcels and access to I-15 and SR-58 in Barstow, offset by other available and entitled land in other cities,

substantial evidence supports the reasonable projection of 10 million square feet of warehousing uses for the planning period of 2023-2048.

With respect to the comment's statement about the need for roadway improvements to support project traditional truck-warehouses, as part of its early land use and transportation planning efforts, the City evaluated various projected scenarios that included 10 million square feet of warehousing use. The analysis, conducted in Spring of 2023, evaluated the potential volume of traffic (in units of passenger car equivalent) along the freeways, interchanges, and major roadways using the SBTAM (model available in 2023). The analysis indicated that the Lenwood interchange and the I-15 would be heavily impacted and potentially create the need for an additional interchange to the south. A high-level cost estimate of a new interchange was estimated to be $75-100 million; as a recent example, the creation of a new-service interchange at Victoria Avenue and SR-210 is estimated to cost $93 million (https://scag.ca.gov/sites/default/files/2025-04/25FTIP_StateAmend25-01-05SBD.pdf). This cost estimate was sufficiently high to justify the Draft EIR's statement that traditional truck-based warehousing may require substantial improvements to local and State roadways and that such improvements may or may not be economically feasible. The BIG project, given its rail-centric transportation model, does not generate the same level of truck traffic compared to truck-based warehousing. As shown on draft EIR page 3-51, by 2048 BIG is anticipated to generate 465 trucks per day for 9.0 million square feet of industrial warehouse. In comparison, the Mojave Industrial Park in Victorville, California is estimated to result in approximately 1,846 three and four-axle trucks per day serving 1,351,400 square feet square feet) of industrial warehousing and fulfillment of (Mojave Industrial Park, Victorville, CA SCH# 2023110478).

Finally, the comment questioned whether the Mojave Desert Air Quality Management District (MDAQMD) has fewer air quality restrictions compared to the South Coast Air Quality Management District (SCAQMD). In the context of truck-based warehousing, SCAQMD's Air Quality Management Plan (AQMP) reflects an "extreme" nonattainment environment and a layered regulatory framework that includes source-specific rules, detailed CEQA expectations, and, most notably, the Warehouse Indirect Source Rule (ISR / Rule 2305). This rule alone introduces ongoing operational obligations—such as point-based compliance, zero-emission vehicle deployment, or mitigation fees—that directly increase both upfront and long-term project costs. As stated in the Assessment of Warehouse Relocations Associated with the South Coast Air Quality Management District Warehouse Indirect Source Rule (page ES-19, https://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/iec_pr-2305-warehouse-relocation-report-(12-23-20).pdf), ISR compliance would add $0.50 to $2.00 per square foot for warehousing projects.

O21-13 This comment includes a summary of CEQA provisions and case law, which does not require a response. The comment further states that the Draft EIR includes overly narrow project objectives for BIG. The City, as the lead agency, has discretion in drafting the Project's

objectives to address the key purposes of the Project.[3] The agency's alternatives analysis would be upheld as long as there is a reasonable basis for the choices it has made.[4] While a lead agency may not make a project's purpose "artificially narrow," it is permissible to establish reasonable goals and objectives for a project, including location and operational concerns. For example, a lead agency would not be required to analyze inland locations for an oceanfront hotel or waterfront aquarium[5].

See **Consolidated Response 14** concerning consideration of a range of reasonable alternatives. As explained in the Consolidated Response, the Draft EIR was prepared in compliance with State CEQA Guidelines § 15126.6 and includes a reasonable range of alternatives that "could feasibly attain most of the basic objectives of the project" and that would "avoid or substantially lessen any of the significant effects of the project." The objectives included in **Draft EIR Section 3.3** reflect the purpose and intent of BIG and are not made overly narrow by including preferences for locations near existing facilities or with sufficient space for the project components. These Project objectives are not "artificially narrow" such that they preclude informed decision making or consideration of a reasonable range of project alternatives as required by CEQA. (State CEQA Guidelines, § 15126.6(a).) However, consistent with the requirements of CEQA, detailed project objectives describe the underlying purpose of the project and aid the lead agency in developing a reasonable range of alternatives to evaluate in the EIR and thus provide more precise information to the decision-makers and public. (State CEQA Guidelines, § 15124(b).) The justification for site-selection criteria, such as proximity to BNSF's mainline, is included in **Draft EIR Section 8.6: Criteria for Selecting Alternatives**. Consistent with CEQA's direction that an EIR should consider only alternatives that would implement most of the basic project objectives, the range of alternatives to BIG is properly limited to alternatives that would implement most objectives that relate to the location and type of site for which BIG is proposed. As mentioned by the commenter, Project objectives include "increasing speed and reliability …of moving containerized goods from the San Pedro Bay Ports…to their end destinations." As discussed in **Draft EIR Section 8.8: BIG Alternatives Considered but Rejected**, six alternatives were considered but rejected, including the Off-Site Alternative, which evaluated four potential sites in place of the BIG site. Furthermore, a number of the alternatives considered met or partially met the Project objectives. See **Consolidated Response 14** concerning consideration of a range of reasonable alternatives for further discussion, including how BIG's objectives informed the range of alternatives.

O21-14 This comment includes a summary of CEQA provisions and case law, which does not require a response. The Comment further states that the Draft EIR did not analyze a reasonable range of alternatives for BIG. See **Consolidated Response 14** concerning consideration of a range of reasonable alternatives. As explained in the Consolidated Response, the Draft EIR was prepared in compliance with State CEQA Guidelines § 15126.6 and includes a reasonable range of alternatives that "could feasibly attain most of the basic objectives of the project"

3 *California Oak Foundation v. Regents of the University of California (2010)* 188 Cal.App.4th 227, 276-277.

4 *City of Maywood v. Los Angeles Unified School Dist. (2012)* 208 Cal.App.4th 362, 414, 416.

5 *In re Bay-Delta Programmatic Envtl. Impact Report Coordinated Proceedings (2008)* 43 Cal.4th 1143, 1166.

and that would "avoid or substantially lessen any of the significant effects of the project." An EIR need not present alternatives that are incompatible with fundamental project objectives.[6,7,8]

The comment contends that because the Draft EIR only considered three alternatives for BIG, the **Draft EIR** did not examine a "reasonable" range. However, CEQA does not require a specific number of alternatives be analyzed; only that the EIR must include "only those alternatives necessary to permit a reasoned choice" and that "could feasibly attain most of the basic objectives of the project."[9] Here, as explained in the Consolidated Response, the Draft EIR analyzes three alternatives to BIG in detail (Draft EIR, Section 8.10). Six alternatives were considered and rejected, as explained in **Draft EIR Section 8.6: Criteria Considered for Selecting Alternatives, and Draft EIR Section 8.8: BIG Alternatives Considered but Rejected**. The comment contends that there is no analysis or supporting evidence to support why the Reduced Intensity Alternative and BIG West Transload Warehouse Center Alternative would not meet project objectives. This is not true; the Draft EIR analyzes the three alternatives as noted in **Consolidated Response 14,** concerning consideration of a range of reasonable alternatives**,** and provides a robust analysis of the three alternatives cited, plus six BIG alternatives considered but scoped out for additional analysis as discussed in Section 8.8, for a total of nine alternatives to BIG evaluated in the Draft EIR. The commenter correctly notes a typo in the West Transload Warehouse Center alternative analysis. As such, the **Draft EIR Table 8-17: West Transload Warehouse Center Alternative Ability to Meet Project Objectives** (pages 8-112 through 8-113) is revised in **Final EIR Section 3.0: Errata to the Draft EIR** as follows:

Table 8-17: West Transload Warehouse Center Alternative Ability to Meet Project Objectives

Objective	Objective Met?
…	
• allow for sufficient on-site power generation to the rail yard (i.e., solar farm).	**No**, given CPUC regulations would prohibit the solar farm from powering the rail yard under this alternative. Yes

This change clarifies analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid. The analysis correctly noted "…this alternative would fulfill BIG's objectives but to a lesser degree than BIG, given this alternative anticipates approximately 1.7 million square feet less transload warehouse center and proportionately less in container volumes at the rail yard. Therefore, this alternative would fulfill these objectives to a lesser degree as BIG. Further, with development of the Industrial Park area, although 11 percent less industrial

6 *Jones v. Regents of Univ. of Cal. (2010)* 183 Cal.App.4th 818, 824-829 [EIR need not consider alternative off-site location that would not advance objectives of promoting campus-like setting and collaborative work environment at existing site]..

7 *Save San Francisco Bay v. San Francisco BCDC (1992)* 10 Cal.App.4th 908, 919-922 [range of alternatives to aquarium project was properly constrained by project objective requiring waterfront location].

8 *Save Our Residential Environment v. City of W. Hollywood (1992)* 9 Cal.App.4th 1745, 1752-1754 [location-based project objectives regarding proximity to transit, medical facilities, and shopping were sufficient to conclude alternative locations were infeasible].

9 *Save Our Access etc. v. Watershed Conservation Authority (2021)* 68 Cal.App.5th 8, 31.

development would occur, this alternative's 550,000 square feet of traditional, truck intensive industrial uses would increase overall operational truck trips, emissions, and noise as compared to BIG." (pages 8-112). Thus, the Draft EIR concludes the alternative met the Project objectives but to a lesser degree.

The Commenter claims that the Draft EIR's consideration of these alternatives is not supported by "technical analysis, data, or expert evaluation to substantiate these assertions or to explain why these alternatives were rejected." However, as noted by the commenter, the Draft EIR concludes that these alternatives would not meet BIG's market demand (page 8-99), which is substantiated in **Appendix C: Truck Miles Traveled Calculations to Draft EIR Appendix 5.15 BIG-1 CEQA Assessment – Transportation Analysis**. BIG's market demand is further substantiated in a supplemental appendix to the Final EIR titled *Market Benefits of the Barstow International Gateway* (Market Benefits Report), authored by Bradley Womack et al, various subject matter experts within BNSF.[10] The *Market Benefits Report* explains the basis, grounded in BIG's site design and informed by BNSF's unmatched experience in operating and improving a vast freight-rail infrastructure network, for concluding that BIG would prompt Beneficial Cargo Owners (BCOs) to shift a portion of their containerized freight that moves through the Ports and currently transloads to long distance truck-borne conveyance to its ultimate destination (Transload to Long-Distance Truck) into a new rail centric model (Cross-Dock Intermodal). As the *Market Benefits Report* explains and substantiates, this transition would be encouraged by reducing cost, improving reliability, increasing container end-to-end cycle times, eliminating drayage inefficiencies, and creating an integrated, centralized supply chain system that removes the pain points of today's processes for moving transloaded freight by rail from Southern California to nationwide destinations. See **Response L15-15** and **L15-16** concerning further discussion on BIG's market benefits.

The comment further states that the Draft EIR should have included (1) a Zero-Emission BIG Project Alternative, and (2) a Partially Zero-Emission BIG Project Alternative. However, an EIR is not required to consider alternatives to a component of a project, but only alternatives to the project *as a whole* (see State CEQA Guidelines § 15126.6(a).[11] The suggested alternatives are not alternatives to the Project as a whole, but to technology used for parts of the Project, and as a result, they are not truly "alternatives" under CEQA. Furthermore, as explained in **Consolidated Response 05**, concerning feasible and enforceable mitigation, the wholesale adoption of zero or near-zero emissions technology across the Project is not technologically feasible, from either a mitigation or alternative perspective.

See **Consolidated Response 14** concerning consideration of a range of reasonable alternatives; **Consolidated Response 05**, concerning feasible and enforceable mitigation measures; **Consolidated Response 05-06**, concerning the feasibility of specific technology and other mitigation measures; **Response L17-57 and I1893**, regarding Advanced Clean Trucks assumptions; the *BEL and Catenary Feasibility Analysis; the Power Budget Memorandum*; the

[10] Available on the City website: https://www.barstowca.org/home/showpublisheddocument/14679/639035642389670000.

[11] *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 993.

*Benchmark Report (*outlining the multiple flaws within the CARB 2024 Feasibility Analysis); the *eRTG Feasibility Memorandum; and the ZE Truck Feasibility Report*.

The majority of the comment argues why ZE trucks are commercially available and feasible to require at BIG. As documented in the *ZE Truck Feasibility Report*, "While major truck manufacturers have made ZE/NZE product offerings available, the sale of these trucks represents a small fraction of these companies' typical Truck sales, despite California offering truck purchase and low carbon fuel incentives. For instance, for the model year 2023[12], Daimler sold only 73 ZE Trucks out of a total of 3,595 Trucks sold. Paccar sold 76 out of a total of 6,695 tractors sold. Volvo sold 44 out of a total of 1,369. Navistar sold *zero* out of a total of 863[13]. Notably, these statistics are from *before* the ACT regulation was rendered unenforceable pursuant to the Congressional Review Act. According to the latest information published by the California Energy Commission, only 1,226 highway-legal ZE Trucks designed for freight transport operate in California, roughly 0.5% of the total Truck population[14]." (*ZE Truck Feasibility Report*, page 7). Additionally, the Port's *2024 Feasibility Assessment for Drayage Trucks* found that "there is still a long way to go to achieve full market maturity and widespread adoption [of ZE/NZE drayage trucks]," due to several reasons including, "the transition to ZE technology…presents significant economic challenges, particularly due to the high upfront costs," and that "infrastructure gaps remain a major barrier, especially outside the Port zone." (*ZE Truck Feasibility Report*, page 12).

Thus, ZE trucks are an extremely small share of trucks in California, even accounting for regulatory requirements in the Advanced Clean Fleets regulation which are now unenforceable. Furthermore, as the *ZE Truck Feasibility Report* documents, total cost of ownership (TCO) between ZE trucks and diesel trucks has not reached parity despite previous studies estimating that ZE trucks would be cheaper than diesel trucks in 2026. Instead, "Even with the generous purchase credits offered by the CARB HVIP, which provide $120,000 for the purchase of ZE Trucks[15], the average ZE Truck purchase price would be $315,000, over twice the estimated purchase price of a diesel Truck." (*ZE Truck Feasibility Report*, page 9). Thus, the recent prices cited herein demonstrate that ZE trucks are not financially equivalent, let alone substantially cheaper as suggested by the commenter. Compounding the increased costs, the commenter assumes only a 1-3 percent larger fleet of ZE trucks is needed compared to a diesel truck fleet. However, as noted in the *ZE Truck Feasibility Report*, the Los Angeles Business Council found that "due to the weight, range, and charging considerations, it would take approximately 1.5 BETS to replace a single diesel drayage truck[16] and noted that there is

12 *Model year 2024 data is omitted due to market distortions from CARB regulations resulting in a more than 79% reduction in total tractor sales.* 422 zero-emission tractors were sold, which would have been 3.6% of all sales for model year 2023.

13 *California Air Resources Board. May 2024. Advanced Clean Trucks Credit Summary Through the 2023 Model Year.* Accessed March 2026 at: *https://ww2.arb.ca.gov/resources/fact-sheets/ACT-Credits-Summary%202023*.

14 *California Energy Commission. 2025. Medium- and Heavy-Duty Zero-Emission Vehicles in California.* Accessed March 2026 at: https://www.energy.ca.gov/data-reports/energy-almanac/zero-emission-vehicle-and-infrastructure-statistics-collection/medium.

15 *California Air Resources Board. Clean Truck & Bus Vouchers (HVIP).* Accessed March 2026 at: https://ww2.arb.ca.gov/our-work/programs/clean-truck-bus-vouchers-hvip/about.

16 *Boarnet, M. et al. September 2024. Navigating California's Transition to Zero-Emission Drayage Trucks.* Accessed March 2026 at: https://labusinesscouncil.org/wp-content/uploads/2024/09/LABC-ACF-Report-Full-Report-5.pdf.

a 'significant gap between the current market and the infrastructure needed' to successfully deploy ZE Trucks, which further multiplies cost" (*ZE Truck Feasibility Report*, page 10).

As discussed in **Response O21-34**, the commenter's understanding of BIG's truck trips is not correct as it fails to account for the reductions in truck trips that BIG would effectuate. Updated/corrected truck trip totals are provided in **Response O21-34**. For each area listed by the commenter, BIG would either result in net-zero truck trips or a net reduction of truck trips. Additionally, as shown on **Draft EIR Table 5.8-12**, BIG would result in a net reduction of greenhouse gas emissions.

Finally, "It is critical to understand that BNSF, as the rail operator and not the owner of the cargo, does not control the Trucks anticipated to access BIG. While it may maintain contracts with the shippers or BCOs who access BIG, it cannot enact any fleet mix requirement on its customers or trucking companies used by its customers short of stating that it would not accept non-ZE Trucks attempting to access the facility" (*ZE Truck Feasibility Report*, page 4).

Imposing ZE/NZE requirements would impair BIG's ability to reduce regional truck trips by making it economically unviable for its customers. Regional truck trips would continue, as they do today, to one of BNSF's other IMFs in San Bernardino or Los Angeles, eliminating one of the emissions benefits of BIG. An industry-level issue—such as adoption of a brand-new technology to reduce drayage truck emissions and modify goods movement—requires an industry-wide regulation and solution, not a requirement that singles out one project. Such limits on truck trips accessing BIG would substantially impair BIG's market viability.

O21-15 The comment contends that the Draft EIR's Truck Miles Traveled analysis is flawed and not supported by substantial evidence. As noted in **Consolidated Response 13**, concerning requests for additional analysis and substantial evidence, commenters are advised to support assertions that the lead agency should conduct additional analysis or review with data or other factual references. This is because the lead agency's CEQA conclusion must be based on substantial evidence in the record and not speculation. Here, the commenter has not pointed to any facts or data that support its contention that the Draft EIR's analysis is flawed. Nonetheless, in addressing commenter's concerns, goods movement to and from BIG is analyzed in **Draft EIR Appendix 5.15 BIG-1, Section 8.1 Truck Miles Traveled,** throughout the national roadway network to provide the full, accurate picture of freight movement related to BIG. TMT is also discussed in a local context in **Appendix C** to **Draft EIR Appendix 5.15 BIG-1**, which represents baseline and plus BIG TMT nationwide, within only California, within only SCAQMD, and within only MDAQMD. The calculations of baseline and plus BIG TMT are presented in a step-by-step process, including the data and assumptions used for the calculations, in **Appendix C** to **Draft EIR Appendix 5.15 BIG-1**. Regarding the comment's assertion that the Draft EIR's Truck Miles Traveled analysis is not based on "enforceable" assumptions that BNSF would not increase truck trips from different facilities, please see **Response O21-4.** Additionally, see **Consolidated Response 14** concerning consideration of a range of reasonable alternatives, for additional discussion regarding truck trips associated with freight movement attributable to BIG. As a result, the Truck Miles Traveled analysis does

not need to be revised and is supported by substantial evidence, and the impacts analyses based on the data remain valid.

O21-16 The comment contends that Draft EIR's Truck Miles Traveled analysis improperly relies on nationwide data. As noted in **Consolidated Response 13**, concerning requests for additional analysis and substantial evidence, commenters are advised to support assertions that the lead agency should conduct additional analysis or review with data or other factual references. This is because the lead agency's CEQA conclusion must be based on substantial evidence in the record and not speculation. Here, the commenter has not pointed to any facts or data that support its contention that the Draft EIR's analysis is flawed. Nonetheless, commenter's concerns have been addressed below.

Draft EIR Appendix 5.15 BIG-1, Section 8.1 Truck Miles Traveled (pages 130 to 145) discusses truck miles traveled in detail. As illustrated in **Draft EIR Appendix 5.15 BIG-1 Figure 32: BIG Truck Path and Truck Miles Traveled Changes Opening Year 2028** (page 142), **Figure 33: BIG Truck Path and Truck Miles Traveled Changes Interim Year 2033** (page 143), **Figure 34: BIG Truck Path and Truck Miles Traveled Changes Horizon Year 2048** (page 144) (which compare No BIG Baseline (gray line work) and Plus BIG (orange line work) conditions, BIG is not creating new truck trips to select cities but instead reduces the number and length of existing truck trips to those same locations.

The CEQA analyses which depend on localized TMT calculations do not use national TMT reductions. As noted in the comment, the study areas for air quality, energy, greenhouse gases, and noise are clearly stated. **Draft EIR Appendix 5.15 BIG-1** (page 141) states that "detailed BIG TMT calculations are included in **Appendix C: TMT Calculations**." This appendix includes a step-by-step discussion of each component of the TMT analysis used to generate TMT values throughout the Draft EIR. This discussion includes TMT analysis across the national roadway network, within only California, within only SCAQMD, and within only MDAQMD, and provides the calculations, assumptions, and underlying data used to generate the TMT numbers used throughout the Draft EIR.

The only exception to the above is the greenhouse gas ("GHG") emissions analysis which considers national TMT reductions (**Draft EIR Table 5.6-15: Annual Net Truck Miles Traveled Removed from National Network by BIG** (page 5.6-42). In amending the State CEQA Guidelines in 2018, the California Office of Planning and Research (now the Governor's Office of Land Use & Climate Innovation or "LCI") recognized that climate change is a global phenomenon and GHG emissions from a project are cumulative and incremental:

> The State CEQA Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change. (Pub. Resources Code, §21083, subd. (b)(2).) As the California Supreme Court explained, "because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself."[17] A project's significant greenhouse gas impacts must be

[17] *Cleveland National Forest Foundation v. San Diego Assn. of Governments* (2017) 3 Cal.5th 497, 512.

> disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact. (State CEQA Guidelines, §§ 15064.4(b),15183.5.). Thus, "[t]he question therefore becomes whether the project's incremental addition of greenhouse gases is 'cumulatively considerable' in light of the global problem, and thus significant."[18]

Because of the cumulative and incremental effect of GHG emissions on global climate change, courts have held that out-of-state off-site offsets under State CEQA Guidelines § 15126.4(c), may be allowable mitigation under CEQA. The court in *Golden Door Properties, LLC v. County of San Diego (2020)* 50 Cal.App.5th 467 considered the following mitigation measure:

> Under M-GHG-l, the … "GPA project applicants shall achieve no net increase in GHG emissions from additional density above the 2011 GPU." For example, "if 400 residential units were allowed under the GPU and a GPA proposes 500 residential units, the emissions for the 400 would be mitigated by implementing CAP reduction measures, thereby reducing GHG impacts from the 400 units to below significance. GHG emissions for the 100 additional units must be mitigated to zero through "on-site design features and mitigation measures *and off-site mitigation, including purchase of carbon offset credits...."* [Italics added.]

(*Id.*, at 495.) Further:

> The County would consider, to the satisfaction of the Director of Planning & Development Services (PDS), the following geographic priorities for GHG reduction features, and GHG reduction projects and programs: 1) project design features/on-site reduction measures; 2) off-site within the unincorporated areas of the County of San Diego; 3) off-site within the County of San Diego; 4) off-site within the State of California; 5) off-site within the United States; and 6) off-site internationally.

(*Id.*, at 568.)

The same reasoning – that climate change is global phenomenon – applies equally to the location of the mitigation and the location of the emissions. *The national TMT reductions are a direct effect of the BIG project*. There is no valid scientific reason, or even logical reason, to exclude out-of-state GHG emissions reductions. State CEQA Guidelines § 15064.4 specifically instructs agencies to consider how a project's GHG emissions compare to the existing environment and states that a lead agency has discretion in selecting appropriate methodologies and thresholds to evaluate GHG emissions resulting from a project, provided it is supported by substantial evidence. The Draft EIR also is consistent in this reasoning as it considers out-of-state GHG emissions associated with rail deliveries during the BIG construction period, see **Draft EIR Section 5.8: Greenhouse Gas** (page 5.8-60).

Additionally, see **Consolidated Response 15,** concerning truck miles traveled analysis, for additional discussion regarding disclosure of local truck trips attributable to BIG.

[18] *Cleveland National Forest*, supra, 3 Cal.5th at 512.

O21-17 The comment suggests that the organization and contents of the EIR's truck trip analysis are deficient under CEQA's disclosure standards. This statement is based on a misunderstanding of the truck trips data used and is not based on any evidence submitted by the commenter. As noted in **Consolidated Response 13**, concerning requests for additional analysis and substantial evidence, commenters are advised to support assertions of legal argument that the lead agency should conduct additional analysis or review with data or other factual references. This is because the lead agency's CEQA conclusion must be based on substantial evidence in the record and not speculation. Here, the commenter has not pointed to any facts or data that support its contention that the Draft EIR's analysis is flawed. Nonetheless, commenter's concerns are addressed below.

Beginning with organization-related concerns, the EIR's operational truck trip analysis adequately discloses project impacts. The comment references *Vineyard Area Citizens for Responsible Growth Inc. v. City of Rancho Cordova (2007)* 40 Cal.4th 412*,* in which a lead agency failed to meet CEQA's public disclosure standards by relying "on information not actually incorporated or described and referenced in the FEIR."[19] The EIR here is distinguishable from that in *Vineyard* because it analyzes BIG's impact on truck trips in a manner calculated to adequately inform the public and decision makers.

Specifically, operational truck trips associated with BIG were both generally discussed in the EIR, and in detailed analytical data that was expressly referenced in an identified appendix. The Draft EIR contains both a general discussion of the Project's operational mobile source truck trips, and express references to the detailed analysis of these trips in **Draft EIR Appendix 5.15 BIG-1** (See **Draft EIR, Section 5.3: Air Quality** (pages 5.3-37, 5.3-71, 5.3-91, 5.3-93, 5.3-94, 5.3-98, 5.3-101); **Section 5.6: Energy** (pages 5.6-1, 5.6-42); **Section 5.8: Greenhouse Gas Emissions** (pages 5.8-1, 5.8-43, 5.8-82, 5.8-96)**; Section 5.11: Land Use and Planning** (pages 5.11-48, 5.11-59, 5.11-62, 5.11-69]; **Section 5.12: Noise** (pages 5.12-35, 5.12-80, 5.12-114); and **Section 5.15: Transportation** (pages 5.15-1, 5.15-27, 5.15-28, 5.15-57, 5.15-58, 5.15-66, 5.15-76, 5.15-77 to 78)).

Because the EIR provides a general discussion of the impacts of operational truck trips, and references **Draft EIR Appendix 5.15 BIG-1** throughout its discussion of resource-specific impacts, "it is reasonable to expect that those interested in the contents of an EIR would not neglect this section."[20] Thus, the organization of the EIR's truck trip analysis complies with CEQA's disclosure standards.

The EIR's analysis also substantively meets CEQA's disclosure standards. The commenter alleges that CEQA requires modeling of the number of truck trips per truck route, providing in depth, localized analysis of resource-specific impacts along each route. However, as a general rule, "[w]hen the environmental impact from a particular project feature cannot be reliably ascertained and estimated, it is properly characterized as speculative."[21] The

19 Id. at 442.

20 *Cleveland National Forest Foundation v. San Diego Assn. of Governments (*2017) 3 Cal.5th 497, 516–517 ["Cleveland National Forest"].

21 *East Oakland Stadium Alliance v. City of Oakland* (2023) 89 Cal.App.5th 1226, 1250 ["East Oakland Stadium Alliance"].

requested details as to specific truck routes are unknown, such that modeling would not forecast project impacts with any degree of accuracy. Because the analysis requested by the commenter is too speculative to reasonably perform, it is impractical and not legally required. Nor is the City required "to conduct every recommended test and perform all recommended research to evaluate the impacts of a proposed project. The fact that additional studies might be helpful does not mean that they are required."[22] The EIR's existing analysis of BIG impacts related to truck trips is properly described, as discussed in **Responses O21-8, O21-15, O21-16, O21-18, O21-19, O21-34, O21-46, O21-47**, and **O21-66**. For the reasons discussed here and in the responses to those comments, the analysis in the EIR is substantively and procedurally adequate under CEQA's public disclosure standards.

Additionally, refer to **Consolidated Response 15,** concerning truck miles traveled analysis, for a discussion of truck trips associated with freight movement attributable to BIG.

O21-18 The comment claims the Draft EIR is deficient by not adequately citing to supporting documents because of the use of the term "author compilation." However, as noted in the comment, **Draft EIR Appendix 5.15 BIG-1** page 21 states that where the term "author compilation" is used in a list of sources, "[a]nalysis methodology, sources, and processes are typically discussed in the sections preceding or following the table."

Where the term "author compilation" is cited in tables related to TMT calculations in **Draft EIR Appendix 5.15 BIG-1**, the sources of the information in the table are either clearly referenced within the table itself, as in **Draft EIR Appendix 5.15 BIG-1 CEQA Table 37: Transload TMT: Ports to Nationwide Destinations Assumptions** (page 135) which includes a "notes" column where this information can be found, or in the text preceding the table as in **aft EIR Appendix 5.15 BIG-1 CEQA Table 40: Transload Warehouse Center Truck Miles Traveled Summary** (page 137), where the preceding text clearly states on **Draft EIR Appendix 5.15 BIG-1 CEQA** (page 135) that "[a]dditional calculations and assumptions are included in **Appendix C: TMT Calculations**." As discussed in the **Responses O21-16**, the appendix referenced in this quotation includes detailed step-by-step analysis of TMT to fully disclose the assumptions and calculations required to generate the TMT values used throughout the Draft EIR.

For **Draft EIR Table 5.6-13: Projected Annual BIG Energy Consumption During Operations** (page 5.6-35), all energy consumption calculations are included in **Draft EIR Appendix 5.6 BIG-1: Energy Assessment** and all assumptions are documented throughout **Draft EIR Appendix 5.3 BIG-1: Air Quality** and **Draft EIR Appendix 5.8 BIG-1: Greenhouse Gas Assessment**. In the interest of full disclosure, construction and operational assumptions are summarized in the following tables. None of the below information is new or changed from what was disclosed in the Draft EIR.

[22] *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 111["County of Madera"]5.

Construction Assumptions Summary		
Energy Source	**Assumptions**	**Methodology or Model Used**
Electricity from Water Consumption	Approximately 2,103 million gallons (see **Draft EIR Appendix 5.17 BIG-1, Draft EIR Appendix 5.17 BIG-2**)	CalEEMod Version 2022.1
Electricity from Concrete and Asphalt Batch Plants	2.3 million cubic yards total over a 21-month period Three electrically powered concrete batch plants (1.9 million cubic yards total, approximately 3,500 cubic yards per day). One electrically powered asphalt bath plant Approximately 345,379 cubic yards (approximately 633 cubic yards per day) See **Draft EIR Appendix 5.8 BIG-1**	Electricity consumption per cubic yard of concrete and asphalt batch plant material based on average consumption derived from Jianxin Machinery and Parker Plant India Pvt. Limited specification sheets
Diesel from Off-Road Equipment, On-Road Truck Trips, and On-Road Locomotives Trips Gasoline from On-Road Passenger Vehicle Trips	Based on $MTCO_2e$ rates (see **Draft EIR Appendix 5.8 BIG-1, Appendix A1: Criteria Pollutant and GHG Emissions Calculations**)	Climate Registry's General Reporting Protocol Version 3.0 (2019) Climate Registry's *2023 Default Emission Factors (2023),* Table 2.1: US. Default Factors for Calculating CO_2 Emissions from Combustion of Transport Fuels
kWh= kilowatt-hour; $MTCO_2e$ = metric tons of carbon dioxide equivalents; kg = kilograms; CO_2 = carbon dioxide		

Operational Assumptions Summary		
Energy Source	**Assumptions**	**Methodology or Model Used**
Electricity from the Intermodal Facility and Transload Warehouse (i.e., lighting, vehicle and miscellaneous charging, heating, ventilation, air conditioning, utilities, and off-road equipment)	Based on 150,000 square feet of intermodal facility buildings and 9,000,000 square feet of warehouse building area and associated electricity consumption.	CalEEMod Consumption Rates and SCE energy intensity factors from the CEC Annual Power Content Labels. Future years projected based on SB 100 and AB 1279 goals.
Electricity from Solar Farm	21 MW of solar power from the on-site solar farm	Electricity estimate was provided by Burns McDonnell.
Electricity from Rooftop Solar	Based on the hourly power output for the rooftop solar panels required by the code and mitigation from **Draft EIR Appendix 5.6:** • 6.4 MWdc per hour for the rooftop solar panels required by code • 17 MWdc per hour for the rooftop solar panels required by MM BIG EN-1	SCE energy intensity factors from the CEC Annual Power Content Labels. Future years projected based on SB 100 and AB 1279 goals.
Electricity from Water Consumption	Based on the water and wastewater consumption estimates from **Draft EIR Appendix 5.8, Appendix A: Criteria**	CalEEMod 2022 Consumption and Emissions Rates

Operational Assumptions Summary		
Energy Source	**Assumptions**	**Methodology or Model Used**
	Pollutant and GHG Emissions Calculations and **Draft EIR Appendix 5.6**: • 29,417,175 gallons of water • 294,172 gallons of wastewater	
Diesel from On-Road Truck Trips	Based on the annual VMT estimates for trucks. See **Draft EIR Appendix 5.8 BIG-1 Table 18: Annual Net TMT Removed from National Network by BIG** (page 82): BIG Annual TMT: • 2028: 13,008,600 • 2033: 16,490,700 • 2048: 20,345,100 Annual TMT removed from California Network (see **Draft EIR Appendix 5.3 BIG-1 Table 19: Net Truck Trips and Truck Miles Traveled Reductions by BIG** (page 76) • 2028: -58,130,956 • 2033: -76,365,405 • 2048: -89,381,289	United States Department of Transportation assumption of 6.2 MPG for trucks.
Gasoline from On-Road Passenger Trips	BIG Annual VMT (see **Draft EIR Appendix 5.3 BIG-1, Appendix A2**) • 2028: 111,487,425 • 2033: 144,216,975 • 2048: 165,372,375	United States Department of Transportation's assumption of 23 MPG for passenger vehicles
Diesel from Locomotives	Based on the locomotive power and daily travel time (see **Draft EIR Appendix 5.3 BIG-1, Appendix A2**).	Hourly locomotive power per gallon for large line-haul and switching locomotives from *Emission Factors for Locomotives* (EPA-420-F-09-025), Table 3: Conversion Factors
Diesel from Off-Road Equipment Gasoline from Off-Road Equipment	Based on $MTCO_2e$ rates (see **Draft EIR Appendix 5.8 BIG-1, Appendix A2**) • 10.21 kg CO_2 per gallon of diesel • 8.78 kg CO_2 per gallon of gasoline	Climate Registry's *General Reporting Protocol Version 3.0* (2019) $MTCO_2e$ per gallon of diesel and gasoline from the Climate Registry's *2023 Default Emission Factors* (2023), Table 2.1: US. Default Factors for Calculating CO_2 Emissions from Combustion of Transport Fuels.
MWdc = megawatts, direct current; kWh = kilowatt-hour; VMT = vehicle miles traveled; mpg = miles per gallon; $MTCO_2e$ = metric tons of carbon dioxide equivalents; kg = kilograms; CO_2 = carbon dioxide		

With regard to reductions in diesel fuel consumption due to the replacement of heavy-duty trucks with trains, **Draft EIR Table 5.6-15: Annual Net Truck Miles Traveled Removed from**

National Network by BIG (page 5.6-42) lists all TMT reduction assumptions. Reductions on a national level, state level, and air district level are included along with detailed notes in the footer of the table. Within those notes are citations to **Draft Appendix 5.15 BIG-1 CEQA Assessment – Transportation Analysis** and **Appendix 5.15 BIG-2 LOS Assessment – Transportation Analysis**, from which the data have been derived.

The compiled information provided above clarifies information included in the Draft EIR, and the conclusions of the Draft EIR remain valid. Please also see **Consolidated Response 03**, concerning recirculation of the Draft EIR.

O21-19 The comment contends that the Draft EIR is not properly organized, specifically with respect to the Draft EIR's Trucks Analysis. However, as discussed in **Response O21-17**, the EIR's discussion of truck miles traveled provides "a good faith reasoned analysis." and conforms to CEQA's public disclosure requirements.[23] Because the EIR provides a general discussion of the impacts of operational truck trips, and references **Draft EIR Appendix 5.15 BIG-1** throughout its discussion of resource-specific impacts, "it is reasonable to expect that those interested in the contents of an EIR would not neglect this section."[24] Consistent with State CEQA Guidelines § 15147, detailed technical data and supporting analyses are appropriately included in an identified appendix, while the Draft EIR text provides a summary-level discussion sufficient to support informed decision-making. The inclusion of detailed study results in **Draft EIR Appendix 5.15 BIG-1** is consistent with State CEQA Guidelines and professional industry standards for CEQA documentation. It does not constitute an omission of relevant information.

The Draft EIR includes numerous passages solely for the purpose of summarizing or aiding readability, particularly for the lay person. For instance, all Draft EIR sections begin with a summary of impacts to make the document more accessible for the lay reader. Regarding the Truck Miles Traveled analysis, see responses to **O21-16** and **O21-18**.

Truck Miles Traveled analysis is presented in **Draft EIR Appendix 5.15-1** (page 5.15-28 and 5.15-76) and in the Table of Contents of **Draft EIR Appendix 5.15-1**.

Draft EIR Appendix 5.15-1 Section 8.1: Truck Miles Traveled provides a summary of the assumptions and calculations used to determine the truck miles traveled values cited throughout the Draft EIR. **Draft EIR Appendix 5.15-1 Section 8.1** includes 16 pages of detailed explanation, including figures and tables, to show the reader how truck miles traveled values were determined. As this lengthy explanation could be fatiguing for readers, additional information was included in Appendix C to the **Draft EIR Appendix 5.15-1**, which is referenced in **Draft EIR Appendix 5.15-1** (pages 132, 133, 135, 140, and 141). This appendix includes further explanation of how truck miles traveled values were calculated, including a description of some of the subsets of truck miles traveled calculations (such as calculations for just the South Coast Air or Mojave Desert Quality Management Districts) which were used in other technical reports. This organization was provided for the sole purpose of making the

[23] *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 442.

[24] *Cleveland National Forest*, supra, 3 Cal.5th at 516–517.

document more accessible to readers. The Draft EIR points clearly to the locations where readers can find truck miles traveled calculation information, and each location includes an appropriate level of detail for its location within the Draft EIR. See also **Response O21-17** and **Consolidated Response 15,** concerning the truck miles traveled analysis.

O21-20 The comment contends that the Draft EIR's Trucks Analysis is flawed because it relies on the presumption that BIG would replace truck trips with rail, and that there is no enforceable commitment that BNSF would not increase truck trips at other facilities. See **Response L17-23** and *Zero-Emission Impacts on BIG Viability*. As noted in **Consolidated Response 13**, concerning requests for additional analysis and substantial evidence, commenters are advised to support assertions that the lead agency should conduct additional analysis or review with data or other factual references. This is because the lead agency's CEQA conclusion must be based on substantial evidence in the record and not speculation. Here, the commenter has not pointed to any facts or data that support its contention that the Draft EIR's analysis is flawed.

Nonetheless, in addressing commenter's concerns, please see **Response O21-4, Responses L17-15** through **L17-19**, and **Consolidated Response 15,** concerning the truck miles traveled analysis.

O21-21 This comment contends that the Draft EIR's air quality, greenhouse gas, energy, and noise impact analyses are flawed because the "Trucks Analysis" is flawed. As noted in **Consolidated Response 13**, concerning requests for additional analysis and substantial evidence, commenters are advised to support assertions of legal argument that the lead agency should conduct additional analysis or review with data or other factual references. This is because the lead agency's CEQA conclusion must be based on substantial evidence in the record and not speculation. Here, the commenter has not pointed to any facts or data that support its contention that the Draft EIR's analysis is flawed.

Nonetheless, in addressing commenter's concerns, please see **Consolidated Response 15**, concerning truck miles traveled analysis, for a discussion on truck trips associated with freight movement attributable to BIG, along with **Responses O21-4, O21-8, O21-15, O21-16**, and **O21-18**. As a result, the Truck Miles Traveled analysis does not need to be revised and is supported by substantial evidence, and the impacts analyses based on the data remain valid.

O21-22 This is a general comment with a summary of CEQA provisions and case law, and serves to introduce more specific comments which are responded to in detail below. As a result, no specific response is provided here. Specific comments regarding the Project's energy impacts are responded to below.

O21-23 Overall, implementation of the proposed General Plan would result in a net increase in total VMT under horizon year conditions compared to existing conditions due to the population projections and associated vehicle use growth that would be experienced under the proposed General Plan. However, as stated on page 5.6-33 of the Draft EIR and shown in **Draft EIR Table 5.6-11: Operation-Related Annual Fuel Usage** (page 5.6-34), the fuel efficiency for each fuel type would increase under Project Horizon Year 2048 conditions compared to the Existing

Baseline conditions. For example, and as shown in the table, under Project Horizon Year 2048 conditions, the overall fuel efficiency for diesel would be 7.97 miles per gallon (MPG), which demonstrates an improvement in average diesel fuel efficiency of 1.37 MPG over the Existing Baseline of 6.54 MPG. In accordance with Appendix F of the State CEQA Guidelines, the project's overall efficiency by fuel type is evaluated to determine whether transportation energy consumption would be considered wasteful, inefficient, or unnecessary, which is the appropriate inquiry under CEQA for assessing potential energy impacts. While the consumption of diesel fuel alone does not constitute a potentially significant impact, the inefficient, wasteful, or unnecessary use of diesel fuel may constitute an impact under CEQA. Therefore, the increase in diesel fuel use and diesel VMT that is shown in **Draft EIR Table 5.6-11: Operation-Related Annual Fuel Usage** (page 5.6-34) does not outright result in a significant impact. Instead, diesel fuel use would result in a potentially significant impact if it were considered wasteful, inefficient, or unnecessary. Because the efficiency of diesel fuel use would improve by 1.37 MPG through the Project Horizon Year 2048, representing a nearly 21-percent improvement in fuel efficiency, this fuel use was not considered wasteful, inefficient, or unnecessary, and this impact was determined to be less than significant.

Moreover, as discussed on page 5.6-34 of the Draft EIR, the share of electric VMT would increase through the Project Horizon Year 2048. According to the fuel estimates shown in **Draft EIR Table 5.6-11: Operation-Related Annual Fuel Usage** (page 5.6-34), the share of electric VMT would increase from 3 percent of total VMT to 12 percent of total VMT, reflecting consumer and regulatory trends favoring electric vehicles over internal combustion engines. Furthermore, improvements in future non-electric fuel efficiencies through Project Horizon Year 2048 Conditions can be relied on. As discussed on page 5.6-3 of the Draft EIR, federal fuel economy standards continue to improve year over year for new vehicle model years.

In addition, increases in electric vehicle use combined with State requirements for greater procurement of electricity from renewable and carbon-free sources under the Renewable Portfolio Standards program lead to greater transportation energy being sourced from renewable sources, consistent with the State CEQA Guidelines Appendix F energy conservation goals for reducing reliance on fossil fuels and increasing reliance on renewables. While overall fuel consumption would increase with the proposed General Plan due to population growth, annual per person VMT would decrease in the Project Horizon Year 2048 Conditions when compared to Existing Conditions and Future No Project Conditions, as shown in **Draft EIR Table 5.15-16: Project VMT Summary – Proposed General Plan** (page 5.15-65) and **Table 5.15-17: Cumulative VMT Summary – Proposed General Plan** (page 5.15-65). Paired with an increase in overall fuel efficiencies (e.g., MPG) shown in **Draft EIR Table 5.6-11: Operation-Related Annual Fuel Usage** (page 5.6-34), the proposed General Plan would result in lower per person fuel use, consistent with the State CEQA Guidelines Appendix F energy conservation goal of reducing overall per capita energy consumption. For these reasons, transportation energy impacts associated with the proposed General Plan would be less than significant, and no mitigation would be warranted.

The proposed General Plan policies that support improving the pedestrian and bicycle network infrastructure would help reduce overall VMT in general. The discussion of these policies was not included to specifically apply to diesel fueled vehicles; however, diesel fuel use quantified and shown in **Draft EIR Table 5.6-11: Operation-Related Annual Fuel Usage** (page 5.6-34), includes both heavy duty truck use and passenger vehicle use. While passenger vehicle use would involve predominantly non-diesel fuel types, improving citywide pedestrian and bicycle network infrastructure would assist in minimizing or avoiding passenger vehicle use and subsequent fuel consumption, including diesel for applicable vehicle types. As shown in **Draft EIR Appendix 5.6 GP-1** (pages 8 through 11), CARB's EMFAC database was utilized to quantify transportation fuel consumption, which in part reflects vehicle registration records for San Bernardino County. As shown in **Draft EIR Appendix 5.6 GP-1** (page 7), under Project Horizon Year 2048 conditions, an estimated 161,918 diesel VMT would be attributed to the LDA vehicle category, which consists of light-duty automobiles or passenger vehicles. Therefore, while the commenter questions the validity of the statements in the Draft EIR that assert pedestrian and bicycle network improvements would assist in reducing or minimizing diesel fuel consumption, it is evident based on existing vehicle registration data for the County that pedestrian and bicycle network improvements could reasonably assist in reducing or minimizing fuel consumption for passenger vehicles, including diesel fuel for applicable vehicle types. It should be clarified that pedestrian and bicycle network improvements would not affect heavy-duty vehicle (e.g., trucks) use and associated fuel consumption as these improvements would not provide alternative modes of transport for uses that require heavy-duty vehicle support, such as long-haul product and material transport. Additionally, the referenced policies were included in the discussion to demonstrate how the proposed General Plan would qualitatively support minimization of VMT generation by design rather than as mitigation measures.

With respect to enforceability of General Plan policies, please refer to **Response O21-27**.

See **Consolidated Response 05-01** concerning requirements for mitigation measures**.**

O21-24 The comment suggests that the Draft EIR's energy analysis does not include transportation fuel consumption from rail operations, referencing Draft EIR pages 5.6-33 to 34. As stated, **Draft EIR Section 5.6: Energy, Table 5.6-11: Operation-Related Annual Fuel Usage** (page 5.6-34) outlines VMT, fuel amount, and fuel efficiency of "motor vehicles" from implementing the proposed General Plan. **Draft EIR Section 5.6: Energy** outlines fuel consumption of locomotives during operations in **Draft EIR Table 5.6-13: Projected Annual BIG Energy Consumption During Operations** (page 5.6-36). The fuel consumption of locomotives analyzed is the total estimated net energy consumption of annual operational energy for diesel use in gallons that would be a result of the Project. During BIG Operations, the BIG-related locomotives are projected to consume approximately 3,961,086 gallons in 2028, 4,406,417 gallons in 2033, and 6,484,258 gallons in 2048. The commenter suggests that operational locomotive fuel consumption must be analyzed in the same Table 5.6-11, without offering evidence or reasoning to support this position. As discussed, the Draft EIR analyzes projected operational fuel consumption from rail and non-rail transportation modes in

Tables 5.6-11 and 5.6-13. Thus, the EIR adequately describes rail-related diesel usage as part of its transportation energy analysis.

O21-25 This comment's citation is from a CARB notice dated December 28, 2023, which does not reflect the current regulatory status. In April 2023, CARB adopted the ACF regulation for zero-emission technology to California's trucks and bus fleets, but in January 2025, withdrew their requests for Federal Clean Air Act (FCAA) waivers from the U.S. EPA to adopt four vehicle emissions regulations, including the ACF Regulations, the In-Use Locomotive Regulations, part of the Commercial Harbor Craft and Ocean-Going Vessels At-Berth Regulations, and part of the Transport Refrigeration Unit Engine Standards Regulations. On January 13, 2025, CARB rescinded its request for waiver under the Clean Air Act.[25] California currently does not have the authority to implement ACF. As a result, the December 28, 2023, notice is no longer applicable. See also, **Responses I1893-10** and **L17-57**, regarding Clean Air Act waivers.

O21-26 See prior **Responses O21-21 to O21-25**. Per the responses, the energy impacts analysis provided was appropriate and adequate. As discussed, the proposed General Plan would not result in significant energy impacts, and no mitigation measures are necessary. Please see **Consolidated Response 05** concerning feasible and enforceable mitigation.

O21-27 The Draft General Plan is largely designed to be self-mitigating by incorporating policies and implementation programs that address and mitigate environmental impacts related to implementing the General Plan, such as zoning codes and design standards. Under State CEQA Guidelines §15126.4(A)(1)(a), an EIR's discussion of mitigation measures is required to distinguish between the measures proposed by project proponents to be included in the project and other measures the lead agency determines could reasonably be expected to reduce adverse impacts if required as conditions of approving the project. Likewise, State CEQA Guidelines § 15091(a)(1) require the City to make findings for each significant effect "Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR." As such, the guidelines, and the environmental process, recognize that a project design feature can avoid or substantially lessen an environmental impact, and should be part of an EIR's analysis. The primary difference between a mitigation measure and project design feature is that a mitigation measure is applied to the project, where the project design feature is already part of the project and considered before conducting the analysis.

For purposes of the proposed project, both mitigation measures and project design features are made conditions of approval recognized in the mitigation monitoring and reporting program.

General Plan policies are not considered mitigation measures, but have been used in the analysis to determine the significance of impacts of future development. This is the nature of

[25] https://www.epa.gov/system/files/documents/2025-01/ca-acf-carb-withdrawal-ltr-2025-1-13.pdf.

a General Plan, and the foundation of the programmatic EIR.[26] With respect to the General Plan, the EIR is a programmatic document that provides a first-tier, City-wide environmental assessment of the potential significant environmental effects of implementing policies, strategies, projects, and programs included in the Draft General Plan over a minimum 20-year horizon period. The focus of the environmental analysis for the General Plan is on potential City-scale impacts associated with implementation of the General Plan as a whole. Future development under the General Plan will be conditioned or modified to include mitigation, development standards or conditions derived from General Plan policies.

In essence as the City does not know when, where, or if future development under the General Plan would occur, and does not know whether future development would include project design elements that could address project specific impacts, the Draft EIR relies on policies and programs to evaluate development. The City's municipal code is one example of where adopted standards are applied to future development. The General Plan is another example as all development projects must be consistent with the General Plan in order to be approved. Findings for project approval are found in state law and in § 19.05.050(c) of the Barstow Municipal Code. As development approval must be consistent with the General Plan and all other applicable codes, policies of the General Plan are enforceable.[27]

References to the General Plan policies identified by the commenter are included to highlight the General Plan policies supporting improvements to the bicycle and pedestrian network infrastructure could potentially help reduce overall VMT in general. Additionally, any potential effects associated with these identified General Plan policies were not quantified and accounted for in the analysis.

O21-28 The comment proposes various mitigation measures for the General Plan's energy analysis. Please see **Responses O21-23, O21-25,** and **O21-26**. Per the responses, the energy impact analysis provided regarding the diesel fuel was appropriate and adequate. As discussed, the proposed General Plan would not result in significant energy impacts, and no mitigation measures are necessary.

The comment suggests a mitigation measure to "ensure that municipal fleets are transitioning to zero-emission vehicles in accordance with CARB's [ACF] regulation." As noted in the **Response O21-25**, CARB adopted the ACF regulation for zero-emission technology for California's truck and bus fleets, but in January 2025, withdrew their requests for Federal Clean Air Act (FCAA) waivers from the U.S. EPA to adopt four vehicle emissions regulations, including the ACF Regulations, the In-Use Locomotive Regulations, part of the Commercial Harbor Craft and Ocean-Going Vessels At-Berth Regulations, and part of the Transport

[26] AquAlliance v. U.S. Bureau of Reclamation (2018) 287 F.Supp.3d 969, 1008 [rejecting Lotus v. Dept. of Transportation (2014) 223 Cal.App.4th 645 argument because while the project component "does have the purpose of mitigation…it would be 'nonsensical' to eliminate carriage water from the description of the Project, as this would prevent satisfaction of one of the projects pre-requisites."

[27] An EIR can assume compliance with existing regulations as part of the pre-mitigation significance analysis, like the ESA. (Evid. Code, § 664; San Francisco Beautiful v. City and County of San Francisco (2014) 226 Cal.App.4th 1012, 1033 ["An agency may rely on generally applicable regulations to conclude an environmental impact would not be significant and therefore does not require mitigation."].) The GPU is required to have a circulation element (PRC § 65302(b)), and subsequent approvals must comply with the GPU. Accordingly, the Draft EIR properly relies on pre-mitigation compliance with GPU policies in its analysis.

Refrigeration Unit Engine Standards Regulations. As a result, the ACF is not currently in effect or enforceable, and the absence of measures targeting municipal fleets transitioning to ZEVs in the proposed General Plan does not violate CEQA or CARB's ACF Regulations. As noted, the proposed General Plan would not result in significant energy impacts, meaning no mitigation measures are necessary. However, **MM GP GHG-1** addresses the commenter's suggestion by requiring the City to prepare a climate action plan that aligns with the year 2045 GHG reduction goal established under Assembly Bill 1279, *The California Climate Crisis Act*, which would provide individual project proponents with a pathway to demonstrate consistency with citywide GHG emission reduction targets and may include transitioning city-owned and private fleets to ZEVs. Thus, while the proposed General Plan would not result in significant energy impacts, meaning no mitigation measures are necessary, the commenter's proposed energy mitigation could be implemented through **MM GHG-1.**

Second, the comment suggests a mitigation measure that would require project-related fleets to transition to zero-emission vehicles and trucks. As discussed in the prior paragraph, **MM GHG-1** provides a pathway for such a measure to be incorporated into the City's climate action plan. However, as the General Plan would not result in significant energy impacts, the proposed mitigation measure is not needed.

Third, the comment proposes requiring "onsite solar photovoltaic (PV) systems… for new development." As stated, the General Plan would not result in significant energy impacts, such that the proposed mitigation measure is not needed. Additionally, the proposed mitigation does not present a clear improvement, from an environmental standpoint, over existing regulatory requirements. The 2025 Building Energy Efficiency Standards include prescriptive photovoltaic system and battery requirements for new construction occupancy types such as single family residential and high-rise, multifamily buildings (i.e., more than three stories) and non-residential occupancy types such as hotels, offices, medical offices, restaurants, retail stores, schools, warehouses, theaters, and convention centers. The Building Energy Efficiency Standards further provide a performance pathway to demonstrate compliance for new construction to improve the energy efficiency of other project components (e.g., mechanical systems, envelope design) if photovoltaic systems are not included in the project design when prescriptively required. This means that for most new construction under the proposed General Plan, buildings would include on-site photovoltaic systems; be designed to exceed other parts of the Building Energy Efficiency Standards without photovoltaics; or be exempt from photovoltaic requirements due to their small size, unique occupancy type, or roof design constraints (e.g., insufficient solar access roof area). For these reasons, a mitigation measure requiring new development to include solar is not needed.

Fourth, the commenter suggests a mitigation measure requiring the General Plan to "adopt clear, enforceable GHG-reduction goals that align with state and regional decarbonization trajectories." As stated, the General Plan would not result in significant energy impacts, such that the proposed mitigation measure is not needed. Moreover, **MM GP GHG-1** addresses the commenter's suggestion by requiring the City to prepare a climate action plan that aligns

with the year 2045 GHG reduction goal established under Assembly Bill 1279, *The California Climate Crisis Act.* For these reasons, the proposed mitigation measure is not needed.

Fifth, the commenter suggests a mitigation measure to "promote the use of zero-emission locomotives and zero-emission trucks within its jurisdiction." As stated, the General Plan would not result in significant energy impacts, such that the proposed mitigation measure is not needed. As discussed in **Consolidated Response 05-06** concerning the feasibility of specific technology and other mitigation measures, *BEL and Catenary Feasibility Analysis*, and **Draft EIR pages 5.3-110 through 5.3-115**, the feasibility of zero-emission locomotives is limited by several considerations, including locomotive traction and charging needs, which render the proposed mitigation measure infeasible. In addition, as discussed in **Response S6-30** and **Consolidated Response 05-06** concerning the feasibility of specific technology and other mitigation measures, the market availability of ZE trucks is highly dependent on a changing regulatory landscape; therefore, a requirement for a fleet transition to zero emission vehicles may not be feasible for each individual project facilitated by the proposed General Plan. Please see **Consolidated Response 05** for more on the conditions under which mitigation is necessary, as well as **Response O21-14** and the *ZE Truck Feasibility Report* for further discussion of ZE truck feasibility. For these reasons, a mitigation measure requiring ZE locomotives and trucks would be unnecessary to mitigate energy impacts and infeasible.

Sixth, the commenter suggests including "a mitigation measure expanding the use of battery storage to support renewable energy generation and electric truck charging." As stated, because the proposed General Plan's Draft EIR energy analysis determined a less than significant impact, consideration of additional mitigation is not necessary. Therefore, citywide deployment of microgrid-enabled truck charging hubs was not considered. In addition, the proposed General Plan is a planning document intended to guide future growth in the city, and project-level proposals and constraints for the entire City through Project Horizon Year 2048 is not currently known; therefore, it would be speculative to require such mitigation for all future individual projects. For these reasons, the proposed mitigation measure would be unnecessary to mitigate energy impacts and infeasible.

O21-29 This is a general comment with a summary of CEQA provisions and case law, and serves to introduce more specific comments which are responded to in detail below. As a result, no specific response is provided here. Specific comments regarding the Project's energy impacts are responded to below.

O21-30 The comment contends that the Draft EIR's energy impacts analysis is deficient because it did not incorporate alternative fuel technologies, such as zero and near-zero emission locomotives or off-road equipment. As noted in **Consolidated Response 13**, concerning requests for additional analysis and substantial evidence, commenters are advised to support assertions that the lead agency should conduct additional analysis or review with data or other factual references. This is because the lead agency's CEQA conclusion must be based on substantial evidence in the record and not speculation. Here, the commenter has not pointed

to any facts or data that support its contention that the Draft EIR's analysis is flawed. Nonetheless, commenter's concerns are addressed below.

BIG, under binding and enforceable commitment, would also increase the renewable diesel composition within their existing southern California fueling sites from 1 percent to 10 percent as discussed in **Consolidated Response 12-03** concerning enforceability of the Project components and mitigation measures for the Project. In addition, as listed on **Draft EIR Section 5.3: Air Quality** (pages 5.3-105 to 108), **MM BIG AQ-4** requires the use of renewable diesel fuel during construction and **MM BIG AQ-8** requires the use of renewable diesel rubber-tired gantry cranes (RTGs) during operations.

As the commenter notes, State CEQA Guidelines Appendix F requires mitigation to "reduce wasteful, inefficient and unnecessary consumption of energy." There is no quantitative threshold for wasteful, inefficient and unnecessary energy consumption. The Draft EIR analyzed whether BIG's energy consumption would be wasteful, inefficient, or unnecessary by considering the infrastructure and service areas of energy sources, respectively, that BIG construction and operations could directly and indirectly affect. **Section 5.6: Energy** analyzes BIG's construction and operations consumption of three energy sources: electricity consumption, diesel fuel consumption, and gasoline fuel consumption; see Draft EIR Page 5.6-20 for additional detail on BIG's construction and operations consumptions of these three energy sources. BIG would result in a net improvement in VMT per capita, reducing fuel consumption per person (refer to **Draft EIR Appendix 5.15, Impact 5.15-2**). Based on this approach, BIG's impact analysis concludes that BIG would result in a less than significant impact concerning energy for construction and operations, with mitigation incorporated (page 5.6-46) Accordingly, the Draft EIR's impact analysis is, in fact, based on adequate discussion and supported by substantial evidence.

BIG's operational diesel use is estimated to be approximately 10.9 million gallons in 2028, 11.8 million gallons in 2033, and 14.5 million gallons in 2048. However, reductions in truck trips, as identified in **Draft EIR Table 5.6-15: Annual Net Truck Miles Traveled Removed from National Network by BIG** (page 5.6-42), would decrease diesel consumption by approximately 9.4 million in 2028, 12.3 million gallons in 2033, and 14.4 million gallons in 2048 compared to the No-BIG Alternative (**Draft EIR Section 5.6: Energy** pages 5.6-36 to 37). When these reductions are considered, total net operational diesel consumption results in an increase of approximately 1.5 million gallons in 2028, a reduction of approximately 0.5 million gallons in 2033, and an increase of approximately 0.1 million gallons in 2048 as shown in **Draft EIR Table 5.6-13: Projected Annual BIG Energy Consumption During Operations** (pages 5.6-36 and 37).

After incorporating the reduction in TMT, BIG would result in net reductions in annual diesel fuel consumption during operations of approximately 3.4 million gallons in 2028, 5.4 million gallons in 2033, and 4.8 million gallons in 2048 (see **Draft EIR Table 5.6-13**). BIG's operational diesel fuel consumption is considered low compared to annual Countywide use. The County's

annual diesel fuel use in 2025 is assumed to be approximately 281,400,000 gallons.[28] BIG's estimated mitigated diesel fuel consumption during operations would result in net reductions. BIG operations would account for relatively low operational diesel fuel use proportional to County use and would not significantly affect existing diesel fuel supplies or resources, and new capacity or additional sources of diesel fuel are not anticipated to be required. (**Draft EIR Section 5.6: Energy** page 5.6-43). Therefore, no mitigation is required.

BIG's estimated unmitigated diesel fuel consumption during construction would total approximately 22.1 million gallons and average approximately 7.8 gallons annually (**Draft EIR Section 5.6: Energy** pages 5.6-40 and 41). The County's annual diesel fuel use in 2025 is assumed to be approximately 281,400,000 gallons.[29] BIG's estimated average annual diesel fuel consumption during construction would represent approximately 2.8 percent of the County's current diesel fuel consumption. Therefore, BIG would result in relatively low construction fuel use proportional to annual County use and would not significantly affect existing energy fuel supplies or resources, and new capacity or additional sources of construction diesel fuel are not anticipated to be required. As noted in the calculations above, BIG would reduce TMT (refer to **Draft EIR Appendix 5.15 BIG-1, Section 8.1 Truck Miles Traveled** (page 130-145)). Additionally, refer to **Consolidated Response 15,** concerning truck miles traveled analysis.

O21-31 The comment contends that the Draft EIR's energy analysis is flawed because it relies on the Truck Miles Traveled Analysis. See responses to above comments regarding TMT analysis (**O21-18, O21-16, O21-15, O21-8**), and **Consolidated Response 15,** concerning truck miles traveled analysis. The **Draft EIR Section 5.6: Energy** analysis considers energy consumption (increased and reduced) nationally, and per the cited responses, the TMT analysis clearly outlines the methodology, assumptions, and reasoning for inclusion within various parts of the environmental analysis, and substantiates the Draft EIR analysis regarding fuel. Please also see **Consolidated Response 03**, concerning recirculation of the Draft EIR.

O21-32 The comment contends that the Draft EIR did not explain how it derived its estimates of diesel fuel consumption from locomotive operations. However, locomotive fuel consumption is based on the methodology provided within U.S. EPA's Emission Factors for Locomotives (EPA-420-F-09-025) methodology and is documented in Appendix A2 of the Air Quality Assessment (**Draft EIR Appendix 5.3 BIG-1, Appendix A2**).

O21-33 The comment contends the Draft EIR did include the energy impacts of continued operations at the BNSF San Bernardino, BNSF Hobart or BNSF Commerce railyards, or the foreseeable increase in regional freight activity that would result from adding the BIG Railyard to BNSF's system. See *BNSF Hobart and San Bernardino Railyard Capacity Memorandum*, demonstrating there would be no increase in train trips at other BNSF facilities due to BIG, thus, the Draft EIR appropriately did not analyze fuel usage for trains at these facilities. BNSF facilities have adequate capacity to handle growth through 2048. Furthermore, BNSF lift volume is driven

[28] California, State of, Air Resources Board (CARB). 2023. EMFAC2021 Emissions Inventory. https://arb.ca.gov/emfac/emissions-inventory/9f876461f9edf8b09e851b833128a04fb973d264.

[29] Id.

by market demand and customer preferences, not by available capacity. Thus, BIG would not increase volumes at other BNSF facilities.

Furthermore, BIG would reduce TMT as discussed in **Draft EIR Appendix 5.15 BIG-1, Section 8.1 Truck Miles Traveled** (page 130-145). Additionally, refer to **Response O21-4** and **Consolidated Response 15,** concerning truck miles traveled analysis for further discussion regarding truck trips associated with freight movement attributable to BIG.

O21-34 The comment asserts that without identifying and quantifying where and to what extent truck trips would increase along specific truck routes and within affected cities and regions, the Draft EIR cannot assess impacts for specific locations that may be affected by BIG-related truck trips. The comment further suggests that the Draft EIR indicates truck trips would increase across multiple Southern California jurisdictions, but that the Draft EIR does not analyze environmental impacts to each of these regions where the commenter alleges heavy-duty truck trips would increase due to BIG.

CEQA only requires an analysis of the Project's direct and indirect effects, and does not require analysis of future, not reasonably foreseeable or speculative actions or activities, especially outside of the Project footprint and in generalized locations. An EIR must be prepared with a sufficient degree of analysis to provide decision-makers with the information needed to make an intelligent judgment concerning a project's environmental impacts (State CEQA Guidelines, § 15151).[30] An EIR should, when looked at as a whole, provide a reasonable, good faith disclosure and analysis of the project's environmental impacts.[31] It is speculative to identify, in the level of detail requested by the commenter, how trucks would travel to and from the Project site and how the energy consumption and other environmental impacts in those areas could be affected. The State CEQA Guidelines are clear that if a lead agency "finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact" (State CEQA Guidelines § 15145).[32] In this case, the Draft EIR cannot speculate exactly where trucks would travel and the Draft EIR is not required to describe baseline conditions and assess potential impacts of truck and vehicle activities at unidentified locations.

Furthermore, **Draft EIR Appendix 5.15 BIG-1, Section 8.1 Truck Miles Traveled** (pages 130 to 145) discusses truck miles traveled in detail. As illustrated in **Draft EIR Appendix 5.15 BIG-1 Figure 32: BIG Truck Path and Truck Miles Traveled Changes Opening Year 2028** (page 142), **Figure 33: BIG Truck Path and Truck Miles Traveled Changes Interim Year 2033** (page 143), **Figure 34: BIG Truck Path and Truck Miles Traveled Changes Horizon Year 2048** (page 144) (which compares No BIG Baseline (gray line work) and Plus BIG (orange line work) conditions), and discussed on the previous pages, BIG is not creating new truck trips to the cities identified in the comment, but instead reduces the number and/or length of existing truck trips to those same locations.

30 *Napa Citizens for Honest Gov't v Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 356 ["Napa Citizens"].

31 *Laurel Heights Improvement Ass'n v Regents of Univ. of Cal.* (1988) 47 C3d 376, 392.

32 *East Oakland Stadium Alliance v. City of Oakland* (2023) 89 Cal.App.5th 1226, 1249–1251.

The commenter assumes that the Plus BIG (orange line work) values from **Draft EIR Appendix 5.15 BIG-1 Figure 34: BIG Truck Path and Truck Miles Traveled Changes Horizon Year 2048** (page 144) is additional truck traffic; however, these values are not the net truck trips/year as the truck trips being removed with BIG (grey line work) must be considered. The bullet points below identify each location noted in the comment and contrast the commenter's incorrect assumption with the actual correct value for BIG's forecast change in number of truck trips per year:

- Central Valley: incorrect assumption: 14,750; correct value: 0 truck trips per year
- Boron: incorrect assumption: 115,150; correct value: 0 truck trips per year
- Arizona/Nevada: incorrect assumption: 24,600; correct value: 0 truck trips per year
- Victorville: incorrect assumption: 49,150; correct value: 0 truck trips per year
- Hobart/Commerce: incorrect assumption: 4,600; correct value: -35,400 truck trips per year
- Inland Empire/San Bernardino: incorrect assumption: 92,100; correct value: -46,100 truck trips per year
- Nationwide Destinations: incorrect assumption: 204,400; correct value: 0 truck trips per year

Central Valley, Boron, Arizona/Nevada and Victorville: As noted on page 138 of **Draft EIR Appendix 5.15 BIG-1, Section 8.1**, a small percentage of containers served by the IMF would arrive at the IMF via heavy-duty trucks to reduce the travel distance and/or travel time due to traffic conditions that the container would otherwise encounter under No BIG Baseline Conditions. These containers are already being trucked to the Hobart/Commerce or San Bernardino IMFs but instead are forecast to divert to BIG, reducing TMT.

Hobart/Commerce, San Bernardino IMFs: No new truck trips are reasonably foreseeable due to BIG.

Inland Empire: Draft EIR Appendix 5.15 BIG-1, Section 8.1 (pages 133 to 145) relays that some goods are expected to travel between the BIG transload warehouse center and existing transload warehouses in the Inland Empire by truck. Again, these would not be new truck trips. These transload warehouses are already served by trucks. BIG would reduce the number and length of existing truck trips made to the Inland Empire transload warehouses by 46,100 truck trips per year by providing a train connection between the Ports and BIG's transload warehouse center.

Nationwide Destinations: As noted on page 132 to 133 of **Draft EIR Appendix 5.15 BIG-1, Section 8.1,** BIG is not adding new truck trips to Nationwide Destinations but instead converts existing truck trips to be made mostly by train. This greatly reduces truck miles traveled. Further, as noted in the TMT analysis, only city-level data was available for the analysis, not individual addresses. Without addresses for the exact locations where containers would originate/arrive, localized environmental impacts (traffic, air quality, and noise) cannot be analyzed because they are speculative. The city-level Nationwide Destinations are noted in

Draft EIR Appendix 5.15 BIG-1 Table 3: Destinations and Distances for TWC (Ports to Nationwide Destinations) TMT of Appendix C: TMT Calculations, based on collection of market data[33] and industry experience.

Here, the experts for the lead agency reasonably considered this issue and determined it was not scientifically or technically sound to conduct a localized impact analysis when the precise location of origin/delivery was unknown. However, the environmental analysis did consider potential impacts of the project concerning mass emissions and energy; see **Draft EIR Section 5.3: Air Quality** (page 5.3-73) and **Section 5.6: Energy** (page 5.6-43). This approach is consistent with CEQA and within the sound discretion of the lead agency.[34] The lead agency has discretion to determine the appropriate way to analyze environmental impacts in an EIR. Disagreements with an EIR's impact analysis would be resolved in favor of the lead agency if there is any substantial evidence in the record supporting the approach used.[35]

See also, **Response O21-17 and Consolidated Response 15**, concerning truck miles traveled analysis for further discussion regarding truck trips associated with freight movement attributable to BIG.

O21-35 The comment contends that the Draft EIR improperly relies on air quality mitigation measures to address energy related impacts. Commenter makes vague assertions regarding legal adequacy of the energy analysis without providing any specifical examples, citations to the Draft EIR or explanation for commenter's statements.

Commenter states that "the Draft EIR improperly relies on air quality mitigation measures **MM BIG AQ-1** through **AQ-6, MM BIG AQ-8** and **MM BIG AQ-10** to mitigate emissions from the Project." It is neither improper nor a valid critique that the Project relies upon air quality mitigation measures to address emissions, as that is their precise purpose. Commenter goes on to imply that the Draft EIR is legally inadequate because it considers air quality mitigation measures in the energy analysis, under **Impact 5.6-1**, which asks whether the Project would result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation, and under **Impact 5.6-2**, which asks whether the Project would conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

There are two reasons to support the Draft EIR adequacy in this respect. First, air quality mitigation measures *can* address energy impacts. The caselaw cited states that "air quality mitigation is not a substitute for energy analysis." The Draft EIR does not attempt to substitute air quality mitigation for energy analysis. Rather, the Draft EIR contains a robust energy analysis, including a detailed energy impact analysis (see **Draft EIR Appendix 5.6 BIG-1**). Moreover, courts have *affirmed* that air quality mitigation measures can mitigate energy

[33] *S&P Global / Transearch purchased subscription; a proprietary data sweep that starts with U.S. Census and Bureau of Economic Analysis (BEA) Data, and combines Intermodal Association of North America (IANA) data in a behind-the-scenes black box environment.*

[34] *Saltonstall v. City of Sacramento* (2015) 234 Cal.App.4th 549, 583. [An EIR's impact analysis may be based on informed judgments by experts, who prepare the EIR]["Saltonstall"].

[35] *Laurel Heights Improvement Ass'n v Regents of Univ. of Cal.* (1988) 47 C3d 376, 409.

impacts, and vice versa.[36] As this and other decisions implicitly acknowledge, fuel efficiency improvements are directly tied to reduced emissions. Where courts *have* drawn a line is where an EIR simply points to air quality mitigation measures and concludes that there would be no GHG or energy impacts.[37] Again, that is inapplicable to the Draft EIR, which provides a robust quantitative energy impacts analysis.

Second, the Draft EIR finds that, after mitigation, **Impact 5.6-2** would be less than significant. (**Draft EIR Section 5.6** page 5.6-52). See **Response O21-30** for discussion of the adequacy of the EIR's analysis of **Impact 5.6-1**, which concluded that impacts would be less than significant following mitigation. (**Draft EIR Section 5.6** page 5.6-45).

Therefore, no additional mitigation is required for either **Impact 5.6-1** or **5.6-2**.

See **Responses O21-49, O21-84,** and **O21-137** for discussion of the Draft EIR's air quality mitigation measures.

O21-36 See **Response O21-30**. Regarding potential mitigation for construction lighting given a less than significant impact would occur following mitigation under Impact 5.6-1, no mitigation is required (State CEQA Guidelines § 15126.4(a)(3) [mitigation measures are not required for effects that are found not to be significant]; Draft EIR, p. 5.6-46). However, the contractor would implement solar-powered lighting where feasible (Ken Taylor, pers. comm.). Given potential constraints associated with the large construction site, number of lighting units needed, need to be able to quickly redeploy lights, and ability to work at night despite low-sun days, it was not feasible to require 100 percent battery-powered construction lighting, thus, it was not included as a mitigation measure nor taken credit for in BIG construction emission modeling.

Regarding suggested ZE mitigation, see **Consolidated Response 05** concerning feasible and enforceable mitigation measures and **Consolidated Response 05-06** concerning the feasibility of specific technology and other mitigation measures. See also the following:

- BEL and Catenary Feasibility Analysis;
- Benchmark Report outlining the multiple flaws within CARB's 2024 Zero-Emission Train Feasibility Analysis: Port of Los Angeles to Barstow ("CARB 2024 Feasibility Analysis");
- eRTG Feasibility Memorandum; and
- ZE Truck Feasibility Report.

O21-37 As acknowledged by commenter and in the Draft EIR, the proposed General Plan is a broad-based policy planning document and does not currently identify specific projects for development. In general, construction emissions are evaluated on a project-by-project basis where construction information specific to individual development projects is utilized, such as the extent of demolition or ground disturbance, material hauling, phasing and schedule, equipment use, paving, and coating. This information specific to individual development

[36] *Cal. Clean Energy Comm. v. City of Woodland*. (2014). 225 Cal. App. 4th 173.

[37] *Id., at 173* (2014)208-213 ([requiring that EIR must specifically calculate and disclose the energy impacts rather than just stating that air quality measures would "likely" reduce them].

projects often varies widely from project to project depending on that project's objectives and local site conditions. Although the proposed General Plan is a broad-based policy planning document, the Draft EIR still provided an evaluation of the potential construction impacts associated with projected development and land use patterns under **Impact 5.3-2.** The level of analysis reflects the programmatic nature of the proposed General Plan and represents a good-faith effort to disclose foreseeable cumulative impacts. While specific individual projects accommodated by the proposed General Plan have not been proposed and are unknown, as stated in **Draft EIR Section 5.3** (page 5.3-75) and as shown in **Draft EIR Table 5.3-17: Horizon Year 2048 Proposed General Plan Area Regional Criteria Air Pollutant Emissions Inventory Above Existing Conditions Within MDAB** (page 5.3-76), an estimate of construction-related emissions associated with implementation of proposed General Plan was provided (see Area Source – Offroad Equipment line item in **Draft EIR Table 5.3-17**). Furthermore, the analysis under Impact 5.3-2 acknowledges potential impacts associated with development of future individual land uses in addition to the proposed General Plan as a whole. **Draft EIR Section 5.3** (page 5.3-77) states, that "[t]hough some individual projects under the proposed General Plan may not exceed the MDAQMD regional significance thresholds, the likely scale and extent of construction activities associated with future development projects under the proposed General Plan would likely exceed the relevant MDAQMD thresholds." This conclusion was made because the potential for the cumulative overlap of individual projects and the extent of work required for individual projects at any given time through the proposed General Plan's horizon year of 2048 is not known at this time but could reasonably be expected to exceed MDAQMD significance thresholds with enough overlap of development activities across the city. In identifying potentially significant regional impacts for construction associated with the proposed General Plan, the Draft EIR identified **MM GP AQ-1**.

The Draft EIR neither avoids analyzing reasonably foreseeable impacts nor defers mitigation. Instead, it follows the standard CEQA practice of analyzing potential significant impacts, and devising performance standard-based mitigation measures that can feasibly address impacts without proscribing details that would be speculative and impractical. State CEQA Guidelines explicitly allow for the use of performance standards for mitigating a significant impact when it is infeasible to specify details in an EIR (State CEQA Guidelines, § 15126.4(a)(1)(B)). In these instances, CEQA requires the lead agency to commit to implementing the mitigation, to adopt specified performance standards, and to identify "the types of potential actions that could feasibly achieve that performance standard".[38] Please also see Consolidated Response 05-07 regarding use of performance standards and deferred mitigation.

MM GP AQ-1 includes specific reference to MDAQMD guidelines and methodology for projects in the Mojave Desert Air Basin, which includes numerous significance thresholds depending on the scope and nature of the project. For instance, MDAQMD's 2020 CEQA Guidelines specify, "[a]ny project is significant if it triggers or exceeds the most appropriate evaluation criteria. The [MDAQMD] would clarify upon request which threshold is most

[38] Save Our Capitol! v Department of Gen. Servs. (2023) 87 Cal.App.5th 655, 687-88 [State CEQA Guidelines, § 15126.4, subd. (a)(1)(B)]

appropriate for a given project". MDAQMD's 2020 CEQA Guidelines further list a set of evaluation criteria that may apply differently to different individual projects, and **MM GP AQ-1** utilizes these criteria as performance standards at the project stage. **MM GP AQ-1** specifies the types of actions that may address meeting these performance standards. For instance, **MM GP AQ-1** identifies the use of specific construction equipment engine tiers, use of catalytic-equipped diesel equipment, minimizing idling, and other actions that can be taken to meet the applicable evaluation criteria determined most appropriate by MDAQMD for a given individual project. This type of mitigation measure fits squarely within the requirements of CEQA.[39]

Please refer to **Response S6-21** concerning General Plan mitigation measures and deferred mitigation. Please also see **Consolidated Response 05-07** regarding use of performance standards and deferred mitigation.

O21-38 Please see **Consolidated Response 17** regarding health impacts analysis. Regarding the comment's statement that the EIR omits a "Friant Ranch" analysis, the EIR acknowledges and addresses the concerns raised in *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502 ("*Friant Ranch*") on pages 5.3-82 and 5.3-83 of the Draft EIR under the "Regional Health Impacts Associated With Emissions from Proposed General Plan and BIG" subheading; see **Response O21-39**. Overall, the EIR provides a more in-depth discussion regarding the *Friant Ranch* ruling as it relates to the proposed General Plan and how it "…is speculative for this broad-based policy plan to determine how exceeding the regional thresholds would affect the number of days the region is in nonattainment… or how many additional individuals in the MDAB would experience health effects" (page 5.3-82 of the Draft EIR). The Draft EIR's health impact discussion describes the challenges of quantifying local effects, particularly health risks, for large-scale, regional projects.

Specifically, the comment suggests that the Draft EIR failed to include a Health Impact Analysis (HIA) pursuant to the criteria discussed in *Friant Ranch*. A HIA into toxicological endpoints (e.g., inhalation, dermal absorption) that are the result of multiple regional contributors often lack scientific and technical methodologies established to measure a project's impact, raising questions of data availability and integrity, scientific and technical methodology, and thresholds of significance for many of the fields of study requested in an HIA by the commenter. (see, e.g., comment O21-68, requesting HIA include noise and vibration impacts.) CEQA does not require a lead agency to prepare a HIA. (*Friant Ranch*, supra, 6 Cal.5th at 521.) CEQA also does not require a lead agency to conduct every recommended test and perform all recommended research to evaluate the impacts of a proposed project. In determining the contents of an EIR, a lead agency is entitled to rely on its own experts' opinions when deciding which studies and analysis are appropriate to evaluate impacts. When no accepted methodology exists to assess a particular environmental impact, the lead agency may properly conclude that the impact is too speculative to reliably evaluate.[40] Please see

[39] *East Oakland Stadium Alliance v City of Oakland* (2023) 89 Cal.App.5th 1226, 1255, 1258.

[40] See *Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.* (1993) 6 Cal.4th 112,1137.

Consolidated Response 13 concerning requests for additional analysis and substantial evidence.

As stated in the EIR discussion, the Mojave Desert Air Quality Management District (MDAQMD) does not currently have methodologies that would provide the City with consistent, reliable, and meaningful analysis to correlate specific health impacts that may result from a proposed project's mass criteria air pollutant emissions. In general, to achieve and maintain air quality standards, the MDAQMD established numeric emissions thresholds that represent the maximum emissions from a plan or project that are expected not to cause or contribute to an exceedance of the most stringent applicable National or California Ambient Air Quality Standards (NAAQS or CAAQS, respectively).

The Draft EIR makes a "reasonable effort to substantively connect a project's air quality impacts to likely health consequences," identifies where existing scientific constraints prevent further translation of potential health impacts, and describes the nature and magnitude of impacts. (See, e.g., Draft EIR, 5.3-82 to 83; *Friant Ranch*, supra, 6 Cal.5th at 521.) NAAQS and CAAQS are health-based standards, such that the Draft EIR's air quality modeling for the General Plan update provides detailed information regarding health impacts. (Draft EIR, pp. 5.3-16 to 5.3-175.3-29 to 5.3-31; 5.3-63 to 5.3-64; 5.3-75 to 5.3-78; Appendix 5.3 GP-1: Air Quality and Greenhouse Gas Emissions Modeling). The Draft EIR includes a general description of nitrogen oxides (NOx), including nitrogen dioxide (NO2), their role in ozone formation, and their cumulative health impacts (Draft EIR pages 5.3-51 to 56; 5.3-68 to 70; 5.3-75 to 79; 5.3-82 to 83; Friant Ranch, supra, 6 Cal.5th at 521). The Draft EIR similarly analyzes Toxic Air Contaminants (TACs). (Draft EIR, 5.3-2; 5.3-8 to 5.3-9; 5.3-51; 5.3-82; 5.3-120 to 123; 5.3-164.) The Draft EIR identifies the estimated amounts of these pollutants that the General Plan update will likely produce relative to baseline emissions (Draft EIR, 5.3-54 to 56; 5.3-75 to 5.3-78). This modeling shows that NOx emissions would exceed MDAQMD regional significance thresholds, and demonstrates the degree of projected exceedance.

By analyzing the plan's emissions against the thresholds, an EIR assesses whether these emissions directly contribute to any regional or local exceedances of the applicable NAAQS, CAAQS, and exposure levels. Current models used in CEQA air quality analyses are designed to estimate potential project emissions for defined projects to compare to the established CEQA significance thresholds established by air districts. However, there is currently no CEQA methodology to determine the impact of emissions (e.g., lbs/day) on future concentration levels (e.g., ppm or µg/m3) in specific geographic areas and CEQA thresholds, therefore, are not specifically tied to potential health outcomes in the region.

A General Plan HIA cannot evaluate and address public health impacts from the broader, more regional perspective needed to provide a meaningful assessment of the public health issues that the commenter has requested to be studied that go beyond what is already analyzed in the Draft EIR. Such a narrow focus overlooks all of the regional contributors to a specific health endpoint (e.g., environmental pollution outside of the City's control, related to refineries and manufacturing facilities, would not be accounted for in the HIA).

Therefore, the Draft EIR includes a thorough, science-based analysis of health impacts resulting from General Plan emissions, including nitrogen oxide and TACs, consistent with *Friant Ranch*.

Refer also to **Response O21-48**.

O21-39 Please see **Consolidated Response 17** regarding health impacts analysis and Response to Comment 021-38.

O21-40 The Draft EIR identified two mitigation measures to address potential regional air quality impacts resulting from construction and operation-related activities associated with implementation of the proposed General Plan (see also **Response S6-21**). **MM GP AQ-1** is prescribed to address construction emissions impacts associated with the proposed General Plan. This mitigation measure requires future development projects subject to CEQA to evaluate potential impacts to air quality from their construction activities prior to issuance of any construction permits, thus tethering the approval of construction permit applications to compliance with this mitigation measure. The assessment must be prepared in accordance with MDAQMD methodology and guidelines, which includes specified evaluation criteria that can be used as significance thresholds that indicate whether an individual project may have significant regional air quality impacts. Additionally, this mitigation establishes quantitative performance standards which a project would be evaluated by and requires projects to identify and incorporate mitigation measures in the event that the performance standards are exceeded. **MM GP AQ-1** further provides example actions that can be implemented to achieve the necessary emissions reductions to mitigate a significant regional air quality impact. **MM GP AQ-1** has been revised to include additional example actions, such as electrical hookups for battery and electric tools, using electric equipment where feasible, and using newer model year trucks for construction, as noted in **Response S6-21** and **Final EIR Section 3.0: Errata to the Draft EIR**. At the request of the Commenter, **MM GP AQ-3** has been modified to eliminate "to the extent feasible" and clarify that the "acceptable level" is the MDAQMD's significance criteria. The City has further revised the mitigation measures for clarity; these changes do not change the analysis in the Draft EIR and the Draft EIR's conclusions remain valid. Draft EIR **MM GP AQ-1** (pages 5.3-79 to 80) is revised in the **Final EIR Section 3.0: Errata to the Draft EIR**, as follows:

MM GP AQ-1	**Reduce Emissions from Construction Activities.** Prior to issuance of any construction permits for development projects subject to CEQA review (i.e., non-exempt projects), development project applicants shall prepare and submit to the City of Barstow (City) Planning Division a technical assessment evaluating potential project construction-related air quality impacts. The evaluation shall be prepared in conformance with the Mojave Desert Air Quality Management District (MDAQMD) methodology and guidelines for projects in the Mojave Desert Air Basin. If construction-related criteria air pollutants are determined to have the potential to exceed the adopted thresholds of

significance of the applicable air district, the City Planning Division shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during construction activities to below these thresholds~~, to the extent feasible~~. These identified measures shall be incorporated into appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City Public Works Division. Mitigation measures to reduce construction-related emissions could include, but are not limited to:

a. Use of construction equipment rated by the United States Environmental Protection Agency as having ~~Tier 3 (model year 2006 or newer) or~~ Tier 4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower. A list of construction equipment by type and model year shall be maintained by the construction contractor on-site and available for City review upon request.

b. Ensure construction equipment is properly serviced and maintained to the manufacturer's standards.

c. Use of alternative-fueled or catalyst-equipped diesel construction equipment, if available and feasible.

d. Clearly posted signs that require operators of trucks and construction equipment to minimize idling time (e.g., five minute maximum).

e. Preparation and implementation of a fugitive dust control plan that may include the following measures:

f. Disturbed areas (including storage piles) that are not being actively utilized for construction purposes shall be effectively stabilized using water or chemical stabilizer/suppressant, or covered with a tarp or other suitable cover (e.g., revegetated).

g. On-site unpaved roads and off-site unpaved access roads shall be effectively stabilized using water or chemical stabilizer/suppressant.

h. Land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled utilizing application of water or by presoaking.

i. Material shall be covered or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained when materials are transported off the site.

j. Operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.)

k. Following the addition of materials to or the removal of materials from the surface of outdoor storage piles, said piles shall be effectively stabilized to prevent fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.

l. Within urban areas, track out shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday.

m. Any site with 150 or more vehicle trips per day shall prevent carryout and track out.

n. Limit traffic speeds on unpaved roads to 15 mph.

o. Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.

p. Install wheel washers for all exiting trucks or wash off all trucks and equipment leaving the project area.

q. Require electrical hookups for battery/electric tools.

r. Require battery-electric or plug-in electric power where feasible for off-road equipment under 19 kW (e.g., compactors, pressure washers).

s. Require model-year 2014 or newer heavy-duty trucks for construction access meeting CARB's lowest optional NOx standard.

MM GP AQ-1 enables the City to, at each point prior to construction, assess regional and local air quality against measurable quantitative standards while also providing a list of potential measures that the city may require. In doing so, it creates a real time check against runaway pollution while also treating projects in an ad-hoc and nimble manner.

For operation-related impacts of the proposed General Plan, **MM GP AQ-2** is identified and is similarly structured to **MM GP AQ-1.** It requires future development projects subject to CEQA to provide a technical assessment of potential operation-related regional air quality impacts prior to discretionary approval by the City of Barstow Planning Division, thus tethering the discretionary development approval to compliance with this mitigation measure. It also requires a technical air quality assessment be prepared in accordance with MDAQMD

methodology and guidelines, identifies quantitative performance standards, and requires identification and incorporation of mitigation measures should the performance standards be exceeded. Like **MM GP AQ-1**, **MM GP AQ-2** further provides example actions that can be implemented to achieve the necessary emissions reductions to mitigate a significant regional air quality impact, such as providing electrical plugs for docking bays, meeting CALGreen voluntary measures for EV charging and preferential parking supply, including EnergyStar-certified appliances in new construction, and coordinating with the City of Barstow to integrate public transit infrastructure in new development where appropriate.

MM GP AQ-2 has also been revised to include additional example actions, such as evaluation of the feasibility of ZE truck use, including signage to restrict on-site truck idling for individual projects, and installing on-site electric truck charging infrastructure for electric domiciled fleets, as noted in **Response S6-21** and **Final EIR Section 3.0: Errata to the Draft EIR.** Draft EIR **MM GP AQ-2** (pages 5.3-80 to 82) is revised in the **Final EIR Section 3.0: Errata to the Draft EIR**, as follows:

MM GP AQ-2 **Reduce Emissions from Operation.** Prior to discretionary approval by the City of Barstow (City) Planning Division for development projects subject to CEQA review (i.e., nonexempt projects), project applicants shall prepare a technical assessment evaluating potential air quality impacts related to the project operation phase and submit it to the City Planning Division for review and approval. The evaluation shall be prepared in conformance with the Mojave Desert Air Quality Management District (MDAQMD) methodology and guidelines for projects in the Mojave Desert Air Basin. If operation-related air pollutants are determined to have the potential to exceed the MDAQMD-adopted thresholds of significance, the City Planning Division shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions to below these thresholds~~, to the extent feasible~~ during operational activities. The identified measures shall be included as part of the conditions of approval. Possible Mitigation measures to reduce long-term emissions can include, but are not limited to:

a. For site-specific development that requires refrigerated vehicles, the construction documents shall demonstrate an adequate number of electrical service connections at loading docks for plug-in of the anticipated number of refrigerated trailers to reduce idling time and emissions.

b. Applicants for manufacturing and light industrial uses shall utilize energy storage and combined heat and power in appropriate applications to optimize renewable energy generation systems and avoid peak energy use.

c. Applicants for non-residential developments with over 50 employees shall provide changing/shower facilities as specified, at minimum, or greater than in the California Green Building Standards (CALGreen) Code (Non-residential Voluntary Measures).

d. Applicants for multifamily, hotel, and motel developments shall provide bicycle parking facilities equivalent to or greater than as specified in the Residential Voluntary Measures of the CALGreen Code.

e. Applicants for non-residential developments with 50 or more parking spaces shall provide preferential parking spaces for low-emitting, fuel-efficient, and carpool/van vehicles equivalent to or greater than the CALGreen Code (Non-residential Voluntary Measures).

f. Applicants for non-residential developments and multi-family residential developments shall provide facilities to support electric charging stations identified in the Non-residential Voluntary Measures and Residential Voluntary Measures of the CALGreen Code, respectively.

g. Applicant-provided appliances shall be Energy Star-certified appliances or appliances of equivalent energy efficiency (e.g., dishwashers, refrigerators, clothes washers, and dryers). Installation of Energy Star-certified or equivalent appliances shall be verified by Building & Safety during plan check.

h. Applicants for future development projects along existing and planned transit routes shall coordinate with the City of Barstow and the applicable transit agency to ensure that bus pad and shelter improvements are incorporated, as appropriate.

i. Applicants for warehouse projects that maintain a heavy-duty truck fleet shall evaluate the feasibility of requiring a zero-emission heavy truck fleet, or near-zero heavy truck fleet.

j. Applicants for warehouse projects shall place signage at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations (e.g., Rule 2485). At minimum, each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict nonessential idling to no more than two consecutive minutes (compared to five minutes currently allowed under Rule 2485); and 3) telephone numbers of the building facilities manager and CARB to report violations.

k. If Applicants for warehouse project have domiciled heavy-duty trucks (Class 7 and 8) onsite, the tenant/operator of the facility shall be

required to provide electric truck charging facilities on site sufficient to charge the electric trucks domiciled on the site, and such facilities shall be made available for all electric trucks that use the facility, to the extent the applicable utility authorizes and has capacity to support.

This change clarifies analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid. Overall, Mitigation Measures **MM GP AQ-1** and **MM GP AQ-2** provides the timing of when future projects would be required to prepare an air quality assessment to evaluate potential construction and operation-related regional air quality impacts, identifies the level of standards in which the assessment should be prepared, establishes performance standards in which the project should be compared to, and mandates projects to identify and incorporate mitigation measures in the event the performance standards are exceeded. Please also see **Consolidated Response 05-07** regarding use of performance standards and deferred mitigation.

Refer also to **Consolidated Response 05** concerning feasibility of mitigation measures and **Response S6-21** concerning adequacy of general plan mitigation measures.

O21-41 Regarding **MM GP AQ-1** and **MM GP AQ-2**, as discussed in **Response O21-40**, these two measures provide the timing of when future projects would be required to prepare an air quality assessment to evaluate potential construction and operation-related regional air quality impacts, identify the standards to which the assessment must be prepared, establish performance standards in which the project should be compared to, and mandate projects identify and incorporate mitigation measures in the event the performance standards are exceeded. In addition, the "to the extent feasible" language present in these mitigation measures speaks to the variability in individual development projects to which these measures would apply. For instance, an individual project may not have feasible means of mitigating emissions during construction or operation to below the MDAQMD's adopted significance thresholds due to constraints such as the availability of specific equipment, or a Project may not have incremental impacts, wherein it may not be appropriate to mandate certain mitigation. Nonetheless, **MM GP AQ-1** and **MM GP AQ-2** are revised to omit the "to the extent feasible" language because the feasibility of the application of such measures to future projects is already addressed under the impact findings, which remains significant and unavoidable because of the uncertainty of the feasibility of imposing the measures on unknown future projects. Please also see **Consolidated Response 05-07** regarding use of performance standards and deferred mitigation.

Moreover, as acknowledged by this comment, each mitigation measure provides a menu of options that an individual project proponent may choose from to reduce emissions to meet the performance standards (i.e., thresholds) but does not mandate future projects use any specific measures due to the variability in individual project objectives and requirements. This flexibility in potential actions to implement is provided because some actions may not apply

to all individual projects or other actions and technologies may become available in the future that are not available now. For example, it would be inappropriate to require all individual development projects to prepare and implement a fugitive dust control plan when some projects would foreseeably involve no ground disturbance, such as proposed renovations to an existing structure. To reiterate, these two mitigation measures do not mandate project-specific requirements because future specific development projects are unknown and have yet to be identified. Accordingly, the combination of menus of options and enforceable performance standards identified retain the flexibility to deliver tailored mitigation for project-specific impacts that can be imposed to the extent and at a frequency most appropriate to mitigate a project's impacts once the specific details of a project's projected emissions become known. However, the requirement of identifying and incorporating mitigation measures if the established performance standards are exceeded ensure that mitigation would be identified and implemented that are appropriate for the project. Overall, Mitigation Measures **MM GP AQ-1** and **MM GP AQ-2** do not limit the potential types of mitigation for future projects that may exceed the quantified performance standards these two measures identified. The performance standards identified in Mitigation Measures **MM GP AQ-1** and **MM GP AQ-2** are the respective MDAQMD significance thresholds for construction and operation.

In addition, the comment recommends that **MM GP AQ-2** be amended to "…require applicants to ensure there is at least one electric charging station for every five electric passenger vehicles and per every five electric medium- and heavy-duty trucks." However, the comment does not identify how this would be specific, enforceable, and capable of implementation and does not address whether this requirement may conflict with concurrent requirements. As non-domiciled fleets, such as private passenger vehicles or vehicles used by contracted trucking companies, are not under the control of individual project proponents, identifying the number of electric vehicles accessing a given project site may not be feasible for the project proponent or tenant occupying the space. Moreover, future new construction projects would be required via CALGreen to install electric vehicle charging infrastructure according to the off-street parking supply provided and the project's occupancy type, for both passenger vehicles and trucks. For example, § 5.106.5.3 of the January 2026 Errata of the 2025 CALGreen code specifies mandatory standards for electric vehicle capable space and electric vehicle charging infrastructure installation in new nonresidential construction. Moreover, § 5.106.5.5 of the January 2026 Errata of the 2025 CALGreen code specifies mandatory standards for new facilities that accommodate truck activities, including warehouses, grocery stores, office buildings, manufacturing facilities, and retail stores with planned off-street loading spaces. Adopting the commenter's recommendation could result in redundancy or overbuild of charging stations as specified under a thought-out state regulatory regime such as CALGreen.

In consideration of the comments raised, **MM GP AQ-2** has been modified to include "to below these thresholds, to the extent feasible" similar to **MM GP AQ-1**. Draft EIR **MM GP AQ-2** (pages 5.3-80 to 82) is revised in the **Final EIR Section 3.0: Errata to the Draft EIR**, as follows:

MM GP AQ-2	**Reduce Emissions from Operation.** …If operation-related air pollutants are determined to have the potential to exceed the MDAQMD-adopted thresholds of significance, the City Planning Division shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions to below these thresholds, ~~to the extent feasible~~ during operational activities. …

This change clarifies analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid. In general, CEQA does not require projects to fully mitigate identified impacts. Rather, State CEQA Guidelines § 15126.4(a) requires projects to identify only feasible mitigation measures. Per State CEQA Guidelines § 15364, feasible means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

MM GP AQ-3 requires future development projects that meet the screening criteria identified in the mitigation to evaluate their potential operation-related health risk impacts. The risk assessment is required to be prepared in accordance with the State Office of Environmental Health Hazard Assessment and MDAQMD methodologies and standards. Additionally, **MM GP AQ-3** applies to individual projects that meet the criteria identified in the measure for generating substantial diesel truck travel and would be enforced as part of the review process supporting the discretionary approval or disapproval. The criteria identified therein include projects which generate 40 diesel truck trips per day, or 40 or more trucks with diesel-powered transport refrigeration units per day, that are within 1,000 feet of existing or planned sensitive receptors. **MM GP AQ-3** further identifies quantitative performance standards of no greater than ten in one million for cancer risk and no greater than 1.0 for noncancer hazard index to determine whether future development projects must identify and implement mitigation measures to reduce potential operation-related risk impacts. Similar to **MM GP AQ-1** and **MM GP AQ-2**, **MM GP AQ-3** does not mandate specific measures for future projects to implement as no specific future developments are identified at this time and it would be speculative to identify specific measures. Instead, the requirement to identify and incorporate mitigation measures if the established performance standards of ten per million cancer risk or 1.0 noncancer hazard index are exceeded ensures that mitigation would be identified and implemented to the extent and at a frequency that is appropriate for the project to mitigate impacts to no greater than these stated performance standards. Overall, **MM GP AQ-3** does not limit the types of mitigation that could be implemented for future projects, instead specifying potential types of measures that could be required.

As stated in **MM GP AQ-3**, "[a]ll HRAs shall be submitted to the City of Barstow Planning Division and the MDAQMD for evaluation." In addition, any identified measures in the risk assessment must be identified as mitigation measures in the environmental document for a project and/or incorporated into the site development plan. These requirements would

ensure that identified measures to reduce risk impacts identified for projects are implemented.

Per the recommendation of the commenter, Mitigation Measure **MM GP AQ-3** has been modified to eliminate "to the extent feasible" and clarify that the "acceptable level" is the MDAQMD's significance criteria. Draft EIR **MM GP AQ-3** (pages 5.3-123 to 124) is revised in the **Final EIR Section 3.0: Errata to the Draft EIR**, as follows:

MM GP AQ-3 **Operational Health Risk Assessment.** Applicants for new discretionary industrial or warehousing projects or commercial land uses that would generate substantial diesel truck travel—i.e., 40 diesel trucks per day per the Mojave Desert Air Quality Management District (MDAQMD) CEQA Guidelines, or 40 or more trucks with diesel-powered transport refrigeration units per day based on the California Air Resources Board recommendations for siting new sensitive land uses—and that are within 1,000 feet of existing or planned sensitive land uses shall prepare a health risk assessment (HRA). Sensitive land uses consist of residences, senior living/assisted living communities, schools, daycare centers, playgrounds, and medical facilities. All HRAs shall be submitted to the City of Barstow Planning Division and the MDAQMD for evaluation.

The HRA shall be prepared in accordance with policies and procedures of the State Office of Environmental Health Hazard Assessment and MDAQMD for projects in the Mojave Desert Air Basin (MDAB). If the HRA shows that the project incremental cancer risk exceeds ten in one million (10E-06) or the risk thresholds in effect at the time a project is considered, or that the appropriate noncancer hazard index exceeds 1.0 or the thresholds as determined by MDAQMD at the time a project is considered, the applicant shall identify and demonstrate that measures are capable of reducing potential cancer and noncancer risks to the thresholds identified by MDAQMD above (i.e., cancer risk of 10E-06 or noncancer hazard index of 1.0) ~~an acceptable level to the extent feasible~~, including appropriate enforcement mechanisms. Measures to reduce risk impacts may include but are not limited to:

a. Restricting idling on-site beyond Air Toxic Control Measures idling restrictions, as feasible.

b. Electrifying warehousing docks.

c. Requiring use of newer equipment and/or vehicles.

d. Restricting off-site truck travel through the creation of truck routes.

> Measures identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the proposed project.

This change clarifies analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid. **MM GP AQ-1**, **MM GP AQ-2**, and **MM GP AQ-3** are precisely the types of mitigation measures that CEQA envisions for speculative impacts within a programmatic EIR. Rather than defer mitigation, they enable precise, practicable, and feasible mitigation once project impacts can be better assessed, subject to specific quantitative performance standards. The DEIR, in fact, goes beyond CEQA's requirements to include quantitative performance standards in **MM AQ-1, AQ-2, and AQ-3**, and in suggesting specific mitigation measures, such as low-emissions equipment and electric charging to mitigate future impacts.

Contrary to commenters' assertions, future studies like the Health Risk Assessment are not vague and unenforceable but instead enable precise and practical mitigation. Courts have found time and time again that future studies may be relied upon to inform and tailor mitigation measures.[41] Please also see **Consolidated Response 05-07** regarding use of performance standards and deferred mitigation.

Please also refer to **Response S6-21** concerning the adequacy of general plan mitigation measures and **Consolidated Response 05** concerning feasible and enforceable mitigation.

O21-42 In general, the Draft EIR does not identify the various proposed General Plan policies as mitigation measures as asserted by the commenter. Overall, the General Plan is a broad-based policy plan. The policies in the General Plan guide decision makers when adopting future discretionary projects and also guide city decisionmakers and staff when adopting new city-initiated projects, programs, and initiatives. This is because the General Plan guides growth and development in the City. Thus, implementation of the proposed General Plan and its policies could have a mitigating effect on reducing emissions and references to applicable proposed General Plan policies and their role in reducing emissions are made under this general framework only. Additionally, the emissions inventory for the proposed General Plan, such as presented in **Draft EIR Table 5.8-10: Horizon Year 2048 Proposed General Plan Area GHG Emissions Forecast** (page 5.8-57) do not account for any potential emissions reductions associated with the proposed General Plan policies. See also **Response O21-27** and **Response S6-31**.

O21-43 As discussed in **Response O21-41**, **MM GP AQ-1, GP AQ-2,** and **GP AQ-3** would not limit the types of mitigation measures future projects may incorporate. These three identified mitigation measures for the proposed General Plan establish performance standards for

[41] City of Hayward v Board of Trustees of Cal. State Univ. (2015) 242 CA4th 833, 855 (upholding transportation demand management program that included performance goals and evaluation of mitigation measures); City of Maywood v Los Angeles Unified Sch. Dist. (2012) 208 CA4th 362, 411 (upholding mitigation measure, based on further investigation of contamination at project site); National Parks & Conserv. Ass'n v County of Riverside (1999) 71 CA4th 1341, 1366 (approving deferred decisions regarding placement of tortoise protection fences to further study of migration patterns during operation of project). Gray v County of Madera (2008) 167 CA4th 1099, 1126 (upholding deferred design of exterior lighting system subject to performance standards after facility is built).

future development projects to be evaluated against and a mechanism for when future development projects would need to identify and implement mitigation measures. Please refer to **Response O21-28** for more information on why the measures recommended by the commenter were not included in the analysis, **Response O21-41** for more information on how the mitigation included in the Draft EIR are feasible, effective, and present clear performance standards, **Consolidated Response 5** concerning feasible and enforceable mitigation, and **Consolidated Response 05-07** regarding use of performance standards and deferred mitigation.

As discussed in **Response O21-28**, the measures recommended by the commenter may not be appropriate or feasible for all future projects. The proposed General Plan is a planning document intended to guide future growth in the city, and project-level proposals and constraints for the entire City through Project Horizon Year 2048 are not currently known; therefore, it would not be appropriate or feasible to require all future individual projects or the City to commit to ZEV fleet transitions at this time or require the deployment of microgrid-enabled truck charging hubs. In addition, as discussed in **Response S6-30** and **Consolidated Response 05-06,** concerning the feasibility of specific technology and other mitigation measures, the market availability of ZE trucks is highly dependent on a changing regulatory landscape; therefore, a requirement for a fleet transition to zero emission vehicles may not be feasible for each individual project facilitated by the proposed General Plan.

In addition, **MM GP GHG-1** requires the City to prepare a climate action plan that aligns with the year 2045 GHG reduction goal established under Assembly Bill 1279, *The California Climate Crisis Act*, which would provide individual project proponents with a pathway to demonstrate consistency with citywide GHG emission reduction targets and may include transitioning city-owned and private fleets to ZEVs. As shown on pages 5.8-58 and 5.8-59 of the Draft EIR, **MM GP GHG-1** requires the City to develop and adopt a GHG reduction strategy (e.g., Climate Action Plan) within three years of certification of the proposed Draft EIR and update that strategy every five years. **MM GP GHG-1** further identifies example actions the City can take to ensure an emissions trajectory that is consistent with adopted statewide reduction targets, such as encouraging EV adoption, adopting local codes for increased energy efficiency in buildings, encouraging the incorporation of solar power generation and battery energy storage into development, and collaborating with local utility providers to encourage existing development upgrades.

O21-44 See responses to above comments regarding TMT analysis (**O21-18, O21-16, O21-15, O21-8**). Regarding potential impacts at Hobart and Commerce Yard, see **Responses O21-20** and **O21 to O21-33** and **O21-34**.

O21-45 See **Response O21-34**.

O21-46 As noted by the commenter, the Draft EIR consistently states that BIG would utilize Tier 4 switcher locomotives. Utilization of Tier 4 switcher locomotives is not a mitigation measure, but included as a part of BIG. See also **Consolidated Response 12-03** concerning enforceability of the Project components and mitigation measures for the Project. The table that the

commenter refers to (**Draft EIR Appendix 5.3 BIG-1 Table 17: Locomotive Fleet Mix Forecast** (page 71) includes the fleet mix for BNSF's nationwide fleet, and has been updated in the **Final EIR Section 3.0: Errata to the Draft EIR** as it pertains to showing the improvement to the overall fleet mix by BIG: 1) utilizing Tier 4 switcher locomotives onsite and 2) replacing the existing switcher locomotives at the unrelated Barstow Classification Yard with Tier 4 locomotives. With these two improvements, emissions from BNSF's national switcher fleet mix would improve. BIG switcher emissions were modeled using only Tier 4 emissions factors, consistent with the above.

Draft EIR Appendix 5.3 BIG-1 Table 17: Locomotive Fleet Mix Forecast (page 71) has been revised in **Final EIR Appendix 3-1: Emissions Errata**.

This change clarifies analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid. Regarding the references in **Draft EIR Table 5.3-26: Mitigated Operational Emissions within MDAB (pounds per day)** (page 5.3-96) to mitigation measures, this is a typo and has been corrected below and in the **Final EIR Section 3.0: Errata to the Draft EIR**.

Table 5.3-1: Mitigated Operational Emissions within MDAB (pounds per day)

Source	Pollutant (Maximum Pounds per Day) [1, 2]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
2028 Operations						
Locomotives (BIG Footprint)						
Mainline (Without BIG)	52	1,518	383	1	32	31
Mainline (With BIG)	30	887	249	1	18	18
Net Mainline (Through BIG)	-22	-631	-134	-0.46	-14	-13
BIG Lead Tracks	9	261	74	0.26	5	5
BIG Block Swap Yard	15	338	66	0.23	9	9
BIG Intermodal Facility	0.69	20	5	0.02	0.42	0.41
BIG Maintenance	4	27	4	0.01	0.98	0.95
Locomotives Within BIG Footprint Subtotal	**6**	**15**	**15**	**0.06**	**2**	**2**
Mobile Sources						
Passenger Cars	41	38	721	2	90	23
Trucks	1	120	33	1	59	17
On-site Dust – Passenger Cars[3]	-	-	-	-	4	0.91
On-site Dust – Trucks/Equipment[3]	-	-	-	-	7	1.91
Equipment Exhaust	37	75	244	0.48	2	2
Area Sources	207	<0.01	<0.01	<0.01	<0.01	<0.01
Energy (Natural Gas)	-	-	-	-	-	-
BIG Footprint Emissions	**294**	**247**	**1,013**	**4**	**165**	**48**
Reduced TMT Emissions (MDAB Only)[4]	-1.10	-120	-29	-1	-74	-21
Rail Corridor Emissions - No BIG (within MDAB)	1,915	48,806	12,310	43	1,020	990
Rail Corridor Emissions - With BIG (within MDAB)	2,001	51,217	12,984	46	1,061	1,029
Net Rail Corridor Emissions Change (MDAB Only)[5]	86	2,412	675	3	40	39
2028 Total BIG Operational Improvements	**379**	**2,539**	**1,659**	**5**	**131**	**66**
Existing Barstow Yard Switcher Replacement	-131	-821	-53	-0.26	-39	-38

Table 5.3-1: Mitigated Operational Emissions within MDAB (pounds per day)						
	Pollutant (Maximum Pounds per Day) [1, 2]					
Source	**VOC**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Net 2028 Emissions	**248**	**1,719**	**1,606**	**5**	**92**	**28**
MDAQMD Threshold	**137**	**137**	**548**	**137**	**82**	**65**
Threshold Exceeded?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**No**
2033 Operations						
Locomotives (BIG Footprint)						
Mainline (Without BIG)	54	1,601	423	1	33	32
Mainline (With BIG)	30	899	271	1	18	17
Net Mainline (Through BIG)	-23	-703	-152	-0.53	-15	-14
BIG Lead Tracks	9	275	84	0.30	5	5
BIG Block Swap Yard	16	366	73	0.26	10	10
BIG Intermodal Facility	0.86	26	7	0.02	0.52	0.50
BIG Maintenance	4	27	4	0.01	0.98	0.96
Locomotives Within BIG Footprint Subtotal	**6**	**-7**	**15**	**0.07**	**2**	**2**
Mobile Sources						
Passenger Cars	43	34	758	3	17	6
Trucks	2	128	33	1	14	6
On-site Dust – Passenger Cars[3]	-	-	-	-	5	1
On-site Dust – Trucks/Equipment[3]	-	-	-	-	9	2
Equipment Exhaust	37	75	244	0.48	2	2
Area Sources	207	<0.01	<0.01	<0.01	<0.01	<0.01
Energy (Natural Gas)	-	-	-	-	-	-
BIG Footprint Emissions	**295**	**230**	**1,051**	**4**	**49**	**20**
Reduced TMT Emissions (MDAB Only)[4]	-1	-125	-27	-1	-77	-22
Rail Corridor Emissions - No BIG (within MDAB)	1,915	48,806	12,310	43	1,020	990
Rail Corridor Emissions - With BIG (within MDAB)	2,001	51,217	12,984	46	1,061	1,029
Net Rail Corridor Emissions Change (MDAB Only)[5]	86	2,412	675	3	40	39
2033 Total BIG Operational Emissions	**380**	**2,517**	**1,698**	**6**	**12**	**37**
Existing Barstow Yard Switcher Replacement	-131	-821	-53	-0.26	-39	-38
Net 2033 Emissions	**249**	**1,696**	**1,645**	**5**	**-27**	**-1**
MDAQMD Threshold	**137**	**137**	**548**	**137**	**82**	**65**
Threshold Exceeded?	**Yes**	**Yes**	**Yes**	**No**	**No**	**No**
2048 Operations						
Locomotives (BIG Footprint)						
Mainline (Without BIG)	53	1,704	529	2	31	30
Mainline (With BIG)	31	1,002	348	1	18	17
Net Mainline (Through BIG)	-21	-702	-181	-0.63	-13	-13
BIG Lead Tracks	9	295	104	0.37	5	5
BIG Block Swap Yard	25	561	110	0.39	16	15
BIG Intermodal Facility	0.69	22	7	0.02	0	0
BIG Maintenance	5	34	5	0.02	1	1

Table 5.3-1: Mitigated Operational Emissions within MDAB (pounds per day)						
	Pollutant (Maximum Pounds per Day) [1, 2]					
Source	**VOC**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Locomotives Within BIG Footprint Subtotal	**18**	**211**	**45**	**0.17**	**9**	**9**
Mobile Sources						
Passenger Cars	33	24	701	3	132	34
Trucks	2	132	26	1	92	26
On-Site Dust – Passenger Cars[3]	-	-	-	-	13	4
On-Site Dust – Trucks/Equipment[3]	-	-	-	-	15	4
Equipment Exhaust	50	82	249	0.49	2	2
Area Sources	207	<0.01	<0.01	<0.01	<0.01	<0.01
Energy (Natural Gas)	-	-	-	-	-	-
BIG Footprint Emissions	**311**	**449**	**1,021**	**5**	**264**	**78**
Reduced TMT Emissions (MDAB Only)[4]	-1	-122	-16	-1	-108	-30
Rail Corridor Emissions - No BIG (within MDAB)	1,919	53,861	16,699	59	969	940
Rail Corridor Emissions - With BIG (within MDAB)	2,016	56,795	17,706	63	1,012	981
Net Rail Corridor Emissions Change (MDAB Only)[5]	96	2,934	1,007	4	43	42
2048 Total BIG Operational Emissions	**406**	**3,261**	**2,012**	**7**	**198**	**90**
Existing Barstow Yard Switcher Replacement	-131	-821	-53	-0.26	-39	-38
Net 2048 Emissions	**275**	**2,441**	**1,959**	**7**	**159**	**52**
MDAQMD Threshold	**137**	**137**	**548**	**137**	**82**	**65**
Threshold Exceeded?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**No**

[1] Totals may not add up due to rounding.
[2] Mitigation measures include **MM BIG AQ-7** ~~(sweeping paved areas)~~, **MM BIG AQ-8** ~~(Tier 4 Switchers)~~, **MM BIG AQ-9** ~~(Replace Tier 1+ locomotives)~~, and **MM BIG AQ-10** ~~(renewable diesel RTG cranes)~~.
[3] Includes fugitive dust, break wear, and tire wear from fleet vehicles, on-site passenger cars, heavy-duty trucks, and cargo-handling equipment.
[4] BIG would improve goods movement and supply chain efficiency by transporting more containers with trains to reduce approximately 40,328 TMT per day in 2028, approximately 49,500 TMT per day in 2033, and approximately 59,305 TMT per day in 2048 from regional roadways; See **Draft EIR Appendix 5.15 BIG-1: Barstow International Gateway CEQA Assessment – Transportation Analysis**.
[5] MDAB only Corridor emissions per EnSafe, BNSF Barstow International Gateway Corridor Emissions Analysis, October 2025 (**Draft EIR Appendix 5.3 BIG-1, Appendix B**).

Source: Refer to **Draft EIR Appendix 5.3 BIG-1: Air Quality Technical Report**.

The supplemental information provided clarifies and expands upon analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid. Please also see **Consolidated Response 03**, concerning recirculation of the Draft EIR.

O21-47 Refer to **Response O21-8**. These daily estimates conservatively use a 13% seasonal surcharge factor which is described on **Draft EIR Appendix 5.15 BIG-2** pages 138 to 139 and 141. Also refer to footnote 2, **Draft EIR Appendix 5.3 BIG-1 Table 19: Net Truck Trips and Truck Miles Traveled Reductions by BIG** (page 76), which states "Consistent with the 'Daily BIG Truck Trips', this includes a 13% surplus when converting from annual to daily values to account for potential seasonal surges (based on data from other southern California IMFs provided by BNSF on 12/02/2022). See trip generation discussion in the **Draft EIR Appendix 5.15 BIG-2** '**LOS Assessment**' (**Draft EIR Appendix 5.3 BIG-1"** (page 76)).

As the daily emissions conservatively represent a peak day, daily emissions should not be directly converted to annual emissions simply by multiplying by 365 days and then converting to tons. Because the daily emissions use a 13% seasonal surcharge factor, the calculations in the comment are not correct. The Draft EIR conservatively uses maximum daily emissions and does not underreport emissions.

O21-48 The comment suggests that the Draft EIR failed to include a Health Impact Analysis (HIA) pursuant to the criteria discussed in *Sierra Club v. County of Fresno (2018) ("Friant Ranch")*, and that CEQA requires an HIA.

The Draft EIR's analysis is adequate.

The Draft EIR adequately discloses, in great detail, the environmental impacts of the Project and alternatives, including quantifiable health impacts. The health impacts were determined through assessments that followed rigorous and scientifically supported methods. (**Draft EIR Section 5.3** (pages 5.3-29 to 5.3-49 and 5.3-63 to 5.3-65)). Consistent with the holding in *Friant Ranch*, the Draft EIR identifies general health effects associated with particular pollutants. (**Draft EIR Section 5.3** (pages 5.3-51 to 5.3-52, 5.3-57 to 5.3-58)).[42] The Draft EIR identifies the estimated amount of pollutants that BIG would likely produce during construction and operation, before and after mitigation (Draft EIR, page 5.3-84 to 101), relative to baseline regional emissions (**Draft EIR Section 5.3** (pages 5.3-54 to 5.3-56 and 5.3-115 to 5.3-120)).

The Draft EIR makes a "reasonable effort to substantively connect a project's air quality impacts to likely health consequences," identifies where existing scientific constraints prevent further translation of potential health impacts, and describes the nature and magnitude of impacts (**Draft EIR Section 5.3** (pages 5.3-59 to 5.3-61, pages 5.3-115 to 5.3-120, and pages 5.3-124 to 5.3-161.).[43] The Draft EIR explains that, while BIG would produce substantial criteria pollutant mass emissions, these would be relatively small contributions to baseline regional levels. (**Draft EIR Section 5.3** (pages 5.3-115 to 5.3-120), see also **Draft EIR Appendix 5.3-1 BIG-1** (pages 127 to 128)). Therefore, the Draft EIR includes a thorough, science-based analysis of health impacts.

Refer to **Consolidated Response 17** for a discussion of health impact analysis findings.

The cited EIRs and Sacramento Air District methodology have no bearing on the adequacy of the Draft EIR:

The comment suggests that a California State University campus master plan EIR and guidance from the Sacramento Air District demonstrate that an HIA is technically feasible and legally required under CEQA for the BIG Project. The comment also cites, but does not discuss the relevance of, a master plan amendment EIR for the Mineta San Jose International Airport.

[42] *Friant Ranch, supra*, 6 Cal.5th at 521.
[43] *Friant Ranch, supra,* 6 Cal.5th at 521.

As discussed above, an HIA is not legally required under CEQA. The Draft EIR adequately analyzes the Project's health impacts pursuant to *Friant Ranch*. Furthermore, other projects' analyses, particularly projects that differ markedly from BIG in terms of geographic scope and project type, have no bearing on the utility or feasibility of analysis in the BIG EIR.

As suggested by the commenter's discussion of Sacramento Air District's modeling guidance, it is not lead agencies for individual projects, but rather state, county and municipal agencies' public health departments or regional air districts which are the more appropriate agencies to evaluate broader community-wide health issues as part of a programmatic, broad regional-scale HIA, rather than a project-level HIA. For example, a public health agency can more appropriately access and address the kinds of important health issues that the public has expressed concerns about, including access to goods and services, access to parks, annoyance ("a feeling of displeasure associated with any agent or condition known or believed by an individual or a group to be adversely affecting them"), asthma, autism, birth defects, birth outcomes, bronchitis, cardiovascular disease, diabetes, educational performance, employment and income, housing, hypertension, leukemia, lymphoma, myocardial infarction, neurological problems, sinusitis, social networks, stress, etc. The commenter's suggestion is flawed- what is feasible for a regional air district's modeling is not evidence of what is feasible for an individual project.

The Draft EIR presents substantial evidence to support its methodology assessment:

A project-level HIA cannot evaluate and address public health impacts from the broader, more regional perspective needed to provide a meaningful assessment of the public health issues that the commenter has requested to be studied that go beyond what is already analyzed in the Draft EIR. Such a narrow focus overlooks all of the regional contributors to a specific health endpoint (e.g., environmental pollution outside of the City's control, related to refineries and manufacturing facilities, would not be accounted for in the HIA).

The comment alleges that the Draft EIR failed to support its statement that "[t]here is currently no methodology available that can accurately quantify regional health effects from NO2, O3, CO, or PM exposure associated with an individual project's emissions." (DEIR at 5.3-115.) However, consistent with *Friant Ranch,* the Draft EIR does, in fact, provide an in-depth analysis of the technical feasibility of a project-level HIA. (Draft EIR, pp. 5.3-82 to 83; Appendix 5.3-1 BIG-1; *Friant Ranch, supra,* 6 Cal.5th at 521 ["EIR must provide an adequate analysis to inform the public how its bare numbers translate to create potential adverse impacts or it must adequately explain what the agency *does* know and why, given existing scientific constraints, it cannot translate potential health impacts further."]) Accordingly, the EIR does in fact support its methodology assessment.

O21-49 MM BIG AQ-1

The performance standard for **MM BIG AQ-1** is preparation of a Fugitive Dust Control Plan. MDAQMD requires Fugitive Dust Control Plans and compliance with Rule 403 for all projects to enforce these measures. Rule 403 requires all operations to use "every reasonable precaution" to minimize fugitive dust emissions and prohibits visible dust from crossing

property lines. MDAQMD has specific timing and verification requirements for Fugitive Dust Control Plans that BIG would be required to comply with. Nonetheless, in order to fully respond to the comment, edits have been made to **MM BIG AQ-1** to clarify compliance monitoring requirements; see **Final EIR Section 4.0**: **Mitigation Monitoring and Reporting Program.**

Draft EIR **MM BIG AQ-1** (page 5.3-104) is revised in the **Final EIR Section 3.0: Errata to the Draft EIR**, as follows:

MM BIG AQ-1	**Fugitive Dust Emissions**. During construction, the contractor shall employ the following measures to minimize and control fugitive dust emissions. The contractor shall prepare a fugitive dust control plan that complies with Mojave Desert Air Quality Management (MDAQMD) Rule 403, which, at a minimum, shall describe how each measure would be employed, identify the individual responsible for ensuring implementation, and address the following components unless alternative measures are approved by the MDAQMD. The fugitive dust control plan shall be submitted to MDAQMD for approval by the Air Pollution Control Officer prior to the start of construction activities. In accordance with Rule 403, the contractor shall maintain a copy of the fugitive dust control plan and records demonstrating compliance with the requirements of the fugitive dust control plan and Rule 403 through the closure of BIG construction, to be provided to MDAQMD personnel upon request. Pursuant to MDAQMD standard practice, MDAQMD may issue Notices to Comply and/or Notices of Violation for non-compliance with the approved fugitive dust control plan…

This change clarifies analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid.

MM BIG AQ-3

Regarding **MM BIG AQ-3**'s potential to include zero emission construction equipment, the cited study documents ZE construction equipment in China, not California. Availability of ZE equipment in China has no relevance to availability of ZE equipment in California. Additionally, beyond availability, ZE large construction equipment (loaders, excavators, etc.) present severe feasibility challenges due to charging limitations. The contractor responsible for overseeing construction of BIG was exposed to a prototype ZE loader (not commercially available) and the battery capacity only lasted less than 5 hours, thus, this loader could not perform a single shift (8-10 hours) without needing to return to some temporary construction charging point and charge (Muin Mustafa, pers. comm.). This temporary construction charging would require additional temporary powerlines and related infrastructure. The limited battery capacity, requirement for mid-shift charging, and additional costs and timeline associated with permitting and constructing temporary charging stations led the contractor

to deem ZE construction equipment "very impractical". Furthermore, the contractor confirmed that no electric heavy-duty construction equipment are available from major construction equipment manufacturers.

A ZE construction fleet is not technologically feasible for a project requiring hundreds of pieces of heavy-duty, high-horsepower off-road equipment. **Draft EIR Appendix 5.3 BIG-1 Table 11: Construction Equipment** (page 54) identifies more than 300+ pieces of heavy construction equipment operating concurrently, including:

- Bulldozers up to 419 hp
- Scrapers up to 1,051 hp
- Excavators up to 450 hp
- Cranes up to 367 hp
- Track-laying machines up to 525 hp
- Multiple high-load generators, loaders, compactors, and 275+ dump trucks.

No commercially available battery-electric or hydrogen equipment exists in these size classes, particularly for scrapers, track-laying machines, high-horsepower dozers, or rail-construction machinery. CARB and the U.S. EPA[44] consistently recognize that large-horsepower off-road equipment is not yet available in zero-emission configurations, and when available, performance, duty-cycle, and refueling time do not meet the needs of large-scale grading or rail-yard construction.[45]

Under CEQA, requiring the use of technology that does not yet exist at commercial scale is considered infeasible. Courts have repeatedly rejected mitigation measures requiring unavailable or speculative technologies.[46,47,48]

BIG requires approximately 26 million cubic yards of cut and fill across an approximately 5,000-acre footprint, the use of over 300 pieces of concurrent equipment, and long daily operating hours for mass grading, rail bed construction, bridge construction, and utility trenching. Mass grading at this scale requires continuous, high-load operation, which current ZE equipment cannot meet. Existing prototype ZE dozers and loaders operate for 2–4 hours per charge, with significantly reduced performance under heavy load. Mass grading requires 10+ hours/day of uninterrupted operation. There are no ZE scrapers—one of the core pieces of equipment used for earthmoving of this magnitude.

44 U.S. Department of Energy (DOE) and U.S. Environmental Protection Agency (EPA) (2024) https://www.epa.gov/system/files/documents/2025-01/off-road-action-plan.pdf (p. 28).

45 CARB's Advanced Clean Equipment (ACE) program confirms that zero-emission off-road equipment categories, including construction machinery, are either commercially available only in limited low-horsepower classes or are still "in development or demonstration." https://ww2.arb.ca.gov/our-work/programs/msei/off-road-advance-clean-equipment.

46 City of Marina v. Board of Trustees of the Cal. State University (2006) 39 Cal.4th 341 (mitigation must be feasible in practice, not merely desirable)("City of Marina").

47 POET, LLC v. CARB (2013) 218 Cal.App.4th 681.

48 Natural Resources Defense Council, Inc. v. City of Los Angeles (2023) 98 Cal.App.5th 1176, 1206 (upholding Port's decision not to adopt ZE and near-ZE cargo handling equipment due to lack of commercial and technical viability.)

CEQA does not require an agency to adopt mitigation that would inhibit completion of the project or is technologically incapable of meeting project requirements (State CEQA Guidelines §15126.4(a)(1)(A).)[49,50,51]

A fully ZE fleet at this scale would require each of the following prior to construction commencing:

- Megawatt-scale charging for hundreds of 300–1,000+ hp equipment units,
- Distributed charging depots across miles of construction zones,
- Major electrical upgrades beyond those already required for project operations,
- Substantial charging downtime incompatible with mass grading.

Draft EIR Appendix 5.3 BIG-1 (page 14) documents that even operational electrical loads require new substations, 23 miles of duct banks, and solar-battery systems, demonstrating the substantial electrical infrastructure already needed for BIG operations. Under State CEQA Guidelines §15126.6(f)(1), infrastructure limitations and inability to secure adequate electrical supply constitute legitimate feasibility barriers.

MM BIG AQ-4

As discussed above for **MM BIG AQ 3**, ZE construction equipment is neither commercially available nor feasible. Edits have been made to **MM BIG AQ-4** to clarify compliance monitoring requirements; see **Final EIR Section 4.0**: **Mitigation Monitoring and Reporting Program.**

Draft EIR **MM BIG AQ-4** (page 5.3-105) is revised in **Final EIR Section 3.0: Errata to the Draft EIR**, as follows:

MM BIG AQ-4:	**Renewable Diesel (Construction)**. During construction, the implementing entity shall use renewable diesel fuel to minimize and control exhaust emissions from heavy-duty diesel-fueled construction equipment and off-road heavy diesel trucks, except that traditional diesel can be used where renewable diesel is not available from suppliers within 200 miles of the BIG footprint. Renewable diesel shall meet the most recent ASTM D975 specification for Ultra Low Sulfur Diesel and have a carbon intensity no greater than 50 percent of diesel with the lowest carbon intensity among petroleum fuels sold in California. The implementing entity shall provide the City with quarterly reports of renewable diesel purchase records and equipment and vehicle fuel consumption. The construction contract shall identify the quantity of traditional diesel purchased and fully document the

49 California Native Plant Society v. County of El Dorado (2009) 170 Cal.App.4th 1026 (agencies may reject mitigation that is impractical or disrupts project viability.)

50 California Natural Gas Vehicle Coalition v. State Air Resources Bd. (2024) 105 Cal.App.5th 304, 329 (failing to meet project objectives is a form of infeasibility under CEQA Guidelines § 15364.)

51 San Diego Citizenry Group v. County of San Diego (2013) 219 Cal.App.4th 1, 15 (upholding agency's rejection of mitigation measure based on impracticality and inconsistency with project objectives.)

availability and price of renewable diesel to meet BIG demand. This may include, but is not limited to: a list of all fuel suppliers contacted; supplier addresses and distances from BIG; statements or correspondence from suppliers demonstrating availability of renewable diesel or lack thereof; documentation establishing that suppliers within 200 miles do not carry renewable diesel in the quantities needed; price quotes where relevant; any other information requested by the City to verify compliance.

This change clarifies analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid. Regarding "what consequences apply if the requirement is not met," State CEQA Guidelines do not require a mitigation measure to include a "consequence," but for them to be "fully enforceable through permit conditions, agreements, or other legally binding instruments" (State CEQA Guidelines 15126.4(a)(2).) Incorporation of mitigation measures into conditions of project approval is identified in CEQA itself as a means of ensuring that such measures are adequately "enforceable." (Pub. Resources Code § 21081.6(b)).[52]

MM BIG AQ-5

As discussed above for **MM BIG AQ-3**, ZE construction equipment is neither commercially available nor feasible. Edits have been made to **MM BIG AQ-5** to clarify compliance monitoring requirements; see **Final EIR Section 4.0**: **Mitigation Monitoring and Reporting Program**.

Draft EIR **MM BIG AQ-5** (page 5.3-106) is revised in **Final EIR Section 3.0: Errata to the Draft EIR**, as follows:

MM BIG AQ-5: **Reduce Exhaust Emissions from On-Road Construction Equipment**. Prior to issuance of construction contracts, the implementing entity shall incorporate the following material-hauling heavy truck fleet mix requirements into the contract specifications:

- All on-road trucks used to haul construction materials shall consist of an average fleet mix of equipment model year 2010 or newer, but no less than the average fleet mix for the current calendar year as set forth in the CARB's EMFAC2021 database.
- The implementing entity shall provide documentation to BNSF of efforts to secure such a fleet mix and shall maintain all supporting procurement records for City review upon request.
- The implementing entity shall keep a written record of the fleet mix for on-road construction equipment during BIG construction and provide the City with ~~and~~ annual reports documenting compliance.

[52] County of Madera, supra, 167 Cal.App.4th at 1116, citing California Public Resources Code § 21081.6(b) ("[t]he mitigation measures are enforceable because they were incorporated as part of the conditional approval for the [Conditional Use Permits]".)

This change clarifies analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid. Regarding feasibility of ZE construction equipment, as discussed above, the commenter cites to a report summarizing availability of ZE equipment in China, which has no relevance to availability of ZE equipment in California. In addition, ZE construction equipment have substantial feasibility challenges noted above.

MM BIG AQ-6

Edits have been made to **MM BIG AQ-6** to clarify compliance monitoring and siting requirements; see **Final EIR Section 4.0**: **Mitigation Monitoring and Reporting Program.**

Draft EIR **MM BIG AQ-6** (page 5.3-106) is revised in **Final EIR Section 3.0: Errata to the Draft EIR**, as follows:

MM BIG AQ-6	**Reduce the Potential Impact of Concrete and Asphalt Batch Plants**. Prior to the construction or arrival of a batch plant on site, the implementing entity shall provide the City with documentation demonstrating that batch plants are sited at least 1,000 feet from sensitive receptors, including places such as daycare centers, hospitals, senior care facilities, residences, parks, and other areas where people may congregate. The City shall verify compliance with this siting requirement by reviewing site plans, maps, or other distance documentation submitted by the implementing entity, and shall issue written confirmation of verification prior to installation or operation of any batch plant. If the documentation does not demonstrate the required 1,000-foot buffer, the City shall require corrective action before the batch plant may be established. Batch plants shall implement control measures required by MDAQMD as part of the Permit to Construct in order to reduce fugitive dust such as water sprays, enclosures, hoods, curtains, shrouds, movable and telescoping chutes, central dust collection systems, and other suitable technology, to reduce emissions to be equivalent to the U.S. EPA AP-42 controlled emission factors for batch plants. The implementing entity shall provide a copy of the MDAQMD permit application to the City that each batch plant meets this standard during operation.

This change clarifies analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid. Regarding "consequences", State CEQA Guidelines do not require a mitigation measure to include a "consequence", but for them to be "fully enforceable through permit conditions, agreements, or other legally binding instruments" (State CEQA Guidelines § 15126.4 (a)(2).) Incorporation of mitigation measures into conditions of project approval is identified in CEQA itself as a means of ensuring that such measures are adequately

"enforceable." (Pub. Resources Code § 21081.6(b)).[53] CEQA requires an agency to "adopt a reporting or monitoring program for the ... conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment." (§ 21081.6(a)(1).) "The purpose of a monitoring program is to ensure compliance with the mitigation measures imposed as conditions of the project approval." (Pub. Resources Code, § 21081.6(a)(1).).[54] Thus, the inclusion of a condition of project approval in the MMRP, as the EIR proposes, adequately ensures the Project's compliance therewith for CEQA purposes. See also **Consolidated Response 05-05,** concerning enforceability of mitigation measures.

MM BIG AQ-7

Edits have been made to **MM BIG AQ-7** to clarify compliance monitoring requirements; see **Final EIR Section 4.0**: **Mitigation Monitoring and Reporting Program.**

Draft EIR **MM BIG AQ-7** (page 5.3-106) is revised in the **Final EIR Section 3.0: Errata to the Draft EIR**, as follows:

MM BIG AQ-7:	**Sweep Paved Areas**. During operations, paved areas such as parking lots, internal roadways, the container yard, chassis storage area, and cargo handling areas shall be swept at least once every 7 calendar days. The implementing entity shall maintain sweeping logs documenting the date, time, and areas swept for City review upon request and provide the City with annual reports documenting compliance.

This change clarifies analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid.

MM BIG AQ-8

Electric RTGs (eRTGs) were carefully considered and the feasibility determination is found on pages 5.3-114 and 5.3-115 of **Draft EIR Section 5.3** and in the *eRTG Feasibility Memorandum*. As noted in the DEIR and in the *eRTG Feasibility Memorandum*, there are no commercially available eRTGs that can provide the ramping and de-ramping operational capabilities required at BIG. See **Consolidated Response 05** concerning feasible and enforceable mitigation and **Consolidated Response 05-06** concerning the feasibility of specific technology and other mitigation measures, and as well as **Response O21-132** below for further explanation of eRTG infeasibility.

MM BIG AQ-9

The commenter asserts that **MM BIG AQ-9** "provides no meaningful enforcement mechanism." However, **MM BIG AQ-9** contains multiple independently enforceable obligations, assigns responsibility to specific implementing entities, and includes both

[53] County of Madera, supra, 167 Cal.App.4th at 1116, citing Pub. Resources Code § 21081.6(b) ("[t]he mitigation measures are enforceable because they were incorporated as part of the conditional approval for the [Conditional Use Permits]".)

[54] King & Gardiner Farms, LLC v. County of Kern (2020) 45 Cal.App.5th 814, 853, as modified on denial of reh'g (Mar. 20, 2020) (citing Pub. Resources Code 21081.6(a)(1).).

pre-occupancy verification and ongoing operational compliance requirements. CEQA does not require mitigation to guarantee perfect compliance; it requires mitigation to be enforceable, feasible, and supported by a monitoring or reporting framework. **MM BIG AQ-9** satisfies all of these requirements. Measure compliance is required as a condition of approval prior to the issuance of a tenant occupancy permit. (Pub. Resources Code § 21081.6(b)) Compliance includes specific requirements for signs and requires "the implementing entity shall designate an officer to monitor trucks on-site for compliance."[55] By mandating a designated compliance officer, **MM BIG AQ-9** creates a continuous enforcement mechanism, not a passive one. This officer is responsible for:

- Monitoring on-site truck operations,
- Ensuring drivers comply with idling limits,
- Ensuring drivers follow required circulation patterns, and
- Taking corrective actions if violations are observed.

This is a recognized form of enforceable monitoring under CEQA. Mitigation that assigns monitoring responsibility to a designated official or staff position has repeatedly been upheld as enforceable and sufficient.[56]

MM BIG AQ-9 incorporates external regulatory enforcement from CARB and MDAQMD. Specifically, the mitigation measure specifically requires signage that advises drivers of CARB idling regulations and provides MDAQMD and CARB telephone numbers for reporting violations. This means that enforcement does not rest solely on voluntary compliance or on the City/County. CARB's heavy-duty truck idling regulation (13 CCR §2485) and MDAQMD enforcement authority provides independent regulatory enforcement, including citations for idling violations. CEQA allows reliance on existing regulatory programs as part of the mitigation framework.[57] Thus, **MM BIG AQ-9** is supported by state-level and air-district enforcement mechanisms, which strengthens—not weakens—its enforceability.

Because **MM BIG AQ-9** requires completion prior to issuance of any tenant occupancy permit, it becomes a binding Condition of Approval and therefore enforceable under the City/County's permitting authority. Under State CEQA Guidelines § 15097, the City/County would also enforce ongoing compliance through its MMRP, including field verification of signage and pavement markings, confirmation of designated truck routes, review of compliance-officer monitoring logs, and inspections during operations. This is a standard and legally adequate enforcement mechanism under CEQA.

MM BIG AQ-10

Refer to **Response S6-12** regarding expanding solar and battery energy storage.

55 County of Madera, supra, 167 Cal.App.4th at 1116.

56 Federation of Hillside & Canyon Assns. v. City of Los Angeles (2000) 83 Cal.App.4th 1252 (confirming that CEQA allows mitigation that relies on administrative oversight rather than continuous policing.)

57 City of Marina v. CSU (2006) 39 Cal.4th 341. (agencies may rely on regulatory enforcement to support mitigation feasibility and enforcement.)

MM BIG AQ-11

MM BIG AQ-11 appropriately targets feasible, enforceable, commercially available truck-efficiency improvements within the Project applicant's and tenants' control. Accordingly, no further revisions to the mitigation measure are required. Requiring all vendor trucks to be zero-emission is beyond the control of the Project and the lead agency, not technologically feasible for all truck categories, not supported by existing infrastructure, unenforceable under CEQA, and preempted by statewide/CARB and federal regulatory frameworks. Specifically, CEQA does not require mitigation for impacts that are outside the lead agency's jurisdictional authority.[58] Third-party vendor fleets (trucking companies not owned or operated by the project applicant) are not subject to the project's operational control, and the lead agency lacks authority to dictate fleet-wide vehicle procurement decisions. Additionally, the federal clean air act (Clean Air Act § 209[a] [42 U.S.C. § 7543(a)]) preempts states and local agencies from adopting vehicle emission standards. Also see **Response O21-14** and **Response S6-8**.

MM BIG AQ-11 (Carl Moyer Truck Efficiency Improvements) is appropriate and enforceable because it applies feasible and commercially available emission-reduction technologies within the Project applicant's and tenants' control. It cannot be expanded to mandate statewide fleet turnover or require third-party carriers to purchase specific types of trucks.

Under State CEQA Guidelines § 15126.4(a)(1), mitigation must be within the jurisdiction and control of the agency and the project applicant. The lead agency cannot require independent trucking companies to purchase ZE trucks, out-of-state or interstate carriers to change their fleet composition, or motor carriers to use only ZE vehicles when conducting lawful operations on public roadways.

MM BIG AQ-14

MM BIG AQ-14 is specific, enforceable, feasible, and appropriately designed to maintain flexibility as zero-emission trucking technologies evolve. CEQA does not require infeasible or speculative mitigation, nor does it allow agencies to mandate technology that is not yet commercially available or deployable at the scale required for this Project.

State CEQA Guidelines § 15126.4(a)(2) requires that mitigation measures be "fully enforceable through permit conditions, agreements, or other legally binding mechanisms." **MM BIG AQ-14** satisfies this standard as it imposes clear, measurable, pre-permit requirements. Specifically, before issuance of a building permit for transload warehouse shell design, **MM BIG AQ-14** requires electrical rooms to be sized to hold future EV-charging panels; conduit to be installed in specific locations tied to the logical placement of parking or loading areas; and infrastructure to support future trailer plug-in/EV truck charging when that technology becomes commercially available. These are compliance conditions the Building Official can verify during plan check and field inspection. Additionally, **MM BIG AQ-14** requires the implementing entity to demonstrate compliance as part of permit issuance,

[58] *City of Marina v. Board of Trustees of California State University* (2006) 39 Cal.4th 341, 365.

making the measure enforceable through the City's normal permitting authority under State CEQA Guidelines § 15097. **MM BIG AQ-14** does not include exact numbers of chargers because that would be dependent upon building size. Similarly, **MM BIG AQ-14** does not define "logical location(s)", given locations at each warehouse would be dependent on warehouse size, site layout, number of charging stations required, where EV chargers would be best positioned to encourage use and charging, and other site-specific factors determined by the implementing entity. The timeline for installation is clearly stated as "Prior to the issuance of a building permit for transload warehouse facility tenant improvements". **MM BIG AQ-14** defines "sufficiently sized" already within the measure to mean that the building electrical room must "hold additional panels that may be needed in the future to supply power to trailers with TRUs". Additionally, it is noted that **MM BIG AQ-14** is a standard CEQA approach for future-proofing EV infrastructure. Given that EV truck charging technologies, standards, and power requirements remain in rapid evolution, CEQA does not require adoption of fixed, outdated, or premature specifications. Mitigation that accounts for future technological change is not vague; it is legally appropriate and has been upheld in cases such as Sacramento Old City Assn. v. City Council (1991), which allows flexibility where future regulatory frameworks or technologies are not yet defined.[59]

The comment proposes a rigid ratio of EV chargers to truck parking spaces. This is not technically, operationally, or economically feasible for BIG for multiple independent reasons. Transload warehouses are served by zero-emission hostlers, not by diesel yard trucks, thus, all containers moved by electric hostlers already have charging spaces that are over and above truck charging spaces for electric heavy-duty trucks. **Draft EIR Appendix 5.3 BIG-1** explains that BIG's transload warehouse center is operated via zero-emission electric hostlers on private internal roads, not by conventional diesel yard trucks. As noted on page 8 of **Draft EIR Appendix 5.3 BIG-1**, most containers are moved by dedicated ZE hostlers, which "would be used to transport containers within the rail yard, and between the rail yard and transload warehouse center," and would not leave BIG. These hostlers are charged at the BIG intermodal facility and therefore do not require warehouse-level charging infrastructure. Requiring large quantities of EV truck chargers at each warehouse is misaligned with the Project's actual operational model.

This supplemental information provided clarifies and expands upon analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid. Please also see **Consolidated Response 03**, concerning recirculation of the Draft EIR; **Consolidated Response 05,** concerning feasible and enforceable mitigation; **Consolidated Response 05-06,** concerning the feasibility of specific technology and other mitigation measures; and **Responses O21-131** and **132**, pertaining to eRTG infeasibility. See also *Power Budget Memorandum; eRTG Feasibility Memorandum; ZE Truck Feasibility Report.*

O21-50 Refer to **Response O21-36**. Also, refer to **Responses S6-7, S6-13, S6-14, S6-20, and L17-38**.

[59] *Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d 1011.

O21-51 The comment asserts that the inclusion of the Truck VMT (TMT) reductions in California is inaccurate and not grounded in substantial evidence. The inclusion of California-wide TMT reductions from the implementation of BIG are applicable for GHG emissions as GHGs are an inherently cumulative environmental effect. Moreover, the AB 1279 GHG emissions reduction target utilized as a significance threshold in the GHG analysis of the Draft EIR reflects statewide reduction targets, unlike the MDAQMD daily and annual significance thresholds for criteria air pollutants that were developed to inform whether projects may affect ambient air quality standard attainment status for the MDAB. Therefore, including the California-wide TMT reductions realized by the implementation of BIG in the proposed General Plan's GHG emissions projections for Project Horizon Year 2048 appropriately discloses the proposed General Plan's cumulative effects related to GHG emissions. BIG's truck miles traveled analysis is supported by substantial evidence as discussed in **Response O21-15** and **Response O21-16**.

Refer to **Responses O21-18, O21-16, O21-15, O21-8** concerning either TMT and/or the analysis of greenhouse gas emissions. See also **Consolidated Response 15,** concerning truck miles traveled analysis. The **Draft EIR Section 5.6: Energy** analysis considers energy consumption (increased and reduced) nationally, and per the cited responses, the TMT analysis clearly outlines the methodology, assumptions, and reasoning for inclusion within various parts of the environmental analysis. Please also see **Consolidated Response 03**, concerning recirculation of the Draft EIR.

O21-52 See **Response O21-54**.

O21-53 See **Responses O21-27** and **O21-42**.

O21-54 In general, CEQA does not require projects to fully mitigate identified impacts to a less than significant level. Rather, under State CEQA Guidelines § 15126.4(a), projects are required to only identify feasible mitigation measures. Per State CEQA Guidelines § 15364, feasible means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. In addition, under State CEQA Guidelines § 15093(a), it states:

CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable."

As shown in the **Draft EIR Section 5.8: Greenhouse Gas Emissions** (pages 5.8-58 and 5.8-59) and in **Response O21-43**, **MM GP GHG-1** requires the City to develop and adopt a GHG reduction strategy (e.g., Climate Action Plan) within three years of certification of the EIR, and to update that strategy every five years. **MM GP GHG-1** establishes that the GHG reduction

strategy's performance standard is achieving the year 2045 emissions reduction goal of Assembly Bill 1279 (AB 1279), *The California Climate Crisis Act*, which would provide individual project proponents with a pathway to demonstrate consistency with citywide GHG emission reduction targets.

The commenter suggests **MM GP GHG-1** would be ineffective, and improperly defers detailed mitigation, because it "does not identify any specific emission reductions, performance standards, or enforceable commitments." As stated, the performance standard for **MM GP GHG-1** is achievement of AB 1279's year 2045 emissions reduction goal. This performance standard would ensure that the proposed General Plan is consistent with the GHG emissions reduction goals of AB 1279. AB 1279's long-term GHG emissions reduction target is most appropriate for a long-range planning document like the proposed General Plan.

In addition, **MM GP GHG-1** requires the CAP to include GHG inventories of existing and forecast GHG levels that would inform the specific strategies necessary to develop and implement to achieve the stated reduction target. Ultimately, if the CAP is delayed, inadequate, or never adopted, the City would not be able to utilize the CAP for future streamlining of GHG emissions analyses for individual projects subject to CEQA, and each future discretionary project would be required to conduct its own GHG emissions analysis.

As discussed in **Response O21-43**, **MM GP GHG-1** requires the City to prepare a qualified climate action plan following CEQA Guidelines Section 15183.5 that aligns with the year 2045 GHG reduction goal established under Assembly Bill 1279, *The California Climate Crisis Act*, which would provide individual project proponents with a pathway to demonstrate consistency with citywide GHG emission reduction targets. Relatedly, the commenter suggests that **MM GP GHG-1** improperly defers mitigation by not identifying actions that could feasibly attain the CAP's performance standard. However, the CAP is required to include tools and strategies for reducing GHG emissions to ensure trajectory with the long-term GHG reduction and carbon neutrality goal for year 2045. As identified in **MM GP GHG-1**, these strategies may include, but are not limited to:

- Encouraging electric vehicle adoption through incentives or education programs.
- Adopting local ordinances or policies that require greater energy efficiency, waste reduction, and water conservation in new construction, additions, and/or alterations.
- Encouraging the construction of solar arrays above parking lots, as well as the integration of solar and other renewable energy generation technologies in new construction, additions, and/or alterations.
- Encouraging the incorporation of energy storage and other grid harmonizing infrastructure in new construction, additions, and/or alterations.
- Collaborating with Southern California Edison to encourage existing developments to upgrade natural gas equipment (e.g., furnaces) with electric equipment (e.g., heat pumps).

As with **MM GP AQ-1** and **MM GP AQ-2**, these strategies do not represent an exhaustive list, but are examples of items that can be included in the required CAP. The measures developed and implemented by the CAP may include transitioning city-owned and private fleets to ZEVs, utilization of commercially available ZE equipment and vehicles, or other measures recommended by the commenter. Within the three years provided to complete the CAP, the City must determine the specific measures needed to meet the performance standard.

In addition to the CAP components above, **MM GP GHG-1** also requires the CAP to include implementation guidance that accounts for 1) administration and staffing, 2) finance and budgeting, 3) timelines for measure implementation, 4) community outreach and education, 5) monitoring, reporting, and adaptive management, and 6) tracking tools. Thus, **MM GP GHG-1** does not improperly defer mitigation, but rather identifies the types of actions needed to feasibly achieve the specified performance standards.

Nor does **MM GP GHG-1** "postpone all substantive action to a future CAP." **MM GP GHG-1** does not prohibit completion of the CAP ahead of schedule. To that end, Draft EIR **MM GP GHG-1** (pages 5.8-58 to 59) has been revised in **Final EIR Section 3.0: Errata to the Draft EIR** to clarify the requirement that discretionary development projects prior to the adoption of the Barstow CAP consider measures to reduce GHG emissions, as follows:

MM GP GHG-1	**Climate Action Plan.** The City of Barstow shall prepare a qualified Climate Action Plan (CAP) to align GHG emissions targets in the City with the GHG reduction targets of Assembly Bill (AB) 1279. The CAP shall be completed within 36 months of certification of the General Plan EIR. The CAP shall be updated every five years to ensure the City is monitoring the plan's progress toward achieving the City's greenhouse gas (GHG) reduction target and to require amendment if the plan is not achieving specified level. The update shall consider a trajectory consistent with the GHG emissions reduction goal established under AB 1279 for year 2045, and the latest applicable statewide legislative GHG emission reduction that may be in effect at the time of the CAP. The CAP shall include the following: ▪ GHG inventories of existing and forecast year GHG levels. ▪ Tools and strategies for reducing GHG emissions to ensure a trajectory with the long-term GHG reduction and carbon neutrality goal for year 2045 of Assembly Bill 1279. These may include, but are not limited to: o Encouraging electric vehicle adoption through incentive or education programs. o Adopting local ordinances or policies that require greater energy efficiency, waste reduction, and water conservation in new construction, additions, and/or alterations.

- Encouraging the construction of solar arrays above parking lots, as well as the integration of solar and other renewable energy generation technologies in new construction, additions, and/or alterations.
- Encouraging the incorporation of energy storage and other grid-harmonizing infrastructure in new construction, additions, and/or alterations.
- Collaborating with Southern California Edison to encourage existing developments to upgrade natural gas equipment (e.g., furnaces) with electric equipment (e.g., heat pumps).
- Ensuring municipal fleets are transitioning to zero-emissions vehicles in accordance with CARB's Advanced Clean Fleets regulation.
- Coordination with Southern California Edison to expand battery storage to support renewable energy generation and electric truck charging in the City.

- Plan implementation guidance that includes, at minimum, the following components consistent with the proposed CAP:
  - Administration and Staffing
  - Finance and Budgeting
  - Timelines for Measure Implementation
  - Community Outreach and Education
  - Monitoring, Reporting, and Adaptive Management
  - Tracking Tools

Discretionary projects with applications submitted to the City prior to the adoption of the CAP shall consider measures identified in the California Air Pollution Control Officer's Association *2024 Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (GHG Handbook).

This change clarifies analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid.

Moreover, while the CAP may not be developed and implemented for up to three years following the certification of the EIR, any development that is realized within that timeframe would be considered part of the citywide emissions inventory that is developed as part of the CAP. Because the CAP is required to identify an existing emissions inventory at the time it is developed, and to implement measures to achieve a citywide emissions reduction consistent with those established by AB 1279, development approved before the CAP is completed would still be subject to applicable measures of the CAP. For instance, should the CAP include measures for encouraging the incorporation of solar power generation and battery energy

storage for additions and renovations, existing development undergoing these actions (e.g., additions, renovations) would be subject to these CAP measures. Therefore, the three-year timeframe the City has to complete the CAP would not be "far too slow to address the General Plan's immediate and long-term GHG impacts," as the commenter suggests.

The commenter also suggests that **MM GP GHG-1** is unenforceable due to lack of compliance or monitoring mechanisms. However, all development must be consistent with the CAP, because the CAP would be part of the General Plan. The CAP would thus be implemented as part of the normal development review process. Also, **MM GP GHG-1** specifies that the CAP must be updated every five years to track the City's progress toward achieving the established GHG reduction target, which would provide the City an opportunity to update the CAP with an updated emissions inventory and additional measures to achieve GHG emissions reductions consistent with statewide reduction targets. The City is thereby identified as a "responsible party" for ensuring that it remains on track to meet **MM GP GHG-1**'s performance standard.

Moreover, regarding the "consequences if the CAP is delayed, inadequate, or never adopted," State CEQA Guidelines do not require a mitigation measure to include a "consequence", but for them to be "fully enforceable through permit conditions, agreements, or other legally binding instruments" (State CEQA Guidelines 15126.4(a)(2).) CEQA requires an agency to "adopt a reporting or monitoring program for the ... conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment." (§ 21081.6(a)(1).) "The purpose of a monitoring program is to ensure compliance with the mitigation measures imposed as conditions of the project approval." (Pub. Resources Code, § 21081.6(a)(1).).[60] Thus, the inclusion of a condition of project approval in the MMRP, as the EIR proposes, adequately ensures the Project's compliance therewith for CEQA purposes. See also **Consolidated Response 05-05,** concerning enforceability of mitigation measures.

The requirements of **MM GP GHG-1** outlined above and inclusion of **MM GP GHG-1** as CEQA mitigation would make **MM GP GHG-1** effective, binding and legally enforceable.

Finally, the EIR analyzed and adopted all feasible measures to mitigate GHG-related impacts, as supported by substantial evidence in **Draft EIR Section 5.8: Greenhouse Gas Emissions**. The EIR has evaluated zero-emission technologies identified by the commenter, and concluded, based on substantial evidence, that the adoption of such technologies is infeasible. See also, **Consolidated Response 05,** concerning feasible and enforceable mitigation and **Consolidated Response 05-06,** concerning the feasibility of specific technology and other mitigation measures, and **Responses O21-14, O21-49, O21-81, O21-129** to **132,** and **O21-140** to **141**.

O21-55 The impact evaluation for the Barstow General Plan component provides a program-level review of noise impacts due to potential growth in accordance with buildout of the City's land use plan. The analysis is intended to evaluate impacts at a broader, policy or planning scale

[60] *King & Gardiner Farms, LLC v. County of Kern* (2020) 45 Cal.App.5th 814, 853, as modified on denial of reh'g (Mar. 20, 2020) (citing Pub. Resources Code 21081.6(a)(1).).

Implementation of the General Plan would not authorize individual projects, rather it provides a framework for responsible City growth for other future individual projects and is intended to act as a guiding document in terms of noise and vibration issues, areas of concern, and strategies to reduce potential future impacts. As shown in **Draft EIR Table 5.12-19: Ambient Short-Term Noise Measurement Summary** (page 5.12-49), ambient noise levels in this residential area measured 52.1 dBA Leq per ST-6 noise measurement site at 23589 Gazana Street. This ambient noise level is not considered unsafe or overburdened. Additionally, as future projects materialize, the DEIR provides enforceable noise and vibration mitigation measures to keep noise levels safe and reasonable as outlined in **Draft EIR Section 5.12: Noise and Vibration MM GP NOI-1** (5.12-66), **MM GP NOI-2** (page 5.12-73), **MM GP NOI-3** and **MM GP NOI-4** (page 5.12-131). In addition, the BIG project would only add approximately three new train trips per day in opening year and 5 new train trips per day in horizon year. The impacts of BIG's noise and vibration were fully considered in the analysis. BIG project grade changes between Main Street and BNSF tracks along with distance buffering, would result in less than significant vibration impacts per federal standards. See also, **Response O21-68**.

Regarding the comment's suggestion that noise and vibration impacts cause a secondary increase in snake encounters, please see **Consolidated Response 04** concerning general non-CEQA issues and **Consolidated Response 13** concerning requests for additional analysis and substantial evidence.

O21-56 Implementation of the proposed General Plan would not authorize individual projects; however, the DEIR provides feasible and actionable noise and vibration mitigation measures for future individual projects as outlined in **Draft EIR Section 5.12: Noise and Vibration**.

MM GP NOI-1 requires a grading, demolition, or construction plan to be submitted to, and verified by, the City. The plans must include the nine requirements listed in **MM GP NOI-1**, which provide specific, actionable guidance for construction contractors to implement to reduce noise from grading, demolition or construction. The commenter states that all nine of these requirements are ineffective and unenforceable because they are insufficiently detailed, citing two cases which the commenter suggests prohibit the use of conditional language such as "if feasible."[61] The use of "wherever feasible" language in **MM GP NOI-1** speaks to the variability in individual development projects to which its program-level measures would apply. For instance, an individual project may not have feasible means of mitigating construction noise to below **MM GP NOI-1**'s performance standards due to constraints such as the availability of specific equipment, or different distances from sensitive receptors at which various pieces of equipment can reasonably be located while still being able to complete their intended tasks. In such instances, it may not be appropriate to mandate specific, project-wide mitigation measures that fail to account for relevant externalities. Future individual projects would also be required to comply with all applicable General Plan land use compatibility thresholds and Municipal Code noise thresholds discussed in **Draft EIR**

[61] Sierra Watch v. County of Placer (2021) 69 Cal.App.5th 86, 110; Preserve Wild Santee v. City of Santee (2012) 210 Cal.App.4th 260, 281.

Section 5.12: Noise and Vibration. With that said, this response considers each requirement of **MM GP NOI-1** in turn and outlines clarifying revisions thereto.

First, **MM GP NOI-1** requires that contractors "[l]imit construction activities to the hours of 7:00 AM and 7:00 PM Monday through Sunday, unless an exception is approved by the Community Development Director, and enforce FTA nighttime construction noise standards outside of these hours." The commenter suggests that the measure lacks specificity as to the basis of the Community Development Director's decision. The Community Development Director is permitted to use their discretion to weigh potential noise impacts against the need for nighttime construction. Moreover, the exception would at no point override FTA nighttime construction noise standards, which **MM GP NOI-1** requires to remain in place even if an exception has been granted. Accordingly, even if construction is permitted to take place outside of 7:00 am to 7:00 pm, noise impacts would be limited by a definite performance standard: the FTA nighttime construction noise standards.

Second, **MM GP NOI-1** requires that, "[d]uring active construction, project equipment and trucks shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds). Proper mufflers and/or silencers can achieve a 4 to 5 dBA reduction, while engine enclosers can achieve 8 to 10 dBA reduction." The commenter suggests that the measure is unenforceable because the measure does not provide guidance on how to determine when such techniques are "feasible." The Supreme Court has upheld the use of "if feasible" language where it is paired with an objective performance standard.[62] Here, the performance standard is "best available noise control techniques," and the measure provides examples of the noise reductions to be achieved by those technologies. The City's municipal code forms the implementing regulations for the general plan policies. The Noise Regulations are established in Section 19.18.170 and currently focus on industrial uses. Implementation Measure IMP-S-16 of the Draft General Plan requires that the City update the municipal code to reflect the tables in the Draft General Plan. As noted in the Errata section of this Final EIR, IMP-S-16, will be modified to ensure that the revisions to the municipal code reflect the changes to GP NOI-1 indicated below, and the following:

- When a project-specific acoustical study is required,
- Haul Routes for movement of materials and construction equipment,
- Signage for construction sites that has a 24-hour contact for community concerns over noise,
- Appropriateness of type, effectiveness and location of temporary construction barriers,
- Nighttime and/or after-hours construction requirements,
- Requirements for stockpiling of materials and equipment, and
- Requirements for staging areas.

Because each construction project is unique, the broad application of programmatic requirements as shown in a general plan would be unnecessarily restrictive in some instances,

62 *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 525.

and not careful enough in others. Therefore, the revised municipal code will establish parameters for the preparation of project-specific construction noise evaluation, as well as best practices to be applied to all projects regardless of size or location. This is the appropriate means of applying policy level directives at the project level.

Draft EIR **MM GP NOI-1** (pages 5.12-66 to 67) has been revised in **Final EIR Section 3.0: Errata to the Draft EIR** and as follows:

> During active construction, project equipment and trucks shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds), wherever feasible. A technique shall be considered feasible when it would reduce, rather than increase, the noise impacts to the nearest sensitive receptor, and would not increase costs by over 10% of the base construction cost associated with using standard construction equipment without best available noise control techniques. Proper mufflers and/or silencers can achieve a 4 to 5 dBA reduction, while engine enclosers can achieve 8 to 10 dBA reduction.

This change clarifies analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid.

Third, **MM GP NOI-1** requires that, "[i]mpact tools (e.g., jack hammers and hoe rams) shall be hydraulically or electrically powered wherever possible. Where pneumatic tools must be used, an exhaust muffler on the compressed air exhaust shall be used along with external noise jackets on the tools, when within 300 feet of sensitive receptors. Pneumatic tools typically measure at a noise level of 6 to 8 dBA lower than impact tools." The commenter suggests that the measure is inadequate by providing no guidance on how to determine when use is "possible." Draft EIR **MM GP NOI-1** (pages 5.12-66 to 67) has been revised in **Final EIR Section 3.0: Errata to the Draft EIR** and as follows:

> Impact tools (e.g., jack hammers and hoe rams) shall be hydraulically or electrically powered ~~wherever possible~~. Where pneumatic tools must be used, an exhaust muffler on the compressed air exhaust shall be used along with external noise jackets on the tools, when within 300 feet of sensitive receptors. Pneumatic tools typically measure at a noise level of 6 to 8 dBA lower than impact tools.

This change clarifies analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid.

Fourth, **MM GP NOI-1** requires that, "[s]tationary equipment, such as generators and air compressors, shall be located as far as feasible from nearby noise-sensitive uses." Draft EIR **MM GP NOI-1** (pages 5.12-66 to 67) has been revised in **Final EIR Section 3.0: Errata to the Draft EIR** and as follows:

> Stationary equipment, such as generators and air compressors, shall be located as far as feasible from nearby noise-sensitive uses. A distance is "as far as feasible" if there is no

further distance from nearby noise-sensitive uses where the equipment could be placed and continue to perform its intended function while complying with the safety requirements set out in the operation manuals for each piece of such equipment. "Feasible" distances are limited to areas where construction contractors have permission to place equipment from relevant landowners.

This change clarifies analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid.

Fifth, **MM GP NOI-1** requires that, "[s]tockpiling shall be located as far as feasible from nearby noise-sensitive receptors." Draft EIR **MM GP NOI-1** (pages 5.12-66 to 67) has been revised in **Final EIR Section 3.0: Errata to the Draft EIR** and as follows:

Stockpiling shall be located as far as feasible from nearby noise-sensitive receptors. A distance is "as far as feasible" if there is no further distance from nearby noise-sensitive uses where the stockpiled materials could be placed and mobile equipment used for stockpiling can continue to perform its intended function while complying with the safety requirements set out in the operation manuals for each piece of such equipment. "Feasible" distances are limited to areas where construction contractors have permission to stockpile and use equipment from relevant landowners.

This change clarifies analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid.

Sixth, **MM GP NOI-1** requires that, "[c]onstruction traffic shall be limited, to the extent feasible, to approved haul routes established by the City Community Development Department." Draft EIR **MM GP NOI-1** (pages 5.12-66 to 67) has been revised in **Final EIR Section 3.0: Errata to the Draft EIR** and as follows:

Construction traffic shall be limited~~, to the extent feasible,~~ to approved ~~haul routes established by the City Community Development Department~~ Goods Movement Routes established in Figure CM-4 of the proposed General Plan and as further regulated by State law.

This change clarifies analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid.

Seventh, **MM GP NOI-1** requires that, "[a]t least 10 days prior to the start of construction activities, a sign shall be posted at the entrance(s) to the job site, clearly visible to the public, that includes permitted construction days and hours, as well as the telephone numbers of the City's and contractor's authorized representatives that are assigned to respond in the event of a noise or vibration complaint. If the authorized contractor's representative receives a complaint, he/she shall investigate, take appropriate corrective action, and report the action to the City." Draft EIR **MM GP NOI-1** (pages 5.12-66 to 67) has been revised in **Final EIR Section 3.0: Errata to the Draft EIR** and as follows:

> At least 10 days prior to the start of construction activities, a sign shall be posted at the entrance(s) to the job site, clearly visible to the public, that includes permitted construction days and hours, as well as the telephone numbers of the City's and contractor's authorized representatives that are assigned to respond in the event of a noise or vibration complaint. If the authorized contractor's representative receives a complaint, he/she shall investigate, take ~~appropriate~~ corrective action to stop any ongoing violations, provide worker education designed to prevent such violations in the future, and report the action to the City.

This change clarifies analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid.

Eighth, **MM GP NOI-1** requires that, "[d]uring the entire active construction period and to the extent feasible, the use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only." Draft EIR **MM GP NOI-1** (pages 5.12-66 to 67) has been revised in **Final EIR Section 3.0: Errata to the Draft EIR** and as follows:

> During the entire active construction period ~~and to the extent feasible~~, the use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.

This change clarifies analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid.

Ninth, **MM GP NOI-1** requires that, "[i]f If construction is anticipated for prolonged periods adjacent to sensitive receptors, as required by the Community Development Director, erect temporary noise barriers (at least as high as the exhaust of equipment and breaking line-of-sight between noise sources and sensitive receptors), as necessary and feasible, to maintain construction noise levels at or below the performance standard of 80 dBA Leq. Barriers shall be constructed with a solid material that has a density of at least 4 pounds per square foot with no gaps from the ground to the top of the barrier." The commenter suggests that the measure is vague because it fails to define "prolonged period" and "feasible." Draft EIR **MM GP NOI-1** (pages 5.12-66 to 67) has been revised in **Final EIR Section 3.0: Errata to the Draft EIR** and as follows:

If construction is anticipated for ~~prolonged periods~~ more than two days adjacent to sensitive receptors, as required by the Community Development Director, erect temporary noise barriers (at least as high as the exhaust of equipment and breaking line-of-sight between noise sources and sensitive receptors), as necessary and feasible, to maintain construction noise levels at or below the performance standard of 80 dBA Leq. Barriers shall be constructed with a solid material that has a density of at least 4 pounds per square foot with no gaps from the ground to the top of the barrier. Barriers are considered feasible if City Engineer determines, based on acoustical modeling provided by the applicant, that the barriers would be effective in maintaining construction noise levels at or below the performance standard, and if the barriers would not increase the project's base construction costs by over 10%.

This change clarifies analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid. See also **Consolidated Response 05** concerning feasible and enforceable mitigation and **Consolidated Response 05-07** regarding use of performance standards and deferred mitigation.

O21-57 As stated in **Response O21-55 and O21-56**, the impact evaluation for the Barstow General Plan component provides a program-level review of noise and vibration impacts due to potential growth in accordance with buildout of the City's land use plan. The analysis is intended to evaluate impacts at abroad policy or planning scale. Implementation of the proposed General Plan would not approve individual projects, but rather the General Plan provide a framework for responsible City growth for future individual projects. The General Plan is intended to act as a guiding document in terms of noise and vibration issues, areas of concern, and strategies to reduce potential future impacts.

The Draft EIR contains mitigation measures that the City as lead agency believes are necessary to address potentially significant impacts and that are feasible to implement except where noted otherwise. There are some instances where the Draft EIR concludes that the mitigation would reduce the severity of the impact, but the feasibility of one or more of the required actions to reduce the impact to less than significant cannot be determined at this time. For traffic noise, the impact is identified as significant and unavoidable and the City's obligation is to adopt all feasible mitigation to reduce the severity of the impact. This is a programmatic EIR and therefore the mitigation measures are meant to apply to future projects and/or procedures. The municipal code and environmental process is used to evaluate measures that could be applied to future projects depending on the circumstances of that project, the existing noise environment, the condition of the roadways, and a host of other environmental and physical factors that are unknown and cannot be known at this time. Contrary to the asserting in the comment, Mitigation Measure GP NOI-2 provides a list of potential mitigation measures that could be applied to a future development project depending on the circumstances of that project. These measures would be applied as part of the noise ordinance as amended by IMP 2-16, and through the review of development projects. There are physical and practical reasons why one or more of the measures may not be possible, such as openings required for driveways that would reduce the effectiveness of temporary noise

walls, or the lack of specialized equipment for specialized paving. In many instances the noise levels may not be significant and the application of standard noise measures from the municipal code will suffice. The appropriateness of specific noise mitigation cannot be known until a development project is submitted to the city for consideration and it is reviewed pursuant to the municipal code. See also **Response O21-59**.

The Draft EIR provides actionable noise and vibration mitigation measures as outlined in **Draft EIR Section 5.12 MM GP NOI-2** (page 5.12-73). At a Program level assessment, it would be too speculative to provide Project level determination on severity of impact or determine the appropriate and feasible noise reduction features. Future projects would be required to conduct a project level analysis based on detailed project information and conformance with General Plan policies and where appropriate and feasible migration measures would be identified and implemented. See **Consolidated Response 05** concerning feasible and enforceable mitigation and **Consolidated Response 05-07** regarding use of performance standards and deferred mitigation.

O21-58 With respect to enforceability of General Plan policies, please refer to **Response O21-27** and **O21-42**. See **Consolidated Response 05** concerning feasible and enforceable mitigation.

O21-59 As discussed in **Responses O21-55 to 57**, the City has adopted all feasible mitigation measures to reduce noise impacts. The Draft General Plan Update evaluates actionable noise and vibration mitigation measures as outlined in **Draft EIR Section 5.12: Noise and Vibration MM GP NOI-1** (5.12-66), **MM GP NOI-2** (page 5.12-73), **MM GP NOI-3** and **MM GP NOI-4** (page 5.12-131), that would be feasible at the project level. The General Plan is a program-level document, and in turn the Draft EIR's analysis of its impacts is also conducted at a program level. Program-level construction noise reduction options include adequate muffler systems, nighttime work would incorporate temporary noise barriers, the use of hydraulic or electrically powered equipment where feasible, the use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only, locating stationary equipment as far as possible from sensitive receptors, limiting construction traffic to approved haul routes, and erecting temporary barrier if construction is to occur for extended periods of time near sensitive receptors. The specific requirements of future, project-level construction noise reduction measures are unknown, and their analysis in the Draft EIR would be speculative. This is because assessing noise impacts is based on site specific details, including but not limited to: location of sensitive receptors, locations of project noise sources, distances from proposed noise sources relative to the nearest off-site receptors, and hours of operation. Construction noise reduction options include adequate muffler systems, nighttime work would incorporate temporary noise barriers, the use of hydraulic or electrically powered equipment where feasible, the use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only, locating stationary equipment as far as possible from sensitive receptors, limiting construction traffic to approved haul routes, and erecting temporary barrier if construction is to occur for extended periods of time near sensitive receptors.

The commenter suggests seven mitigation measures for construction-related noise, and three mitigation measures for on-road traffic noise. The feasibility of these measures is considered in turn below.

First, the commenter suggests requiring "factory-approved muffler systems on all stationary and construction equipment where available," and references a requirement in an EIR for a separate BNSF project that the commenter contends is similar. Stationary equipment is already required to include muffler systems to suppress noise emissions and barriers at the noise source per **GP MM NOI-1**.

Second, the commenter suggests, in reference to **MM GP NOI-1**, that the City "[r]emove the exception for nighttime use of heavy construction equipment or only grant exceptions for nighttime construction where it is impossible to complete the required work in the 7:00 A.M. to 7:00 P.M. window due to a task needing more than twelve consecutive hours to be completed." Nighttime construction work may be required due to logistical, safety, delay, and efficiency concerns, and would be evaluated on a case-by-case basis. Moreover, as discussed in Response O21-56, **MM GP NOI-1** requires construction contractors to "enforce FTA nighttime construction noise standards" for nighttime construction work. Accordingly, noise standards would be enforced during nighttime hours regardless of whether an exception is granted. Thus, the proposed measure would not reduce noise impacts beyond the proposed reductions from **MM GP NOI-1**.

Third, the commenter suggests adding a mitigation measure to "[s]elect a limited number of construction equipment staging areas that maximize distances between sensitive receptors and construction areas." The comment references the EIR for a separate BNSF project that the commenter contends contains a measure similar to the one currently under consideration.

Fourth, the commenter suggests adding a mitigation measure to "[r]equire all construction equipment to be maintained in good working order."

Fifth, the commenter suggests adding a mitigation measure to "[r]equire all internal combustion engine idling both on the site and at nearby queuing areas be limited to no more than five minutes for any given vehicle or machine and that signs be posted at the construction site and along queueing lanes to reinforce the prohibition of unnecessary engine idling." The comment references the EIR for a separate BNSF project that the commenter contends contains a measure similar to the one proposed. As noted, project-specific mitigation measures are not appropriate for the Draft General Plan, which needs to cover a range of projects over the next 20 years.

Sixth, the commenter suggests adding a mitigation measure to "[r]equire that the use of noise-producing signals, including horns, whistles, alarms, and bells be for safety warning purposes only and that backup alarms be replaced with human spotters." The comment references the EIR for a separate BNSF project that the commenter contends contains a measure similar to the one proposed. The proposed measure is largely included in Draft EIR **MM GP NOI-1** (pages 5.12-66 to 67), with the exception of the proposed requirement "that

backup alarms be replaced with human spotters." The measure referenced in the separate BNSF EIR does not require, as the commenter suggests, replacing backup alarms with human spotters. Nor would the proposed revision represent a clear improvement in terms of mitigating noise impacts than the language of **MM GP NOI-1**. Moreover, the proposed revision presents operational feasibility and worker safety concerns, particularly in situations where a human spotter may not be available, or where use of a human spotter would be unsafe.

Seventh, the commenter suggests adding a mitigation measure to "[r]equire the use of electric, rather than fossil-fuel-powered, equipment." As discussed in **Consolidated Response 05-06**, concerning the feasibility of specific technology and other mitigation measures, there are no feasible electric alternatives for certain fossil fuel-powered equipment. Also, it is unclear whether requiring the use of electric equipment would represent a clear improvement in terms of noise impacts over fossil fuel-powered equipment. Finally, the commenter's proposed measure is not clear enough for those who would implement the measure to understand it. Namely, it is unclear to which equipment the measure is referring, or how the measure could be enforced.

The commenter proposes three mitigation measures for on-road traffic noise, citing measures from Pismo Beach and Lassen County.

First, the commenter suggests adding a mitigation measure to "[r]equire commercial or industrial projects with the potential to generate excess noise in violation of the General Plan standards to conduct a noise study." Future commercial or industrial projects would be required by CEQA and/or the municipal code (ministerial projects) to provide substantial evidence that the future project would comply with General Plan policies and Municipal Code thresholds, discussed in **Draft EIR Section 5.12.2.3** through the appropriate project level assessment documentation or standalone noise study.

Second, the commenter suggests adding a mitigation measure to "[r]equire plans for commercial or industrial projects with identified impacts to noise to include the following traffic calming features: digital speed monitors, flashing crosswalk beacons, vegetated berms, and reduced speed limits as part of the project design." It would not be appropriate to require individual projects to incorporate traffic calming features, digital speed monitors, flashing crosswalk beacons, vegetated berms, and reduced speed limits at the program level without project level specific details required to make a determination, and future tiered EIR project improvements may be limited to the project site itself.

Third, the commenter suggests adding a mitigation measure to "[p]rohibit nighttime deliveries to commercial and industrial sites near sensitive receptors." Housing is regularly placed near commercial development as a means of reducing VMT and encouraging a walkable environment. During project review for commercial development, the placement of the loading dock(s) and its proximity to housing is a consideration in the acoustical study required of the project. The acoustical study often suggests taller noise walls, full connection ports, use of electric fork lifts, placement of cardboard bailers, or other measures designed to reduce or eliminate after hour noise for the sensitive receptor. Prohibiting all nighttime

deliveries would ignore the project-specific potential to attenuate the noise. Placement of loading docks for industrial uses is regulated by the recently passed AB 98 (Government Code Section 65098) and the city is required to follow the law regarding placement. The combination of a project-level acoustical study, application of best management practices, and compliance with state law adequately address noise without the need to wholesale prohibit nighttime deliveries.

See **Consolidated Response 05** concerning feasible and enforceable mitigation.

O21-60 Regarding the Draft EIR's use of future train traffic to set baseline conditions, including an estimate of operational noise impacts, the Commenter states that an existing conditions baseline should be used, i.e., 2023 train traffic. However, an existing conditions baseline would not present an accurate picture of BIG's environmental effects given that train traffic is projected to grow in a No BIG scenario. As a result, the baseline in the Draft EIR is proper.

State CEQA Guidelines § 15125 states that where existing conditions change or fluctuate over time, and where it is necessary to provide the most accurate picture of a project's impacts, agencies may define conditions based on projections at the time a project becomes operational, i.e., utilize a future conditions baseline.

State CEQA Guidelines § 15125(a) states that the purpose of CEQA's Environmental Setting requirement is to give the public and decision-makers the most accurate and understandable picture practically possible of the project's likely near-term and long-term impacts. Under State CEQA Guidelines § 15125(a)(2), "[a] lead agency may use projected future conditions (beyond the date of project operations) as the sole baseline for analysis only if it demonstrates with substantial evidence that use of existing conditions would be either misleading or without informative value to decision-makers and the public. Use of projected future conditions as the only baseline must be supported by reliable projections based on substantial evidence in the record."

Courts have clarified that CEQA gives agencies discretion to rely solely on a future conditions baseline in place of an existing conditions baseline where substantial evidence shows that "existing conditions would tend to be misleading or without informational value to EIR users."[63] A future conditions baseline "is justified by unusual aspects of the projects or the surrounding conditions." (*Id.)* An agency "enjoys the discretion to decide, in the first instance, exactly how the existing physical conditions without the project can most realistically be measured, subject to review, as with all CEQA factual determinations, for support by substantial evidence."[64] In adjusting the existing conditions baseline to account for fluctuating circumstances, the lead agency "exercises its discretion on how best to define such a baseline under the circumstance of rapidly changing environmental conditions.".[65] There is no "uniform, inflexible rule for determination of the existing conditions baseline." (*Id*. at 452.)

63 *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (2013), 57 Cal.4th 439, 445 ["Neighbors for Smart Rail"].

64 *Communities for a Better Environment v. South Coast Air Quality Management District* (2010) 48 Cal. 4th 310, 327 ["Communities for a Better Environment"].

65 *Neighbors for Smart Rail*, supra, 57 Cal. 4th at 452.

In *Neighbors for Smart Rail,* the California Supreme Court stated: "The question we would have an agency ask in choosing a baseline is not, 'Would an existing conditions analysis *add* information to a future conditions analysis?' It is, "Do we have a reason to *omit* the existing conditions analysis and substitute one based on future conditions?'" 57 Cal.4th 439. BIG has unusual aspects that justify use of a future conditions baseline and the Draft EIR contains substantial support for the City's use of future train traffic rather than 2023 train traffic for baseline conditions. The time horizon studied in the Draft EIR is particularly long, over two decades, and as explained in **Draft EIR Section 5.3, Appendix 5.3 BIG-1**, and in the **Compound Annual Growth Rate Memo** ("CAGR Memo"), the key elements of which were included in **Appendix B to Draft EIR Appendix 5.3 BIG-1**, and the full version is provided in response to comments (See **Response L17-18** and the *CEM Errata*), train traffic in Southern California changes year over year and is projected to grow in the future. Indeed, the CAGR Memo relied upon by the City to project future daily train volumes finds that without BIG, there would be a 47.27 percent increase in train traffic by 2048. (See **Draft EIR, Appendix 5.3 BIG-1**, pages 73 to 74.) That notable increase, which significantly increases baseline conditions such as emissions and noise compared to 2023 train traffic, is based on modest 1.89 percent annual increases in train traffic from 2023 to 2048. (*Id.*) That finding alone demonstrates why utilizing a future conditions baseline was appropriate: an existing conditions baseline would assume train traffic in a No BIG scenario that is approximately 2/3 of projected train traffic, which therefore would understate conditions without the project. Use of current train traffic as of the time of the NOP would overstate Project impacts such that actual noise impacts attributable to BIG would be overstated by use of an existing conditions baseline. An EIR assesses significant impacts of "the proposed project on the environment" (State CEQA Guidelines, § 15126.2(a).) Use of a future conditions baseline is necessary in order to accurately assess impacts *from the proposed project*.

The Draft EIR provides substantial evidence justifying use of a future conditions baseline, including the CAGR Memo, in which BNSF experts detail the methodology for calculating a train traffic growth rate to reliably project baseline conditions in 2028, 2033, and 2045, and the 2025 CEM Memo on train traffic, in which a third party consultant provided data and analysis on train traffic projections (**Appendix B** to **Draft EIR Appendix 5.3 BIG-1**). Data and analyses in the CAGR memo, **Appendix B** of **Appendix 5.3 BIG-1**, and pages 73 and 74 of Appendix 5.3 BIG-1 show why an existing conditions baseline would be misleading.

In the CAGR Memo, the train traffic growth rate was estimated for five different types of trains based on "economic forecasts (e.g., consumer goods spending, inflation, Gross Domestic Product (GDP) growth, etc.), historical rail volume growth, customer input regarding future needs, and other general rail market and capacity knowledge and direct industry expertise" (CAGR Memo, page 2). Utilizing an existing conditions baselines would present a misleading picture of existing train traffic without BIG by failing into account the various factors described in the CAGR memo (excerpted below) that influence train traffic growth:

> "BNSF reviewed the historical data for various types of containerized goods, assessing for potential trends, including BNSF's assumed market share of that growth, held

> discussions with major customers, reviewed forecast data from industry groups such as Mercator and Intermodal Association of North America (IANA) and BNSF expert opinions. 10 years of its historical container growth volumes which includes years of increase and decrease of volume to average out the peaks and valleys that can be associated with container volumes in addition to other market-based factors that it anticipates would adjust the historical growth. Projections for Port volume growth are driven by customer preference for port locations within North America and is not expected to change as a result of BIG. The estimated future Compounded Annual Growth Rates (CAGRs) by train type under No Project (NP) conditions were estimated based on these factors." (*CEM Errata*, page 75)

These growth rates constitute "reliable projections based on substantial evidence in the record" that support a future conditions baseline. (State CEQA Guidelines, § 15125(a)(2).).[66]

Traffic volume is a changing variable that courts have found justifies use of a future conditions baseline, especially when supported by evidence and analysis like in the **CAGR Memo**.[67] Therefore, there is clear rationale and evidence to omit an existing conditions analysis for BIG: use of an existing conditions baseline would overstate impacts from BIG when comparing the No BIG baseline in 2028, 2033, and 2048. No changes or errata to the Draft EIR are required.

See **Response O21-65**, discussing the Truck Miles Traveled analysis; **Response O21-61**, discussing the vibration analysis scope of review; **Response O21-62**, discussing the vibration analysis inputs; **Response O21-63**, discussing the vibration analysis significance threshold; **Response O21-66**, discussing the noise analysis scope; **Response O21-68**, discussing noise-related health impacts; and **Response O21-75**, discussing the noise-related mitigation measures. Please also see **Consolidated Response 03**, concerning recirculation of the Draft EIR.

O21-61 The Draft EIR operational vibration analysis follows methodologies established by the FTA to analyze potential vibration impacts from BIG, including impact thresholds based on the number of pass-by events for each analysis year (2028, 2033, and 2048), and inputs for train speeds, track and soil conditions, and distance to the nearest receptor(s). The vibration analysis focuses on impacts from BIG and the associated track improvements along the East Leads and West Leads within the BIG footprint and nearby sensitive receptors. (See **Draft EIR Appendix 5.12 BIG-1**, pages 31, 36-38, 61.) Vibration effects along the rail corridor outside of BIG would be similar to existing conditions, as BIG does not propose track modifications/ improvements to mainline tracks, and BIG would result in a minimal increase in daily train volumes (approximately 3-5 additional trains daily) compared to No BIG conditions (**Draft EIR Section 3.0: Project Description**, page 3-53). As a result, existing vibration levels would not change as FTA methodologies do not rely upon train volumes (or number of train pass-bys) to

[66] *San Franciscans for Livable Neighborhoods v City & County of San Francisco* (2018) 26 Cal.App.5th 596, 616, 620.

[67] *Pfeiffer v. City of Sunnyvale City Council* (2011) 200 Cal. App. 4th 1552, 1570-1571 [upholding use of a traffic growth factor based on projections for a future conditions baseline].

calculate vibration levels; see input parameters above.[68] Thus, vibration impacts along the rail corridor outside of BIG are not anticipated.

Vibration levels from heavy truck pass-bys typically do not cause vibration impacts because the vibration energy they generate is low in magnitude, short in duration, and rapidly attenuates with distance through soil and building foundations. Vibrations from heavy trucks are usually well below human perception thresholds and levels associated with annoyance or structural effects, especially beyond the roadway edge, due to geometric spreading, soil damping, and the isolating effect of residential slab and framing systems. Detailed groundborne vibration calculations are dependent on several variables, including ground/pavement type, soil type, underlying bedrock, distance to receiver, and other environmental considerations. Thus, it would be speculative to analyze potential truck vibration impacts along truck corridors in other cities that are not within BIG's jurisdiction without detailed information for the built and natural environment in those areas.

See **Responses O21-17** and **O21-34**, discussing truck traffic to the cities and regions identified by the Commenter; **Response O21-62** and **O21-63**, discussing vibration modeling inputs; **Response O21-63,** discussing FTA significance thresholds; **Response O21-64**, discussing vibration mitigation; **Response O21-83**, discussing analysis of indirect impacts to port-adjacent communities; and **Consolidated Response 15,** concerning the truck miles traveled analysis.

O21-62 As explained in **Draft EIR Section 5.12: Noise** (page 5.12-133), trains would travel at slower speeds (40 mph or less) as they enter the BIG footprint. However, a train travel speed of 50 mph was conservatively utilized in the operational train vibration analysis in accordance with FTA methodologies to analyze potential vibration impacts at the nearest sensitive receptors. As noted in the Draft EIR, trains would travel at speeds up to 70 mph along the mainline beyond the BIG footprint, which also occurs under existing conditions (**Draft EIR Section 5.12** (page 5.12-99)). Therefore, the train speeds used for operational vibration calculations along those segments (70 mph along the mainline beyond BIG, and 50 mph along the East and West Leads) are representative of the proposed BIG condition and are no greater than train travel speeds under existing conditions.

The distance to the nearest sensitive receptor identified in the operational vibration analysis (see **Draft EIR Section 5.12** (page 5.12-132)) is 165 feet from the West Lead track alignment, not the mainline tracks beyond the BIG footprint where train travel speeds reach 70 mph. This has been clarified below and in **Final EIR Section 3.0: Errata to the Draft EIR**:

> The nearest off-site structure (a single-family dwelling) to the BIG footprint is approximately 165 feet from the center of the ~~mainline tracks along the~~ west lead track alignment.

[68] *FTA Transit Noise and Vibration Impact Assessment Manual* (2018), 42.

This supplemental information provided clarifies and expands upon analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid. Please also see **Consolidated Response 03**, concerning recirculation of the Draft EIR.

O21-63 The commenter generally states the vibration analysis has flawed assumptions but does not identify any issues related to "flawed assumptions" other than the train speeds used to calculate operational vibration levels. See **Response O21-62** above regarding train speeds for vibration calculations.

The commenter also identifies a discrepancy between the operational vibration calculation methodologies and thresholds used in the Draft EIR and the FTA Transit Noise and Vibration Impact Assessment Manual. Per FTA Section 6.2 (3c, page 129), vibration analyses for freight rail locomotives and rail cars should be considered separately (**Appendix 5.12 BIG-1, page 38**). Nevertheless, it is true that the Draft EIR evaluates operational vibration impacts using a combined approach (freight + rail car) to determine the potential operational vibration impacts of BIG. In response to the comment, a separate analysis of BIG locomotives and rail cars using the noted thresholds of significance (i.e., Frequent Events for rail car pass-bys and Occasional Events for locomotive pass-bys) has been included below. The summarized operational vibration results and impact analysis is provided in the table below for informational purposes and shows that BIG's impacts, when evaluated separately, would not access the applicable thresholds.

Source	Residential Use (Category 2)			Institutional Use (Category 3)		
	Vibration Level (VdB) at Nearest Residential Use	Residential Threshold	Exceeds Threshold?	Vibration Level (VdB) at Nearest Institutional Use	Institutional Threshold (Category 3)	Exceeds Threshold?
Locomotives	73.44 VdB	75 VdB[1]	No	57.54 VdB	78 VdB[1]	No
Rail Cars	62.64 VdB	72 VdB[2]	No	44.47 VdB	75 VdB[2]	No

[1] FTA threshold for Occasional Events used per the FTA Transit Noise and Vibration Impact Assessment Manual (2018).
[2] FTA threshold for Frequent Events used per the FTA Transit Noise and Vibration Impact Assessment Manual (2018).

As shown in the table, locomotive vibration levels are approximately 73.44 VdB and 57.54 VdB at the nearest residential and institutional (school) receptors, respectively, and therefore would not exceed the FTA's vibration thresholds of 75 VdB (Category 2, Residential) or 78 VdB (Category 3, Institutional) for Occasional Events. In addition, rail car vibration levels are approximately 62.64 VdB and 44.47 VdB at the nearest residential and institutional (school) receptors, respectively, which are below the FTA's vibration thresholds of 72 VdB (Category 2, Residential) and 75 VdB (Category 3, Institutional) for Frequent Events. In addition, BIG's highest operational train vibration levels (73.44 VdB, see table above) would not exceed the building/structural damage vibration threshold of 90 VdB for buildings extremely susceptible to vibration damage (e.g., a historic building). FTA does not have operational building structural damage thresholds and instead refers to the construction vibration thresholds for damage. Therefore, BIG's operational vibration impacts would remain less than significant.

This supplemental information provided clarifies and expands upon analyses included in the Draft EIR, and the conclusions of the Draft EIR remain valid. Please also see **Consolidated Response 03**, concerning recirculation of the Draft EIR.

O21-64 The Draft EIR evaluated both construction-related and operational vibration impacts using FTA guidance and concluded that vibration level would not exceed thresholds for structural damage or human annoyance at nearby sensitive receptors. (**Draft EIR Section 5.12**, pages 5.12-3 to 5.12-7, 5.12-22, 5.12-25, 5.12-27 to 5.12-38, 5.12-47 to 5.12-52, 5.12-58 to 5.12-66, 5.12-74 to 5.12-80, and 5.12-131 to 5.12-134). Accordingly, impacts would be less than significant and mitigation is not required. Moreover, the comment's suggested mitigation measures of regular rail maintenance and wheel truing, and use of slab track resilient fasteners for lead likes, are already incorporated into the proposed Project as standard railroad design and operations.

See **Responses O21-70, O21-71, O21-74 and O21-75**, concerning noise barriers.

O21-65 See **Responses O21-8, O21-15** to **16,** and **O21-18,** and **Consolidated Response 15**, concerning TMT analysis.

O21-66 As an initial matter, as discussed in **Response O21-34**, the Commenter's description of BIG's truck trips is not correct as it does not account for the reductions in truck trips that BIG would effectuate. Corrected truck trip totals are provided in **Response O21-34**. For each area listed by the Commenter, BIG would either result in net-zero truck trips or a net reduction of truck trips. See **Response O21-4** and **O21-34**. The Draft EIR focused the noise analysis on the proposed Project footprint and nearby sensitive receptors. For the truck trips that would occur in these areas, operational noise impacts must be evaluated where Project-related noise sources can be meaningfully modeled and attributed. As discussed in **Draft EIR Section 5.12: Noise**, roadway and operational noise analyses require defined locations, traffic routing, speeds, and receptor proximity. As such, attempting to evaluate noise effects from annual truck trips distributed across an entire city or multiple distant regions would be speculative and unsupported by substantial evidence and, as noted above, these truck trips would be "zeroed out" by removing truck trips that occur today. The Draft EIR evaluates traffic noise where proposed Project related truck activity would measurably affect specific roadway segments and nearby receptors using FHWA and FTA accepted methods. It is speculative to identify how trucks would travel to and from the Project site. The State CEQA Guidelines are clear that if a lead agency "finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact" (State CEQA Guidelines § 15145[69]). In this case, the Draft EIR cannot speculate where trucks would travel and the Draft EIR is not required to describe baseline conditions and assess potential noise impacts of truck and vehicle activities at unidentified locations. Here, the experts for the lead agency reasonably considered this issue and determined it was not scientifically or technically sound to conduct a localized impact analysis when the precise location of origin/delivery was unknown. Therefore, the scope and Draft EIR noise analysis is reasonable and technically defensible.

[69] *East Oakland Stadium Alliance*, supra, 89 Cal.App.5th at 1249-1251 [An EIR's impact analysis may be based on informed judgments by experts, who prepare the EIR].

O21-67 See Attachment B: BNSF CAGRs Used in BIG, in the *CEM Errata*. These compound annual growth rates were developed based on historical evidence, projection to future trends, and consultation with BNSF rail experts. The use of future train traffic baselines is justified by substantial evidence: the City relied in the Draft EIR on a detailed expert memo on estimated traffic growth to develop the future conditions baseline. The findings and growth estimates from that memo demonstrate just how misleading it would be to use an existing conditions baseline. Using 2023 emissions as a baseline condition to compare BIG and No-BIG scenarios would understate No-BIG train traffic by 47.27 percent and artificially inflate BIG's impacts compared to business as usual. See **Response O21-60** above. Please also see **Consolidated Response 03**, concerning recirculation of the Draft EIR.

O21-68 CEQA does require an EIR to disclose feasibly obtainable information to convey the magnitude of a project's impacts on the environment; however, it does not require a detailed health risk assessment, or health impact analysis, of the Project's noise and vibration impacts;[70,71] Notably, the comment omits this key element of the ruling in *Friant Ranch*, which states that:

> When reviewing whether a discussion is sufficient to satisfy CEQA, a court must be satisfied that the EIR (1) includes sufficient detail to enable those who did not participate in its preparation to understand and to consider meaningfully the issues the proposed project raises (*Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 405 [253 Cal.Rptr. 426, 764 P.2d 278] (*Laurel Heights I*)), and (2) makes a reasonable effort to substantively connect a project's air quality impacts to likely health consequences.[72]

The plain language of *Friant Ranch* limits this ruling to air quality impacts, not noise and vibration impacts.

Moreover, an EIR does not need to "apply a separate health-based threshold in determining the significance of noise impacts."[73] Here, the EIR discloses the potential effects of noise and vibration disturbances on human health, including noise thresholds at which sleep disturbance is likely to occur. (See **Draft EIR Section 5.12** pages 5.12-18 to 5.12-19, 5.12-36, 5.12-51, 5.12-62. Applying this information to the BIG's operational noise levels modeled in the EIR, "a reader can evaluate the severity of the existing ambient noise levels at a particular location and understand how those noise levels might affect the health of nearby residents. The reader would also be able to determine whether the increase in ambient noise levels as a result of the project would be perceptible (based on the threshold of significance) and how severe the resulting change would be. The potential impact of project noise on health is thus clearly disclosed." (*Mission Bay Alliance, supra,* 6 Cal.App.5th at 195-196.)

O21-69 This exceedance is due to the additional growth in train volume that would occur without BIG, as explained in **Draft EIR Section 5.12** (page 5.12-33), and it is therefore part of the anticipated

[70] *Mission Bay Alliance v. Office of Community Investment & Infrastructure* (2016) 6 Cal.App.5th 160, 196 ["Mission Bay Alliance"].
[71] *Sierra Watch v. County of Placer* (2021) 69 Cal.App.5th 86, 108.
[72] Sierra Club v. County of Fresno (2018) 6 Cal.5th 502, 510.
[73] *Mission Bay Alliance*, supra, 6 Cal.App.5th at 196.

future baseline against which BIG's impacts are measured, rather than an impact of BIG itself. See **Response O21-60**. The information requested in this comment therefore is not required to "to alert the public and the decision makers of the significant problems a project would create."

O21-70 BIG design and construction planning is still in progress and, at this stage, the level of detail that the commenter requests is not available; CEQA does not require an EIR to conduct a speculative construction impacts analysis. The precise details regarding granular construction schedule, duration/hours, which nights nighttime construction would be required, equipment type/quantity, and specific location of construction for nighttime construction activities are currently unknown, and to be determined before construction commences. CEQA does not require that the project description include all final engineering designs and details, but only a "general description" of the technical aspects of a project with sufficient detail to enable the public and the decisionmakers to understand the environmental impacts of the proposed project.[74] The Construction Noise Logistics Plan must include the "where feasible" stipulation, given CEQA requires that an EIR only describe mitigation measures which are feasible (State CEQA Guidelines §15126.4(a)(1).) However, **MM BIG NOI-1** has been revised to specify definite mitigation performance standards, as shown below.

MM BIG NOI-1: Nighttime Construction Noise Logistics Plan. Prior to the start of nighttime construction that is within 500 feet of residences, the implementing entity shall ~~demonstrate to the satisfaction~~ submit and gain approval ~~of~~ from the City of Barstow Director of Public Works or City Engineer ~~that BIG includes~~ for a Nighttime Construction Noise Logistics Plan that meets the performance standards specified herein for nighttime construction throughout the BIG footprint. The Nighttime Construction Noise Logistics Plan shall identify the specific nighttime construction activity areas, list ~~of~~ the construction equipment to be used during nighttime construction, ~~and~~ include a determination, supported with citation to factual evidence, that certain specified noise reduction measures, incorporated into the Plan, would be implemented to ensure, that exterior noise levels from nighttime construction activity, at the residence or residences nearest to that activity, do not exceed the FTA's 70 dBA Leq(8-hour) nighttime exterior construction noise standard for construction activities near residential uses ~~include noise reduction measures to minimize nighttime construction noise levels at nearby residences to the extent feasible below.~~ To achieve this noise standard, potential n~~N~~oise reduction measures in the Nighttime Construction Noise Logistics Plan may include, but are not limited to, the following:

- Install a temporary construction site sound barrier near the noise source.
- Prohibit unnecessary idling of internal combustion engines. Post signs at gates and other places where vehicles may congregate reminding operators of the State's Airborne Toxic Control Measure (ATCM) limiting idling to no more than 5 minutes.
- Utilize "quiet" air compressors (less than 65 dBA) and other stationary noise sources where technology exists.

[74] *Dry Creek Citizens Coalition v. County of Tulare* (1999) 70 Cal.App.4th 20, 36; CEQA Guidelines § 15124(c).

- Monitor the effectiveness of noise attenuation measures by taking noise measurements and make adjustments to nighttime construction activities as required to meet the FTA's 70 dBA Leq(8-hour) nighttime exterior construction noise standard for residential uses.
- Specify additional noise attenuation measures and best practices, with supporting evidence, that demonstrates reduction of nighttime construction noise impacts for the residences nearest to the nighttime noise activity to below the FTA's nighttime exterior construction noise standard for residential uses.

In addition, the Nighttime Construction Noise Logistics Plan shall require implementation of the following measures:

- Construction contracts shall specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other State required noise attenuation devices.
- Property owners and occupants located within ~~3~~500 feet of ~~the BIG footprint~~ areas when nighttime construction would occur shall be sent a notice, at least ~~15~~ 5 days prior to the commencement of nighttime construction activities, regarding the construction schedule of BIG. ~~A sign, legible at 50 feet shall also be posted at BIG's construction site.~~ The initial format of ~~All~~ notices ~~and signs~~ shall be reviewed and approved by the Director of Planning, Building and Code Enforcement or Director's designee~~,~~. ~~prior to mailing or posting and~~ The notice shall indicate the dates and duration of construction activities, the general type of construction activities to be performed, as well as provide a contact name and a telephone number for the Noise Disturbance Coordinator where residents can inquire about the construction process and register complaints. Copies of each nighttime noise notice would be provided to the City.
    7) Prior to nighttime construction, the implementing entity's contractor shall ~~provide evidence that at all times during construction activities an on-site construction staff member would be designated as~~ ensure a Noise Disturbance Coordinator is on-site during nighttime construction activities. The Noise Disturbance Coordinator is responsible for responding to complaints about construction noise. When a complaint is received, the Noise Disturbance Coordinator shall determine the cause (e.g., starting too early, bad muffler, etc.), implement reasonable measures to resolve the complaint, and document actions taken. All notices sent to residential units within ~~3~~500 feet of the construction site ~~and all signs posted at the construction site,~~ shall include the contact name and the telephone number for the Noise Disturbance Coordinator.

If the Plan determines that noise reduction measures incorporated into the Plan cannot ensure that exterior noise levels from an individual type of nighttime construction activity, at the residence or residences nearest to that activity, do not exceed the FTA's 70 dBA Leq(8-hour) nighttime exterior construction noise standard for residential uses, the Plan shall demonstrate that noise reduction measures incorporated into the Plan, potentially

including limitation of the individual type of activity at issue to daytime hours, would reduce the noise levels from that activity to the greatest extent practically achievable.

Regarding **MM BIG NOI-2,** it has been revised to include density requirements for the recommended noise barriers, as shown above and in the Errata. The commenter asserts that BAR-5 is completely omitted from the Draft EIR noise analysis. The modeling and analysis for BAR-5 as a mitigation option to reduce emergency generator noise levels at nearby receptors is provided in Figure 5.12-15 in **Draft EIR Section 5.12** (page 5.12-114) (Emergency Generator Noise). The interior noise levels (windows open condition) and impacts mentioned by the commenter are disclosed in the **Draft EIR Section 5.12** (pages 5.12-36, 5.12-60 to 62, 5.12-99 to 114. In addition, MM BIG NOI-2 has been revised to omit BAR-2, since, as discussed in the Draft EIR, that barrier was needed only to reduce noise from the BESS, which has now been eliminated from BIG, as discussed in Response O21-94. There would still be exceedances under such conditions despite implementation of BAR-3, as operation noise levels from the IMF and Block Swap Yard, and train pass-bys along the main lines, would not be reduced by BAR-3. This is explained in the operational mitigated noise analysis tables in the Draft EIR. The revisions to **MM BIG NOI-2** are shown below:

MM BIG NOI-2: Noise Barriers. The implementing entity shall construct ~~three~~ two noise barriers as listed below to mitigate BIG's noise impacts:

- ~~A 10-foot-high, approximately 700-foot-long absorptive noise barrier surrounding the BESS equipment in the northeastern portion of the solar farm (BAR-2);~~
- A 10-foot-high, approximately 470-foot-long noise barrier surrounding the substation in the northeastern portion of the solar farm (BAR-3); and
- A 14-foot-high, approximately 150-foot-long acoustic noise barrier along the eastern and southern boundary the emergency generators in the northeastern portion of the intermodal facility (BAR-5).

To be effective, the barriers shall be constructed with a solid material with no gaps in the face of the wall or at the base. Openings or gaps between sound wall materials or the ground substantially reduce the effectiveness of the noise barrier. Acceptable materials for the construction of the barrier shall have a minimum density of 3.5 pounds per square foot of surface area and may be composed of the following: masonry block, stucco veneer over wood framing (or foam core), glass, Plexiglass, Lexan 9 ¼ inch thick), or metal. The barrier may also be constructed out of a combination of the above listed materials. All noise control barrier walls shall be designed to preclude structural failure due to such factors as winds, shear, shallow soil failure, earthquakes, and erosion. The City Building Official shall review and approve all proposed designs prior to the issuance of a building permit.

The approximate locations of the noise barriers are provided in Draft EIR Figure 5.12-~~17~~-14: Modeled Noise Barriers (Main Street) (page 5.12-85) and Figure 5.12-~~18~~-15: Modeled Noise Barriers (BIG Specific Plan Area) (page 5.12-86).

Please also see **Consolidated Response 05-07** regarding use of performance standards and deferred mitigation.

O21-71 Consistent with State CEQA Guidelines § 15147, detailed technical data and supporting analyses are appropriately included in an appendix, while the Draft EIR text provides a summary-level discussion sufficient to support informed decision-making. The inclusion of detailed study results in **Draft EIR Appendix 5.12 BIG-1** is consistent with the State CEQA Guidelines, professional industry standards for CEQA documentation and does not constitute an omission of relevant information. As a result, CEQA does not require that all raw modeling files be appended to the Draft EIR so long as the analytical approach, key assumptions, and conclusions are disclosed and supported by substantial evidence (State CEQA Guidelines §§ 15147, 15148).

The financial feasibility of noise barriers is clearly analyzed in **Appendix 5.12 BIG-1: Noise barrier Feasibility Analysis – On-Site BIG Facility Noise** (see page 121). This is referenced nine times throughout **Draft EIR Section 5.12**. See also **Consolidated Response 05-05**, concerning mitigation enforceability.

BAR-1 was modeled at 20 feet high due to sound propagation requiring a barrier to be taller than the source of the sound. During the environmental analysis, shorter barriers were tested for effectiveness and were found to not mitigate the sound to below applicable thresholds. (See **Appendix 5.12 BIG-1: Noise barrier Feasibility Analysis – On-Site BIG Facility Noise, pages 59, 108, 114, 120**.) Even if BAR-1 were half as tall (10 feet high), reducing the cost to approximately $8.1 million, the cost per receptor would still be approximately $1.6 million, still more than 10 times Caltrans' maximum cost allowance of $146,000 per benefited receptor. The estimated cost per square foot for noise barriers ($62/sf) included in **Draft EIR Appendix 5.12 BIG 1 (Noise and Vibration Technical Report)** was obtained from Caltrans' published sound wall construction cost estimates. Cheaper wall construction for BAR-1 could potentially be achieved with lower heights and different material costs. However, it would be infeasible to procure a noise barrier that would meet the maximum cost allowance of $146,000 per benefited receptor based on the total length (~13,088 feet or 2.48 miles) and height needed for BAR-1, and number of benefited receptors (5). The sound wall unit cost would need to be approximately $2.79/sf to be considered financially feasible for BAR-1, which is not available, and still substantially below the example soundwall noted by Commenter with a cost between $570 to $880 per linear foot for an 8-12 foot wall, or between $71.25/sf to $110/sf.

As noted in the Draft EIR, noise barrier feasibility analysis for all evaluated noise barriers, including BAR-1 and BAR-4, are included in the Noise and Vibration Technical Report; see **Appendix 5.12 BIG-1**, pages 120 through 121.

Noise barriers would potentially need to be installed on private property, in a designated right-of-way, or otherwise outside the City's jurisdiction, which may not be allowed by a property owner or the jurisdiction in which the sound barrier would be located. The feasibility of noise walls is also restricted by access requirements for driveways, cross streets, underground utilities, other noise sources in the area, and safety considerations. See **Response O21-75**.

Construction noise barriers would still be implemented as listed in **BIG MM NOI-1,** however, given BNSF cannot guarantee that private property owners would consent to noise barriers being placed on their property, the impact was still conservatively concluded to be significant and unavoidable. See also **Response O21-75** concerning noise barriers on private property.

O21-72 See below reasons why nighttime construction is required at each of the areas within the BIG footprint, **Draft EIR** (pages 3-86 and 5.12-30) and see **Final EIR Section 3.0: Errata to the Draft EIR** for revisions.

Draft EIR, **page 5.12-30**, has been revised in **Final EIR Section 3.0: Errata to the Draft EIR** as follows:

> BIG construction activities would primarily occur between 7:00 AM and 7:00 PM consistent with the County Code (County Code Title 8, Division 3, Chapter 83.01). However, nighttime construction would be required throughout the BIG footprint except at the solar farm where no nighttime construction would be required. Nighttime construction would be required during certain phases or periods to accommodate key activities required to maintain progress on BIG construction and rail operations (e.g., concrete foundation pouring for the transload warehouse center, east and west lead track work adjacent to the mainline tracks where the lead tracks would tie into the mainline tracks, etc.). Therefore, nighttime construction was analyzed to occur at each phase of BIG construction (except for solar farm construction), and nighttime noise levels were evaluated against the FTA's nighttime construction noise assessment criteria as shown in **Table 5.12-1**.

East Leads

Night work is required at the "east lead track" (East Leads), which is the approximately two miles of lead track extensions to the east, to construct the BIG Project (Draft EIR Page 3-74). Specific nighttime activities which are planned for the East Leads include jack and bores for new utilities under live railroad tracks, bridge construction over Pettit Road, sanitary sewer pipeline construction, etc. Commonly, jack and bores under live railroad tracks are run as a 24-hour operation to limit potential impacts to train traffic. Also, the project would be constructing several new bridges over Pettit Rd. Ongoing coordination efforts with the City of Barstow would involve a continuous full closure of Pettit Rd. during bridge construction. In order to meet closure deadlines and minimize transportation-related impacts to the public, nighttime work is likely to occur. Additionally, the project would be installing significant sections of new sanitary sewer pipelines in the East Lead area. It is anticipated the sewer work would require "tie-ins" where the existing sewer system would be temporarily bypassed, until final connections are made. These sewer tie-ins and bypasses typically occur at night when the existing sewer system is at its lowest usage.

Lenwood Channel Improvements

As part of the Lenwood Channel Improvements, the project would be constructing a new Main Street Bridge crossing over Lenwood Channel. Construction of the new bridge would

require several phases of temporary traffic control involving road closures. Nighttime road closures are also anticipated for key activities such as setting precast concrete girders with a crane, concrete pours using boom pump trucks, etc. In addition to the bridge construction, there are related waterline and sanitary sewer line relocations at this location. Both the water and sewer relocation would also require tie-ins, bypasses, etc. which are typically performed at night when public usage is low.

33kV Line

As a critical feature of the new IMF, BNSF would be providing new medium voltage (33kV) power feeds to the site. Often, these new power feeds originate from several miles off-site, crossing multiple roadways, including Interstate 15. Night work and related road closures may be necessary to minimize impacts to the traveling public. The 33kV scope also involves jack and bores across major roadways and future tie-ins to the new electrical system requiring short term outages, which are typically performed at night due to lower usage.

Pile Driving

Pile driving is required to construct the foundations of various bridges across the jobsite. While the majority of the pile driving is planned for daytime construction, the project may intermittently need nighttime pile driving in instances such as where the operation is adjacent to live railroad tracks, to regain days lost to inclement weather, etc.

O21-73 Please see Section 3.0: Errata, concerning revisions to incorporate rubberized asphalt into roadway segments that would result in a benefit to sensitive receptors (minimum of 1 dB reduction). Based on data from the Asphalt Institute, noise reduction achieved from rubberized asphalt ranges from 4 to 10 decibels.[75] The Errata conservatively assumes the lowest reduction of 4 decibels. Noise levels were updated to account for rubberized asphalt and to remove BESS per Consolidated Response 16, thus, the only changes to noise levels at sensitive receptors would be reductions associated with rubberized asphalt implementation or removal of BESS.

Construction associated with rubberized asphalt would involve the same construction equipment utilized in other BIG roadway improvements. Work would be accomplished within one week and would not extend the construction schedule. Any additional emissions or noise impacts associated with this incremental additional construction would be *de minimis*. Rubberized asphalt would result in a reduction of noise impacts and would not result in a new or more severe significant environmental impact.

O21-74 As discussed in **Draft EIR Section 5.12: Noise**, noise barriers along the 33-kV transmission lines were evaluated and determined to be infeasible due to the linear and mobile nature of construction activities. In order for the noise barrier to be effective, the noise barrier would need to continuously be moved and repositioned to maintain line-of-sight between active construction and nearby residences. Because construction would advance incrementally, any

[75] https://www.asphaltinstitute.org/wp-content/uploads/Noise_Reducing_Pavements.pdf.

fixed or partially repositioned barrier would quickly lose effectiveness and provide minimal noise reduction.

To correct the inconsistency noted by the Commenter, the Draft EIR has been revised as shown below:

Page 5.13-79 has been revised in **Final EIR Section 3.0: Errata to the Draft EIR** and as follows:

> Due to the nature of 33 kV line construction activities, the only ~~feasible~~ potential mitigation to reduce construction noise levels would be to construct a temporary noise barrier to block the line of sight from the construction area to the nearest residences.

O21-75 The commenter suggests measures to mitigate noise impacts from traffic and intermodal facilities. The feasibility of these proposed mitigation measures is considered in turn below.

Electric trucks as mitigation is addressed in **Response O21-14.** See below responses to each of the other suggested mitigation measures.

Real property acquisition to serve as a buffer zone. The commenter suggests that the EIR fails to analyze acquisition of real property to serve as a buffer zone, referencing FHWA regulation 23 CFR 772.15. The regulation lists, among the abatement measures for which federal funding may be used, "[a]cquisition of real property or interests therein (predominantly unimproved property) to serve as a buffer zone to preempt development which would be adversely impacted by traffic noise." FHWA guidance clarifies that "[t]he potential use of buffer zones applies to predominantly unimproved property; not to purchase homes or developed property to create a noise buffer zone."[76] The agency acknowledges that, "because of the tremendous amount of needed land and because in many cases dwellings already border existing roads, creating buffer zones is often not possible." Thus, acquisition of real property as a buffer zone, for CEQA purposes, would not mitigate BIG's impacts on existing residences, but would serve as a speculative buffer for potential future development. Also, under CEQA, mitigation measures must reduce the severity of potentially significant impacts, their effectiveness must be clear, and they must be "fully enforceable." (State CEQA Guidelines § 15126.4(a)). A mitigation measure to acquire real property from private landowners is not enforceable because of the potential for landowners to be unwilling to sell their properties. Such "hold-out" landowners would thereby render such mitigation ineffective. This mitigation measure was properly rejected as infeasible.

Real property acquisition to allow construction of a noise barrier. To be effective a noise wall needs to be solid and disrupt line of sight between the source of the noise and the receptor (**Draft EIR Section 5.12** pages 5.12-23 and 5.12-73). There are 11 driveways south of Main Street that are each a minimum of 25 feet wide. Each driveway would involve a gap between any noise barrier south of Main Street, resulting in up to 11 gaps. These gaps in a noise barrier would render the noise barrier nearly meaningless, as sound would still propagate through the gap at the driveway. Additionally, most driveways are immediately

[76] https://www.fhwa.dot.gov/environment/noise/regulations_and_guidance/analysis_and_abatement_guidance/revguidance.pdf.

adjacent to residences, thus, the gap would occur immediately adjacent to a sensitive receptor, further reducing any potential benefit. FHWA guidance states "Openings in noise barriers for driveway connections or intersecting streets reduce the effectiveness of barriers."[77] See also Caltrans guidance 1102.7, Maintenance Consideration in Noise Barrier Design, stating that overlaps are required to overcome any gaps in a noise barrier, "Offset barriers must be overlapped a minimum of 2.5 to 3 times the offset distance in order to maintain the integrity of the sound attenuation of the main barrier."[78] Overlaps would not be possible at any driveways. BAR-1 was determined to be financially infeasible as shown on Table 47: Noise Barrier Reasonable Cost Allowance, of Appendix 5.12 BIG-1, due to having a total cost of $16,229,120 despite benefiting only five receptors. This resulted in a cost per benefited receptor of $3,245,824, substantially above the CalTrans threshold of $146,000 per benefitted receptor. A discontinuous wall would incrementally reduce the cost to approximately $15,956,320 (assuming 11 driveways at an average of 20 feet wide). However, this would result in a cost per benefited receptor of $3,191,264, still substantially above the CalTrans threshold of $146,000. Furthermore, a discontinuous wall may result in fewer benefitted receptors, with FHWA noting that discontinuous noise barriers typically result in a noise reduction of only 5 dBa, compared to continuous noise barriers resulting in a noise reduction of 10 dBA. Given the number of properties that would need to be acquired (depending on the length of the noise barrier, approximately 11), and the fact that a single "hold-out" property owner would further increase the amount and extent of gaps, and thereby render such mitigation ineffective, this mitigation measure was properly rejected as infeasible.

Stringent vehicle and noise specifications with effective enforcement measures. This measure would be implemented by the vehicle manufacturer, not BNSF. Furthermore, per the FTA, there is no quantifiable noise reduction from this measure and the effectiveness is varied (FTA. 2018. Transit Noise and Vibration Impact Assessment Manual, pg. 97). As implementation of this measure would require modifications to each locomotive under service in BNSF's network, the cost of such modifications would far exceed any reductions in noise impacts; thus, there is not a sufficient "nexus" or "rough proportionality" established by case law for systemwide upgrades to locomotives.[79,80,81]

Operational restrictions like speed reduction, reduction of nighttime operations, and reduction of warning horns and signals. Although there are tangible benefits from speed reductions during the most noise-sensitive time periods, FTA does not ordinarily accept speed reduction as a noise mitigation measure for two important reasons: speed reduction is negated if vehicle operators do not adhere to established policies, and it is contrary to the purpose of the transit investment by FTA. (FTA, 2018, Transit Noise and Vibration Impact Assessment Manual, pg. 98). Speed reduction along other roadways is infeasible because

77 https://www.fhwa.dot.gov/environment/noise/regulations_and_guidance/analysis_and_abatement_guidance/revguidance.pdf.
78 https://dot.ca.gov/-/media/dot-media/programs/design/documents/chp1100-a11y.pdf.
79 *Nollan v. California Coastal Commission* (1987) 483 U.S. 825.
80 *Dolan v. City of Tigard* (1994) 512 U.S. 374.
81 *Ehrlich v. City of Culver City* (1996) 12 Cal. 4th 854.

roadway noise is primarily associated with Main Street (also known as Route 66 or National Trails Highway). The existing speed limit is 55 miles per hour from Lenwood Road westward. Further reducing the speed limit of a Primary Arterial roadway that is generally without curve, intersections, or turns is illogical and unlikely to be adhered to by those who are used to driving this roadway. As noted in the Errata and in Response O21-73, rubberized asphalt has been implemented which would reduce traffic noise to below the applicable thresholds. The City has determined that reducing the speed limit on Main Street, a highway without substantial curves or intersections in this section with a posted speed limit of 55 miles per hour, is infeasible.

Reduction of nighttime noise is infeasible because, as a common carrier freight railroad, BNSF must operate 24/7, and cannot reduce the level of nighttime operations at one facility or else there would be downstream impacts throughout the BNSF network and the supply chain. Furthermore, the City is prevented from attempting to enforce any limitation on nighttime operations due to preemption under the Interstate Commerce Commission Termination Act (ICCTA), which prohibits local jurisdictions from establishing laws or regulations that could unreasonably interfere with interstate commerce. Also, reduction of warning horns and signals is infeasible due to safety concerns with reducing horn usage within a rail yard. For these reasons, the measure was properly not incorporated as proposed mitigation.

Resilient or damped wheels. BIG does not propose any tight turns or direction change within the footprint that would cause significant wheel roar, impact, or squeal. Both the proposed north and south main and the lead tracks follow an east/west path. BIG noise impacts are not primarily attributed to wheel roar, impact, or squeal; rather, the primary BIG noise sources contributing to noise level impacts at the nearest sensitive receptors are IMF activities and train horns utilized at the IMF and Block Swap Yard. Train horns are utilized for safety purposes within the IMF and Block Swap Yard, and IMF activities such as train and heavy truck movements, and container loading/unloading, inherently cannot be modified or restricted and maintain function. Pursuing resilient wheels to reduce such noise would not result in a significant reduction in operational noise levels or bring impacts to a less than significant level. Additionally, implementation of this measure would require modifications to each locomotive under service in BNSF's network. The cost of such modifications would far exceed any reductions in noise impacts; thus, there is not a sufficient "nexus" or "rough proportionality" established by case law for systemwide upgrades to locomotives.[82,83,84]

Vehicle skirts. Vehicle skirts are infeasible because the Project does not control or regulate third-party truck equipment, nor would this measure significantly reduce the identified operational noise associated with the proposed Project. As discussed in **Draft EIR Section 5.12: Noise**, the dominant operational noise sources for the proposed Project are rail,

82 *Nollan v. California Coastal Commission* (1987) 483 U.S. 825.

83 *Dolan v. City of Tigard*, (1994) 512 U.S. 374.

84 *Ehrlich v. City of Culver City*, (1996) 12 Cal. 4th 854.

intermodal facility, and yard activities. For the following reasons, vehicle skirts and undercar absorption would not be effective mitigation for BIG rail operational noise:

Source of noise: The dominant noise source from freight trains is the high-frequency rolling noise and vibration caused by the interaction of wheels and track, not undercar equipment.[85] Undercar absorption does not shield this primary noise source, and thus would not materially reduce BIG's noise impacts.

Focus on internal noise: Undercar absorption is more effective in passenger trains for mitigating noise that travels up from the truck and wheels into the cabin, providing minimal impact on overall wayside noise As BIG would transport freight, not passengers, undercar absorption would not materially reduce BIG's noise impacts.

Quiet fan design and fan placement. This measure is not applicable as fan noise does not materially contribute to BIG's noise impacts, meaning a reduction in such fan noise would not result in a clear reduction in noise impacts. As noted above, the primary noise sources are from train horns and IMF activities. Locomotive fan noise would be masked by these noise sources and would not be noticeable at the nearest sensitive receptors. Thus, the measure was properly not incorporated as proposed mitigation.

Preventative maintenance on rail systems. BNSF already undertakes this as part of standard maintenance, thus, it is not considered a mitigation measure.

Turn radii greater than 1000 feet. The greatest turn radii on rail tracks within the BIG Specific Plan area is approximately 3,800 feet, thus, BIG design exceeds this suggested measure.

Rail lubrication on sharp curves. BNSF already undertakes this as part of standard maintenance, thus, it is not considered a mitigation measure.

Movable-point frogs. Movable-point frogs, or frogs with movable points, are mechanisms to close gaps between running rails designed to reduce impact noise near crossovers, would be implemented on the mainline tracks, thus, BIG design satisfies this suggested measure. However, note that per the FTA, there is no quantifiable noise reduction from this measure and the effectiveness is varied (FTA, 2018, Transit Noise and Vibration Impact Assessment Manual, page 97). For these reasons, the measure was properly not incorporated as proposed mitigation.

Engine compartment treatments. The primary source of noise from a rail project is typically from train horns, not from engine compartments. As noted above, based on the Draft EIR noise modeling results, BIG's primary noise contributors to noise impacts at nearby sensitive receptors are train horns from the IMF and Block Swap Yard, and IMF activities. Thus, engine compartment treatments would minimally lessen BIG's overall noise levels at these receptors. Furthermore, implementation of this measure would require modifications to each locomotive under service in BNSF's network. As the cost of such modifications would far

[85] *FTA Transit Noise and Vibration Impact Assessment Manual* (2018).

exceed any reductions in noise impacts, there is not a sufficient "nexus" or "rough proportionality" established by case law for systemwide upgrades to locomotives. [86,87,88]

Quiet zones. Per the Federal Regulations that establish quiet zones (49 CFR; Parts 222 and 229), quiet zones are only established where trains approach and enter public highway-rail grade crossings. As described in **Draft EIR Chapter 3.0**, **Project Description**, BIG proposes to remove the existing at-grade Hinkley Road rail crossing. Therefore, there would be no public highway-rail grade crossings and a quiet zone cannot be established. Furthermore, a quiet zone's restriction on locomotive horns has no effect on usage of horns for regular railyard operations.[89] Thus, a quiet zone cannot be established as it does not meet the federal requirements for a quiet zone, nor would a quiet zone provide any reduction in rail noise. Therefore, a quiet zone was properly not considered as a mitigation measure.

Noise barriers close to vehicles. See response to "Real property acquisition to server as a buffer zone."

Noise barriers at row line. See response to "Real property acquisition to server as a buffer zone."

Alternation of horizontal and vertical alignments. BNSF has already substantially incorporated this into BIG's design by placing the intermodal facility between 30 and 45 feet below Main Street, resulting in a substantial alternation between the rail noise and Main Street, reducing potential noise impacts.

Wayside horns. Wayside horns minimize noise associated with locomotive horns at at-grade crossings. As described above, BIG proposes to remove the existing at-grade Hinkley Road rail crossing. Therefore, there would be no public highway-rail grade crossings where a wayside horn could be implemented. Therefore, this was not properly considered as mitigation.

Acquisition of buffer zones. See response to "Real property acquisition to serve as a buffer zone."

Ballast on at-grade guideway. BIG rail tracks are all ballasted tracks, thus, BIG design satisfies this suggested measure.

Ballast on aerial guideway. BIG rail tracks are all ballasted tracks, thus, BIG design satisfies this suggested measure.

Vegetation and trees. Vegetation and trees would not be an effective strategy for BIG as it would not provide meaningful attenuation of low-frequency rail noise as discussed in **Draft EIR Section 5.12,** page 5.12-23. In addition, vegetation required to provide even minimal noise reduction would need to be dense, wide, and continuously maintained,[90] which is not

86 *Nollan v. California Coastal Commission* (1987) 483 U.S. 825.

87 *Dolan v. City of Tigard*, (1994) 512 U.S. 374.

88 *Ehrlich v. City of Culver City*, (1996) 12 Cal. 4th 854.

89 *49 CFR; Part 222; Part 23* (a)(c) "Nothing in this part restricts the use of the locomotive horn for purposes other than highway-rail crossing safety…"

90 https://dot.ca.gov/-/media/dot-media/programs/design/documents/chp1100-a11y.pdf.

feasible given water constraints, high temperatures, and long-term maintenance challenges. More effective noise-based mitigation measures were assessed for feasibility that would reduce BIG's potential impacts associated with noise, and can be found in **Draft EIR Section 5.12: Noise.**

Intermodal facility noise mitigation measures.

- **Require the Applicant to orient and fully shield loading docks away from receptors with a doors-closed operations plan.** Dock doors would generally be oriented away from receptors. Additionally, the closest transload warehouse would be more than 1,000 feet from receptors, with most transload warehouses being 3,000 feet or more from receptors. Due to this distance buffer, no significant noise impacts would occur to residences along Lenwood Road, the closest residential receptors to transload warehouses. Additionally, due to the rapid nature of transloading, a doors-closed operations plan is infeasible. Thus, the suggested measure would be operationally infeasible and would not materially reduce noise impacts. For these reasons, the measure was properly not incorporated as proposed mitigation.
- **Prohibit nighttime loading/queuing within 600 feet of residences**. This is incorporated into BIG design with the internal truck entrance (where trucks may queue may entering the intermodal facility) more than 1,000 feet from residences and vertically separated by between 10 and 30 feet. Thus, the mitigation would not materially reduce noise impacts.
- **Require the Applicant to implement truck-route restrictions that avoid the nearest homes**. BIG trucks would comply with the City's adopted truck routes (see Figure CM-4 of the proposed General Plan) and would include truck route signage per **MM BIG AQ-9**. Thus, the suggested measure would not materially reduce noise impacts beyond the reductions achieved by existing mitigation and applicable regulations.
- **Require the Applicant to use broadband (quiet) backup alarms**. Broadband alarms are not universal amongst Class 8 trucks, including at the Ports. Thus, trucks could be able to operate at warehouses in Boron, Las Vegas, the Central Valley, and the Ports, but then be unable to access BIG. For this reason, it would make BIG less marketable to customers and preclude some independent contractors, limiting flexibility. Moreover, the impact of backup alarms is not a primary contributor to BIG's noise impacts, meaning that the suggested measure would not materially reduce impacts.
- **Impose a strict ≤2-minute idling rule with active enforcement**. Truck idling restrictions of two minutes is included in **MM BIG AQ-9**. Thus, the suggested measure would not materially reduce noise impacts beyond the reductions achieved by existing mitigation.
- **Require on-site queuing so trucks do not stage on public streets**. This is incorporated into BIG design with approximately 2,000 feet of roadway between the truck gate and the Country Club Drive intersection, with six lanes at the internal truck gate.
- Pave access roads with low-noise asphalt and post reduced speed signage nearby. See above **Response O21-73** on rubberized asphalt and above in **Response O21-75** on speed reduction.

- Verify mufflers and acoustic shrouds are equipped on stationary equipment and surround any combustion equipment with temporary noise enclosures during construction. Per **MM BIG BIO-19**, where generators must be used temporarily for an emergency, noise suppression devices such as mufflers or enclosures for generators shall be used. Thus, the mitigation would not materially reduce noise impacts.
- **Conduct post-occupancy noise monitoring**. Given post-occupancy noise monitoring does not reduce an environmental impact, it is not "mitigation" under CEQA.

O21-76 See **Response S6-7, S6-13,** and **S6-14**, **Consolidated Response 05-06**, concerning the feasibility of specific technology and other mitigation measures, and the *BEL and Catenary Feasibility Analysis*, concerning infeasibility of zero emission locomotives.

O21-77 As stated, State CEQA Guidelines § 15126.2(e) requires the EIR to analyze cumulative and project-specific growth inducing impacts in the surrounding environment. In determining the geographic scope of the "surrounding environment", a lead agency has discretion, based on its expertise, to set the boundaries of its cumulative impact analysis.[91] (State CEQA Guidelines, § 15130(b)(3).) The geographic scope cannot be "defined so broadly as to dilute the significance of a project's cumulative impact."[92,93]

Generally, the scope of review is limited to the area affected by the project, directly or indirectly. "A significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist *in the area affected by the proposed project*." (State CEQA Guidelines, §§ 15002(g), 15382 [emphasis added].) "The area" refers to "the area in which significant effects would occur either directly or indirectly as a result of the project." (State CEQA Guidelines, § 15360; Pub. Res. Code, §21060.5.) "This does not mean, however, that an agency is required to conduct an exhaustive analysis of all conceivable impacts a project may have in areas outside its geographical boundaries."[94] Rather, the geographic scope of a project's impacts is limited by foreseeability and the ability to predict impacts with accuracy.[95]

"CEQA does not require a lead agency to speculate."[96] Impacts are speculative when they cannot be reasonably ascertained and estimated.[97] It is unreasonable to require detailed analysis of the results of induced growth where "it cannot be known if the Project would cause growth in any particular area, and [where] the Project most likely would not be the sole contributor to growth in any particular area."[98] Thus, the geographic scope extends only as far as the project-specific growth-inducing impacts can be determined "with any accuracy."[99]

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91 *South of Market Community Action Network v. City and County of San Francisco* (2019) 33 Cal.App.5th 321, 338.

92 *League to Save Lake Tahoe Mountain etc. v. County of Placer* (2022) 75 Cal.App.5th 63, 149.

93 *Ebbetts Pass Forest Watch v. Department of Forestry & Fire Protection* (2004) 123 Cal.App.4th 1331, 1352-1353.

94 *Save the Plastic Bag Coalition v. City of Manhattan Beach* (2011) 52 Cal.4th 155, 173–174.

95 *Save the Plastic Bag Coalition v. City of Manhattan Beach* (2011) 52 Cal.4th 155, 173–174, citing Muzzy Ranch Co. v. Solano County Airport Land Use Com. (2007) 41 Cal.4th 372, 388.

96 *League to Save Lake Tahoe Mountain etc. v. County of Placer* (2022) 75 Cal.App.5th 63, 151.

97 *Santa Rita Union School District v. City of Salinas* (2023) 94 Cal.App.5th 298, 344.

98 *Napa Citizens for Honest Government v. Napa County Bd. of Supervisors* ["Napa Citizens"] (2001) 91 Cal.App.4th 342, 370.

99 *Napa Citizens, supra,* 91 Cal.App.4th at 370.

Here, the Draft EIR contains a thorough analysis of growth-inducing impacts. (**Draft EIR Section 7.3,** pages 7-22 and 7-34.) The scope of this analysis is supported by substantial evidence. The Draft EIR states:

> State CEQA Guidelines §15126.2(e) requires that EIRs discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (e.g., a major expansion of a wastewater treatment plant might allow for more construction in service areas). For purposes of this analysis, "surrounding environment" refers to surrounding area, which includes both the City and its unincorporated SOI. New employees from commercial or industrial development and new population from residential development represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area. (**Draft EIR, page 7-22**.)

This issue is presented to provide additional information on ways in which the Project could contribute to changes in the environment, beyond the direct consequences of implementing the Project examined in the preceding sections of the EIR. However, CEQA requires analysis of whether a project induces substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). This impact analysis is provided in **Draft EIR Section 5.13: Population and Housing** (**Draft EIR,** pages 7-22 and 7-23).

BIG would not remove obstacles to growth through the construction or extension of major infrastructure facilities intended to support BIG. The off-site water, wastewater, electric power, and telecommunications are intended to only serve BIG and are not anticipated to represent removal of an obstacle to other future development and, as such, are not considered growth-inducing (**Draft EIR,** page 7-30).

Additionally, **Draft EIR Section 5.15: Transportation** describes various off-site road improvements, including traffic signal installation, road restriping, and turn-lane additions, would not result in significant environmental impacts. Other than these impacts from off-site improvements, BIG is not anticipated to require new or expanded off-site facilities that would result in significant environmental impacts. The construction of new facilities is to serve BIG and the environmental impacts of those facilities are addressed in each impact analysis in this EIR. Therefore, these facilities would also not lead to indirect impacts outside of those caused by BIG. (**Draft EIR,** page 7-32.)

The comment suggests that the scope of the growth-inducing impacts analysis should extend to "nearby regions such as Kern County," but offers no substantial evidence suggesting that the identified scope is inadequate, nor evidence linking the proposed inland port in Shafter, CA, the Wonderful Logistics Center ("Wonderful Shafter Project") to BIG. Thus, the comment does not provide a reason why the Draft EIR was required to analyze growth-inducing impacts regarding the Wonderful Shafter Project. BIG is separate from the Wonderful Shafter Project.

Given the Wonderful Shafter Project is scheduled for completion in 2026, approximately two years before BIG, there is logically no reason that BIG would be a nexus for change at the Wonderful Shafter Project. The Wonderful Shafter Project would serve importers and exporters with a dedicated shuttle train running between the San Pedro Bay port complex and Shafter. While these trains would move through Barstow, CA along BNSF's route from San Pedro Bay port complex and Shafter, CA, BIG is a separate facility along BNSF's route, and would not have an impact on the freight volumes or freight movement to and from the Wonderful Shafter Project. Finally, the Wonderful Shafter Project serves a different market (regional distribution centers) than BIG's intermodal facility, which is proposed to convert long-haul truck trips to long-haul train trips (see *Market Benefits Report*). Moreover, any analysis of "impacts in nearby regions such as Kern County" beyond that provided in the Draft EIR cannot be reasonably ascertained and estimated.[100] It is unreasonable to require detailed analysis of the results of induced growth in "nearby regions" because it cannot be known with any reasonable certainty whether BIG would in fact "cause growth in any particular area, and [where] the Project most likely would not be the sole contributor to growth in any particular area".[101] Analysis of such impacts would therefore be speculative and improper under CEQA.[102] Accordingly, the Draft EIR does not need to be revised to include growth-inducing impacts related to the Wonderful Shafter Project or to regions outside the City's SOI. The Draft EIR adequately analyzes "the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment," pursuant to State CEQA Guidelines § 15126.2(e).

Regarding potential impacts to AB 617 communities, the Draft EIR evaluated health impacts for the corridor through mass-emissions and cumulative impact analyses, thereby evaluating impacts to AB 617 communities. See also **Response O21-80** and **O21-82** through **84**.

O21-78 See **Consolidated Response 01-01** and **Consolidated Response 01-02**, concerning community outreach and the Draft EIR public review period. The City and BNSF conducted community engagement in compliance with CEQA, consisting of the following:

- Notice of Preparation: The NOP was published for a 40-day public review period (February 15, 2024, through March 26, 2024). The NOP was posted to the City's website, mailed to all property owners within 300' of the BIG Specific Plan, mailed to all responsible agencies, and posted in the Victorville Daily Press. All agency and public comments (43 total) were reviewed by BNSF and the City and incorporated into BIG's environmental analysis and design where appropriate.
- Scoping Meeting: BNSF, together with City staff, hosted a Scoping Meeting on March 13, 2024, where approximately 200 community members attended to learn about BIG and provide any comments, concerns, or questions.
- Draft Environmental Impact Report: The Draft EIR was circulated for a 56-day public review (November 10, 2024, through January 5, 2026) and was then extended for 7 days

100 *Santa Rita*, supra, 94 Cal.App.5th at 344.
101 *Napa Citizens*, supra, 91 Cal.App.4th at 370.
102 *Save the Plastic Bag*, supra, 52 Cal.4th at 173–174.

until January 12, 2026. In addition, the City received 2,041 comment letters on the Draft EIR. Of the 2,046 comment letters, only seven letters requested an extension of public review, which the City provided, as the commenter noted. The Notice of Availability was published to the City's website and social media accounts and was provided electronically to all responsible agencies and persons or groups that requested to be included in notices.

In addition, BNSF conducted extensive community outreach and engagement for nearly 2.5 years beyond what is required by CEQA, detailed below.

BNSF initiated focused community engagement for approximately 6 months focused on the following community groups and topics:

- November 3, 2022 – Health Care
- November 30, 2022 – Real Estate
- December 7, 2022 – Education
- December 14, 2022 – Homelessness
- January 23, 2023 – Small Business
- February 2, 2023 – General (Lenwood)
- February 5, 2023 – General (Marine Corps Logistics Base)
- February 15, 2023 – Youth Sports
- February 23, 2023– General (Silver Valley [inc. Yermo, Daggett, Newberry Springs])
- March 30, 2023 – Ministerial
- April 4, 2023 – Seniors & Veterans
- April 6, 2023 – General (Fort Irwin)

The key questions raised during these meetings are summarized and posted to the Barstow Chamber of Commerce page (https://barstowchamber.com/big-vision-community-engagement-meetings/). BNSF hosted or attended public meetings to provide updates to key stakeholders and members of the public:

- February 28, 2023 - Barstow Chamber of Commerce Movers & Shakers meeting at Barstow College
- March 16, 2023 – High Desert Real Estate Symposium at Victor Valley College
- March 22, 2023 – Board members of local agencies and community groups at Barstow College's Black Box
- April 4, 2023 - Mojave Water Agency – Technical Advisory Committee presentation (via Zoom) was recorded and then shared on Channel 6
- July 18, 2023 – Helendale Community Services District Town Hall Meeting at Silver Lakes Club House
- March 14, 2024 – High Desert Real Estate Symposium at Victor Valley College
- July 10, 2024 – Greater High Desert Chamber of Commerce at the Victorville Conference Center

- November 19, 2024 – Meeting with Sylvan area residents at the Hinkley Community Center
- March 13, 2025 – Barstow Unified School District
- March 20, 2025 – High Desert Economic and Real Estate Symposium

Finally, BNSF initiated community engagement through the following additional means and methods:

- Digital updates: Posting to various websites for community awareness and updates. At each of these websites, any member of the public can view project updates and sign up for email alerts:
  - Dedicated project website: https://bnsfbig.com/
  - Barstow Chamber of Commerce: https://barstowchamber.com/bnsf-barstow-international-gateway-project-updates/
  - BNSF California: https://bnsfcalifornia.com/projects/barstow-international-gateway-big/
- Community update presentations: BNSF, together with City staff, hosted multiple townhalls at the Barstow College Performing Arts Center that were advertised to and open to the public, to provide updates on BIG's design and timing and receive community input.
  - April 26, 2023 – (First) BIG Barstow Town Hall Meeting
  - October 3, 2024 – (Second) BIG Barstow Town Hall Meeting. More than 300 community members attended this meeting.
  - March 20, 2025 – (Third) BIG Barstow Town Hall Meeting

During all the above meetings, BNSF staff were available for questions and provided opportunities for community members to sign up for updates or meet with BNSF staff individually for further questions.

The commenter suggests that the Draft EIR must be translated into Spanish and recirculated to ensure meaningful public review. While there is no statutory requirement for an EIR to be translated into Spanish, recent state legislation (Senate Bill 707, 2025) requires meeting agendas be translated into another language if, according to data from the most recent American Community Survey (ACS), 20 percent or more of the population speaks that language and speaks English less than "very well."

The City considered the prevalence of limited English-speaking households in the Barstow General Plan area when determining the need and value of translating draft and final documents. Data reported by the US Census Bureau (Table ID: C16002, Household Language by Household Limited English-Speaking Status, 2023 5-Year ACS), indicates that within the City of Barstow General Plan Area (incorporated and unincorporated), there are an estimated 266 limited English-speaking households that speak Spanish (representing roughly 1.9% of total households).

These figures consistently represent around or less than 2 percent of households within the Barstow General Plan Area. This figure is far below the 20 percent threshold identified in state law for required meeting agenda translation. Furthermore, according to 2023 5-Year ACS data, approximately 97.5 percent of the households within the Barstow General Plan Area speak English or speak another language and are not limited English-speaking households. Accordingly, nearly all households can access the EIR in English, even when looking only at areas mapped as environmental justice or disadvantaged unincorporated communities, and the City determined that translation of the EIR into Spanish was not warranted.

Please also see **Consolidated Response 01-01**, concerning community outreach, and **Consolidated Response 01-02**, concerning the Draft EIR public review period. See also **Response O21-82**, concerning bilingual outreach efforts.

O21-79 This is a general comment with a summary of CEQA provisions and case law, and serves to introduce more specific comments which are responded to in detail below. As a result, no specific response is provided here. Specific comments regarding the Project's cumulative impacts are responded to below.

O21-80 The comment contends that the Draft EIR's cumulative impacts analysis is constrained. As noted in **Consolidated Response 13**, concerning requests for additional analysis and substantial evidence, commenters are advised to support assertions of legal argument that the lead agency should conduct additional analysis or review with data or other factual references. This is because the lead agency's CEQA conclusion must be based on substantial evidence in the record and not speculation. Here, the commenter has not pointed to any facts or data that support its contention that the Draft EIR's analysis is flawed. Nonetheless, commenter's concerns are addressed below.

Regarding the contention that BIG's cumulative impacts analysis should include projects beyond those with formal applications submitted to San Bernardino County, this request goes beyond what is required in CEQA, which gives the lead agency discretion in determining a reasonable scope for cumulative impacts analysis. As discussed in **Draft EIR Section 6.1.1**, the BIG vicinity cumulative impacts analysis relies on a list approach to identify cumulative projects, pursuant to State CEQA Guidelines §15130(b)(1)(A). That section empowers the Lead Agency to determine cumulative impacts by looking at a "list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the Agency." A list approach does not require the lead agency to use development projections, which are an alternative that may utilized in place of a list. To determine which future projects should be included in a list, State CEQA Guidelines § 15355 defines the scope of cumulative impacts as follows:

> *"The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects."*

The City determined in the Draft EIR that closely related, reasonably foreseeable probable future projects were projects with formal applications before San Bernardino County. (**Draft EIR**, page 6-3.) It then defined further cumulative projects for each environmental issue area, choosing a reasonable geographic scope depending on the topic, e.g., the BIG footprint plus five wildlife movement corridors for Biological Resources. (**Draft EIR**, pages 6-10 to 6-11.)

Pursuant to State CEQA Guidelines §15125, the Draft EIR includes a list of all projects within the City, San Bernardino County and along the rail corridor from the Ports to the California state line at Needles, CA. (See **Draft EIR Table 6-1: Barstow SOI and BIG Footprint Cumulative Projects List** (pages 6-4 to 6-5).) This list represents the cumulative baseline, representing physical conditions that existed when the Notice of Preparation (NOP) for the Draft EIR was published (February 2024). The Draft EIR delineates clearly in **Draft EIR Table 6-2: Study Area for Cumulative Analysis of Environmental Issues** (page 6-10) which BIG vicinity and corridor geographies apply to each environmental issue area. For example, **Draft EIR Table 2-1: NOP Comment Letters and Scoping Meeting Summary** (page 2-2) explains that for BIG aesthetics, cumulative projects are accounted for within "[a]n approximately 3.0-mile radius from BIG's Specific Plan area to account for visibility of BIG elements from off-site vantage points." (**Draft EIR,** page 6-10.) This analysis follows State CEQA Guidelines §15130(b), which guides Lead Agencies on choosing appropriate geographic scopes for various environmental issue areas:

> When utilizing a list, factors to consider when determining whether to include a related project should include the nature of each environmental resource being examined, the location of the project and its type. Location may be important, for example, when water quality impacts are at issue since projects outside the watershed would probably not contribute to a cumulative effect. Project type may be important, for example, when the impact is specialized, such as a particular air pollutant or mode of traffic.

Requests to add projects without formal applications or to add housing projections to cumulative impact analyses go beyond the cumulative impact analysis requirements in CEQA, which require only the inclusion of "reasonably foreseeable probable" projects. Indeed, courts have identified formal regulatory applications as the exact stage at which a development becomes a probable future project.[103] Speculative projects, such as potential housing growth, are not cumulative projects unlike projects under administrative review, which courts have held should be included.[104,105]

A lead agency's simple awareness of the possibility of a cumulative development is not enough for that development to be treated as a probable future project.[106] Even where a project has been applied for and is under environmental review, if there is no evidence showing that completion of the project is likely or that it is feasible to analyze the project's environmental impacts, then it does not need to be included in a cumulative impacts

[103] *County of Madera, supra*, 167 Cal.App.4th at 1127-1128 (holding that a project is a probable future project when the applicant has devoted significant time and financial resources for regulatory review and subsequently filed an application for the project).

[104] *Friends of the Eel River v. Sonoma County Water Agency* (2003) 108 Cal.App.4th 859, 870.

[105] *Golden Door Props., LLC v. County of San Diego* (2020) 50 Cal.App.5th 467, 528-529 ("Golden Door").

[106] *County of Madera, supra,* 167 Cal.App.4th at 1127.

analysis.[107,108] Where specific information on impacts of potential future cumulative development is unavailable, an EIR need not speculate about cumulative impacts.[109,110] The City need not speculate as to new potential housing developments induced by BIG for which San Bernardino County has not received formal applications. Indeed, an EIR is not required to forecast developments described as induced growth, such as downstream housing growth.[111] Analysis is instead appropriate when and where such developments are proposed. (*Id. at* 372, fn 8.)

Consistent with standard CEQA practice, the City reasonably concluded that projects with formal applications before San Bernardino County are reasonably foreseeable for the purpose of cumulative impacts review. Other developments (unnamed by commenters beyond general housing growth), are too speculative and infeasible to study. Further, CEQA does not prescribe a geographic radius or mapping requirement for cumulative development. However, for each environmental topic addressed throughout the impact analysis in Section 5 of the Draft EIR, the geographic scope used to assess cumulative impacts is described and varies depending on the topic being analyzed.

The comment further suggests that the Draft EIR does not analyze the scale and impact of new housing within the cumulative analysis area on surrounding communities, particularly regarding displacement pressures. As discussed in **Draft EIR Section 5.13: Population and Housing**, the vacancy rate for the City and unincorporated sphere of influence is approximately 8.78 percent, and there are an estimated 835 vacant units within the City (**Draft EIR Table 5.13-22: Existing Housing and Households – County of San Bernardino and City of Barstow,** page 5.13-29). Therefore, the Draft EIR provides substantial evidence that it is unlikely that the Project would necessitate replacement housing.

As discussed in **Draft EIR Section 5.13: Population and Housing**, the vacancy rate for the City and unincorporated sphere of influence is approximately 8.78 percent, and there are an estimated 835 vacant units within the City (**Draft EIR Table 5.13-22: Existing Housing and Households – County of San Bernardino and City of Barstow,** page 5.13-29). Therefore, the Draft EIR provides substantial evidence that it is unlikely that the Project would necessitate replacement housing.

The commenter, referencing the number of jobs from **Draft EIR Appendix 5.11 BIG-1: Economic Impact Report**, suggests that the EIR underestimates the Project's impacts on displacement and the jobs to housing ratio. However, as explained in **Draft EIR Table 3-12: Estimated Employment – BIG** (page 3-27) of the Project Description:

107 *City of Maywood v Los Angeles Unified Sch. Dist.* (2012) 208 Cal.App.4th 362, 397-398.

108 *East Oakland Stadium Alliance, supra,* 89 Cal.App.5th at 1272 (rejecting the inclusion as a cumulative project a Port of Oakland expansion that was under feasibility study but not under environmental review.)

109 *Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 260, 277.

110 *League to Save Lake Tahoe Mtn. Area Preservation Found. v County of Placer* (2022) 75 Cal.App.5th 63, 151.

111 *Napa Citizens, supra*, 91 Cal.App.4th at 371 ("Neither CEQA itself, nor the cases that have interpreted it, require an EIR to anticipate and mitigate the effects of a particular project on growth in other areas.")

> Note that, based on industry standard and the modeling software used, AECOM expresses construction jobs in terms of total full-time equivalents (i.e., if one person is employed during construction for two years of BIG's construction, it would be shown as two jobs). To support the environmental analysis, all construction jobs were converted to annual headcount. (**Draft EIR**, page 3-51.)

In addition, as discussed in **Draft EIR Section 5.13**:

> When considering the indirect and induced job categories, BIG would generate approximately 17,693 additional construction jobs. Given the temporary nature of these construction jobs, and since it is typical for construction workers to be employed at multiple projects within any given year, it is unlikely that the workers filling the 8,188 direct construction jobs would choose to relocate to the City. Further, the County has an existing unemployment rate of 7.1 percent (approximately 74,017 persons) and the City has an existing unemployment rate of 10.3 percent (approximately 1,005 persons); see **Draft EIR Table 5.13-15: Jobs by Industry – County of San Bernardino** (page 5.13-132). Therefore, it is anticipated that BIG's direct construction jobs could be filled in part by unemployed persons who already reside in the BIG study area…
>
> Finally, construction activities would occur over approximately 34 months. Up to 50 construction workers at the start of construction and up to 150 construction workers at peak of construction are anticipated to remain in the City. These construction workers would only be on-site for their relevant phases of construction (i.e., earthwork construction workers would primarily only be on-site for the grading and site preparation phases [14 months], building trade workers would only be on-site to construct buildings [12 months], etc.). As such, construction workers would typically be on the site for approximately one year. Given the relatively short time construction workers would be on the construction sites, it is highly unlikely they would permanently relocate to the BIG study area for temporary construction jobs. Therefore, BIG construction activities would not cause substantial unplanned population growth in the BIG study area. BIG's construction-related impacts concerning population growth would be less than significant, and no mitigation is required." (pages 5.13-44-45).

Therefore, the Draft EIR concluded, based on substantial evidence, that construction employees would not require additional housing construction. (Draft EIR, pages 5.13-44 to 5.13-45).

Regarding requests to analyze cumulative displacement impacts, as detailed in **Draft EIR, Section 6.6.13**, BIG would not cause significant displacement impacts. (Draft EIR, pages 6-43 to 6-44.) BIG would cause the removal of approximately 108 dwelling units, but this would not cause substantial displacement given the City's existing housing stock and vacancies, and

the proposed General Plan's inclusion of 6,608 new housing units. The Draft EIR found that cumulative displacement impacts would not be significant because BIG would not cause unplanned growth. As explained on **Draft EIR** pages 6-43 and 6-44, the proposed General Plan, which includes the projects listed in the **Draft EIR** for the purpose of cumulative impacts analysis, plans for new housing units and does not require displacement of existing residents or a reduction in housing that would necessitate the construction of replacement housing elsewhere.

The Draft EIR's displacement impacts analysis fits squarely within what courts have deemed appropriate cumulative impacts analysis. Discussion of cumulative impacts does not need to provide the same level of detail provided for project-specific impacts. (State CEQA Guidelines, § 15130(b).) Most salient, the level of detail provided should correspond to the severity of the impact and the likelihood that it would occur. (*Id.*) CEQA does not require exhaustive analyses for insignificant cumulative impacts. Even where there *are* significant impacts, a qualitative analysis is sufficient.[112] Cumulative impacts do not need to be quantified.[113] The length of the analysis is not relevant as long as the seriousness of the cumulative impacts is adequately recognized.[114,115] The relatively low severity of displacement impacts from BIG and corresponding low severity of cumulative displacement impacts from BIG and related projects allow for brief discussion of displacement impacts. **Draft EIR Section 6.6.13** contains good faith reasonable disclosure, even providing quantitative estimates regarding units displaced by BIG and new housing units planned through the proposed General Plan. (**Draft EIR Section 6.0** (pages 6-43 to 6-44). Accordingly, the Draft EIR's analysis of cumulative displacement impacts is supported by substantial evidence.

Furthermore, speculating about long-term changes in regional housing supply and demand is not a feasibly analysis needed to inform analysis of displacement impacts. Courts are particularly reticent to require Lead Agencies to forecast housing development.[116] These issues are more appropriately analyzed when future developments are proposed.[117]

Requests to analyze cumulative impacts beyond the Draft EIR's well-reasoned limits are not reasonable inquiries as they request exhaustive analyses not required by CEQA. Discussion of cumulative impacts should follow principles of practicality and reasonableness. State CEQA

112 *Al Larson Boat Shop, Inc. v. Board of Harbor Comm'rs* (1993) 18 CA4th 729, 748-749 (describing significant increases in cumulative traffic and air quality impacts was adequate, reasoning that an EIR need not contain all information available on subject.)

113 *Citizens for Open Gov't v. City of Lodi* (2012) 205 Cal.App.4th 296, 320 fn 10.

114 *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal.App.4th 899, 933.

115 *Fairview Neighbors v. County of Ventura* (1999) 70 Cal.App.4th 238, 245 (good faith reasonable disclosure is sufficient.)

116 *Napa Citizens for Honest Gov't v Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 371 (""Neither CEQA itself, nor the cases that have interpreted it, require an EIR to anticipate and mitigate the effects of a particular project on growth in other areas.")

117 *Id.,* at 371, 372, fn. 8.

Guidelines § 15130(b).[118,119,120,121] A lead agency is not required to provide evidence supporting every fact in the cumulative impacts analysis nor is an exhaustive analysis required.[122,123]

Regarding consistency with surrounding land uses, this is fully analyzed in **Draft EIR Table 5.11-10: Off-site Improvements City Zoning Consistency Analysis – BIG** (page 5.11-93). As discussed in **Draft EIR Table 5.11-10: Off-site Improvements City Zoning Consistency Analysis – BIG** (page 5.11-93), BIG would not conflict with any of the proposed General Plan policies. See also, **Response O21-82**, concerning analysis of environmental justice-related matters.

Finally, the commenter suggests an inconsistency with San Bernardino County's Residential Anti-displacement & Relocation Assistance Plan (RARAP). The County RARAP is only applicable to projects initiated by the County. BIG is not initiated by the County, thus, this would not apply. Therefore, no changes to the Draft EIR are necessary as it pertains to the RARAP.

O21-81 The commenter suggests that the Draft EIR's mitigation of cumulative impacts to tribal cultural resources and air quality is inadequate. The commenter's concerns are addressed in turn below.

Regarding tribal cultural resources, the commenter suggests that the EIR failed to evaluate a mitigation measure that would redesign the Project in consultation with Tribal Nations to avoid culturally sensitive areas, or to require pre-development surveys led by Tribal Nations.

To provide context for the Draft EIR's analysis and mitigation of Tribal cultural resource impacts, BIG's environmental analysis concerning tribal cultural resources is informed by tribal cultural resource analysis that has been ongoing since February 2022, comprising more than 4 years of careful research and investigation for potential tribal cultural resources, and over 2 years of tribal consultation (Appendix 5.5 BIG-1, page 3; Draft EIR, Section 5.16, Table 5.16-3.) The BIG project's extensive tribal consultation is documented in **Draft EIR Section 5.16: Tribal Cultural Resources Table 5.16-3**: **Summary of Tribal Consultation – Proposed General Plan** (pages 5.16-13 to 5.16-17.) This consultation resulted in several mitigation measures to reduce impacts to tribal cultural resources. (**Draft EIR**, pages 5.5-39 to 5.5-45.)

MM BIG CUL-1 requires both preparation and implementation of a Phase III Data Recovery Plan "[p]rior to any ground-disturbing activities." This plan is to be reviewed, commented on, and ultimately approved by the consulting Tribes, as well as the City and U.S. Army Corps of Engineers. Data recovery efforts under this plan are subject to the detailed tribal monitoring requirements and procedures outlined in **MM BIG CUL-1**. BIG also requires the preparation of a Cultural Resources Monitoring and Management Plan that is reviewed and approved by

118 *Golden Door, supra*, 50 Cal.App.5th at 529.
119 *Rodeo Citizens Ass'n v County of Contra Costa* (2018) 22 Cal.App.5th 214, 232.
120 *Banning Ranch Conservancy v City of Newport Beach* (2012) 211 Cal.App.4th 1209, 1228.
121 *City of Long Beach v Los Angeles Unified Sch. Dist*. (2009) 176 Cal.App.4th 889, 906.
122 *Irritated Residents, supra*, 107 Cal.App.4th at 1404.
123 *Schaeffer Land Trust v San Jose City Council* (1989) 215 Cal.App.3d 612, 631.

consulting Tribes (**MM BIG CUL-2**), as well as cultural resources awareness training for all construction staff regarding the cultural sensitivity of BIG and the process to follow in the case of inadvertent discovery of cultural resources (**MM BIG CUL-3**). Additionally, tribal monitors approved by consulting Tribes, alongside archaeological monitors, are required to be present for BIG construction (**MM BIG CUL-4**). Despite these measures, there is still potential to encounter previously unknown cultural resources because not all resources are recorded in State databases or found during field surveys. The Draft EIR therefore implements **MM BIG CUL-5**, requiring construction work to halt within 50 feet of any previously unknown cultural resources encountered during construction and culturally appropriate treatment for identified resources agreed upon by the consulting tribes, with an emphasis on avoidance of resources. The Draft EIR further requires reporting of construction-related details and any inadvertent discoveries to consulting Tribes (**MM BIG CUL-6**) and the development of public education materials and a museum exhibit detailing the history and connection of the Serrano people to the area, emphasizing the living Serrano communities and their active stewardship of their ancestral lands (**MM BIG CUL-7**). BNSF shall be responsible for funding, completing, and disseminating the materials, over which the consulting Tribes will have final approval. To summarize, during consultation, BNSF and the two consulting tribes agreed to monitoring by tribal staff, reburial locations within the BIG footprint selected by the tribes, public education materials, and recovery of all known tribal cultural resources prior to construction commencing. Thus, BIG construction has already substantially reduced potential impacts to tribal cultural resources through mitigation measures incorporated through Tribal consultation. Notwithstanding, despite these mitigation measures, BIG construction may still damage previously unknown significant cultural resources, thus, concludes that the impact would be significant and unavoidable.

Regarding cumulative impacts to tribal cultural resources, BIG design includes avoidance of an approximately 600-acre area within the Mojave River which, as noted in Section 5.16, potentially includes significant tribal cultural resources associated with long-term settlement (page 5.16-18). Furthermore, the majority of the areas that are highly culturally sensitive are proposed for fill only in order to minimize disturbance of tribal cultural resources. However, given the confidential nature of tribal cultural resources, a cut/fill map overlain with tribal cultural resources is not included in the Draft EIR. The Draft EIR evaluates a Reduced Intensity Alternative which would reduce potential impacts to tribal cultural resources, but as discussed in **Draft EIR Section 8.0, Alternatives**, pages 8-98 through 8-100, this alternative was ultimately rejected.

The commenter suggests that the Draft EIR failed to make a good faith effort to ensure consistency with the 2022 California Air Resources Board Scoping Plan, namely, by not adopting zero-emissions locomotive technologies. Regarding BIG's consistency with the 2022 CARB Scoping Plan, BIG is consistent with the Scoping Plan because BIG would result in a net reduction of greenhouse gas emissions, as shown in **Draft EIR Table 5.8-12: BIG GHG Emissions** (page 5.8-61). BIG embodies the State's policy for an integrated, resilient, and low-

carbon freight system. Indeed, BIG is cited in the 2024 State Rail Plan,[124] underscoring BIG's unique value as the first facility of its kind developed by a Class I railroad. Regarding BIG's cumulatively considerable contribution of toxic air contaminant emissions, BIG would comply with all applicable regulations as outlined in **Draft EIR**, pages 5.3-101 through 5.3-103. BIG would also implement all feasible mitigation measures as shown on Draft EIR pages 5.3-104 through 5.3-108.

BIG considered a number of potential mitigation measures, including zero-emission locomotives (see **Draft EIR** pages 5.3-108 through 5.3-115). In **Draft EIR Section 5.3: Air Quality,** the City considered feasible mitigation measures to both project-level and cumulative impacts, noted which ones would contribute to mitigating cumulative impacts, and determined that certain measures, such as battery-electric locomotives and battery tender systems, were not feasible (**Draft EIR Section 5.3** pages 5.3-28 to 5.3-65).

The Draft EIR notes that many of the mitigation measures designed to reduce Project-level significant impacts would also mitigate cumulative impacts. **Draft EIR Section 6.6.3** describes how **MM BIG AQ-7** through **MM BIG AQ-14** would mitigate cumulative impacts from criteria pollutant impacts within the MDAB (**Draft EIR Section 6.0** pages 6-16 to 6-31). **Draft EIR Appendix 5.3 BIG-1** then evaluates in a comprehensive and robust manner mitigation measures that could address both project-level and cumulative air quality impacts (**Draft EIR, Appendix 5.3 BIG-1**).

As noted in the Draft EIR, the same reasons that some evaluated measures are infeasible for project-level impacts also apply to cumulative impacts. By way of example, **Section 7.1 of Draft EIR Appendix 5.3** finds that battery-electric locomotives are infeasible mitigation measures in part because they have small energy capacities and there is no current supply chain designed to deliver larger battery-electric locomotives. (**Draft EIR Appendix 5.3 BIG-1,** pages 175 to 179.) This reasoning applies whether or not BIG results in significant cumulative air quality impacts for certain air pollutants in certain time frames. **Draft EIR Appendix 5.3 BIG-1** contains multi-page discussions of the feasibility of various air quality mitigation measures, including battery-electric locomotives, battery-electric switchers, zero-emissions trucks, and hybrid and electric rubber tire gantry cranes, and each of these feasibility analyses apply to BIG, whether there are cumulative impacts or not (**Draft EIR Appendix 5.3 BIG-1,** pages 175 to 181.). See **Consolidated Response 05** concerning feasible and enforceable mitigation measures and **Consolidated Response 05-06** concerning the feasibility of specific technology and other mitigation measures. See also the following:

- *BEL and Catenary Feasibility Analysis*;
- *Benchmark Report* (outlining the multiple flaws within CARB's 2024 Zero-Emission Train Feasibility Analysis: Port of Los Angeles to Barstow (CARB 2024 Feasibility Analysis));
- *eRTG Feasibility Memorandum*; and,
- *ZE Truck Feasibility Report*.

[124] https://dot.ca.gov/-/media/dot-media/programs/rail-mass-transportation/documents/california-state-rail-plan/2024-ca-state-rail-plan-a11y.pdf. Page 41-42.

See **Responses O21-146** and **O21-147**, noting that the reason for electric components (switchers and linehaul BELs, electric RTGs, ZE and NZE trucks, etc.) being rejected from BIG design or mitigation was not because of solely cost of ownership, but because implementing these measures would present unsurpassable technological and operational challenges which, combined with (but not solely due to) increased costs, would render BIG not competitive with current transportation options. These electric components would also exceed BIG's power budget as discussed in the Draft EIR and substantiated in the *Power Budget Memorandum*. As noted in the *BEL and Catenary Feasibility Analysis* cited above, BELs are not commercially ready and would present substantial operational and technological barriers. As also detailed in the *BEL and Catenary Feasibility Analysis*, the improvement from Tier 4 locomotives to zero emission (either through BELs or through catenary) would result in less than 1% reduction in pollutant concentrations compared to the high reductions already achieved through Tier 4. Under CEQA, mitigation measures are also required to be "roughly proportional" to the significant impacts found in an EIR (State CEQA Guidelines §§ 15126.4(a)(4), 15126.4(a)(5).). Here, the benefits are marginal relative to the enormous costs discussed in the *BEL and Catenary Feasibility Analysis.*

As noted in *eRTG Feasibility Memorandum*, ramp/de-ramp eRTGs, as would be needed for BIG, are not commercially available and are not produced by any known manufacturer (in addition, if they were created, they would undermine flexibility, removing the key benefit of RTGs compared to RMGs). The *ZE Truck Feasibility Report* documents that ZE trucks are infeasible because requiring them would impair BIG's ability to reduce regional truck trips by making the Project economically unviable for its customers. An industry-level issue—such as adoption of a brand-new technology to reduce drayage truck emissions and modify goods movement—requires an industry-wide regulation and solution, not a requirement that singles out one project.

Additionally, BNSF has entered into a Memorandum of Understanding with MDAQMD to implement a demonstration program testing five hybrid diesel electric linehaul locomotives that consume less fuel and generate lower emissions than traditional diesel locomotives during mainline operations, to determine if hybrid locomotives could become feasible. These locomotives also have the ability to operate in zero emissions mode when near BIG or at the BIG rail yard. However, given it is unknown and thus speculative whether the demonstration program would be accomplished and would reduce impacts, the demonstration program is not mitigation under CEQA and the Draft EIR did not take credit for these emissions reductions. Additionally, BNSF has entered into a Memorandum of Understanding to engage in good faith with CARB to explore currently infeasible technologies and other methods that could potentially further reduce emissions. The CARB Memorandum of Understanding is not mitigation under CEQA and the Draft EIR does not take credit for potential emissions reductions. As noted in the *Governor's Certification for Judicial Streamlining of the Barstow International Gateway Project in the County of San Bernardino*[125]*,* "The Project Applicant has entered into a Memorandum of Understanding (MOU) with [MDAQMD] executed on

[125] Submitted into the administrative record to the City on May 1, 2026.

February 23, 2026…and with [CARB] executed April 23, 2026… to implement a demonstration project of hybrid battery electric locomotive technology ("Pilot") as part of the Project". Thus, the Draft EIR carefully considered mitigation measures and implemented all feasible mitigation measures concerning GHG emissions.

CEQA does not require mitigation where infeasible. State CEQA Guidelines § 15130(c) acknowledges that mitigating cumulative impacts is often not feasible in a project approval. State CEQA Guidelines state that "with some projects, the only feasible mitigation for cumulative impacts may involve the adoption of ordinances or regulations rather than the imposition of conditions on a project-by-project basis." The Guidelines go on to state that, "If the lead agency determines that a mitigation measure cannot be legally imposed, the measure need not be proposed or analyzed. Instead, the EIR may simply reference that fact and briefly explain the reasons underlying the lead agency's determination" (State CEQA Guidelines § 15126.4(a)(5).). The Draft EIR is responsive in this manner, identifying cumulative impacts and noting that certain mitigation measures are infeasible and therefore some cumulative impacts and significant and unavoidable**.**

O21-82 The commenter states that the proposed Draft General Plan fails to comply with SB 1000 (specifically, Government Code section 65302) and that the currently adopted Environmental Justice Element provides superior metrics, analysis, and policy and implementation commitments compared to proposed Draft General Plan policies and implementation actions.

The City appropriately addresses SB 1000 by incorporating environmental justice measures into GPU policies and implementation actions. **Draft EIR, Appendix 3.0**, the proposed General Plan Update, includes environmental justice considerations and annotations for the following sub-topics: air quality, pollution, public facilities, food access, safe and sanitary housing, physical activity, and civil engagement. (**Draft EIR, Appendix 3.0**, page 4.) This is consistent with SB 1000's requirement that cities *either* adopt an Environmental Justice element *or* integrate environmental justice policies, objectives, and goals into other elements of the General Plan.

In 2021, the City adopted a standalone Environmental Justice Element. The analysis contained in the October 2025 General Plan Disadvantaged Communities Background Report ("Background Report"), incorporated by reference into **Draft EIR, Appendix 3.0**, the proposed General Plan. The Background Report contains substantially more detailed and relevant analysis and information compared to the currently adopted Environmental Justice Element. The Background Report explains the GPU's compliance with SB 1000, addresses public services for disadvantaged communities pursuant to SB 244, addresses specifically local environmental issues with regarding to ozone and other pertinent issues, and identifies disadvantaged communities based on both CalEnviroScreen 4.0 and SB 244. This Background Report, incorporated by reference also explains why the City opted to pursue the approach of addressing the topic of environmental justice throughout the General Plan, as permitted explicitly in state law. The Background Report also includes a compendium of relevant General Plan goals, policies, and implementation actions and related EIR mitigation measures

organized by subtopics listed in state law to facilitate users' access and understanding. The proposed General Plan, on page 4, and the Background Report, on page 22, explain:

> "Based on the importance of environmental justice and its overlapping nature with other topics, the City has opted to integrate this topic throughout the entire General Plan. This approach helps to ensure that the concerns related to environmental justice are considered alongside the full spectrum of issues to be considered by decision makers, service providers, residents, businesses, investors, and developers."

This revised approach to environmental justice policies means that the proposed General Plan, upon adoption, would replace the existing Environmental Justice Element. While the City would no longer maintain a standalone Environmental Justice Element, the commitments and priorities set forth in the 2021 Environmental Justice Element informed and evolved into the environmental justice policies throughout the proposed General Plan Update. The Draft General Plan also provides annotations on policies and there is an explicit labeling in the Implementation Plan on which actions are directly related to specific subtopics of environmental justice as listed in state law.

Rather than abandon environmental justice, as the commenter suggests, the GPU, by integrating environmental justice throughout the plan, "helps to ensure that the concerns related to environmental justice are considered alongside the full spectrum of issues to be considered by decision makers, service providers, residents, businesses, investors, and developers" (**Draft EIR, Appendix 3.0**, page 4). The GPU adequately addresses SB 1000's requirements by incorporating mitigating policies targeting the protection of residents in the city from pollution sources potentially introduced to the region under the proposed General Plan. As identified on page 5.3-122 of the **Draft EIR**, mitigating policies include Policy LU-1.1, which requires new development to incorporate buffering and siting design to minimize or avoid potential impacts on existing nearby residents; Policy LU-1.4, which prioritizes nonresidential development in undeveloped areas to protect existing residential neighborhoods from localized pollutants that could subsequently be generated by on-site activities or equipment; or Policy OSC-3.1, which requires new truck-intensive development to avoid or reduce truck parking and idling in public rights-of-way to reduce potential resident exposure.

The Draft General Plan policies and actions direct the City to address specific systemic environmental justice issues identified in state law and commit to meaningful degrees of change, improvement, and prioritization for environmental justice communities within the General Plan area. For example, Draft Policy LU-1.5 prohibits amendments to the Land Use Map for Industrial within Central Barstow, which is where the vast majority of Barstow residents live, shop, recreate, worship, and go to school. The draft policy also permits amendments to the Land Use Map for General Industrial within 500 feet of the Lenwood community only when associated with a specific plan that includes appropriate buffering.

As another example, Draft Policy S-2.8 directs the City to encourage and pursue funding for improvements to existing residential and non-residential buildings consistent with the latest

state building code requirements for indoor air quality; energy efficiency; energy storage; disaster and severe weather resilience; and solar power. As funding is obtained, this policy directs the City to prioritize improvements for buildings that are both within 500 feet of a freeway or railroad and intended for use by residents or employees for at least eight hours a day.

Draft Implementation Action S-13 commits the City to evaluate options to expand current programs and collaborations with Southern California Edison and other agencies and organizations (e.g., High Desert Regional Energy Leader Partnership) to improve energy and weather resiliency against extreme heat or other hazardous events. The draft action also commits the City to emphasize partnerships and/or funding to assist low-income households to improve the energy efficiency, energy resilience (e.g., solar, back-up energy systems), and weather resilience of their homes, particularly those who depend on electricity supply for medical devices and refrigerating medication.

Draft Implementation Action CM-4 directs the City to continue to coordinate with Victor Valley Transit Authority and to pursue funding to upgrade bus stops and other transit facilities, with priority given to transit facilities serving census tracts where 10 percent or more of households have no access to a vehicle.

Draft Implementation Action OSC-2 directs the City to establish a parks master plan that identifies strategies and potential funding sources to maintain the quality of existing park facilities and provide new park facilities, with a priority to define and improve/expand existing park facilities in underserved areas. The action also directs the City to conduct meaningful and engaging community outreach as part of the development of the parks master plan, with particular emphasis on reaching residents in areas determined to be underserved and/or under-resourced.

As a final example, Draft Policy LU-1.7 directs the City to establish and implement procedures and protocols for General Plan amendments that ensure transparency and enable community members to meaningfully participate in the decision-making process. Draft Implementation Action IMP-LU-1 commits the City to evaluating and implementing options to reach underrepresented community members and community-based organizations when considering land use amendments, ensuring that community engagement takes place throughout the entire planning and decision-making process. It goes on to direct that options should include, but be not limited to, stakeholder group meetings, town halls, and multilingual multimedia communications that are convenient for and reach a broad spectrum of the community. The draft action also states that a greater number and variety of engagement activities should be required based upon the potential environmental justice concerns that might arise from the proposed amendment, as identified by the City and/or local residents (in advance of or as a result of engagement activities). Require applicants to fund community engagement efforts and to demonstrate good faith in planning, advertising, and conducting such efforts.

Moreover, the City is proposing fundamental changes to its land use plan explicitly to avoid an exacerbation of existing, and avoidance of future, environmental justice inequities. Along with Draft Policy LU-1.4, that directs the City to plan and prioritize nonresidential uses west of Interstate 15 and Highway 58, Figures LU-1 (Land Use Map) and LU-2 (Special Policy Areas) shift future residential uses from the west to the east into Central Barstow, and future nonresidential industrial and business park uses outside of Central Barstow. This change accomplishes multiple goals related to environmental justice. First, new residential and associated amenities would be located near existing disadvantaged communities, ensuring new investments benefit existing residents and existing public facilities (e.g., schools, parks, sidewalks, etc.). Second, existing and future residential areas, including areas identified for potential affordable housing, would be separated and distant from industrial uses that can create compatibility concerns and increase exposure to pollutants. In combination with policies and plans in the Mobility Element, transit and bicycle networks would be focused on providing mobility options without having to rely upon a private vehicle for transportation. As another example, the Draft Figure CM-4 (Goods Movement) revises where heavy duty trucks are permitted to travel, limiting such travel to the freeways (national network), highways (state network), and a handful of roads that connect the freeway and highways to the proposed BIG facility. In combination, the City's Draft General Plan expands upon the 2021 Environmental Justice Element and provides more substantial and impactful changes to address existing and reduce future environmental justice issues in the Barstow community.

The commenter suggests the Draft EIR failed to note nearby disadvantaged communities as part of baseline conditions and to evaluate associated impacts. State CEQA Guidelines do not require disclosure of disadvantaged communities nor analysis of environmental justice impacts. Nor does CEQA contemplate including the presence of adjacent disadvantaged communities as part of the baseline condition. The case (*San Franciscans for Reasonable Growth v. City & County of San Francisco* (1987)) cited by the Commenter to support its requests that the Draft EIR disclose and analyze impacts on disadvantaged communities does not require disclosure of nearby disadvantaged communities, let alone discuss them at all.

Nevertheless, the Draft EIR evaluates air quality impacts and local health risks, stating, on page 5.3-58:

> Existing Pollution Burden
>
> According to CalEnviroScreen, the BIG footprint and the surrounding residences are in Census Tract 6071011800, which is within the 62nd percentile. CalEnviroScreen uses environmental, health, and socioeconomic information to produce percentile scores for every census tract in the State. Each census tract receives scores for as many as 21 indicators (such as air quality emissions, children's Pb risk from housing, drinking water contaminants, pesticide use, toxic releases from facilities, traffic impacts, among others). For each indicator, the scores are put in order from highest to lowest. An area with a high score is one that experiences a higher pollution burden than areas with low scores. As noted above, CalEnviroScreen scores are not an expression of health risk, and

> do not provide quantitative information on increases in cumulative impacts for specific sites or projects. Further, as a comparative screening tool, the results do not provide a basis for determining when differences between scores are significant in relation to public health or the environment.
>
> Senate Bill 535
>
> Based on OEHHA mapping, the BIG footprint is adjacent to SB 535 designated disadvantaged communities in Census Tracts 6071009400, 6071009500, 6071011700, and 6071011900. As noted above, SB 535 prioritizes AB 32 cap-and-trade program funds to projects that provide a benefit to disadvantaged communities as identified by the OEHHA mapping. SB 535 does not include project specific requirements or prohibit developments in proximity to a designated community. (Draft EIR, page 5.3-58.)

The Draft EIR finds in most cases that BIG, instead of causing significant impacts, actually reduces emissions compared to the No BIG alternative due to the use of cleaner Tier 4 locomotives, reduced truck traffic, and other factors, including mitigation measures designed to improve air quality. (See Consolidated Response 17.) These benefits would likely accrue to nearby disadvantaged communities.

Within the City of Barstow General Plan Area (incorporated and unincorporated), data reported by the US Census Bureau (Table ID: C16002, Household Language by Household Limited English-Speaking Status, 2023 5-Year ACS), indicate that there are an estimated 266 limited English-speaking households that speak Spanish (representing roughly 1.9% of total households). Of these 266 households:

- 182 are within the City of Barstow (incorporated only), also roughly 1.9% of households
- 137 are within areas mapped as environmental justice areas, also roughly 1.9% of households
- 64 are within the areas mapped as disadvantaged unincorporated communities, representing roughly 2.7% of households.

According to the California Air Resources Board, Muscoy is the only AB 617 community in San Bernardino County, located over 60 miles from Barstow. [AB 617 is an environmental justice law intended to reduce pollution and toxic emissions to communities identified by CARB as part of the Community Air Protection Program (CAPP). As of this Final EIR, 19 communities have been identified as part of CAPP, with the closest being Muscoy.]

According to data reported by the US Census Bureau (Table ID: C16002, Household Language by Household Limited English-Speaking Status, 2023 5-Year ACS), a total of 241 households in Muscoy speak Spanish and are considered a "Limited English-speaking household". The

number of such households reported in the 2022, 2023, and 2024 5-Year ACS data is 311, 241, and 170, respectively, indicating a trend of decreasing linguistic isolation.[126]

Moreover, of the three Census Tracts in Muscoy, only two contain residents that live within 2,000 feet of the railroad tracks: 41.01 and 41.04. Within these two Census Tracts, the number of "Limited English speaking households" that speak Spanish is 38 (3.2 percent of all households) and 166 (13.4 percent of all households), respectively as reported in the 2023 5-Year ACS data (with collective totals reported to be 274 in 2022, 204 in 2023, and 137 in 2024).

While this data is not available below the Census Tract level, the vast majority of Muscoy residents in these two tracts live over 1,000 feet from the railroad tracks, indicating that the number of "Limited English-speaking households" that speak Spanish within 1,000 feet of the railroad tracks is likely much lower. If the proportions at the Census Tract level are applied to the households reported for Census Block Groups that are within 1,000 feet of the railroad tracks (Census Tract 41.01, Block Groups 2, 3, and 4; and Census Tract 41.04, Block Group 1), the estimated number of "Limited English speaking households" that speak Spanish decreases to 71.

Rather than abandon community-driven planning, as the commenter suggests, the City has strengthened its commitment to community engagement leading up to and through the GPU (and therefore through the Draft EIR).

The City conducted an extensive outreach effort associated with the Project, including a bilingual Community Survey in April 2023, a bilingual Open House and Scoping Meeting in March 2024, a bilingual education video explaining all of the Project components in November 2025 in advance of the Draft EIR release. Many advertisements were also conducted in a bilingual fashion, including bilingual outreach through local radio stations. Outreach materials were published in English and Spanish and posted on the City's website throughout the entire process. Additionally, in August 2024, the City reached out by phone and email to The Center for Community Action and Environmental Justice (CCAEJ) and The People's Collective for Environmental Justice (PC4EJ) and invited them to have discussions, participate directly in the process, and help facilitate others to participate. PC4EJ did not respond to any communications and CCAEJ indicated they would follow the project but opted not to participate.

The commenter suggests that the Draft EIR fails to integrate CalEnviroScreen significance thresholds to develop mitigation measures or project alternatives and fails to incorporate these thresholds into the proposed General Plan.

Regarding the General Plan, the Background Report's analysis includes additional detail on CalEnviroScreen (CES) metrics that surpass the information in the currently adopted Environmental Justice Element by focusing on which pollution and population factors are the

[126] CARB, 2026, Community Maps, https://gis.carb.arb.ca.gov/Portal/apps/experiencebuilder/experience/?id=fa898fba4d024c568d7e228b83cd1246&page=Community-Maps&views=View-9, Accessed on February 13, 2026.

primary driver of the composite percentile scores. The Background Report's analysis also breaks down income at a more refined level (Census Block Group as opposed to Census Tract), enabling the City to more accurately identify disadvantaged neighborhoods within the broader Barstow community. The Background Report provides more in-depth discussion of local knowledge and factors to augment CES metrics.

Regarding the Draft EIR's use of CalEnviroScreen thresholds, the Draft EIR utilizes MDAQMD significance thresholds rather than CalEnviroScreen thresholds because CalEnviroScreen does not contain significance thresholds that are available for use in CEQA analyses. While CalEnviroScreen provides background information on environmental health context for various regions throughout the State, it does not identify specific significance thresholds which may be relied upon to demonstrate project consistency with ambient air quality standard attainment efforts made by the MDAQMD or consistency with health risk impact thresholds recommended by OEHHA or MDAQMD.

As discussed in Section 5.3 of the Draft EIR, the air quality analysis for the proposed General Plan utilizes significance thresholds adopted by MDAQMD to assess whether regional air quality impacts may occur. The significance thresholds adopted by MDAQMD reflect an acceptable level of individual project emissions below which they would not cumulatively contribute to existing or forecasted exceedances of ambient air quality standards, which are developed, in part, to protect public health.

A Health Impact Assessment (HIA) was conducted for the BIG project based on requests from commenters (see HIA Report). Please refer to **Consolidated Response 17,** which explains the HIA Report's finding that "Barstow residents and communities along the Corridor will not experience any meaningful or discernible individual or cumulative health impacts or health endpoint increases as a result of BIG construction or operations." The HIA reviewed the potential regional impacts from emissions from construction and operational emissions of the BIG project associated with ozone precursors and PM2.5 formation compared to baseline conditions. Health impacts for the air pollutants were estimated using the BenMAP-CE health assessment model. As disclosed in the HIA, with respect to ozone and PM2.5, the project's concentration impacts on regional public health are not discernible as different than zero and may even result in negative impacts (i.e., decrease in health endpoint occurrences) because the HIA did not account for reductions associated with regional truck VMT.[127] Therefore, the project's effects on health endpoints are not statistically meaningful and not expected to have a perceptible health impact. Given the results of this HIA, Barstow residents would not experience any meaningful or discernible individual or cumulative health impacts or health endpoint increases as a result of BIG project construction or operations. Please also see **Consolidated Response 06**, concerning impacts to communities.

O21-83 Please see **Response O21-82** concerning CEQA's requirements related to environmental justice analysis. See Appendix B of **Draft EIR Appendix 5.3 BIG-1**.

[127] See "A Conservative Approach" in the HIA Report.

The commenter suggests that BIG "would only intensify emissions and congestion throughout these communities by expanding BNSF rail operations and increasing heavy-duty truck traffic through AB 617 and adjacent communities." Regarding potential increases of locomotive emissions along the Alameda Corridor and throughout other Southern California communities, as demonstrated in the Corridor Emissions Memorandum (**Appendix B of Draft EIR Appendix 5.3 BIG-1**), there would be no increases in DPM emissions within the Corridor, thus, BIG would not cause impacts to these environmental justice communities through DPM emissions. This is due to BIG utilizing a dedicated fleet of Tier 4 locomotives for the cross-dock intermodal trains from the Ports to BIG, as well as increasing the percent of renewable diesel in fuel for all BNSF trains fueling at the Ports from 1% to 10%. Please see also, **Consolidated Response 17,** concerning the Health Impact Assessment Report findings.

O21-84 The commenter suggests that the Draft EIR fails to meaningfully evaluate alternatives to diesel locomotives. Please see **Consolidated Response 05,** concerning feasible and enforceable mitigation measures; **Consolidated Response 05-06,** concerning the feasibility of specific technology and other mitigation measures; and **Consolidated Response 14,** concerning consideration of a range of reasonable alternatives.

As discussed in **Response O21-13**, the environmental analysis considered an expansive list of alternatives, including those which would minimize impacts to adjacent sensitive receptors such as the BIG Flipped Concept and BIG Reduced Flipped Concept alternatives which would place the railyard components farther from receptors south of Main Street. Refer to **Consolidated Response 14** concerning consideration of a range of reasonable alternatives.

The Draft EIR also evaluated health impacts for the corridor through mass-emissions and cumulative impact analyses, including portions of the corridor that go through or near San Bernardino/Muscoy, Bloomington, Fontana, and Rialto, thereby evaluating impacts to AB 617 communities. This corridor-wide evaluation was expressly conducted to assess whether Project implementation would result in increased emissions affecting regulatory and environmental justice communities located along the rail corridor, including communities designated pursuant to AB 617. AB 617 provides a regulatory and policy framework to guide community-focused emissions reduction strategies through CERPs. It does not modify CEQA's significance standards, baseline requirements, or the legal threshold for requiring preparation of an EIR. In fact, AB 617 CERPs require local air districts to develop and implement strategies to reduce air pollutants in specifically designated overburdened neighborhoods.

Finally, as explained in **Appendix 5.3 BIG-1, pages 73 to 74,** and quantified in the **Corridor Emissions Memorandum** (Appendix B to **Appendix 5.3 BIG-1**), comparison of future No BIG and BIG conditions demonstrates that implementation of the Project would not increase and, in certain analysis years, would reduce diesel particulate matter (DPM) emissions along the rail corridor. These findings show that the Project would not cause increases in corridor-wide health risks. BIG would not result in the potential for significant air quality impacts to AB-617 communities along the Corridor. Please also see **Responses O21-82** through **O21-84** for further discussion of the Draft EIR's analysis of impacts to disadvantaged communities. For

more discussion on the use of a future conditions baseline for basin-wide air quality effects, please refer to **Response L17-33**.

Regarding potential impacts along the rail corridor, as demonstrated in the Corridor Emissions Memorandum (Appendix B of **Draft EIR Appendix 5.3 BIG-1**), there would be no increases in DPM emissions within the Corridor; thus, BIG would not cause impacts to communities and would in fact improve air quality compared to the No BIG scenario. This is because BIG, as an enforceable and binding commitment of the project, would utilize a dedicated fleet of Tier 4 locomotives for the cross-dock intermodal trains from the Ports to BIG, as well as increase the percent of renewable diesel in fuel for all BNSF trains fueling at the Ports from 1 percent to 10 percent. In addition, with respect to communities in Barstow, in another binding and enforceable commitment, BNSF also would remove from service all 15 of its existing Tier 0/0+/1+ switcher locomotives and replace them with six new Tier 4 switchers at the unrelated existing Barstow Classification Yard (refer to **Consolidated Response 12-03** concerning enforceability of the Project components and mitigation measures for the Project). This would minimize impacts of emissions to communities near the BIG project site. Commenter fails to take into consideration the rail corridor emissions analysis within the Draft EIR in alleging increased pollution levels and the BIG footprint emissions analysis within the Draft EIR in alleging failure to disclose impacts and consider mitigation measures. Indeed, **MM BIG AQ-7** through **MM BIG AQ-14** all mitigate local air quality impacts and the City considered others that were deemed infeasible, as detailed in **Draft EIR Appendix 5.3 BIG-1**. See also **Responses O21-82, O21-83** and **L17-40**.

While the Draft EIR does analyze impacts to disadvantaged communities, CEQA does not require a specific analysis of environmental justice issues nor an identification of nearby disadvantaged communities. What CEQA does require is health and air quality analyses for sensitive receptors and impacted communities. The Draft EIR contains these analyses. The issue of environmental justice, as it is defined in California law, is not a required subject of analysis under CEQA, where potential social and economic effects have a circumscribed role. State CEQA Guidelines § 15131 allows the approving agency to include or present economic or social information in an EIR, but State CEQA Guidelines § 15131(a) limits the consideration of such factors in the assessment of significant impacts, stating:

> Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes.

The Draft EIR sets forth a reasoned analysis impacts to all sensitive receptors within the applicable study areas, including air quality and noise, and considered all feasible mitigation measures for all impacts that were found significant. As discussed in **Response O21-75**, the Draft EIR incorporates all feasible noise mitigation measures. Regarding air quality impacts,

refer to **Consolidated Response 09-03** concerning consideration of the Sylvan Community in the Air Quality analysis. In sum, the Draft EIR fully analyzed air quality and noise impacts to surrounding communities, and considered all feasible mitigation measures.

The commenter suggests that the Draft EIR violates Government Code Section 11135, but offers no evidence that the Draft EIR discriminates against certain communities or protected classes in its level of analysis, nor that the mitigation measures somehow discriminate or vary in their application towards certain communities. Nor has the commenter identified any evidence that the project "is funded directly by the state, or receives any financial assistance from the state."[128] Cases dealing with discrimination under Section 11135 involve governments applying environmental laws more strictly to certain neighborhoods than others based on wealth or race.[129] This statute has no relation to BIG.

There may be disagreements between commenter and the City regarding the scope and findings of impact analyses in Barstow, but these would neither invalidate the Draft EIR nor indicate discrimination or disparate treatment. In determining the contents of an EIR, a lead agency is entitled to rely on its own experts' opinions as to what studies and analyses are appropriate to evaluate impacts.[130] CEQA does not require a lead agency to conduct every analysis requested by concerned persons or to perform all recommended research to evaluate the impacts of a proposed project.[131,132] Finally, disagreement among experts does not make an EIR inadequate (State CEQA Guidelines § 15151)

As noted in **Draft EIR Section 5.0, Environmental Analysis**:

> As such, development of BIG within the portion of the BIG Specific Plan area that is proposed to be annexed into the City, as well as development of BIG within the portion of the BIG Specific Plan area that is already within the City limits, would be subject to the City's proposed General Plan goals and policies and Barstow Code regulations and standards. Therefore, to the extent that application of existing land use plans, policies, and regulations is a factor in determining impact significance under the thresholds used in this EIR, the City's proposed General Plan land use plan and policies and the Barstow Code regulations and standards constitute the existing conditions against which the significance of impacts of BIG improvements in the portion of the BIG Specific Plan area that is proposed for annexation to the City, as well as those in the portion of the BIG Specific Plan area that is already within the City limits are determined. (Draft EIR, page 5-5).

Thus, analysis of the 2021 Barstow Environmental Justice Element is not required. Analysis of potential conflicts with the proposed General Plan, including policies related to environmental justice, is included in **Draft EIR Section 5.11**, pages 5.11-36 to 45 and 5.11-69

128 *Comunidad en Accion v. Los Angeles City Council* (2013) 219 Cal.App.4th 1116, 1122.

129 *Youth for Envtl. Justice v. City of Los Angeles*, No. BC600373 (Cal. Super. Ct. L.A. Cnty. Nov. 6, 2015) (settled litigation where city was alleged to have required stricter environmental protections for oil rigs in affluent neighborhoods).

130 *Irritated Residents, supra,* 107 Cal.App.4th at 1397.

131 *Irritated Residents, supra,* 107 Cal.App.4th at 1396.

132 *Clover Valley Foundation v. City of Rocklin* (2011) 197 Cal.App.4th 200, 245.

to 90 (see analysis concerning policies LU-1.1, LU-1.4, LU-1.5, LU-1.7, LU-2.4, LU-4.3, LU-4.4, H-3.6, CM-2.1, CM-2.7, CM-3.2, S-2.7, S-2.8, and OSC-3.1). As noted in its analysis of **Impact 5.11-2**, BIG would not conflict with any of these policies.

O21-85 Please see **Draft EIR Appendix 5.1 BIG-1 Methodology for Evaluating Aesthetic Impacts** and for visual impacts, **Draft EIR Appendix 5.1 BIG-2 BIG Solar Farm Glare Study** for potential heat and glare impacts, **Impact 5.12-1** for potential noise impacts, **Impact 5.11-2** for potential impacts concerning land use compatibility, and **Draft EIR Figure 5.1-23: Rail Yard Lighting Plan** (page 5.1-67) and **Impact 5.1-4** for lighting from the proposed solar facility located immediately adjacent to residential parcels. Impacts to property values, community character, and long-term neighborhood stability are not environmental impacts; see **Consolidated Response 06-02** concerning the role of social and economic issues under CEQA, **Consolidated Response 06-04** concerning quality of life, and **Consolidated Response 06-05**, concerning decreased property values. Impacts concerning traffic and roadway safety are addressed in Impact 5.15-2, beginning on page 5.15-57. Impacts to groundwater and water supply are addressed in the **Water Supply Assessment**; see **Appendix 5.17 BIG-2**.

O21-86 This is a general comment that includes concluding remarks and a request that the City respond to all comments. As a result, no specific response is provided here. Each comment submitted on the Draft EIR has been responded to, and the comments and responses have been provided to the decision-makers.

O21-87 This comment is introductory in nature and outlines comments regarding feasibility of mitigation which are discussed and responded to in further detail below.

O21-88 Specific comments regarding the Project Description are responded to below.

O21-89 The gross train weight is based on the Barstow International Gateway Corridor Emissions Analysis (Corridor Emissions Analysis) provided in **Draft EIR Appendix 5.3 BIG-1**. The Corridor Emissions Analysis can be found on PDF pages 9,336 through 9,507 of **Draft EIR Appendix 5.3 BIG-1**, part 18). Specifically, the referenced eastbound train weight and corresponding westbound train weights are provided on PDF pages 9,387 through 9,497. It is noted that the eastbound train weights for the "Corridor Emissions Outside of California" calculations are specifically used to quantify gallons of fuel per year, which is used to calculate the emissions benefits from increasing renewable diesel from one percent to 10 percent with BIG. The full eastbound and westbound emissions calculations are provided in the Corridor Emissions Analysis (see **Draft EIR Appendix 5.3 BIG-1**, part 18). Note that all westbound trains are assumed to have zero percent renewable diesel because they are fueled outside of California. See **Responses S6-7, S6-13,** and **S6-14** concerning ZE locomotives (including Battery Electric Locomotives [BEL]).

O21-90 The Draft EIR's analysis of locomotive emissions and energy use was conducted using methodologies and assumptions consistent with applicable U.S. Environmental Protection Agency (U.S. EPA) guidance and industry standard rail modeling practices. Specifically, the Draft EIR's locomotive emissions analysis relied on the U.S. EPA Emission Factors for Locomotives (April 2009). This guidance establishes a standardized framework for estimating

locomotive emissions by service type (e.g., line haul, switch, and yard locomotives) using duty cycles as a weighting mechanism. These duty cycles represent typical operating patterns and allocate defined percentages of time spent at discrete throttle settings, known as "notches," as well as idle conditions.

As described in **Draft EIR Appendix 5.3 BIG-1** (Air Quality Technical Report), the duty cycles applied in the Draft EIR are those specified by the U.S. EPA for each locomotive service type and are widely used in environmental impact analyses because they reflect observed fleet average behavior across a range of operating conditions. Consistent with U.S. EPA guidance, the Draft EIR applied representative notch based operating profiles rather than disclosing raw, locomotive specific duty cycle distributions. The U.S. EPA methodology does not require disclosure of detailed per run or per train duty cycle time histories; instead, it uses standardized cycles to ensure consistency, comparability, and replicability across projects and regulatory analyses.

Accordingly, the Draft EIR appropriately discloses the representative power settings used (e.g., mainline line haul at Notch 5, switching at Notch 2, lead track movement at Notch 3), which serve as proxies for the underlying duty cycle distributions defined by U.S. EPA. This approach is consistent with CEQA's requirement for a reasonable disclosure of the analytical basis for conclusions, without requiring proprietary or operationally sensitive railroad data. Decisionmakers and the public are able to independently assess these calculations using the industry-standard, U.S. EPA-provided guidance for such calculations.

In addition to the U.S. EPA duty cycle framework, the Draft EIR includes a Corridor Emissions Analysis (**Draft EIR Appendix 5.3 BIG-1**, Part 9) that uses train specific operating profiles, rather than generic assumptions alone. This methodology was used for the corridor analysis due to the added complexity from the distance and terrain covered in the corridor. These train profiles describe the physical and operational characteristics of trains traversing the corridor, including:

- Number of locomotives per train
- Locomotive weight
- Freight weight
- Direction of travel
- Distance traveled through the Corridor

Moving emissions were calculated using a physics-based ton mile approach, not simplified notch assumptions alone. Specifically, the analysis calculated gross ton miles (GTM) by multiplying the total train gross tonnage (locomotive weight plus freight weight) by the miles traveled within the Corridor. This method reflects how real-world emissions scale with both train mass and distance traveled.

The GTM values were then combined with train specific fuel efficiency rates derived from the Fuel Efficiency Model, a regression model developed using actual 2023 fuel usage data from Corridor operations. Importantly, the Fuel Efficiency Model explicitly accounts for direction

of travel, incorporating positive and negative grade slopes along the Corridor. As a result, variations in power demand due to uphill versus downhill travel are directly embedded in the emissions calculations, addressing the comment's concern regarding grade dependent operations.

The Draft EIR's emissions modeling reflects fleet average conditions and representative train configurations consistent with CEQA practice and U.S. EPA emissions estimation guidance. Variability in power configurations, including distributed power arrangements or changes in consist makeup, is inherently captured through the gross tonnage, fuel consumption, and fuel efficiency relationships used in the Corridor Emissions Analysis. These parameters directly govern fuel burn and emissions regardless of the specific placement of locomotives within a consist.

Disclosure of individual locomotive power configurations or proprietary operational strategies is not required to support the EIR's impact conclusions. CEQA requires substantial evidence for a reasoned analysis, not disclosure of confidential railroad operating data or real time train management practices (see State CEQA Guidelines §§ 15151, 15147.).

The Draft EIR does not assume specific locomotive dwell times for purposes of zero-emission charging within BIG. Instead, **Draft EIR Appendix 5.3 BIG 1 (Air Quality Technical Report), Section 7.1 (Mitigation Measures Considered but Determined Infeasible),** evaluates whether sufficient dwell time could reasonably be assumed to support battery-electric locomotive (BEL) charging under current and near-term technology.

The **Draft EIR Appendix 5.3 BIG-1** explains that BEL charging would require factor-of-magnitude longer dwell periods than those typical of line-haul or block-swap operations and that BIG operations are designed to minimize dwell time, particularly for line-haul trains moving between the Ports and inland destinations. While trains may spend time within the BIG footprint for switching and block swap activities, the Draft EIR does not characterize this time as idle or charge-available dwell time, nor does it assume that locomotives are available for extended stationary charging between assignments (**Draft EIR Appendix 5.3 BIG-1, Section 7.1**; pages 175–188). See also *Power Swapping Memorandum*. The Draft EIR does not characterize this time as charge-available dwell time because the purpose of the air quality and GHG analyses was to evaluate emissions, not to design or optimize charging infrastructure operations. Accordingly, the Draft EIR did not rely on precise, minute-by-minute charging durations as an input to the emissions modeling. Instead, the analyses conservatively evaluated fleet-level emission factors and energy use assumptions that reflect existing and reasonably foreseeable locomotive technologies and operational practices, including the use of Tier 4 and zero-emission locomotives where applicable (**Appendix 5.3 BIG-1**, pages 61–70; **Appendix 5.8 BIG-1**, pages 72–80).

Accordingly, the Draft EIR does not rely on undisclosed idle or dwell assumptions when evaluating emissions or zero-emission alternatives and correctly identifies dwell time as a critical constraint rather than an available operational resource.

Refer to refer to **Responses S6-7, S6-13, S6-14,** and **S6-15** regarding Zero Emission (ZE) locomotives and charging feasibility. As noted in the Draft EIR (**Draft EIR Appendix 5.3 BIG-1, Section 7.1**), large-scale charging of battery-electric locomotives is not currently feasible due to battery size requirements, charging durations, site power constraints, and infrastructure lead times.

- Battery size requirements: Line-haul locomotives operating between the Ports and BIG would require on the order of 15 megawatt-hours (MWh) per locomotive, well beyond currently commercialized rail battery systems (**Draft EIR Appendix 5.3 BIG-1, Section 7.1**). Furthermore, as shown in the *Benchmark Report*, accounting for stops, accurate traction power, and accurate brake regeneration power, BELs cited by commenters are unable to make the trip from the Ports to Barstow efficiently, instead requiring an additional one day. The *Benchmark Report* provides a full discussion of the operational limitations of BELs and a full description of how commenters on the Draft EIR failed to grasp the current financial and operational limitations of this locomotive propulsion technology.
- Charging duration: At 1-MW charging power (the upper end of rail-applicable systems currently under development), charging a single locomotive battery would require 12 or more hours. Even assuming speculative 6-MW charging systems, charging would still require approximately two hours per locomotive, with correspondingly large instantaneous power demand (**Draft EIR Appendix 5.3 BIG-1, Section 7.1**).
- Site power constraints: The **Draft EIR Appendix 5.3 BIG-1** identifies a finite power budget for BIG operations and explains that simultaneous charging of multiple locomotives would quickly consume a substantial share of total available electrical capacity, displacing core rail and intermodal operations (**Draft EIR Appendix 5.3 BIG-1, Sections 1.2 and 7.1)**. Additionally, BIG's power budget is further substantiated in the *Power Budget Memorandum*.
- Infrastructure lead times: The Draft EIR notes that transmission-level electrical infrastructure upgrades required to support such charging loads would take many years to plan, permit, and construct, and are not assured (**Draft EIR Appendix 5.3 BIG-1, Section 7.1**).

See also, **Consolidated Response 11** concerning energy and power supply and *Power Budget Memorandum; BEL and Catenary Feasibility Analysis; BEL Economic Feasibility Memorandum; Power Swapping Memorandum;* **Consolidated Response 05**, concerning feasible and enforceable mitigation including applicable legal standards; **Consolidated Response 05-06**, concerning the feasibility of specific technology (e.g., specific zero-emission technologies raised by commenter) and other mitigation measures; and **Consolidated Response 14**, concerning consideration of a range of reasonable alternatives.

O21-91 See **Response O21-46**. As discussed in Response O21-46, the table that the commenter refers to (**Draft EIR Appendix 5.3 BIG-1 Table 17: Locomotive Fleet Mix Forecast** (page 71) includes the fleet mix for BNSF's nationwide fleet, and has been updated in the **Final EIR Appendix 3-1: Emissions Errata** as it pertains to showing the improvement to the overall fleet mix by BIG: 1) utilizing Tier 4 switcher locomotives onsite and 2) replacing the existing switcher locomotives

at the unrelated Barstow Classification Yard with Tier 4 locomotives. With these two improvements, emissions from BNSF's national switcher fleet mix would improve. BIG switcher emissions were modeled using only Tier 4 emissions factors, consistent with the above.

Therefore, as outlined in **Draft EIR 3.0: Project Description** (page 3-50), although BIG is not related to existing Barstow yard operations, BNSF in a binding and enforceable commitment would voluntarily retire all existing Tier 0/0+/1+ switcher locomotives at the unrelated existing Barstow classification yard starting in 2028, and in their place add six Tier 4 switcher locomotives. **Draft EIR Appendix 5.3 BIG-1: Barstow International Gateway Air Quality Report** (page 10) clarifies that BIG's block swap yard would disassemble and assemble lengthy blocks of railcars with intermodal containers to similar destinations utilizing Tier 4 switcher locomotives.

O21-92 See **Response O21-90**. As with line-haul locomotives, the Draft EIR's switcher locomotive emissions analysis relied on the U.S. EPA Emission Factors for Locomotives (April 2009). This methodology in guidance uses duty cycles as a weighting mechanism. These duty cycles represent typical operating patterns and allocate defined percentages of time spent at discrete throttle settings (notches) as well as idle conditions. See also **Response S6-13, Consolidated Response 11** concerning energy and power supply and *Power Budget Memorandum.*

O21-93 As presented in the **Consolidated Response 11** and *Power Budget Memorandum*, the power budget was derived based on SCE regulation N-1 (Contingency), distribution circuit limit, and the "three connection" rule. These rules, together, mean that BIG must operate within the power supplied by no more than three connection points, and must be able to continue standard and emergency operations in the event only two of these three connections are available. Furthermore, as identified in the *Power Budget Memorandum*, the aggregated nameplate capacity for BESS required by Title 24 at the LP is expected to be approximately 2 MW. Given the facility's peak demand is estimated to be approximately 65 MW, BESS would not materially reduce peak loads. Additionally, as the *Power Budget Memorandum* notes, BIG's power demand was calculated using a 15-minute time-step interval, which has greater fidelity compared to the industry-standard hourly (8760) modeling process given it enables more precise accounting for lunch breaks, coffee breaks, crew transitions between shifts, and charging demands. This presents a reasonably foreseeable operating condition under which BIG must be able to operate. In determining the contents of an EIR, a lead agency is entitled to rely on its own experts' opinions as to what studies and analysis are appropriate to evaluate impacts.[133] CEQA does not require a lead agency to conduct every recommended test and perform all recommended research to evaluate the impacts of a proposed project.[134]

As discussed in **Consolidated Response 05-06** concerning the feasibility of specific technology and other mitigation measures, *BEL and Catenary Feasibility Analysis*, and **Draft EIR**

[133] *Association of Irritated Residents v. County of Madera* (2003) 107 Cal.App.4th 1383, 1397.
[134] *Association of Irritated Residents v. County of Madera* (2003) 107 Cal.App.4th 1396.

pages 5.3-110 through 5.3-115, the feasibility of BELs is limited by locomotive traction and charging needs. On-site solar would supplement a portion of BIG's electricity demand and would not be a primary traction source. "Traction" or "tractive," as used here, refers to the total energy that must be delivered to the locomotive's wheels to create motion. Locomotive charging requires very high instantaneous power. Solar generation is intermittent and diffuse, even at large scale. The Draft EIR's assumptions regarding locomotive technology are not based on solar limitations; rather, they reflect the operational power requirements, duty cycles, and commercial readiness of freight rail technologies. Even substantial expansion of on-site solar would not provide the firm, high-load, around-the-clock power necessary to support battery-electric freight locomotives at BIG. See the *Power Budget Memorandum*, cited above. Additionally, CEQA does not require the EIR to assume a fundamentally different energy system than the one proposed, particularly when doing so would require land conversion, infrastructure expansion, and system redesign that are not part of the Project description (**Draft EIR Section 3.7**, pages 3-42 through 3-90).

Finally, as detailed in **Responses O21-146** and **O21-147, Consolidated Response 05-06** concerning the feasibility of specific technology and other mitigation measures, and the *BEL and Catenary Feasibility Analysis*, the improvement from Tier 4 locomotives to zero emission (either through BELs or through catenary) would result in less than 1% reduction in pollutant concentrations compared to the high reductions already achieved through Tier 4. Under CEQA, mitigation measures are also required to be "roughly proportional" to the significant impacts found in an EIR. (State CEQA Guidelines § 15126.4(a)(4)(5).) Here, the benefits are marginal relevant to the enormous costs discussed in the *BEL and Catenary Feasibility Analysis*.

O21-94 The commenter suggests there are "transparency gaps" for air quality and energy modeling. As discussed below, the Draft EIR analyzes and discloses the air quality and energy assumptions that the commenter suggests were omitted.

In determining the contents of an EIR, a lead agency is entitled to rely on its own experts' opinions as to what studies and analysis are appropriate to evaluate impacts.[135] CEQA does not require a lead agency to conduct every recommended test and perform all recommended research to evaluate the impacts of a proposed project.[136] The Draft EIR's modeling of energy demand and pollutant levels constitutes substantial evidence. Thus, the EIR is not required to include every test and modeling input requested by the Commenter in order to be considered adequate pursuant to CEQA.

The BESS was originally included in the BIG project in order to support BELs and other additional electric equipment, however, as described in the *BEL and Catenary Feasibility Analysis*, these additional components were deemed infeasible due to operational, technological, power budget, and market impact constraints. Furthermore, the power budget and power demand modeling is substantiated in **Consolidated Response 11** and *Power*

[135] *Association of Irritated Residents v. County of Madera* (2003) 107 Cal.App.4th 1383, 1397.
[136] *Association of Irritated Residents v. County of Madera* (2003) 107 Cal.App.4th 1383, 1396.

Budget Memorandum, as discussed in **Response O21-93**. The *Power Budget Memorandum* addresses seasonality and time of day details which explain how solar output would align with times at which energy is most expensive or in highest demand, and analyzes whether and to what extent BESS could feasibly be expected to offset grid reliance.

The comment also alleges insufficient disclosure of hour-by-hour emission rate profiles. This issue is addressed in more detail in **Response O21-103**, below, which explains that temporal emission profiles were developed to reflect realistic and conservative operating scenarios and were incorporated directly into the AERMOD analysis to evaluate short-term (1 hour and 8 hour) concentrations and acute health risks.

The Draft EIR's disclosure of maximum modeled short-term concentrations represents the worst-case outcomes required for CEQA significance evaluation (see **Response S6-2** concerning the Draft EIR's analysis of NOx emissions). CEQA does not require publication of every hourly emission input so long as the analysis demonstrates that modeled concentrations appropriately capture peak exposure conditions, which the AERMOD modeling does. Nor, as Commenter appears to suggest, does the decision in *Friant Ranch* require an agency to provide modeling inputs in full detail for public review. The Draft EIR's disclosure of the assumptions underlying the energy and air quality modeling is sufficiently detailed to "allow the public to make an informed decision, as CEQA requires".[137]

O21-95 The Commenter suggests that the project's alternatives analysis is improperly limited by the Draft EIR's assumptions regarding Project design, equipment mix, and modeling choices. CEQA permits an applicant to define their project. Furthermore, the Draft EIR provides the technical basis for its conclusions regarding the 66 MW power budget. As discussed in **Response O21-93**, **Consolidated Response 11** and *Power Budget Memorandum*, the power budget and power demand modeling is substantiated. Refer also to **Consolidated Response 14**, concerning consideration of a range of reasonable alternatives.

O21-96 As noted in **Consolidated Response 16** concerning BESS, BESS was originally included in BIG's design to provide supplemental power to enable battery electric locomotives (BELs). However, as noted in the *BEL and Catenary Feasibility Analysis*, BELs were determined to be infeasible due to technological, operational, and economic constraints. Furthermore, BELs would also exceed the facility's power budget as documented in the Draft EIR and further substantiated in the *Power Budget Memorandum*. Based on the determination that BELs would be infeasible, BESS were ultimately removed from BIG design. See **Consolidated Response 16** concerning BESS and the *Power Budget Memorandum* for substantiation that BESS is not viable to "mitigate peak loads or shift solar generation to support evening charging requirements" or otherwise expand gid capacity.

O21-97 As an initial matter, the Draft EIR did not find electric components infeasible simply based on cost considerations as commenter suggests, but also due to operational and technological considerations. However, for information related to costs, see **Consolidated Response 05-06,**

[137] *Friant Ranch*, supra, 6 Cal.5th at 521.

concerning the feasibility of specific technology and other mitigation measures, *BEL and Catenary Feasibility Analysis; BEL Economic Feasibility Memorandum*; and *ZE Truck Feasibility Report*.

O21-98 See **Responses O21-97, S6-7, S6-13, S6-14,** and **S17-45**. Also, for information related to costs, see **Consolidated Response 05-06,** concerning the feasibility of specific technology and other mitigation measures.

O21-99 The Draft EIR did not analyze diesel fuel costs. There are no "impacts" associated with diesel fuel costs. See **Responses O21-97, O21-100,** and **O21-106**, concerning the role of cost in the Draft EIR's feasibility determinations.

O21-100 Refer to **Response O21-97, Consolidated Response 05-6**, concerning feasibility of specific technologies and other mitigation measures, and **Consolidated Response 11** and the *Power Budget Memorandum*.

O21-101 BIG air quality assumptions are summarized for readability in **Draft EIR Appendix 5.3 BIG-1 Air Quality Technical Report; Table 13: Construction Assumptions Summary** (page 63) and **Table 20: Operational Assumptions Summary** (page 77). These tables are also referenced in **Draft EIR Section 5.3: Air Quality Table 5.3-5: Regulations and Agreements Assumed in the Unmitigated Construction and Operational Emissions** (page 5.3-33 to 5.3-34). Furthermore, the environmental analysis includes descriptions of modeling terms, regulations, and background to enable the reader to understand the analysis (see **Draft EIR Section 5.3.3** and **Draft EIR Section 5.3.4**).

Regarding how the criteria pollutant reporting is presented, evaluating and presenting criteria pollutant emissions separately by air basin is both appropriate and consistent with CEQA and air district guidance. State CEQA Guidelines § 15064.7 authorizes public agencies to adopt thresholds of significance supported by substantial evidence. CEQA directs lead agencies to rely on the "applicable air quality management district or air pollution control district" significance criteria when assessing air quality impacts (State CEQA Guidelines Appendix G), and air districts establish thresholds based on, among other things, the attainment status, control strategies, and planning context of the specific air basin in which a project's emissions occur. Air districts (including SCAQMD, BAAQMD, SJVAPCD, Sacramento Metropolitan Air District, and others) have developed basin-specific thresholds and guidance precisely so that CEQA analyses compare emissions to the correct regional context. The Draft EIR's basin-specific comparisons follow this directive, presenting emissions by basin to compare project-generated emissions to the correct, basin-specific thresholds and plans; this ensures a scientifically valid, apples-to-apples evaluation.

Additionally, projects that span multiple basins are subject to different thresholds and air quality attainment plans. Portions of large linear projects (such as the Corridor) often occur in different air basins/districts (e.g., South Coast AQMD vs. Mojave Desert AQMD). MDAQMD's CEQA guidance explains the jurisdiction and nonattainment designations and provides recommended analysis methods for projects within its jurisdiction, which are distinct from South Coast AQMD's methodologies and thresholds. Combining emissions across basins

and testing them against a single district's thresholds would misapply the evidence base that supports those thresholds and could over- or under-state significance.

Air quality thresholds (e.g., mass-daily vs. tons-per-year), plan consistency tests, and even pollutant precursors considered "regional" can vary by district and basin. For instance, SCAQMD commonly applies mass-daily thresholds for criteria pollutants, while SJVAPCD's CEQA thresholds are expressed in tons per year. Each set of thresholds is tied to its basin's attainment planning framework. Summing emissions across basins and comparing to any one district's thresholds would not be an appropriate CEQA test.

The Commenter asserts that the Draft EIR's detailed breakdown of project-generated emissions "obscures the cumulative scale of emissions." However, this is not the case for several reasons.

First, it is typical in EIRs to break down emissions between construction and operations, as construction emissions are temporary in contrast to operational emissions. Second, as detailed above, it is not only reasonable but also most accurate to analyze emissions at an air basin level, as significance and attainment thresholds are set at a basin level. And it is transparent, rather than obfuscating, to show emissions broken down in such detail. If the Draft EIR had presented emissions impacts in just a summary table, the Draft EIR would be of much less use to the public and it would be difficult to discern the accuracy of those summaries. Third, CEQA does not direct agencies to present cumulative impacts as totals unmoored from context and scope. Instead, State CEQA Guidelines expressly require that an EIR define the relevant area affected in cumulative impacts analysis. The agency has discretion to apply its expertise in selecting an appropriate assessment area (State CEQA Guidelines, § 15130(b)(3)). The State CEQA Guidelines further require that the scope of analysis be tailored to the nature of the impact being analyzed. (State CEQA Guidelines, § 15130(b)(2).) Aggregating corridor and footprint emissions, as suggested, would dilute the impacts and would not provide analysis value to determine significance. Courts have dismissed the need for this type of analysis.[138]

Last, the State CEQA Guidelines are not rigid in requiring a certain format for analysis of cumulative impacts, and do not dictate where an analysis must be placed within an EIR.[139] See also, **Response O21-17.**

Nonetheless, as discussed in **Response L17-49,** an HIA was prepared for the BIG project, as described in **Consolidated Response 17**. This HIA analyzes secondary pollutant formation and related health impacts. The HIA concluded that BIG-related changes in regional O_3 and $PM_{2.5}$ concentrations are small and spatially diffuse when evaluated at the regional scale. The analysis also identified that regional air quality and health outcomes are dominated by existing background concentrations and cumulative emissions from numerous sources, including mobile sources and other industrial and transportation activities throughout the basin. BIG's emissions represent a small fraction of the total regional precursor inventory,

138 *Ebbetts Pass Forest Watch v Department of Forestry & Fire Protection* (2004) 123 Cal.App.4th 1331, 1352-1353.

139 *Whitman v Board of Supervisors* (1979) 88 Cal.App.3d 397, 411, fn. 7.

which constrains the ability to isolate or attribute specific regional health outcomes to BIG alone. Based on the HIA analysis, BIG is not expected to result in any meaningful impact greater than zero.

The commenter asserts that BIG contributes to cumulative diesel health risk along the rail corridor. As noted in **Consolidated Response 13**, concerning requests for additional analysis and substantial evidence, commenters are advised to support assertions that the lead agency should conduct additional analysis or review with data or other factual references. This is because the lead agency's CEQA conclusion must be based on substantial evidence in the record and not speculation. Here, the commenter has not pointed to any facts or data that support its contention that the Draft EIR's analysis is flawed. Nonetheless, in addressing commenter's concerns, as shown in **Draft EIR Table 5.3-25: Unmitigated Operational Emissions Within SCAB (pounds per day)** (page 5.3-94), BIG would not result in an increase in PM10 or PM2.5 (DPM) emissions in the South Coast Air Basin. **Draft EIR Table 5.3-25: Unmitigated Operational Emissions Within SCAB (pounds per day)** (page 5.3-94) demonstrates that BIG-related changes in DPM emissions in the South Coast Air Basin would be zero or negative, meaning emissions would either remain unchanged or decrease relative to baseline conditions.

Under CEQA, a project can only contribute to a cumulative health risk impact if it results in an incremental increase in toxic air contaminant emissions or exposure. Projects that have no incremental environmental effects do not have cumulatively considerable impacts and are not required to be analyzed cumulatively under CEQA. (State CEQA Guidelines, § 15130(a).)

Because BIG does not increase DPM emissions in the South Coast Air Basin, it cannot contribute to a cumulative increase in cancer risk, non-cancer hazard index, or cancer burden in that basin.

Corridor-Wide Emissions Are Reduced, Not Increased

In addition, the Draft EIR includes a corridor-level emissions comparison that directly addresses the commenter's concern regarding broader rail corridor effects. **Draft EIR Table 5.3-40: Unmitigated Net Operational DPM Emissions Along Corridor (Tons per Year)** (page 5.3-161) shows that BIG would reduce PM10 emissions along the rail corridor west of BIG, including segments within the South Coast Air Basin.

These reductions occur because BIG would replace existing rail and truck movement patterns with cleaner, more efficient operations, including:

- Use of dedicated Tier 4 line-haul locomotives to transport containers between the Ports and BIG's intermodal facility, replacing older, higher-emitting locomotives currently serving the corridor;
- Use of Tier 4 switcher locomotives at BIG, which substantially reduce DPM emissions compared to legacy switch engines; and

- Modification of the fuel blend used at the Ports' existing fueling facilities to incorporate up to 10% renewable diesel, which further reduces diesel particulate emissions from locomotives operating along the corridor.

As a result of these operational changes, the Project would improve air quality conditions along the corridor, rather than degrade them.

Beneficial Impact on Diesel Health Risk

Because BIG would reduce DPM emissions in the corridor and would not increase PM10 or PM2.5 (including DPM) emissions in the South Coast Air Basin, BIG would have a beneficial impact with respect to diesel-related health risk. There would be no increase in cancer risk, hazard index, or cancer burden at receptors located west of BIG along the rail corridor.

CEQA does not require a cumulative health risk assessment where a project does not contribute to cumulative conditions. Whereas here, a project results in emission reductions, it cannot meaningfully interact with other existing sources to create or worsen a cumulative health risk impact. Instead, BIG would incrementally reduce the overall diesel particulate burden from rail operations affecting corridor communities.

Corridor-Wide Cumulative Health Risk Conclusion

The Draft EIR demonstrates that BIG would not increase PM10 or PM2.5 (DPM) emissions in the South Coast Air Basin and would reduce DPM emissions along the rail corridor west of BIG. Because BIG would result in emission reductions rather than increases, it would not contribute to cumulative diesel health risk, cancer risk, hazard index, or cancer burden in corridor communities. Instead, BIG would provide a beneficial air quality and public health impact with respect to diesel particulate matter. No additional cumulative health risk analysis is required under CEQA.

See **Response O21-48**, regarding health risk analysis. Regarding potential impacts at Hobart and Commerce Yard, see responses **O21-20** and **O21-33** and **34**. Please refer further to **Consolidated Response 17,** which explains the HIA Report's finding that "Barstow residents and communities along the Corridor will not experience any meaningful or discernible individual or cumulative health impacts or health endpoint increases as a result of BIG construction or operations."

O21-102 Availability and Disclosure of AERMOD Modeling Files

The AERMOD dispersion modeling for the BIG was conducted using standard regulatory methods and documentation consistent with CEQA and U.S. EPA modeling guidance. Complete electronic AERMOD input and output files were prepared and provided directly to the Mojave Desert Air Quality Management District (MDAQMD), South Coast Air Quality Management District (South Coast AQMD), and the California Air Resources Board (CARB) for agency review. These materials were shared in response to agency requests and are maintained as part of the administrative record.

Consistent with CEQA, the Draft EIR discloses the modeling methodology, assumptions, and results in sufficient detail to support informed public review, while recognizing that large electronic modeling datasets are not typically reproduced in full within an EIR volume. AERMOD input and output files are available to members of the public upon request, as noted in the Final EIR, thereby ensuring transparency and the ability to independently evaluate or reproduce the analysis.

CEQA does not require that all raw modeling files be appended to the Draft EIR so long as the analytical approach, key assumptions, and conclusions are disclosed and supported by substantial evidence (State CEQA Guidelines §§ 15147, 15148).

Disclosure of Source Locations and Spatial Extents

The Draft EIR adequately discloses the location and spatial extent of emissions sources evaluated in AERMOD. Specifically:

- Locomotive idling areas, rail yard operational areas, and yard equipment activity zones are shown graphically on **Draft EIR Figure 5.3-2: Source Representation in AERMOD Operational Sources – BIG** (page 5.3-42), which depicts the modeled source geometry and the relationship between emission areas and nearby receptors. These locations are depicted with GIS which used the exact coordinates exported from AERMOD.
- These spatial representations were used directly in the AERMOD modeling to define area sources and were reviewed by the applicable air districts.

As such, the Draft EIR provides sufficient information regarding source locations and extents to understand how emissions were modeled spatially and how modeled concentrations relate to surrounding land uses.

Stack Parameters for Emergency Diesel Generators

The Commenter asserts that the AERMOD modeling used incorrect stack parameters. However, the AERMOD modeling incorporated complete stack parameters for the 39 emergency diesel generators, and those parameters are summarized below for clarity:

- Stack height: 5 meters
- Exit velocity: 27.4 meters per second
- Exhaust temperature: 771.59 Kelvin

These parameters were applied consistently across generators and reflect conservative, representative assumptions commonly used in regulatory dispersion modeling for diesel-fired emergency engines. While **Draft EIR Appendix 5.3 BIG-1** focuses on generator horsepower ratings to establish emission rates, plume rise and dispersion calculations in AERMOD were based on the full set of stack parameters listed above. The modeling therefore appropriately accounted for buoyancy and momentum effects.

Hour-by-Hour Emission Rate Profiles

The comment also alleges insufficient disclosure of hour-by-hour emission rate profiles. This issue is addressed in more detail in **Response O21-103**, below, which explains that temporal emission profiles were developed to reflect realistic and conservative operating scenarios and were incorporated directly into the AERMOD analysis to evaluate short-term (1 hour and 8 hour) concentrations and acute health risks.

The Draft EIR's disclosure of maximum modeled short-term concentrations represents the worst-case outcomes required for CEQA significance evaluation. CEQA does not require publication of every hourly emission input so long as the analysis demonstrates that modeled concentrations appropriately capture peak exposure conditions, which the AERMOD modeling does.

Meteorological Data and Processing Assumptions

The Draft EIR's air quality and health risk modeling relied on AERMOD-ready meteorological data provided by CARB for the Barstow–Daggett Airport (KDAG) station, which is the most representative site for the Project area. Key details are summarized below:

- Station: Barstow–Daggett Airport (KDAG)
- Coordinates: 34.854° N, −116.787° W
- Elevation: 584.3 meters above mean sea level
- Modeling years: 2015, 2016, 2018, 2019, and 2020

CARB supplies pre-processed AERMOD-ready meteorological files for this station. These files contain the exact hourly and seasonal parameters used in official regulatory air quality modeling and health risk assessments across California.

Surface characteristics were determined by CARB using the AERSURFACE preprocessing tool and U.S. Geological Survey (USGS) National Land Cover Data. The CARB HARP AERMOD files incorporate site specific land cover data processed with 2016–2020 USGS datasets, and the surface parameters appropriately vary by season. Representative seasonal values for this station are shown below:

Seasonal Meteorological Parameters (Representative)			
Season	**Surface Roughness (z_0, m)**	**Albedo (unitless)**	**Bowen Ratio (unitless)**
Winter (Dec, Jan, Feb)	0.010	0.30	4.0 – 6.0
Spring (Mar, Apr, May)	0.015	0.25	2.0 – 4.0
Summer (Jun, Jul, Aug)	0.010	0.25	6.0 – 10.0
Autumn (Sep, Oct, Nov)	0.010	0.28	5.0 – 8.0

The modeling followed the U.S. EPA Guideline on Air Quality Models, codified at 40 C.F.R. Part 51, Appendix W, including Section 8.4 governing meteorological data selection and processing. Use of CARB supplied AERMOD-ready datasets ensures regulatory consistency, representativeness, and technical validity.

Compliance with CEQA Disclosure Requirements

CEQA requires that an EIR provide sufficient detail to inform decision makers and the public of the nature and magnitude of a project's impacts, not that it disclose every line of computer code or modeling file within the document itself. The Draft EIR:

- Describes the modeling approach and regulatory framework;
- Discloses conservative assumptions used to evaluate short-term and long-term impacts;
- Presents modeled concentration and health risk results appropriate for significance determinations; and
- Made full electronic modeling files available to responsible and trustee agencies and upon request to the public.

Accordingly, the air quality and health risk analysis does not function as a "black box," but rather reflects a transparent, agency reviewed modeling effort conducted using accepted regulatory tools and datasets.

Conclusion

The Draft EIR adequately discloses AERMOD modeling assumptions, source characteristics, and meteorological inputs consistent with CEQA and U.S. EPA guidance. Full electronic modeling files were provided to reviewing agencies and are available upon request, ensuring transparency and the ability for independent technical review. No additional revisions to the air quality or health risk analysis are warranted.

O21-103 Hour-by-hour emission rate profiles are not required for National Ambient Air Quality Standards (NAAQS) analysis in a CEQA document because CEQA requires substantial evidence rather than the most granular data. Standard practice involves conservative "worst-case" modeling using maximum permitted hourly rates. This is conservative because it purposefully overestimates a project's potential impact to ensure environmental safety margins. Specifically, this approach assumes a constant maximum output assumes that BIG is operating at its maximum permitted capacity every single hour of the year, which would account for temporal coincidence of emissions from multiple sources operating simultaneously.

The comment correctly notes that short-term exposure can be influenced by the temporal overlap of emissions from multiple sources. The **Draft EIR Appendix 5.3 BIG-1** air dispersion modeling and HRA for BIG conservatively addressed this issue by assuming the concurrent operation of multiple stationary and mobile emission sources. Construction emission rates for construction sources included off-road construction equipment, locomotive deliveries, on-road vehicles, and stationary engines were input into AERMOD such that all modeled sources were assumed to operate simultaneously within each modeled hour. Additionally, operational sources such as line-haul locomotives, switcher locomotives, heavy-duty trucks, intermodal facility cargo handling equipment, transload warehouse yard equipment, etc., were also assumed to operate simultaneously. As a result, predicted concentrations and health risk metrics reflect a conservative, worst-case temporal coincidence of emissions

rather than staggered or sequential source activity, ensuring that peak exposure conditions were not underestimated.

In reality, most facilities have significant downtime or varying operational cycles. Air dispersion is highly dependent on weather (e.g., wind speed, atmospheric stability). A constant-rate model assumes the maximum emissions would coincide with the "worst" possible meteorological conditions for dispersion, which leads to the highest possible predicted ground-level concentrations. Hour-by-hour profiles allow the model to include times when emissions are low or zero. The Draft EIR modeling conservatively does not credit the project for periods of reduced activity, resulting in a higher, more conservative "design value" for comparison against federal standards. Modeling the "worst-case" scenario using maximum allowable emissions provides a "ceiling" for impacts. This also provides a safety margin to ensure compliance under actual conditions.

The commenter states that the future conditions baseline is inaccurate because it excludes secondary pollutants that form in between existing conditions and the future conditions baseline. The request to include secondary pollutant formation goes beyond the typical scope of an emissions analysis. Nonetheless, as discussed in **Response L17-49,** an HIA was prepared for the BIG project, as described in **Consolidated Response 17** concerning health impact analysis. This HIA analyzes secondary pollutant formation and related health impacts. The HIA concluded that BIG-related changes in regional O_3 and $PM_{2.5}$ concentrations are small and spatially diffuse when evaluated at the regional scale. The analysis also identified that regional air quality and health outcomes are dominated by existing background concentrations and cumulative emissions from numerous sources, including mobile sources and other industrial and transportation activities throughout the basin. BIG's emissions represent a small fraction of the total regional precursor inventory, which constrains the ability to isolate or attribute specific regional health outcomes to BIG alone. Based on the HIA analysis, BIG is not expected to result in any meaningful impact greater than zero. Please see **Response O21-60**, concerning use of future conditions baseline.

O21-104 As discussed below, the identified agency comments were incorporated into the environmental analysis and the requested information was disclosed.

Regarding Corridor train length and train weight assumptions, see **Response O21-89**.

Regarding alternatives analysis incorporating CARB's April 2024 feasibility study, see **Consolidated Response 05-06** concerning the feasibility of specific technology and other mitigation measures.

BELs are evaluated on **Draft EIR pages 5.3-110 through 5.3-115** and were deemed infeasible. In addition, **Consolidated Response 05-06**, concerning the feasibility of specific technology and other mitigation measures, further substantiates that battery-electric locomotives, zero-emission switchers, and hybrid or partial or full catenary electrification are infeasible. See also the *BEL and Catenary Feasibility Analysis*, cited above.

See **Response O21-101**, discussing corridor-wide emissions, and **Response O21-48**, regarding health risk analysis.

The U.S. EPA comment letter did not request "solar-supported rail electrification". This would result in retrofitting the entirety of BNSF's mainline, which would fail the "nexus" and "rough proportionality" tests for mitigation established by case law for systemwide upgrades to the mainline.[140,141,142]

O21-105 This comment summarizes prior comments; thus, see above responses to comments regarding alleged missing information. See also, **Consolidated Response 05**, concerning feasible and enforceable mitigation including applicable legal standards; **Consolidated Response 05-06**, concerning the feasibility of specific technology (e.g., specific zero-emission technologies raised by commenter) and other mitigation measures; **Consolidated Response 14,** concerning consideration of a range of reasonable alternatives**; Responses O21-11** through **O21-14;** BEL and Catenary Feasibility Analysis; and the BEL Economic Feasibility Memorandum.

O21-106 The primary reason for BELs being rejected as infeasible under CEQA is due to BELs not being commercially ready within a reasonable amount of time, as outlined in the *BEL and Catenary Feasibility Analysis*. Further challenges of BELs include substantial operational challenges (switcher BELs require switching activities nearly quadruple compared to diesel locomotives due to the need to return to a charging station at least once per shift, and linehaul BELs could be "stranded" should the train consist need to wait on the tracks for an extended period of time), technical (current linehaul BELs lack the power to ascend the Cajon Pass, and there is insufficient power at BIG for either linehaul or switcher BELs), legal (due to federal preemption), and economical. The EIR clearly discloses reasons for rejecting BELs on pages 5.3-110 through 5.3-113 of **Draft EIR Section 5.3**, Air Quality. Additionally, economic infeasibility is further substantiated in the BEL and Catenary Feasibility Analysis and BEL Economic Feasibility Memorandum. Refer also to **Consolidated Response 05**, concerning mitigation enforceability; **Consolidated Response 05-06**, concerning the feasibility of specific technology and other mitigation measures; and **Consolidated Response 14**, concerning consideration of a range of reasonable alternatives.

O21-107 BNSF is committed to purchasing sufficient Tier 4 locomotives to support dedicated service between the Ports and BIG IMF for the duration of the project timeline. See **Consolidated Response 12-03** concerning enforceability of the Project components and mitigation measures for the Project. While locomotive purchases would be volume dependent, initial plans are to purchase 14 Tier 4 locomotives at the BIG Opening Year, (Appendix 5.2 BIG-1 AQ Report Part 18 pg. 343). BNSF intends to keep at least one full set in reserve which is factored into the purchase numbers to support periods of locomotive maintenance and higher volumes. This would exceed the 20% spare factor, a threshold exceeding the industry practice,

140 *Nollan v. California Coastal Commission* (1987) 483 U.S. 825.
141 *Dolan v. City of Tigard* (1994) 512 U.S. 374.
142 *Ehrlich v. City of Culver City* (1996) 12 Cal. 4th 854.

in an effort to ensure Tier 4 locomotives are available. As volume increases, new Tier 4 purchases would be made to protect the service.

BNSF would have additional dedicated Tier 4 locomotives as the commenter suggests, however, the total number of Tier 4 locomotives in the dedicated fleet is not relevant to the environmental analysis, thus, this was not included in the Draft EIR.

O21-108 The commenter provides their calculations of Tier 4 capital costs. Please see *BEL Economic Feasibility Memorandum* and the *BEL and Catenary Feasibility Analysis*, which estimate that a the per unit cost for a Tier 4 diesel locomotive would be $3.5 million in 2026 dollars. As the *BEL Economic Feasibility Memorandum* explains:

> If just the dedicated fleet of newly purchased Tier 4 diesel locomotives proposed for the cross-dock intermodal trains from the Ports to BIG's IMF were replaced with linehaul BELs, it would equate to a lost investment of 15 Tier 4 diesel locomotives in 2028 ($3.5 million for a Tier 4 diesel linehaul locomotive in today's dollars), 20 Tier 4 diesel locomotives in 2033, and 22 Tier 4 diesel locomotives in 2048.

Please also see **Responses O21-97** and **O21-106.**

O21-109 An additional 3-5 trains per day can be handled by the existing fueling infrastructure at the Ports (personal communication, BNSF, March 2026). The Project's operational assumptions are also 3-5 trains per day. Thus, no additional fueling infrastructure at the Ports is required. Furthermore, cost of diesel fueling infrastructure does not relate to environmental impacts and, because no additional infrastructure is required, is not relevant to any economic analysis. See also, **Response O21-106**.

O21-110 See **Responses O21-97** and **O21-106**.

O21-111 See **Responses O21-97** and **O21-106**.

O21-112 See **Responses O21-97** and **O21-106**.

O21-113 The commenter refers to a "diesel baseline." However, BIG would include a dedicated newly purchased Tier 4 fleet. These Tier 4 locomotives meet the US EPA's most stringent emission standards for new diesel locomotives and are substantially cleaner than all other commercially ready-and-available locomotives.[143] For comparison, Tier 3 linehaul locomotives (built between 2012-2014) were the cleanest locomotives prior to Tier 4 (first built in 2015). U.S. EPA Tier 4 NOx standards are 76% (1.3 vs 5.5 g/bhp-hr) and PM emission standards are 70% (0.03 vs 0.10 g/bhp-hr) cleaner than Tier 3 locomotives.[144] This commitment to Tier 4 is significant. For Class I Railroad linehaul fleets, for example, in 2023, only 4% were Tier 4.[145] See **Consolidated Response 05-06** concerning the feasibility of specific technology and other mitigation measures and *BEL and Catenary Feasibility Analysis*.

[143] Non-Confidential Portion of General Electric's presentation to CARB November 14, 20214. Attachment B of this paper.

[144] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-U/part-1033.

[145] Ibid.

Otherwise, this is an introductory comment summarizing comments **O21-114** through **O21-128**. As such, detailed responses to each of these comments are provided below in the relevant responses which are incorporated by reference to this response. See also, **Responses O21-97** and **O21-106**.

O21-114 The *Benchmark Report* provides substantial evidence (multiple, calibrated model runs prepared by a technical expert) outlining the multiple flaws within the CARB 2024 Feasibility Analysis. The *Benchmark Report* presents physics-based rail simulations, accounting for elevation change, accurate train tonnage and resulting train speeds, and total traction energy. See **Figure ES-2** of the *Benchmark Report* summarizing the substantial underestimation of tractive energy within the CARB 2024 Feasibility Analysis, contrasted with corrected numbers based on more detailed modeling.

Furthermore, the CARB 2024 Feasibility Analysis vastly overestimated (by nearly a factor of two) the regenerative braking energy achieved by theoretical BELs within the Corridor. Using updated and corrected inputs that accurately represent the proposed dedicated fleet from the Ports to BIG, the *Benchmark Report* shows that BELs are not feasible within the Corridor. Average BNSF trains along the Corridor would require approximately twice the energy assumed in the CARB 2024 Feasibility Analysis. Additionally, the commenter assumes conventional diesel locomotive weights of 240 tons, however, the published weight of the ET44AC is 216 tons. Furthermore, the commenter presents energy estimates produced using values from two different versions of the CARB 2024 Feasibility Analysis.[146] Finally, the CARB 2024 Feasibility Analysis did not account for auxiliary loads, which would further increase the required energy necessary for a BEL to travel between the Ports and Barstow. The *Benchmark Report* corrects these assumptions and presents updated energy estimates, fleet and infrastructure size requirements, and other necessary factors in considering the feasibility of BELs from the Ports to BIG. See also **Consolidated Response 05-06** concerning the feasibility of specific technology and other mitigation measures.

O21-115 As summarized above in **Response O21-114** and detailed in the *Benchmark Report*, the CARB 2024 Feasibility Report has numerous flaws in train weight, regenerative braking, and other key inputs. Using detailed, physics-based modeling with corrected train weights and regenerative braking factors, the updated traction energy for a one-way Port of Los Angeles to Barstow trip for a BEL is 57.8 MWh for a Joule BEL (approximately 30% greater than the estimated 44.5 MWh utilized by the commenter) and 68.5 MWh for an FLXDrive BEL (approximately 54% greater than the estimated 44.5 MWh utilized by the commenter). See **Table 15** of the *Benchmark Report*.

O21-116 The Commenter assumes the *same* weight for a BEL consist as a diesel consist. However, as noted in the *Benchmark Report*, a BEL consist would add an additional 808 tons

[146] CARB initially released the 2024 CARB Feasibility Report in April 2024, however, the report was updated and re-released in August 2024 with various modifications, most notably, assuming substantially lighter containers (by nearly 30 percent), with no substantiation for why the container weight was reduced. This reduction in container weight led to a corresponding substantial reduction in estimated required energy necessary to make the trip between the Ports and Barstow. Additional differences between the April and August versions of the 2024 CARB Feasibility Report are noted in the Benchmark Report. The commenter utilizes values from both versions of the 2024 CARB Feasibility Report, and it is impossible to determine exactly what the results represent.

(*Benchmark Report*). This represents an increased weight of approximately 14%, increasing the energy requirements.

O21-117 As noted in the *Benchmark Report*, assumptions regarding train weights, regenerative braking, and other key assumptions made by the commenter and CARB's 2024 Feasibility Report are incorrect. **Figure 4** of the *Benchmark Report* presents updated regenerative braking estimates using detailed train simulations for 14 train consist options based on the corrected inputs. As shown in **Figure 4**, the commenter's regenerative braking estimates substantially exceed those of all simulated train consists except for a single simulation which assumed a heavier train with stops.

Stopping at midway points for charging would prove that BELs are unable to travel between the Ports and Barstow efficiently and would instead require one or more BEL charging stations between the Ports and Barstow. Such a charging station would require entry and exit lead tracks, sufficient internal space for a 10,000-foot-long train, and connection to the electrical grid (and associated SCE/CPUC permits and approvals). Furthermore, stops would eliminate any speed savings that BIG is seeking to present as a value proposition to potential customers, rendering the facility likely unable to compete with existing Transload to Long-Distance Truck options. These considerations demonstrate that a key assumption by the commenter, that BEL consists would be able to make the round trip in under 24 hours), is flawed. Corrected travel times are between 48.8 hours and 56.4 hours (see **Table 17** of the *Benchmark Report*).

Table 1 within this comment, incorporating assumed train weights, battery output, and regenerative braking, finds that a BEL would require approximately 47.5 MWh to make a round trip from the Ports to Barstow and back to the Ports, based on an estimated 4.8 MWh of regenerative braking and a "conservative" net energy efficiency of 60%. Notably, detailed modeling simulations conducted in the *Benchmark Report* resulted in energy estimates for eastbound train positive tractive energy ranged 47.2 to 62.0 MWh (*Benchmark Report*). This is a large increase from the estimated 36 MWh found in this comment and the August revision of the CARB Memo. Furthermore, the energy estimates for westbound train positive tractive energy were 29.9 to 44.9 MWh, roughly double Commenter's estimate of 16 MWh (*Id.*).

The Commenter then presents a representation of specifications for the Progress Rail SD70J-BB and Wabtec FLXdrive Heavy Haul BELs. As noted in *the Benchmark Report* and summarized, due to heavier locomotives and less regenerative breaking, substantially greater energy is required for these BELs. In particular, the increased weight from additional locomotives demonstrate that the CARB 2024 Feasibility Report and this comment underrepresent the energy requirement for the FLXDrive BEL consist.

O21-118 CEQA permits rejection of alternatives as infeasible where they cannot accommodate a project's "fundamental business needs of operational efficiency and consolidation, which is the justification for this large and expensive project."[147] As noted in **Table 17** of the *Benchmark Report*, utilizing accurate train weights, regenerative braking, charging dwell times, and other

[147] *SPRAWLDEF v. San Francisco Bay Conservation & Dev. Comm'n* (2014) 226 Cal.App.4th 905, 919, citing Sierra Club v. County of Napa (2004) 121 Cal.App.4th 1490, 1506, 1508.

key assumptions, corrected travel times range between 48.8 hours and 56.4 hours. Furthermore, it is noted that locomotives do not idle for the entirety of the time they are not in active transit on the mainline, but instead are moving within the railyard to be assembled into a new departing train. Requiring locomotives to spend between 3 and 12 hours to charge would substantially decrease operational efficiency and delay train departures, impeding the ability of BIG to overcome the speed advantage of Transload to Long-Distance Heavy-Duty Truck per the *Market Benefits Report*. Accordingly, impacts to operational efficiency properly served as justification for finding BELs infeasible. See Response **O21-141**, *BEL and Catenary Feasibility Analysis,* and *BEL Economic Feasibility Memorandum*, discussing economic and operational efficiency considerations in feasibility determinations. Please also see **Response O21-90**, concerning locomotive charging times.

O21-119 As noted above in **Response O21-118**, locomotives do not idle for the entirety of the time they are not in active transit on the mainline, but instead are moving within the railyard to be assembled into a new departing train. Thus, assuming a train can spend the entirety of "dwell time" charging is not accurate. Furthermore, as described in the *Benchmark Report*, commenter's charging durations do not account for resistive losses in the battery, charging inefficiencies, auxiliary loads, and actual charge profiles. **Figures 19 and 20** of the *Benchmark Report* show that charging times would exceed commenter estimates by approximately 16 percent (13.9 hours compared to 12 hours, and 6.9 hours compared to 6 hours), assuming charging to only 95 percent. Should the locomotive be charged to 100%, the time would increase even more with diminishing return in charge level due to battery resistance. See **Responses O21-97** and **O21-106** regarding BEL feasibility analysis. See **Responses O21-118** and **O21-141**, discussing economic and operational efficiency considerations in feasibility determinations, as well as the *BEL and Catenary Feasibility Analysis and BEL Economic Feasibility Memorandum*.

O21-120 As noted in the *Benchmark Report*, "Overestimation of the energy captured through regenerative braking led to an undersized fleet and charging infrastructure estimate for…" the commenter (*Benchmark Report*, page 6). Using the corrected fleet sizes and charging infrastructure demands, the cost estimates for purchasing BELs and charging infrastructure ranged from $540 to $906 million depending on BEL design. As summarized in above responses and detailed in the *Benchmark Report*, the commenter BEL assumptions have assumptions regarding train weight, regenerative braking, charging time, total fleet sizes, and other key assumptions. The commenter estimated total fleet-only costs of approximately $175-200 million for the SD70J-BB option and $288-386 million for the FLXdrive option. However, using corrected inputs based on detailed rail simulations prepared by a technical expert, the corrected estimated fleet only costs are approximately $504-576 million for the SD70J-BB option and $720-840 million for the FLXdrive option. Inclusive of charging infrastructure, total estimated costs are between $540 million (low-end estimate utilizing an SD70J-BB fleet) and $906 million (high-end estimate utilizing an FLXDrive fleet); see **Table 24** of the *Benchmark Report*. While economic feasibility is not a primary reason for rejecting BELs, this additional cost also comes with substantial operational constraints and less efficiency, thus, as noted by the technical expert, "Purchasing more expensive locomotives that are less

productive does not make sense" (*ibid*, page 57). BEL infeasibility is further discussed in **Responses S6-2, S6-7, S6-13,** and **S6-14**. Cost considerations in determining BEL infeasibility are discussed in **Responses O21-97** through **O21-100**. See **Responses O21-118** and **O21-141,** as well as the *BEL and Catenary Feasibility Analysis and BEL Economic Feasibility Memorandum*, discussing economic and operational efficiency considerations in feasibility determinations. Refer also to **Consolidated Response 05**, concerning mitigation enforceability; and **Consolidated Response 05-06**, concerning the feasibility of specific technology and other mitigation measures.

O21-121 See **Response O21-120** regarding corrected total costs associated with the two referenced BEL models. Furthermore, as noted in the *BEL and Catenary Feasibility Analysis*, BELs, as an infant technology with minimal testing, present unknown maintenance challenges and costs. Of the few BELs that have been field-tested, the majority have been scrapped upon being returned to the manufacturer. Additionally, as documented in the *BEL and Catenary Feasibility Analysis*, deploying new locomotive technology is an extraordinarily costly and risky endeavor for a railroad, such that the only financial advisory firm specializing in financing railroad rolling stock noted that "the appetite for taking any residual risk on new locomotive technology focused on one railroad with limited opportunities for redeployment is very weak. Any financing of such new technology locomotive assets would likely need to be done using the bond market where the market is taking credit risk for repayment and the borrower (aka the railroad) is taking 100% of the performance and longevity related asset risk." (*BEL and Catenary Feasibility Analysis*). Furthermore, as documented extensively in the *BEL and Catenary Feasibility Analysis*, all current BEL models fail to meet the five-part "commercial readiness" test of (1) continued development of the specific model, (2) FRA approval of the required safety analysis pursuant to 49 CFR 229 Subpart E "Locomotive Electronics," (3) progression to "pre-production" status by producing statistically significant numbers of locomotives which are field-tested under typical railroad operating conditions, (4) meeting railroad reliability targets (such as 55,000 mean miles between road failures), and (5) the locomotive builder being ready to begin commercial production. This five-part test, comprised of reasonable standards (i.e., minimum failures, regulatory approvals, entering commercial production, etc.), developed by an expert and supported by substantial evidence (i.e., all current BELs failing to meet this test), demonstrate that BELs are not commercially ready nor feasible for incorporation into BIG.

O21-122 As noted above in **Responses O21-118** and **O21-119**, locomotives do not idle for the entirety of the time they are not in active transit on the mainline, but instead are moving within the railyard to be assembled into a new departing train. Thus, assuming a train can spend the entirety of "dwell time" charging is not accurate. As noted in the *Benchmark Report*, a hybrid consist of three diesel locomotives and one BEL would have a reduced speed of nearly 10 miles per hour, or more than 20% less than a traditional diesel locomotive consist (see **Table 7**). Additionally, BNSF has entered into a Memorandum of Understanding with MDAQMD to implement a demonstration program testing five hybrid diesel electric linehaul locomotives, as discussed in **Response O21-81**. This MOU demonstrates that the Project not

only considers, but has taken steps to incorporate into its design, Commenter's suggested concept of a hybrid consist.

The Commenter's estimated fueling costs and potential associated savings from a hybrid fleet are noted. As noted above in **Response O21-106,** the *BEL and Catenary Feasibility Analysis, and the BEL Economic Feasibility Memorandum*, BELs were not rejected as feasible mitigation from the Draft EIR solely due to economic reasons, but also due to not being commercially ready and presenting technological and operational challenges. Comparison of fuel savings and lifecycle costs were not a determining factor in deeming BELs infeasible and thus were neither presented in the Draft EIR nor relevant to the analysis.

BEL infeasibility is further discussed in **Responses S6-2, S6-7, S6-13,** and **S6-14**. Cost considerations in determining BEL infeasibility are discussed in **Responses O21-97** through **O21-100.** Refer also to **Consolidated Response 05**, concerning mitigation enforceability; **Consolidated Response 05-06**, concerning the feasibility of specific technology and other mitigation measures; and **Consolidated Response 14,** concerning consideration of a range of reasonable alternatives.

Additionally, BNSF has entered into a Memorandum of Understanding with MDAQMD to implement a demonstration program testing five hybrid diesel electric linehaul locomotives that consume less fuel and generate lower emissions than traditional diesel locomotives during mainline operations, to determine if hybrid locomotives could become feasible. These locomotives also have the ability to operate in zero emissions mode when near BIG or at the BIG rail yard. However, given it is unknown and thus speculative whether the demonstration program would be accomplished and would reduce impacts, the demonstration program is not mitigation under CEQA and the Draft EIR did not take credit for these emissions reductions. Additionally, BNSF has entered into a Memorandum of Understanding to engage in good faith with CARB to explore currently infeasible technologies and other methods that could potentially further reduce emissions. The CARB Memorandum of Understanding is not mitigation under CEQA and the Draft EIR does not take credit for potential emissions reductions. As noted in the *Governor's Certification for Judicial Streamlining of the Barstow International Gateway Project in the County of San Bernardino*[148]*,* "The Project Applicant has entered into a Memorandum of Understanding (MOU) with [MDAQMD] executed on February 23, 2026…and with [CARB] executed April 23, 2026… to implement a demonstration project of hybrid battery electric locomotive technology ("Pilot") as part of the Project". Thus, the Draft EIR carefully considered emission-reducing measures and implemented all feasible mitigation measures.

O21-123 A hybrid consist is evaluated in detail in the *Benchmark Report*. As detailed in the Benchmark Report, due to BELs having substantially less traction power, hybrid consists would have travel notably slower than other trains and take longer to make a trip to or from BIG. Thus, using physics-based modeling with corrected traction power and regenerative braking assumptions for both the FLXDrive ET44AC and Joule SD70J-BB, "the hybrid consist suggested by Connolly

[148] Submitted into the administrative record to the City on May 1, 2026.

exhibited a decreased average train speed that would impact other trains and other railroads that use this corridor" (Benchmark Report). The *Benchmark Report* included evaluations of a consist of three diesel trains and one electric train ("Hybrid 3+1"), a consist of 4 diesel trains and one electric train ("Hybrid 4+1") to consider that an additional diesel train would be required to make up for the reduced power and speed of an electric locomotive and to provide redundancy. Most notably, the Hybrid 3+1 consist failed to make the trip from the Ports to BIG due to insufficient total power (Benchmark), underscoring a major operational constraint of BELs. Thus, as detailed in the *Benchmark Report*, hybrid consists' lack of power means that an additional diesel locomotive must be added to the consist to overcome the reduced power, removing potential emissions benefits of the BEL within the consist.

O21-124 See **Consolidated Response 05**, concerning feasible and enforceable mitigation and **Consolidated Response 05-06**, concerning the feasibility of specific technology and other mitigation measures. While catenary is a mature technology, as noted in the *BEL and Catenary Feasibility Analysis*, full catenary is not a feasible mitigation measure given it presents the risk of a single energy disruption causing cascading delays. Catenary also bears such enormous costs that *all* catenary in Europe, China, India, South Africa, and the United States have paid for using public funds. Additionally, U.S. freight rail is so substantially dissimilar to European freight rail that comparisons to European freight rail are invalid, and it would take between 9 and 20 years to construct (*BEL and Catenary Feasibility Analysis*). For all these operational, costs, and legal reasons discussed in the *BEL and Catenary Feasibility Analysis* and summarized here, catenary electrification is not feasible within a reasonable period of time and would render the BIG project so impractical that a reasonable person would not proceed with the development.[149] CEQA "does not demand what is not realistically possible, given the limitation of time, energy and funds."[150] Mitigation must be assessed in accordance with the "rule of reason."[151] The Commenter acknowledges that a full catenary system bears an estimated notional cost of approximately $8.7 billion, or more than double the cost of BIG. Reducing the cost to account for freight-only, the Commenter still estimates that full catenary would cost approximately $2.1 billion, or an additional nearly 50 percent of BIG's cost. As noted in the *BEL and Catenary Feasibility Analysis*, "The costs of catenary electrification are patently unreasonable and would render the Project so impractical that a reasonably prudent business would not proceed with its development" (*BEL and Catenary Feasibility Analysis*).

O21-125 See **Response O21-124**, as well as **Consolidated Response 05** concerning feasible and enforceable mitigation and **Consolidated Response 05-06**, concerning the feasibility of specific technology and other mitigation measures. Analysis under the International-Standard Costs scenario presented by the Commenter is not warranted because international costs are substantially reduced due to reduced labor costs, regulatory and permitting requirements, lower land costs, and other key factors that render the comparison to United States construction costs irrelevant. The *BEL and Catenary Feasibility Analysis* analyzes cost

149 *No Slo Transit, Inc. v. City of Long Beach* (1987) 197 Cal.App.3d 241, 256. (consideration of feasibility of mitigation measures may also be based on practicality.)

150 *Concerned Citizens of South Central Los Angeles v. Los Angeles Unified Sch. 22 Dist.* (1994) 24 Cal.App.4th 826, 841.

151 *Concerned Citizens of South Central Los Angeles v. Los Angeles Unified Sch. 22 Dist.* (1994) 24 Cal.App.4th 826, 841.

estimates from the Association of American Railroads (AAR) of $8 million per track mile, the Caltrain electrification project's catenary costs of $ 12 million per track mile and the CARB study's projected a total cost of $ 50 million per track mile, considered the costs of full catenary electrification as a percentage of the total project costs of BIG, and considered these relative costs in conjunction with the factors discussed in **Response O21-124**. Under the "Moderate US Costs" tier suggested by the Commenter, catenary electrification would comprise over half the total project cost. Furthermore, as detailed in the *BEL and Catenary Feasibility Analysis*, the improvement from Tier 4 locomotives to zero emission (either through BELs or through catenary) would result in a less than 1% reduction in pollutant concentrations compared to the high reductions already achieved through Tier 4. Under CEQA, mitigation measures are also required to be "roughly proportional" to the significant impacts found in an EIR. (State CEQA Guidelines, § 15126.4(a) (4) (5).). Here, the benefits are marginal relevant to the enormous costs discussed in the *BEL and Catenary Feasibility Analysis*. The *BEL and Catenary Feasibility Analysis* concludes, based on these and other economic, environmental, legal, social, and technological factors, that full catenary electrification is neither feasible nor practical for BIG.

O21-126 The Draft EIR carefully evaluated electrification options per CARB and EPA direction, which is discussed in **Draft EIR Section 5.3, Air Quality** (pages 5.3-109 through 5.3-115), and found that additional electrification options are infeasible. State CEQA Guidelines §15126.6(f) defines feasibility as follows:

"(f) Rule of reason. The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making.

(1) Feasibility. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.[152,153]

Full electrification of the LA-Barstow corridor is not a feasible alternative. A feasibility assessment of catenary electrification of the LA-Barstow corridor must be conducted and would require multiple agencies and partnerships, contributing to delays in obtaining necessary entitlements and other approvals needed before construction of catenary

[152] *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553.

[153] *Save Our Residential Environment v. City of West Hollywood* (1992) 9 Cal.App.4th 1745, 1753, fn. 1.

infrastructure could even begin, as discussed in **Response O21-127**, below. Such delays hinder the practicality and, in turn, feasibility of the alternative.[154] Such a feasibility assessment is unavailable, and high-level analyses of the North American Class I railroad network have not determined feasibility at individual corridors or geographic areas as outlined in a study published by the Association of American Railroads in 2025.[155] Therefore, catenary electrification feasibility would require regional coordination to achieve and would be beyond the scope of the BIG Project. Furthermore, this request would be beyond the defined study area and require expansion of the Project Area to include the LA-Barstow corridor. Furthermore, as detailed in the *BEL and Catenary Feasibility Analysis*, the improvement from Tier 4 locomotives to zero emission (either through BELs or through catenary) would result in less than 1% reduction in pollutant concentrations compared to the high reductions already achieved through Tier 4. Under CEQA, mitigation measures are also required to be "roughly proportional" to the significant impacts found in an EIR. (State CEQA Guidelines, § 15126.4(a)(4)(5).) Here, the benefits are marginal relevant to the enormous costs discussed in the *BEL and Catenary Feasibility Analysis*. See also **Consolidated Response 05** concerning feasible and enforceable mitigation **Consolidated Response 05-06**, concerning the feasibility of specific technology and other mitigation measures.

O21-127 Concerning feasible and enforceable mitigation including applicable legal standards and **Consolidated Response 05-06,** concerning the feasibility of specific technology and other mitigation measures. As an initial matter, much of the Commenter's assertions and assumptions are not supported by substantial evidence, including estimates of the number of chargers required and cost per mile for catenary construction. As noted in the *BEL and Catenary Feasibility Analysis*, while there have been some BELs tested over short durations, there have been no BELs with pantographs ever built, let alone tested, refined, and put into commercial production (*BEL and Catenary Feasibility Analysis*). Thus, the intermittent catenary scenario requires a type of locomotive that does not exist in any form currently. Therefore, this scenario would not be accomplished within a reasonable period of time. Full catenary and intermittent catenary were not rejected as infeasible solely due to economic reasons, but also due to lack of commercial readiness and technological and operational challenges (i.e., pantograph freight locomotives do not exist). (**Draft EIR Section 5.3** page 5.3-110; *BEL and Catenary Feasibility Analysis*). However, even using the Commenter's own estimates, intermittent catenary results in costs approximately double that of the Tier 4 diesel baseline (see **Response O21-127** at page 162-163). See **Consolidated Response 05** concerning feasible and enforceable mitigation and **Consolidated Response 05-06**, concerning the feasibility of specific technology and other mitigation measures.

O21-128 As mentioned above in **Response O21-126**, similarly, intermittent catenary electrification is beyond the defined study area and would still require expansion of the Project Area to include intermittent areas along the LA-Barstow corridor. See also **Consolidated Response 05 c**oncerning feasible and enforceable mitigation including applicable legal standards and

[154] *Concerned Citizens of South Central Los Angeles v. Los Angeles Unified Sch. 22 Dist.* (1994) 24 Cal.App.4th 826, 841.

[155] *Association of American Railroads, 2025, Study of Catenary Electrification of the North American Class I Railroad Network,* page 70, Available at https://www.aar.org/wp-content/uploads/2025/02/Final-Electrification-Report-02252025.pdf\

Consolidated Response 05-06, concerning the feasibility of specific technology (e.g., both full and intermittent catenary technologies as raised by commenter) and other mitigation measures.

O21-129 Refer to **Consolidated Response 05-06**, concerning the feasibility of specific technology and other mitigation measures, and **Responses S6-7, S6-13**, and **S6-14** regarding switcher BELs at BIG. Additionally, as noted above in **Response O21-106**, and in the *BEL and Catenary Feasibility Analysis* and *BEL Economic Feasibility Memorandum*, switcher BELs were not rejected as infeasible from the Draft EIR solely due to economic reasons, but due to not being commercially ready and presenting technological, operational *and* economic challenges. Thus, comparison of fuel savings and lifecycle costs were not the only determining factor in deeming BELs infeasible. As noted in the *BEL and Catenary Feasibility Analysis*, all previous and current BELs have had insufficient testing to deem them commercially ready, and most orders have either been canceled or scrapped upon completion (*BEL and Catenary Feasibility Analysis*). Therefore, the Draft EIR appropriately concluded BELs were infeasible mitigation.

Regarding the replacement ratio of 3:1 stated in the Draft EIR, this was only if BNSF adopted lower-power 400 kw chargers (page 5.3-112). BNSF retained additional experts who prepared the *BEL Economic Feasibility Memorandum* and the *BEL and Catenary Feasibility Analysis*, respectively. Due to operational challenges associated with charging durations, 1.4 MW chargers were used in the feasibility analyses. Both of these expert reports found that, based on the charging durations, shift durations, 1.4 MW chargers, switcher movements, and other key operational factors, a minimum replacement ratio of 2:1 still results in three fewer working hours per day (a 16% reduction over a 24-hour period), and provides substantial evidence that even this reduced fleet would be operationally and economically infeasible. Lower-power chargers would increase the charging durations, further increasing the operational and economic infeasibility of switcher BELs.

Electric RTGs (eRTGs) were carefully considered, and the feasibility determination is found on pages 5.3-114 and 5.3-115 of **Draft EIR Section 5.3** and in the *eRTG Feasibility Memorandum*. As noted in the DEIR and in the *eRTG Feasibility Memorandum*, there are no commercially available eRTGs that can provide the ramping and de-ramping operational capabilities required at BIG. See **Consolidated Response 05** concerning feasible and enforceable mitigation and **Consolidated Response 05-06** concerning the feasibility of specific technology and other mitigation measures, and as well as **Response O21-132** below for further explanation of eRTG infeasibility. See also the *Power Budget Memorandum*, which shows that existing power capacity is inadequate and not needed to accommodate infeasible electric technologies, and that additional solar and BESS are not needed or viable to expand available power capacity for infeasible technologies.

O21-130 Refer to **Responses S6-7, S6-13,** and **S6-14** regarding ZE locomotives (including Battery Electric Locomotives [BELs]). As discussed above in **Response O21-129**, no additional analysis is necessary pertaining to a BEL switcher alternative.

O21-131 Electric RTGs (eRTGs) were carefully considered, and the feasibility determination is found on **Draft EIR Section 5.3** (pages 5.3-114 and 5.3-115) and in the *eRTG Feasibility Memorandum*. As noted in the DEIR and in the *eRTG Feasibility Report*, there are no commercially available eRTGs that can provide the ramping and de-ramping operational capabilities required at BIG. Cranes suggested by commenters at the Ports are stacking cranes. See **Consolidated Response 05** concerning feasible and enforceable mitigation and **Consolidated Response 05-06** concerning the feasibility of specific technology (e.g., specific zero-emission technologies raised by commenter (including eRTGs)) and other mitigation measures, and as well as **Response O21-132** below for further explanation of eRTG infeasibility. See also the *Power Budget Memorandum*, which shows that existing power capacity is inadequate to accommodate additional electric technologies, and that additional solar and BESS are not viable to expand available power capacity. See also **Response O21-132** below.

O21-132 The commenter states that the Draft EIR modeled electrical loads for electrical RTGs. However, as clearly noted in **Draft EIR Appendix 5.6 BIG-1**, "The RTGs are expected to be diesel hybrids for the foreseeable future at the IMF due to lack of a viable fully-electric RTG for rail operations. For this reason, RTGs are not included in the baseline power demand forecasts." As noted in *eRTG Feasibility Report*, the eRTGs cited by commenter in commercial service at the Ports are stacking RTGs, while BIG requires ramp/de-ramp RTGs. The *eRTG Feasibility Report* includes photos and summaries of conversations with Port officials confirming that the Ports' cranes are stacking RTGs that rely upon 40 diesel loaders for ramping and de-ramping tasks. There are no commercially available ramp/de-ramp eRTGs.

Additionally, as mentioned in the Draft EIR (**Draft EIR Section 5.3**, page 5-3-114) ramp/de-ramp cranes must be operationally flexible between tracks, including being able to be relocated between tracks. As noted in the *eRTG Feasibility Report* the Ports currently use 40 conventional diesel-powered top-pick side loaders for ramp/de-ramp purposes to supplement their eRTGs (*eRTG Feasibility Report*). As noted in the Draft EIR, eRTGs were rejected due to operational and technological constraints, not solely economic constraints. Thus, fuel consumption, diesel fuel costs, electricity costs, and other inputs to determine total cost of ownership were not relevant to the Draft EIR's infeasibility determination. In addition, while power associated with eRTGs was shown for modeling purposes, they are not included in the 65 MW facility power demand, and thus, inclusion of eRTGs would exceed BIG's power budget. See **Consolidated Response 05** concerning feasible and enforceable mitigation measures and **Consolidated Response 05-06** concerning the feasibility of specific technology and other mitigation measures. See also the *Power Budget Memorandum*, which shows that additional solar and BESS are not viable to expand available power capacity, and **Consolidated Response 11** concerning energy and power supply. See also, **Responses O21-49, O21-129** and **O21-131**.

O21-133 See **Response O21-132** above regarding electric RTGs.

O21-134 As the commenter notes, BIG would process trains from across the United States as they move eastbound/westbound on BNSF's transcontinental mainline. Furthermore, implementation of BELs or hybrid locomotives would require modifications to each locomotive under service in

BNSF's network, thus, there is not a sufficient "nexus" or "rough proportionality" established by case law for systemwide upgrades to locomotives.[156,157,158]

O21-135 BIG already proposes a dedicated Tier 4 locomotive fleet from the Ports to BIG, although the commentor implies that the Draft EIR "does not examine whether [geofencing cleaning locomotive operations] could be applied to the Mojave Desert Air Basin." BIG's use of a dedicated Tier 4 fleet of newly purchased locomotives directly addresses Commenter's request to evaluate cleaner fleet deployment strategies and, rather than evaluate within an alternative, BIG proposes this benefit as part of BIG operations. Further, starting in opening year 2028, BNSF would increase the renewable diesel composition within the Ports' existing fueling site from 1 percent to 10 percent, a 900 percent increase in renewable diesel. This would improve the emissions of all BNSF trains fueling at the Ports, including those BNSF trains that would not stop at BIG, reducing emissions of all BNSF trains that fuel at the Ports. These commitments are binding and enforceable as described in **Consolidated Response 12-03** concerning enforceability of the Project components and mitigation measures for the Project. Refer also to **Response O21-37**.

O21-136 Given an electric fleet was infeasible (see **Response O21-137**), an alternative consisting of electric locomotives was not considered. See also, **Response S6-2** concerning the Draft EIR's analysis of NOx emissions, and the *BEL and Catenary Feasibility Analysis.*

O21-137 The commentor asserts that the "Draft EIR treats non-dedicated locomotive emissions as a fixed background condition." Instead, starting in opening year 2028, BNSF would increase the renewable diesel composition within the Ports' existing fueling site from 1 percent to 10 percent, a 900 percent increase in renewable diesel. This would improve the emissions of all BNSF trains fueling at the Ports, including those BNSF trains that would not stop at BIG, reducing emissions of all BNSF trains that fuel at the Ports. Furthermore, as described in the **Project Description of the Draft EIR** and summarized above in **Response O21-135**, BIG proposes a dedicated Tier 4 locomotive fleet from the Ports to BIG to transport cross-dock intermodal containers. These commitments are binding and enforceable as described in **Consolidated Response 12-03** concerning enforceability of the Project components and mitigation measures for the Project.

Furthermore, CEQA does not require the Project to mitigate existing environmental conditions or impacts that are not caused or worsened by the Project. CEQA is concerned with a project's incremental effects on the environment, and mitigation is required only for significant environmental impacts attributable to the Project itself (State CEQA Guidelines §§ 15126.2, 15126.4). The California Supreme Court has made clear that CEQA "generally does not require an analysis of how existing environmental conditions would impact future residents or users of a project," nor does it impose a duty to remedy preexisting environmental conditions unrelated to the project.[159] Rather, CEQA requires environmental

156 *Nollan v. California Coastal Commission* (1987) 483 U.S. 825.
157 *Dolan v. City of Tigard*, (1994) 512 U.S. 374.
158 *Ehrlich v. City of Culver City*, (1996) 12 Cal.4th 854.
159 *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369, 386–388.

review and mitigation only where a project would exacerbate or worsen existing environmental conditions in a manner that results in a significant impact.[160] As noted in the **Corridor Emissions Memorandum (Appendix B to Appendix 5.3 of the Draft EIR)**, there would be no increases in DPM emissions within the Corridor, thus, BIG would not cause impacts to communities and would in fact improve air quality compared to the "No BIG" scenario. Refer to **Response O21-84** for more on DPM emissions and mitigating regional emissions impacts.

Consistent with this principle, CEQA mitigation is required only for significant environmental effects resulting from changes to the physical environment caused by the Project when compared to baseline conditions.[161] CEQA does not require a project to reduce, eliminate, or otherwise remediate background environmental conditions that exist independent of the Project.[162] Indeed, the Mojave District Air Quality Management District (MDAQMD), in its comments, noted that the DEIR includes "the use of all feasible mitigation" and "would result in dramatic overall air quality improvement by directly reducing upwind emissions, improving the job/housing balance within the District, and reducing traffic pressure on the critical Cajon Pass Interstate 15 heavy duty truck and passenger corridor" (L3-5).

Regarding, NOx emissions, the Draft EIR evaluates BIG's emissions of ozone precursors (NOx and VOCs) against applicable regional mass-emissions thresholds, consistent with standard CEQA air quality practice. Where those thresholds are exceeded, the Draft EIR includes a health effects discussion to satisfy the informational requirements identified by the California Supreme Court in *Friant Ranch*. The Draft EIR contains sufficient detail to enable readers to understand the health impacts of ozone, and the concentrations at which those impacts are expected. (see, e.g., Draft EIR, 5.3-52, 55, 82, 115, 117 to 118). The Draft EIR describes state and federal nonattainment standards for ozone and provides baseline ozone concentrations in the project area between 2021 and 2024. (Draft EIR, 5.3- 55, 115, 117 to 118). Against this baseline, the Draft EIR explains that "BIG's contribution to regional O_3 levels would be relatively small." (**Draft EIR Section 5.3**, pages 5.3- 55, 115, 117 to 118).

The Draft EIR discusses the mitigation measures that would address potentially cumulatively considerable NOx emissions: "BIG would be required to implement **MM BIG AQ-1,** and **MM BIG AQ-3** through **MM BIG AQ-6**, which would reduce construction NOX, PM10, and PM2.5 emissions. These mitigation measures require fugitive dust controls, Tier 4 equipment, use of renewable diesel, clean on-road construction vehicles, and concrete and asphalt batch plant emissions controls." (Draft EIR, p. 6-19). The Draft EIR notes that many of the mitigation measures designed to reduce Project-level significant impacts would also mitigate cumulative impacts within the region and rail corridor. **Draft EIR Section 6.6.3** describes how **MM BIG AQ-7** through **MM BIG AQ-14** would mitigate cumulative impacts from criteria pollutant impacts within the MDAB. (**Draft EIR Section 6.0: Alternatives** pages 6-16 to 6-31.) **Draft EIR Appendix 5.3 BIG-1** then evaluates in a comprehensive and robust manner mitigation

160 *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369, 382, 385

161 *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (2013) 57 Cal.4th 439, 447–448.

162 Baird v. County of Contra Costa (1995) 32 Cal.App.4th 1464, 1479–1480.

measures that could address both project-level and cumulative air quality impacts (**Draft EIR Appendix 5.3 BIG-1**). As noted in the Draft EIR, the same reasons that some evaluated measures are infeasible for project-level impacts also apply to cumulative impacts. By way of example, **Section 7.1 of Draft EIR Appendix 5.3** finds that battery-electric locomotives are infeasible mitigation measures in part because they have small energy capacities and there is no current supply chain designed to deliver larger battery-electric locomotives (**Draft EIR Appendix 5.3 BIG-1** pages 175 to 179). This reasoning applies whether or not BIG results in significant cumulative air quality impacts for certain air pollutants in certain time frames.

Draft EIR Appendix 5.3 BIG-1 contains multi-page discussions of the feasibility of various air quality mitigation measures, including battery-electric locomotives, battery-electric switchers, zero-emissions trucks, and hybrid and electric rubber tire gantry cranes, and each of these feasibility analyses apply to BIG, whether there are cumulative impacts or not (**Draft EIR Appendix 5.3 BIG-1,** pages 175 to 181). See **Consolidated Response 05** concerning feasible and enforceable mitigation measures and **Consolidated Response 05-06** concerning the feasibility of specific technology and other mitigation measures.

O21-138 See **Consolidated Response 05** concerning feasible and enforceable mitigation measures **Consolidated Response 05-06**, concerning the feasibility of specific technology and other mitigation measures, all of which builds upon the ZE truck infeasibility determination included **Draft EIR Section 5.3** (pages 5.3-113). See **Responses O21-118** and **O21-141**, discussing economic and operational efficiency considerations in feasibility determinations.

O21-139 The reason for electric components (switchers and linehaul BELs, electric RTGs, ZE and NZE trucks, etc.) being rejected from BIG design or mitigation was not solely because of cost of ownership, but because implementing these measures would present unsurmountable technological, operational *and* economic challenges which, when combined with (but not solely due to) increased costs, would render BIG not competitive with current transportation options. These electric components would also exceed BIG's power budget as discussed in the Draft EIR and **Response O21-81;** the *eRTG Feasibility Report*; and the *Power Budget Memorandum*. See also **Consolidated Response 05-06** concerning the feasibility of specific technology and other mitigation measures and **Responses O21-97** and **O21-140.** As discussed in the *BEL and Catenary Feasibility Analysis*; the *BEL Economic Feasibility Memorandum;* and *Power Swapping Memorandum*, the Draft EIR relies on substantial evidence to demonstrate the technological, operational *and* economic challenges which render these electric technologies infeasible for BIG. See **Consolidated Response 05-04**, concerning economic feasibility.

O21-140 See **Response O21-139**. Given these electric components were rejected because they would present unsurpassable technological and operational challenges which, combined with (but not solely due to) increased costs, would render BIG not competitive with current transportation options, analysis of grant opportunities within the Draft EIR was not relevant. These electric components would also exceed BIG's power budget as discussed in the Draft EIR and substantiated in *the Power Budget Memorandum*. As noted in the *BEL and Catenary Feasibility Analysis*, BELs are not commercially ready and would present substantial

operational and technological barriers. As noted in *eRTG Feasibility Memorandum,* eRTGs do not exist and are not produced by any known manufacturer (in addition, if they were created, they would undermine flexibility, removing the key benefit of RTGs compared to RMGs). The *ZE Truck Feasibility Report* documents that ZE trucks are infeasible because imposing ZE/NZE requirements would impair BIG's ability to reduce regional truck trips by making it economically unviable for its customers. Additionally, BNSF has entered into a Memorandum of Understanding with MDAQMD to implement a demonstration program testing five hybrid diesel electric linehaul locomotives, as discussed in **Response O21-81**. This MOU would directly support Commenter's suggested concept of a hybrid consist.

See **Consolidated Response 05-04** concerning economic feasibility. California courts have repeatedly held that economic feasibility under CEQA is evaluated using a "reasonably prudent person" standard, not by examining whether an applicant is theoretically capable of paying for mitigation. In *SPRAWLDEF v. San Francisco Bay Conservation and Development Commission*, the Court of Appeal explained that "'the question is… whether the marginal costs of the alternative as compared to the cost of the proposed project are so great that a reasonably prudent person would not proceed with the altered project,'" and upheld the agency's finding that a reduced impact alternative was economically infeasible even though the applicant was a large entity with financial capacity to implement the alternative.[163]

Courts have also rejected the notion that CEQA requires an applicant to fund mitigation or alternatives simply because it has the financial ability to do so.[164,165,166]

Further, there is economic evidence that supports findings of infeasibility.[167,168] For private projects, the question is whether the marginal cost of the mitigation or alternative is so high that a reasonably prudent person or business would not proceed with it.[169] See also, *BEL and Catenary Feasibility Analysis; BEL Economic Feasibility Memorandum; ZE Truck Feasibility Report;* and *Zero-Emission Impacts on BIG Viability*. Additionally, as documented in the *Zero-Emission Impacts on BIG Viability*, imposition of these measures on BIG would render the facility non-competitive.

Courts have upheld infeasibility determinations where the record demonstrates that the cost differential between the proposed project and the alternative or mitigation is substantial and

163 *SPRAWLDEF, supra, 226 Cal.App.4th at 918, citing Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 600. ("*Woodside")*

164 *Center for Biological Diversity v. County of San Bernardino* (2010) 185 Cal.App.4th 866, 902, fn. 5, citing Woodside, supra, 147 Cal.App.4th 599–600. ("The financial wealth of the applicant does not bear on the feasibility of project alternatives. CEQA should not be interpreted to allow discrimination between project applicants for an identical project based upon the financial status of the applicant'")

165 *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 576, fn. 7. (upholding agency finding that alternative was infeasible, where economic analysis showed the alternative "to be less than economically viable")

166 *Irritated Residents,* supra, 107 Cal.App.4th at 1401, citing State CEQA Guidelines, § 15126.6, subd. (f)(1). ("Economic viability is a factor that may be considered when assessing the feasibility of alternatives")

167 *Woodside, supra,* 147 Cal.App.4th at 600.

168 *County of San Diego v. Grossmont Cuyamaca Community College Dist.* (2006) 141 Cal.App.4th 86, 108.

169 Compare *Woodside, supra,* 147 Cal.App.4th at 598-601 (record lacked evidence of cost of constructing new home and thus did not support conclusion that alternative of renovating historic mansion was economically infeasible) to *SPRAWLDEF, supra,* 226 Cal.App.4th at 917-18 (record supported economic infeasibility of local marsh protection program because record provided context with comparative figures of cost.)

unsupported by a commensurate reduction in impacts.[170] As detailed in *BEL and Catenary Feasibility Analysis*, the improvement from Tier 4 locomotives to zero emission (either through BELs or through catenary) would result in less than 1% reduction in pollutant concentrations compared to the high reductions already achieved through Tier 4. Under CEQA, mitigation measures are also required to be "roughly proportional" to the significant impacts found in an EIR (State CEQA Guidelines, § 15126.4(a) (4)(5).). Here, the benefits are marginal relevant to the enormous costs discussed in the *BEL and Catenary Feasibility Analysis*. Therefore, BNSF's financial performance is irrelevant to mitigation feasibility determinations. Instead, mitigation measures were deemed infeasible due to operational, technological, and power constraints, not economical constraints.

O21-141 See **Response O21-140** regarding economic infeasibility. It is noted that additional electric components were rejected because they would present unsurpassable technological and operational challenges which, combined with (but not solely due to) increased costs, would render BIG not competitive with current transportation options. These electric components would also exceed BIG's power budget as discussed in the Draft EIR and substantiated in the *Power Budget Memorandum*. As noted in the *BEL and Catenary Feasibility Analysis*, BELs are not commercially ready, and would present substantial operational and technological barriers as substantiated further in the *Power Swapping Memorandum*. As noted in *eRTG Feasibility Memorandum,* eRTGs do not exist and are not produced by any known manufacturer (in addition, if they were created, they would undermine flexibility, removing the key benefit of RTGs compared to RMGs). The *ZE Truck Feasibility Report* documents that imposing ZE/NZE requirements would impair BIG's ability to reduce regional truck trips by making it economically unviable for its customers. An industry-level issue—such as adoption of a brand-new technology to reduce drayage truck emissions and modify goods movement—requires an industry-wide regulation and solution, not a requirement that singles out one project.

O21-142 See **Response O21-102** regarding AERMOD and Corridor Emissions Model electronic input and output files, hour-by-hour emission rate profile, corridor-wide cumulative health-risk assessment, ozone formation, and other air quality related items. Detailed economic analysis is provided in **Draft EIR Appendix 5.11 BIG-1**. Detailed energy modeling is provided in **Draft EIR Appendix 5.5 BIG-1**.

O21-143 This comment is a summary comment of **O21-87** through **O21-142**. See preceding responses to these comments. Comment does not raise significant environmental issues; therefore, no changes to the Draft EIR are necessary.

O21-144 This comment provides a summary of the commenter's resume. Comment does not raise significant environmental issues; therefore, no changes to the Draft EIR are necessary.

O21-145 BIG's energy assumptions were provided in **Draft EIR Appendix 5.6 BIG-1**. Additionally, as the *Power Budget Memorandum* notes, BIG's power demand was calculated using a 15-minute time-step interval which has greater fidelity compared to the industry-standard hourly (8760)

[170] *SPRAWLDEF, supra, 226 Cal.App.4th at 913, 919-920.*

modeling process given it enables greater accounting for lunch breaks, coffee breaks, crew transitions between shifts, and charging demands within a more precise duration of time. The *Power Budget Memorandum* also sets forth electricity costs and demonstrates that BESS and renewable energy is not viable to expand power capacity. Refer to **Consolidated Response 16** concerning BESS.

O21-146 This comment introduces an estimated total annual energy supply from on-site solar at BIG. The Commenter assumes electricity rates as low as $0.12/kWh, however, as noted in the *Power Budget Memorandum*, BIG would receive service under SCE's TOU-8-D rate, at a cost of $0.15/kWh, or 25 percent greater than the $0.12/kWh assumed by the Commenter. See also **Response O21-97**, explaining the non-exclusive role that electricity costs played in the Draft EIR's determination of infeasibility for electric components. Refer to **Consolidated Response 11.**

O21-147 See **Response O21-146** noting that the reason for electric components (switchers and linehaul BELs, electric RTGs, ZE and NZE trucks, etc.) being rejected from BIG design or mitigation was not solely because of cost of ownership, including tariff costs or total electrical costs, but because implementing these measures would present unsurpassable technological operational *and* economic challenges which, combined with (but not solely due to) increased costs, would render BIG not competitive with current transportation options. Refer to **Consolidated Response 05-06**, concerning the feasibility of specific technology and other mitigation measures. These electric components would also exceed BIG's power budget as discussed in the Draft EIR and substantiated in the *Power Budget Memorandum*. Refer to **Consolidated Response 11**. Furthermore, as detailed in the *BEL and Catenary Feasibility Analysis*, the transition from Tier 4 locomotives to zero emission (either through BELs or through catenary) would result in a less than 1% reduction in pollutant concentrations compared to the high reductions already achieved through Tier 4 locomotives. Under CEQA, mitigation measures are also required to be "roughly proportional" to the significant impacts found in an EIR (State CEQA Guidelines, § 15126.4(a)(4)(5).). Here, the benefits are marginal relevant to the enormous costs discussed in the *BEL and Catenary Feasibility Analysis*, page 14.

Additionally, BNSF has entered into a Memorandum of Understanding with MDAQMD to implement a demonstration program testing five hybrid diesel electric linehaul locomotives that consume less fuel and generate lower emissions than traditional diesel locomotives during mainline operations, to determine if hybrid locomotives could become feasible. These locomotives also have the ability to operate in zero emissions mode when near BIG or at the BIG rail yard. However, given it is unknown and thus speculative whether the demonstration program would be accomplished and would reduce impacts, the demonstration program is not mitigation under CEQA and the Draft EIR did not take credit for these emissions reductions. Additionally, BNSF has entered into a Memorandum of Understanding to engage in good faith with CARB to explore currently infeasible technologies and other methods that could potentially further reduce emissions. The CARB Memorandum of Understanding is not mitigation under CEQA and the Draft EIR does not take credit for potential emissions

reductions. As noted in the *Governor's Certification for Judicial Streamlining of the Barstow International Gateway Project in the County of San Bernardino,*[171] "The Project Applicant has entered into a Memorandum of Understanding (MOU) with [MDAQMD] executed on February 23, 2026…and with [CARB] executed April 23, 2026… to implement a demonstration project of hybrid battery electric locomotive technology ("Pilot") as part of the Project". Thus, the Draft EIR carefully considered emission-reducing measures and implemented all feasible mitigation measures.

Additionally, it should be noted that a facility powered entirely by solar is infeasible. As noted in the *Power Budget Memorandum*. See **Consolidated Response 11** concerning energy and power supply.

O21-148 This comment presents a slide presentation from SCE. The commenter refers to this slide presentation from SCE as Appendix B. Appendix B is referenced in footnote 57 in Comment O21-14. See **Response O21-14** above for the responses concerning reference to this slide presentation from SCE. Furthermore, while this presentation provides a status on charging station development, there is no geographical information within the presentation, thus, this presentation does not provide any substantial evidence that there would be sufficient additional charging infrastructure available for potential ZE trucks. Additionally, as noted in the *ZE Truck Feasibility Report*, zero-emission trucks are infeasible mitigation for BIG. The *ZE Truck Feasibility Report* documents that imposing ZE truck requirements is infeasible as it would impair BIG's ability to reduce regional truck trips by making it economically unviable for its customers. Regional truck trips would continue to other IMFs in San Bernardino or Los Angeles, eliminating one of the emissions benefits of BIG. An industry-level issue—such as adoption of a brand-new technology to reduce drayage truck emissions and modify goods movement—requires an industry-wide regulation and solution, not a requirement that singles out one project. Given this comment does not raise any environmental concerns, no further response is required. However, see **Consolidated Response 11** concerning energy and power supply.

[171] Submitted into the administrative record to the City on May 1, 2026.