Meeting No. 2022-56

San Pedro Bay Ports
Sustainable Supply Chain Advisory Committee
July Meeting Summary

Date: July 20th, 2022 | 11:00 am – 3:00 pm

Location: Via Zoom conference

Attachments: Attachment A - Attendees
Attachment B - Meeting Agenda
Attachment C - Presentation - Committee Meeting

Meeting Summary

1. Review & Approve May Meeting Summary
    a. The meeting summary was approved. GNA will post it on the Committee's website.

2. Port Opening Remarks
    a. Port staff reported that as of July 20, 2022, three ships were at anchor in the Port of LA, 21 were drifting 150 nautical miles outside of the port complex, and another 50 were in transit from the Asian region. Staff at both ports continue to work in a virtual context while monitoring the trajectory of the COVID-19 virus and the proposed re-instatement of a mask mandate.
    b. Green Shipping Corridor
        i. The Port of Los Angeles described two major and new environmental projects that are proceeding relatively quickly. The first is an application for a hydrogen hub under the federal government's dedicated funding program, and the second is the Green Shipping Corridor that was announced and launched earlier in 2022. The Hub application is part of a collaboration with diverse agencies across the state, who are providing input to support a state-level application for funding for a production facility or facilities that would generate renewable, or "green", hydrogen. The ports intend to support this by helping to coordinate local offtakers, using the fuel to support various zero emission technologies that it anticipates will be operating this decade. POLA noted that the application effort reflects the ports' commitment to weaning off carbon-emitting fuels.
        ii. The Green Shipping Corridor effort is active on multiple fronts and receiving a lot of attention from the U.S. government and various international entities, port staff reported. Major retailers have joined the effort, along with other stakeholders, and they are working with a vision to eliminate a significant amount of carbon emissions in the global shipping operations between the San Pedro Bay Ports and Shanghai, and then support the scaling of the strategies

involved to other corridors globally. The group is working to launch a website to sustain frequent collaborative communications and ensure steady progress.

c. POLB added that it participated in a trucking workshop earlier in July with South Coast AQMD as well as funding and regulatory agencies. The workshop was convened to provide clear and actionable guidance to truck drivers on upcoming regulations and opportunities and resources to use to remain in compliance. POLB observed that the event was successful with lots of participation from the trucking community, who shared a lot of information on its needs and constraints, and straight forward dialogue on next steps.

3. SSCAC Member Priorities & Activities
    a. PMSA: Queen Mary and Zero Emission Funding
        i. POLB staff provided an overview of their budget process and its relationship to the ongoing discussion the port is having with the City of Long Beach about managing the Queen Mary. The Port reported that it is currently assessing the Queen Mary's structural integrity and financial needs with support from two firms with relevant expertise, Lloyds Register and ABL. A report will be submitted to the Port for consideration in their decision-making process. The Port has presented its 2022-2023 budget to its board of harbor commissioners without costs for the management of Pier H and the Queen Mary, although preliminary estimates for these efforts were submitted separately on an informational basis.
        ii. PMSA presented several slides describing the POLB's operating budget and the anticipated budget for operating and maintaining the Queen Mary, based on material that had been presented and distributed through public forums. The member highlighted statements made by the POLB in a public forum that responsibility for the Queen Mary could impact the Port's ability to make investments in other areas and activities, such as zero emission infrastructure and technologies. PMSA pointed out that estimates for ZE infrastructure investments alone exceeded $500MM and were also not included in the most recent POLB budget.
        iii. PMSA shared historical information on the Queen Mary and noted that ownership of it since 1967 has resulted in three bankruptcies and that conditions for these have not changed significantly. As a result, PMSA anticipates that ownership is high risk, and could compromise the POLB;s forward financial capabilities to fulfill the commitments made within the CAAP.
        iv. PMSA presented its concluding question to the group: if the estimates for the ZE investments and for the Queen Mary transfer are not included in the budget, and the port is asked to make a decision about the Queen Mary in the time frame covered by the current proposed budget, how will POLB achieve its goals under the Clean Air Action Plan (CAAP) by 2030? PMSA advised that the port will likely face some hard decisions over this decade as it works towards it goals in a complex business environment, and that clearly presenting and maintaining its priorities is necessary to ensure that it can fulfill commitments it previously made under the CAAP.

v. PMSA proposed that the SSCAC make a recommendation that the POLB not take ownership of the Queen Mary before it clearly confirms its capability to fulfill its commitments to its ZE goals and obligations under the CAAP.
vi. POLB staff expressed appreciation for their financial team's work to forecast and ensure that relevant information is available under complex conditions, and, for PMSA's articulate presentation of its concerns. Staff assured that the concerns were heard, and, the staff are discussing and reviewing priorities with directors and harbor commissioners on a regular basis. Staff also acknowledged that while there are many significant funding opportunities for ZE infrastructure, these aren't guarantees. This has led the port to take a conservative approach to its budgets.
vii. POLB's financial team clarified that their estimates of operating revenue for the Queen Mary are very conservative since it is a public venue, and that doubling this revenue would also not make a big difference in the net cost of maintaining the ship.
viii. ILWU observed that the ports face a difficult decision, and reflected that while the ship's nostalgic value to the community is significant it does not outweigh the real problems that the port and its community face today. The ILWU asked if the port is evaluating disposal methods and costs.
    - The Port's financial team confirmed that while its energy is primarily focused on the immediate decision it is being asked to make (whether to take ownership or not), it has explored disposal methods and costs. While these are high, the team is not confident that the highest figures quoted by other entities ($100MM) would ultimately apply.
    - PMSA added that considering "what if" scenarios is an important part of the decision-making process, and that ILWU's reminder that there are alternatives is valuable. It advised that a recommendation from the SSCAC focus on the immediate question as the ports have identified it, and the topic of priorities for the port itself, rather than include recommendations of disposal or alternative use cases. PMSA asked the Committee members to consider whether they would support the port taking the Queen Mary if it meant a multi-year delay in the ZE transition.
ix. GNA invited members of the committee to share any concerns or objections to pursuing a recommendation on this topic, and no concerns were shared. PMSA clarified that the recommendation would advise that the POLB have the funds necessary to complete its transition for on-dock ZE operations but would not specify an exact dollar amount at this time as it remains unknown. GNA will work with PMSA to develop a draft recommendation for the Committee's review and consideration.

b. New Member: CEC
    i. Representative Michelle Vater was introduced and welcomed as the newest member of the Committee. She expressed enthusiasm for learning from this group and participating in their advisory work.
c. EarthJustice: Funding Tracker

i. EarthJustice reported that no significant updates had been made to the tracker but that it was undergoing some revisions and expansion. The group will provide an update on this resource in September.

d. GridAlternatives shared the executive summary of the eTRUC-RHETTA (Electric Truck Research and Utilization Center (eTRUC) for the Research Hub for Electric Technologies in Truck Applications (RHETTA)) project that. GridAlternatives is providing support on workforce training program development for electric truck and charging equipment deployments. The project is currently in Phase 1 (pilot), and updates will be provided as it proceeds through Phase 2 (implementation). GridAlternatives invited members and the audience to reach out if they are interested in joining an advisory committee to the project.

4. Committee Discussion: Marine Vessels
    a. Summary of May Marine Vessel Presentations
        i. GNA presented a summary of the points made by representatives from the Air Resources Board and the marine shipping industry during the May 2022 Committee meeting. These points were assembled to inform the Committee's discussion on possible actions it could take to support emissions reductions in this equipment segment.
    b. Opportunity for Committee Action
        i. Reminding the audience of the many pilots underway at the San Pedro Bay Ports, GNA invited the ports, city and members to suggest means for applying information gathered in May to address needs in funding, demonstration and deployment.
        ii. POLA staff emphasized the need for funding and said it would welcome support from the SSCAC which has been a strong advocate for increased funding for SPBP emission reduction efforts. The port is currently working to align with the state on its funding for this segment and finds that balancing the dual values of economic competitiveness and climate targets is challenging for this technology especially given the global nature of its business.
        iii. GNA asked if the ports could articulate the scale and scope of the support it requires to accomplish its goals. POLA suggested "hundreds of millions of dollars" and noted that of similarly large value is a resolution on which fuels and technologies will require landside support. For example, renewable feedstocks for LNG are considered promising but they represent a distinctly different infrastructure investment than other fuels that are under consideration by ocean carriers. POLB commented that they are having conversations with shipping lines to keep track of their vessel orders and investments and inform how the port can prepare to meet associated needs. At this point in time, the definition of those needs remains in flux but there is potential for conversations with them on the Green Corridor Initiative to bring focus in this area.
        iv. GNA prompted the group to consider whether portions of future infrastructure investments can be prioritized. For example, if a $500MM tranche of funding were available, is there an opportunity that would stand out from others in the marine vessel segment?

- POLB staff noted that marine was always recognized as a challenging area given its global range and the highly mobile nature of its assets. This makes a narrow range of operational capabilities a poor strategy for both the shipping lines and the ports.
- POLA staff added that policies from the International Maritime Organization (IMO) need to be taken into account as that also governs shipping line decisions. The ports would welcome the SSCAC's support in tracking IMO activity and evaluating impact potential on the ports' infrastructure decisions.
- PMSA acknowledged the complexity of this segment and noted that shipping lines' expected decisions to invest in multiple fuel types signals that port authorities should engage in and support the investigative process with the carriers.
    a. PMSA and POLA staff noted generally that some statements in the Overview presentation delivered required some clarification. GNA agreed to pursue these changes offline and ensure that an accurate version is submitted in the final minutes.
- Reflecting on the impact of a large tranche of funding, the ports noted that even if with such a tranche that is not earmarked the ports would have to decide which equipment category most immediately requires the support to reduce emissions. The Committee's support is always welcome in addressing this question. GNA agreed to raise this in an upcoming meeting on ZE fueling infrastructure.
- It was noted by the group that given the complexity and uncertainty about low emission fuels and technologies for the marine sector, more immediate funding investments should likely target land-based applications such as trucks and CHE given the greater availability of emission reduction technology.

5. Deep Dive: Increased Efficiency & On-dock Rail
    a. Impact of I-710 No-Build Vote (LA Metro)
        i. A representative from LA Metro introduced its role convening partners involved in landside infrastructure development and thanked the Committee for inviting its participation in this conversation, noting that this allows LA Metro to better communicate on the topic with its board. A presentation on the I-710, its proposed expansion, the 2021 vote not to pursue the project, and Metro's current activity to address congestion and pollution issues associated with the I-710 followed (see **Attachment C**). The following summary points were made:
            - The communities directly adjacent to the I-710 and most directly impacted by activity on this roadway are ethnically and culturally diverse, of medium- to low- income (on average), and subject to concentrated levels of Diesel Particulate Matter (DPM) which correlate with high levels of reported asthma cases.

- Average traffic speeds during morning peak hours are under 45 miles per hour, and this has been found to contribute to congestion in adjacent corridors.
- The I-710 expansion project was proposed to improve mobility, air quality, public health, and economic competitiveness in the region where jobs are closely tied to goods movement and logistics. Its approval was challenged at several points related to environmental considerations. The approval period also stretched over years when additional terms were incorporated into project assessments, such as equity and sustainability. In late 2021, Caltrans determined that the necessary displacement of local communities and the likelihood of growth in induced diesel truck trips made the project unacceptable under its current standards and requested that Metro present a no-build option. This option was presented and subsequently approved.
- Metro noted that while the project is no longer moving forward, the investment in addressing the concerns remains an active effort. Investment is based on available funding per local sales taxes. Metro is currently working with Caltrans to engage with community leaders in the I-710 corridor to define more sustainable, equitable and multimodal transport projects and programs, and achieve shared goals of reducing vehicle miles traveled, greenhouse gas emissions, and DPM levels. The partnership aims to present an investment plan in 2023.
    a. Meanwhile, components of the previous project may be pursued through a separate task force on the I-710.

ii. The representative said that LA Metro would like to understand the priorities of the ports and their stakeholders so that it can improve conditions for goods movement while simultaneously improving community experiences and conditions.

iii. The San Pedro Neighborhood Council expressed appreciation for the level of consideration of community impacts and noted that they are concerned that as container truck traffic grows in their area that they will become the next I-710 corridor community.

iv. GNA observed that the information shared here would be valuable for the members to consider in the upcoming conversation about truck fueling infrastructure, in September 2022.

b. POLB Pier B On-dock Rail Update

i. A member of POLB's engineering team presented on its project to expand on-dock rail service at Pier B in an area between the Dominguez Channel, the Los Angeles River, and the Alameda corridor (see **Attachment C**). The project aims to support the forecasted growth in cargo demand by allowing the joint ports to handle up to 35% of its total cargo volume by train; currently, the port transports only 20% of its cargo by train. Designing yard space and infrastructure to serve longer trains is part of the strategy.

ii. As designed, the project will add five arrival/departure tracks, infrastructure for resupplying up to 30 locomotives, and allow for between seven and ten new daily train arrivals. The design does require some removal and reconstruction of existing freeway ramps and bridges linked to the I-710.
    - POLB pointed out that one double-stacked train can replace 750 truck trips.
iii. The project has completed three of four critical steps in the approval stage and is awaiting only its coastal development permit from the state. Once construction begins the project is estimated to be completed in 2032. The total project cost is estimated at $1.5 billion.
    - POLB noted that right-of-way projects are technically complex, and that this adds costs. It is pursuing several grant programs to secure funding. To date, the port has secured over $80 million from multiple agencies, and recently submitted an application to the U. S. Department of Transportation MEGA Grant program.
iv. POLB has several relevant project components in design and anticipates beginning bids on these in June 2023:
    - East expansion (bid in December 2023)
    - West expansion and Pier B street realignment (bid in December 2023)
    - Locomotive facility (bid in June 2023)
    - LA-04 pump station (bid in March 2024)
    - Dominguez Channel bridge widening (bid in July 2024)
    - Shoemaker Bridge ramps demolition (bid in March 2024)

c. CARB Locomotive Regulation
    i. CARB staff presented a summary of its proposed locomotive regulation, which it will present to its board in November 2022. Today, most equipment in a typical rail yard is transitioning to zero emission operations except for locomotives, and in 2020 this equipment segment account for 10% of freight-emitted NOx in California. The agency forecasts that this will grow by 2035 as cargo activity continues to shift.
    ii. A recent study noted that the ratio of trucks and trains serving California's goods movement and logistics sector affects the emissions levels, and that rulemaking for both of these categories takes these findings and associated studies into consideration. Separately, the agency found that while locomotive activity declined in 2020 due in part to the COVID-19 pandemic, the industry's use of Tier 1 engines has steadily increased since 2010. This challenges the agency's expectations that use would reduce over time as these engines age. CARB finds that new strategies are needed to address locomotive emissions statewide, and this is reflected in its forthcoming regulation.
    iii. The agency is currently considering several concepts:
        - Spending account: a railroad would be charged on a per-megawatt hour basis for its operation in California. Funds are held in an internal account and can be used to fund a variety of ZE equipment.

- In-use Operational Requirements: Locomotives 23 years and older would be prohibited starting in 2030, and some must meet a ZE operating standard by 2030 while line haul must be ZE by 2035.
- Idling Requirements: Implement the U.S. EPA idle time limit of 30 minutes.
- Registration and Reporting Requirements: Equipment documentation and annual reporting requirements would be defined.

iv. The agency also intends to incorporate flexibility measures like alternative compliance plans and temporary operating waivers for conditions based on revenue levels, annual operating levels, and historical nature of the equipment. Requests for such permission would likely be due by November 2023, and reporting and spending account deposits would likely begin in July 2024. The agency presented a timeline detailing other important deadlines in its current draft of the regulation (see **Attachment C)**.

v. The current SRIA (published in May 2022) estimates a program cost of $15.9 billion and a potential cost of adverse health outcomes if the program is not introduced of $32.3 billion.

vi. Incentives will be offered through the state's air districts and will cover infrastructure as well as equipment. Grant durations will be limited to 15 years.

d. Progress Rail Advanced Technologies Update

i. A representative from Progress Rail presented the company's goal of being a leader in decarbonization by providing products as well as thoughtful leadership. Its philosophy is anchored in three concepts: safety, sustainability, and an existing transition path.

ii. Progress Rail plans to deploy the world's largest battery electric vehicle for mining operations in Australia in 2023, and currently offers the most broad selection of battery electric locomotives (BELs) supporting yard operations, regional trucking, mining, and long-range trucking. It also offers equipment that can support B20-diesel blends and is testing for compatibility with B100 and R100 fuels. The company is also exploring hydrogen fuel cell technology with BNSF and Chevron.

iii. Progress Rail's EMD Joule Locomotive has a shorter range than its diesel counterpart but matches or exceeds its peak power level. Of its five configurations, four support yard switching and the range of energy storage is four to 14.5 MWh. The company emphasized that route planning is important for its customers, and that is recommends operating the vehicle in captive corridor service.

iv. Progress Rail is repowering a SD38/40 switcher, one of the most common switching locomotives in North America, for operation with Pacific Harbor Line and serving the Port of Long Beach by the end of this year.

v. The representative noted that infrastructure is the most critical component of achieving zero emissions in the locomotive segment. Currently, Progress Rail uses a reverse pantograph with 700 kW and 1,400 kW charging rates and it is

reviewing the megawatt charging standard so that it can be ready to adopt this if appropriate. This standard would help the industry avoid challenges of having multiple technology types and standards in one yard, and the associated risk of stranded assets.

e. BNSF's ZE Locomotive Project Update
    i. A representative spoke to the Committee about its work on near-zero and zero emission fuels and technologies, including natural gas and battery electric . BNSF currently operates a fleet of thousands of vehicles and equipment across its national network, and as it pursued BELs it is also looking closely at their interaction with power production and delivery.
    ii. In 2021, BNSF ran a 2.4 MWh linehaul locomotive between Barstow and Stockton as part of a project funded under CARB's ZANZEFF program that included cranes, battery electric drayage trucks and battery electric side loaders. The locomotive was operated as part of a hybrid consist to support the project's goals of demonstrating BEL technology in yard settings; understanding the hardware in an operating context; understanding the interoperability of diesel and battery components in a single consist and yard; and understanding the variety of routes that could be served with this technology. During the project, the BEL traveled 4,000 miles in five months, performing 18 round trips and saving 800,000 gallons of fuel.
    iii. BNSF is currently working with Progress Rail and WABTEC to identify routes that would be suitable for their BEL's operations.
    iv. The representative noted that the company is not aiming to prove that the technology can work since it believes that that is already resolved. Instead, its goal is to refine methods, models and approaches for integrating it into mainline operations. Some questions it is asking are: if a train originates at a port, what does charging look like compared to diesel fueling; what distance can be covered; and, how can zero emission activity be prioritized in certain areas such as the LA basin.
        - OEMs and utilities have been key partners in this work, and BNSF is seeking more partnerships for demonstration and deployment.
    v. BNSF noted that the rail industry is seeking 50 locomotive years of experience, which could be achieved by testing 50 locomotives for one year or one locomotive for 50 years (for example). There is some calibration that can be done to test different scenarios of BEL volumes and duration.

f. Union Pacific ZE Locomotive Project Update
    i. A representative shared that Union Pacific (UP) has set a SBTi target of reducing its GHG emissions by 26% by 2030 compared to its 2018 baseline. Within the company, locomotives are responsible for 85% of the total emissions, so a large share of the emissions reduction effort falls to the locomotive team.
    ii. Currently, UP is using biodiesel and renewable diesel, fuel efficiency technologies, and design improvements to its conventional locomotives to reduce emissions – but these are not enough to achieve a net zero standard

(which may be required in states like California). UP is accordingly exploring hydrogen catenary, electric catenary, and BEL technologies and uptake among its peers.

iii. The hydrogen concept allows UP to explore renewable power solutions through green hydrogen options, but, it is limited by high prices, limited fueling infrastructure (which affects interoperability across facilities), and sensitive fuel storage requirements. The electric catenary concept was presented as less complex and potentially less expensive, but the infrastructure cost is currently estimated at more than $100 billion for a railroad. The representative noted that standards are a significant challenge and make interoperability hard to anticipate.

iv. UP has explored BEL technologies in both freight service and yard switching service. It identified several advantages and disadvantages of both.

- Freight service advantages: zero point source emissions, reduced complexity and maintenance, existing power supply (the grid), and a forecast of technological improvements.
- Freight service disadvantages: low range, interoperability challenges, reliability growth testing requirements on new locomotives, and cost relative to diesel engines.
- Yard switching advantages: currently in use, low noise, existing power supply (the grid), zero point source emissions, no interoperability challenges.
- Yard switching disadvantages: reliability growth testing is required and the equipment cost is high relative to diesel.

UP currently recommends yard switching service for early BEL deployments. It will operate and test performance of 10 units in each of two distinct climate areas in the near future: North Platte, NE and Los Angeles, CA. The yards at both sites operate at a 50-60% utilization rate.

g. POLA ZE Locomotive Projects

i. POLA staff provided an overview of its current rail service and emissions reductions projects. The port rail network features 116 miles of track, and 11 facilities (five on-dock, five off-dock, and one near-dock). These are served by three companies: UP, BNSF and PHL. Currently, 35% of intermodal containers use POLA's rail network and 26% of all cargo that travels through POLA uses o-dock rail service for building and sorting double-stack trains.

ii. In 2021, POLA and UP were awarded $2,025,000 from the U.S. EPA DERA grant program to replace one existing Tier 1 switcher with one new BEL and operate it in the West Colton switching yard. Staff noted that the locomotive will work independently and in a consist with diesel-based locomotives.

iii. In 2022, the Ports' joint Technology Advancement Program (TAP) recommended funding a demonstration project for ZE switcher charging infrastructure, and this is now awaiting approval. The project would be executed with PHL, Progress

Rail and Dynalectric, for an estimated cost of $4,751,904. If approved, the equipment may be delivered by the end of 2022.

h. GridAlternatives asked the locomotive industry representatives whether they are capturing data on or studying workforce development strategies, training needs, and career path opportunities as they develop and demonstrate their technologies.
    i. Union Pacific agreed that training is needed to operate and support new equipment and added that they are partnering with organizations that can help implement programs at each demonstration site. The representative flagged that they are hiring staff to lead this effort and invited the group's support to identify strong candidates.
    ii. Progress Rail said that they are anticipating training needs and preparing to support their partners and customers to adopt a necessarily "different set of skills and philosophy." Progress Rail noted that it is important for the OEM to transfer the knowledge and skills that it acquires while developing new equipment.
    iii. BNSF agreed with the other panelists and emphasized that there is a need for skill development and training at multiple points of the supply chain, including fueling infrastructure and system maintenance.
i. GNA asked if there were clear successes or failures related to personnel training that BNSF observed during its LNG and/or BEL demonstration project. BNSF replied that safety is paramount, and that in rolling out new systems and safety protocol "there is no substitute for meeting workers and communities face to face." BNSF reflected that leveraging local organizations in the safety and training efforts was an important feature of their earlier work demonstrating LNG technology. Accessing funding for this work is important but the availability of development-focused funding programs is unclear. BNSF asked if audience members could advise them on this topic. Union Pacific seconded that, adding that more than one expert is needed in their advisory effort. GridAlternatives pointed out that this would be a good conversation to have with local unions.
j. Coalition for Clean Air asked the port staff what they were doing to bring cleaner switcher locomotives to Pier B. POLB staff pointed to the presentation given on their investments and projects and added that this work allows the ports to identify ways to further advance emissions reductions in the locomotive segment. Staff added that Pier B is a rail track and not a standard off-dock rail yard with trucks and cargo handling equipment. As such, it serves as a storage track to allow better use of the on-dock rail infrastructure that exists within the terminals.
k. GNA asked what conditions would help the industry test its BELs and other zero emission equipment.
    i. BNSF observed that a better understanding of port logistics and of BEL performance in extreme weather environments and on specific route types would be helpful. Partnerships to accelerate development of fast charging are also needed. Currently, a BEL can fuel in two to four hours while a diesel locomotive typically fuels in 30 minutes, although the timing varies by route.

ii. Union Pacific agreed that support to improve charging rates and technology is needed.

l. GNA asked if the panelists could expand on what strong regional charging infrastructure would look like, and whether Southern California presents a strong opportunity or if the corridors discussed today are geographically too narrow.
    i. Union Pacific said that switchers are a good starting point because they have captive routes, or, duty cycles that are limited to a fixed and controlled geographic area. Once the technology is demonstrated outside of this space, then the industry will be able to better advise on nuances of optimal and suboptimal environments. Currently, financial constraints are among the limitations that the industry faces to test charging technology on longer, non-captive routes.

m. San Pedro Neighborhood Council expressed appreciation for the major companies that are getting involved in this work and asked to confirm if the presented material would be shared for review. GNA confirmed that it would circulate the meeting slides.

n. ILWU pointed out that there will be multiple viable technologies and that variety is needed to meet different needs. He asked if catenary charging could support other applications. The panelists have not had the opportunity to explore this but said that they would refer back to their engineering teams, and GNA agreed to facilitate any clarifications after the meeting.

o. GNA asked the panelists to name one thing that would make a significant difference in demonstration, testing and scaling their ZE products.
    i. Progress Rail pointed to funding to make the technology cost-effective given that the fuel has not proven to be cheaper than diesel. LA Metro added that regional planning relies on information about how the various systems in transportation align and that LA Metro invites as much of this as can be shared to avoid becoming the bottleneck.

6. Funding Opportunities & Advocacy
    a. Port and Freight Infrastructure Program
        i. A representative from the California State Transportation Agency (CalSTA) presented a summary of the draft guidelines released in early July for a new program designating funds to improve capacity, safety, efficiency and resilience of the goods movement sector and operations in and around California's maritime ports, while reducing pollution. The program was approved for funding on June 30, 2022, and leverages a portion of the $1.2 billion budget for fiscal year 2022-2023. Seventy percent of the funding will directly support infrastructure projects for the San Pedro Bay Ports, and third percent will support other high-priority projects for ports and goods movement operations elsewhere in the state, including inland ports.
        ii. Workshops will be held in August 2022 and project applications are welcomed in mid-November. The agency intends to award funds by January 2023. Seventy-five percent of port infrastructure funding will be awarded to projects that are

reasonably expected to begin construction within 24 months of award. The remainder will be awarded to the planning and development of innovative projects.

iii. CalSTA has set evaluation criteria for funding applications in line with State Bill 198. Awards will be made to public agencies that administer or operate projects that perform well under the following criteria:
   - Improve capacity of CA ports to manage increasing volumes of freight and improve the efficiency of goods movement to, from and through CA ports
   - Reduce criteria pollutants and greenhouse gas emissions
   - Promote transportation equity
   - Maintain, enhance, and modernize the multimodal freight transportation system
   - Grow the economic competitiveness of CA's freight sector through increased system efficiency and productivity
   - Reduce freight-related deaths and injuries
   - Improve system resilience by addressing infrastructure vulnerabilities associated with security threats, climate change, and natural disasters

iv. San Pedro Neighborhood Council asked CalSTA to clarify how it is evaluating equity in project applications. The representative said that it will focus on projects that can reduce the freight sector's impact on communities, particularly those that have historically received discriminatory or limited investments. More details are available on the website.

v. GNA asked if there are any limitations around how much funding may be allocated to a given equipment type. CalSTA said that limitations do not exist along those lines and that the program's goal is to increase system efficiency.

vi. GNA asked whether the CalSTA representative had suggestions of how an applicant could attract federal dollars to further support this investment.
   - The program's timeline aims to approve funding before next year's federal funding announcements are made, allowing awarded projects to pursue new funding at the federal level to enhance their approved scopes.
   - CalSTA also noted that innovative pilots are often difficult to fund given their higher risk levels, and that the program hopes to attract additional funding to these projects by providing a base level of investment. Projects to develop "as a service" offerings are particularly interesting and increasingly prominent.
   - GNA observed that the ports are a strong investment opportunity for public sector investments given the diverse array of stakeholders that are closely involved in their operations and development. CalSTA encouraged applicants to partner with public agencies, and supported coordination with the ports to address congestion.

b. State Budget Approval

i. This topic was not addressed due to time constraints.

c. Strategy and Advocacy for Maximizing Federal Infrastructure Funding
    i. This topic was not addressed in the absence of key port staff. GNA noted that the SSCAC has historically been involved in funding advocacy efforts, and that there would be an opportunity to revisit this discussion about providing policy support in the future.
d. Federal Regional Hydrogen Hub (Ports)
    i. POLB staff provide an update on the SPBP's participation in a state-level application to the federal Hydrogen Hub program. This program is supported by an $8 billion investment from the U.S. DOE under the 2021 Infrastructure Investment and Jobs Act (IIJA), and aims to develop hydrogen production, delivery and fueling infrastructure around the U.S. California agencies and stakeholders including the ports are pursuing an application for a green hydrogen hub to be located in Southern California and support the goods movement sector. GoBIZ is leading the effort.
    ii. The joint ports feel confident in their demonstrated leadership in clean fuels adoption and ability to serve as offtakers for a green hydrogen hub. They are also prepared to provide support on fuel generation and transportation needs.
    iii. The ports anticipate that the funding notice will be officially released in September or October, at which time they can provide a second update to the Committee.
e. Stakeholder Advocacy Engagement
    i. Referring to its previous comment about the SSCAC's historical support on advocacy, GNA asked the members whether there were additional measures that the Committee could support in Sacramento or Washington, D.C., that had not been addressed.
        - Future Ports recommended engaging with Mobility21, a transportation coalition in Southern California that works to mobilize funding among other necessary resources to improve transportation activity, to identify opportunities to collaborate on funding advocacy. GNA agreed to include this on a future agenda for deeper discussion.

7. Conclusion & Next Steps
    a. Next Meeting: September 21st, 2022 – ZE Trucks & CHE Implementation
    b. Upcoming Agendas: November – Workforce Development

Attachment A

List of Meeting Participants

SSCAC Committee Members	
Marnie Primmer	FuturePorts
Michele Grubbs	PMSA
Thomas Jelenic	PMSA
Aaron Katzenstein	South Coast AQMD
Cari Anderson	CARB
Chris Chavez	CCA
Stella Ursua	Grid Alternatives
Sal DiCostanzo	ILWU-13
Regina Hsu	EarthJustice
Michelle Vater	CEC
Louis Dominguez	San Pedro Neighborhood Council
Los Angeles Port & City Staff	
Teresa Pisano	Port of Los Angeles
Chris Cannon	Port of Los Angeles
Christine Batikian	Port of Los Angeles
Erick Martell	Port of Los Angeles
Christina Anecito	Mayor Eric Garcetti's Office
Lauren Faber O'Connor	Mayor Eric Garcetti's Office
David Ou	Mayor Eric Garcetti's Office
Robert Park	Mayor Eric Garcetti's Office
Long Beach Port & City Staff	
Heather Tomley	Port of Long Beach
Rick Cameron	Port of Long Beach
Mark Erickson	Port of Long Beach
Sam Joumblat	Port of Long Beach
Meeting Facilitation Staff	
Erik Neandross	GNA
Eleanor Johnstone	GNA
Christopher Davis	GNA
Other Stakeholders	
Layla Gonzalez	CARB
Mei Wang	SCAQMD
Michael Cano	LA Metro
Giles Giovinazzi	CalSTA

Eric Fredericks	CalSTA
Priscilla Khuu	CARB
Michael Cleveland	Progress Rail
Michael Swaney	BNSF
Jason Fox	Union Pacific

Attachment B
Meeting Agenda

1. Review & Approve May Meeting Summary

2. Port Opening Remarks
    a. Green Shipping Corridor

3. SSCAC Member Priorities & Activities
    a. PMSA: Queen Mary and Zero Emission Funding
    b. New Member: CEC
    c. EarthJustice: Funding Tracker

4. Committee Discussion: Marine Vessels
    a. Summary of May Marine Vessel Presentation
    b. Opportunity for Committee Action

5. Deep Dive: Increased Efficiency & On-dock Rail
    a. Impact of I-710 No-Build Vote (LA Metro)
    b. POLB Pier B On-dock Rail Update
    c. CARB Locomotive Regulation
    d. Progress Rail Advanced Technologies Update
    e. BNSF's ZE Locomotive Project Update
    f. Union Pacific ZE Locomotive Project Update
    g. POLA ZE Locomotive Projects

6. Funding Opportunities & Advocacy
    a. Port and Freight Infrastructure Program
    b. State Budget Approval
    c. Strategy and Advocacy for Maximizing Federal Infrastructure Funding
    d. Federal Regional Hydrogen Hub (Ports)
    e. Stakeholder Advocacy Engagement

7. Conclusion & Next Steps
    a. Next Meeting: September 21st, 2022 – ZE Trucks & CHE Implementation
    b. Upcoming Agendas: November – Workforce Development

Attachment C
Presentation - Committee Meeting

San Pedro Bay Ports

Sustainable Supply Chain Advisory Committee Meeting

July 20th, 2022

THE PORT OF LOS ANGELES

Port of LONG BEACH THE GREEN PORT

Agenda

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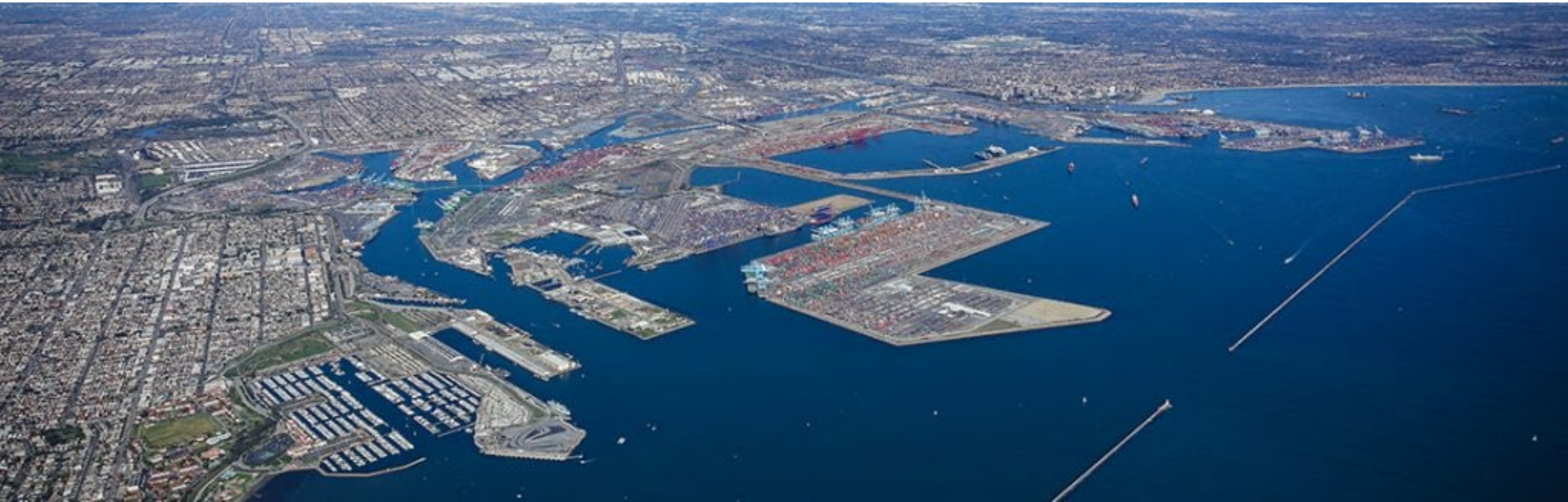
a. Green Shipping Corridor



3. SSCAC Member Priorities & Activities

a. PMSA: Queen Mary and Zero Emission Funding
b. New Member: CEC
c. EarthJustice: Funding Tracker

A. PMSA: Queen Mary and Zero Emission Funding

Queen Mary: Cost Estimates

"We will be able to do this, but that's it."

LB Post May 2, 2022

PIER H SOURCES & USES

CASH INFLOWS (in millions)	FY23 Fcst	FY24 Fcst	FY25 Fcst	FY26 Fcst	FY27 Fcst	FY23 to FY27
OPERATING REVENUES	4	8	8	8	8	38
TOTAL INFLOWS	4	8	8	8	8	38
CASH OUTFLOWS (in millions)						
		3.0%	3.0%	3.0%	3.0%	
OPERATING EXPENSES	28	28	29	30	31	146
PIER H DEBT SERVICE TRANSFER	2	3	3	1	1	10
CAPITAL EXPENDITURES	49	70	70	47	0	236
TOTAL OUTFLOWS	79	101	102	78	32	392
Increase / (Decrease) in Cash	-75	-93	-94	-69	-23	-354

The port could absorb the massive costs for Pier H, but that would limit future capital projects, said Sam Joumblat, the port's managing director of finance and administration, told harbor commissioners. ***"We will be able to do this, but that's it," he said.***

And in the event of an economic downtown, the port could be forced to limit current capital projects such as its

$870 million Pier B railyard, he said.

https://lbpost.com/news/taking-on-queen-mary-could-cost-the-port-of-long-beach-354- million-over-next-five-years

What's Not Included in the Port of Long Beach's Budget

ENSAFE

Preliminary Cost Estimates For Select 2017 Clean Air Action Plan Strategies
Port of Long Beach/Port of Los Angeles
Long Beach and San Pedro, California
October 17, 2017

Table 18
Estimate of Electric Cargo Handling Equipment Infrastructure Costs, Port of Long Beach

Equipment Type	Count	Electric Infrastructure Cost Per Unit	Electric Infrastructure Cost
Yard Truck	627	$339,000[17]	$212,600,000
Top Handler	170	$1,424,000[17]	$242,100,000
RTG Crane	64	$1,360,000[17]	$87,000,000
Side Pick	14	$1,424,000[18]	$19,900,000
Truck	13	$339,000[20]	$4,400,000
Tractor	10	$339,000[20]	$3,400,000
Forklift	218	$76,300[21]	$16,600,000
Loader	10	$7,300[21]	$100,000
Sweeper	12	$5,900[21]	$100,000
Man Lift	6	$1,100[21]	$10,000
Rail Pusher	3	$1,600[21]	$5,000
Miscellaneous	3	$100[21]	$300
Material handler	3	$4,000[21]	$10,000
Bulldozer	2	$800[21]	$2,000
Excavator	2	$1,800[21]	$4,000
Skid Steer Loader	1	$100[21]	$100
Total			***$586,227,300***

Tables 19 and 20 present the estimated costs of bringing additional electrical power down to the terminals in accordance with the requirements of the 2017 CAAP.

Queen Mary: Timeline

- The city bought the ship for $3.45 million in 1967 and estimated it would cost $5.5 million to convert it into a hotel-convention center-museum-tourist attraction. By 1970, the total cost had risen to $57 million…
- **"Long Beach bought an old bucket, a rust bucket,"** Los Angeles County Supervisor Kenneth Hahn declared in 1969. "**It's a monument to stupidity."**
- "In 1971, State Legislative Analyst A. Alan Post called the project a **"colossal mistake"** based on a "**capricious decision."** Post claimed the city had illegally spent $6.6 million of tidelands funds on the Queen Mary to that date. State Lands Commission Executive Director F.J Hortig estimated the figure closer to $8 million.

Queen Mary: Timeline, cont.

- 1988 – Walt Disney Co. takes over management of Queen Mary.
- 1992 - The Walt Disney Co. owned the ship but quit its lease shortly after the release of a 1992 marine survey that identified $27 million needed for repairs.
- 1992 – Port decides to sell the Queen Mary and meets with prospective customers who will take the Queen Mary to a new location.
- 1992 – City of Long Beach wants Queen Mary to stay so the Port of Long Beach
  Transfers Queen Mary to the City of Long Beach along with $7 million for "deferred maintenance"
- 1993 - City enters into five-year lease with RMS Foundation who subsequently created Queen Seaport Development Inc. (QSDI) which the City enters into a Master Lease and then QSDI subleases back to RMS.
- 1998 - the Lease with QSDI was extended to a term of 66 years.
- **2005 - QSDI files for Chapter 11 Bankruptcy protection. Court approves sale of the Queen Mary Master Lease, which is purchased by Save The Queen (STQ).**
- **2008 - STQ defaults on a loan and Garrison takes over the investment by foreclosing on and assuming control of the Save the Queen LLC as well as Queen Mary lease and operations. Leaseholder is Save the Queen, LLC, a subsidiary of Garrison.**
- 2015 – City of Long Beach commissioned survey finds the Queen Mary needs $289 million in repairs.
- 2016 – City signs 66-year lease with Urban Commons to manage the Queen Mary and commits to spending $27 million on urgent repairs.
- 2016 - In November of 2016, the City Council approved $23 million to be paid to Urban Commons to fund 27 critical and urgent projects identified in the 2015 Marine Survey.
- 2019 – Several reports by city contracted inspector raise numerous concerns about the condition of the Queen Mary. States the Queen Mary may soon be "unsalvegable" if critical repairs not done. City contract with inspector eventually terminated later in the year.
- **January 2021 – Urban Commons files for Chapter 11 Bankruptcy protection.**

B. New Member: CEC

C. EarthJustice: Funding Tracker

4. Committee Discussion: Marine Vessels

a. Summary of May Marine Vessel Presentations

b. Opportunity for Committee Action

4. Summary of Marine Vessel Presentations

Regulatory landscape – Shore Power:

- Vessel emissions reduction standards and shore power capability requirements take effect 1/1/23.
- All proposed alternative compliance pathways (ACPs) and many port and terminal compliance plans were rejected due to missing content and parties are now completing resubmission process. Power supply infrastructure plans or details are not required content.
- Funds from hourly mitigation fees will become available by 1/1/23 through CARB, CAPCOA and air districts.

Regulatory landscape – Harbor Craft:

- CARB is completing FSOR and preparing submission to OAL.
- Proposed regulation amendments would require zero – emission where feasible, and cleaner combustion on all other vessel types, each with different compliance windows.
- Compliance Schedule
  - 2023 - 2025 → Pre-Tier 1 and Tier 1; possible extension to 2032
  - 2024 - 2029 → Ferry; possible extension to 2034
  - 2026 - 2030 → Research, sportfishing, excursion; possible extension to 2034
  - 2028 - 2031 → Dredge, barge, crew/supply, workboat; possible extension to 2034
  - 2030 - 2032 → Commercial Fishing

Regulatory landscape concerns:

- Aggressive timelines
- Insufficient funding
- Poor alignment with industry scrappage process
- Limited pool of CARB-certified technologies that comply

4. Summary of Marine Vessel Presentations

Decarbonization Activities in the San Pedro Bay Ports

- Maersk's strategy focuses on biodiesel, green methanol, and green ammonia (derived from green hydrogen). It excludes LNG.
- CMA's strategy focuses on LNG in the near term.
- A new ecosystem for marine shipping is required, rather than an upgrade through the existing framework. Ports must fund on-shore infrastructure that aligns with carrier strategies to attract their business.
- Regulations of renewable fuel consumption vary by nation and state, and are complex.
- The Ports are advancing several low-emission projects under their TAP, and, a LNG bunkering project is acquiring permits.
- The Ports expect the industry to move to zero carbon (bypassing low carbon) solutions this decade.
- POLA is developing a Green Corridor with POLB and the port at Shanghai.
- SCAQMD will seek EOs from CARB for a CCS system developed for container and oil tanker vessels by end of 2023.

B. Opportunity for Committee Action

5. Deep Dive: Increased Efficiency & On-dock Rail

a. Impact of I-710 No-Build Vote (LA Metro)
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A. Impact of I-710 No-Build Vote (LA Metro)

Impact of the I-710 South “No Build” Vote
From "No Build" to a New Investment Vision

San Pedro Bay Ports

Sustainable Supply Chain Advisory Committee

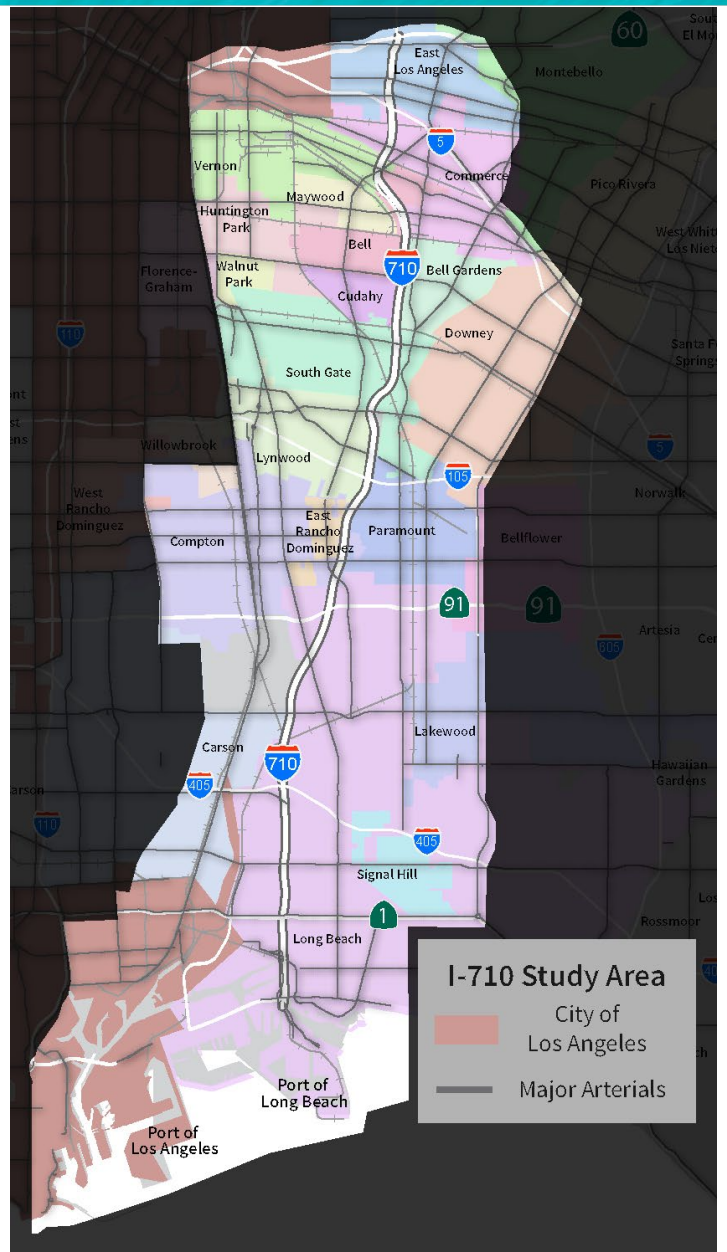
July 20, 2022

Metro

Understanding the I-710 South Corridor

Metro

I-710 South Corridor Study Area



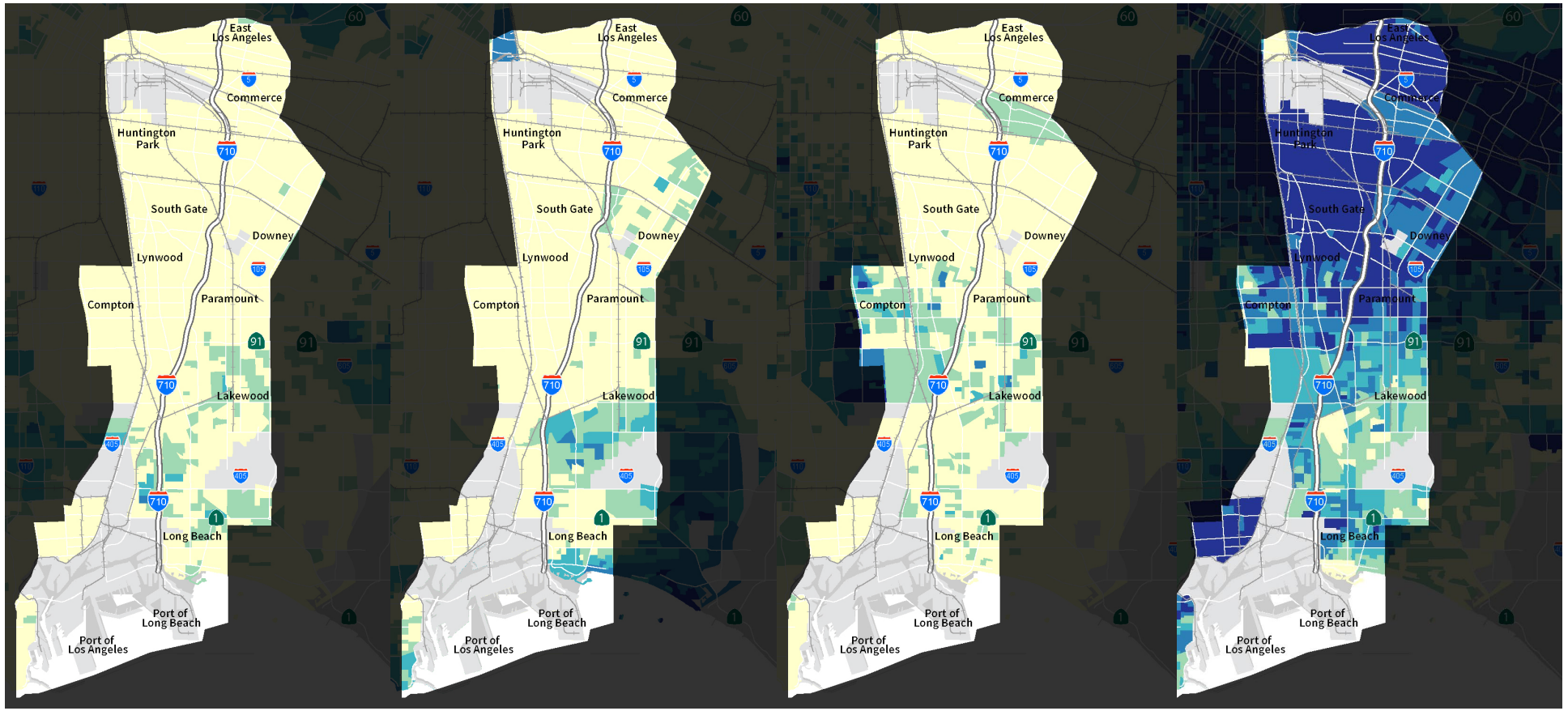
Race and Ethnicity

% Asian (66k)

% White (94k)

% Black (101k)

% Hispanic (893k)



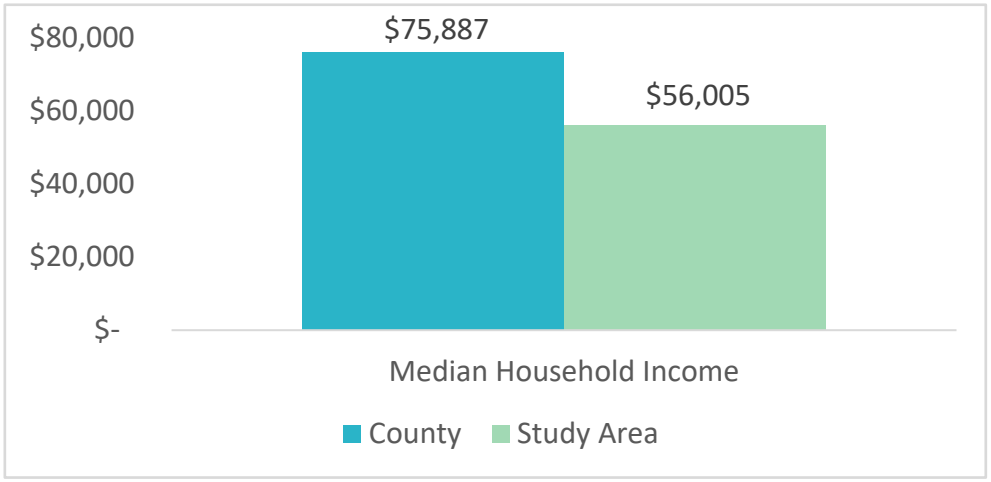
0% - 20%	21% - 40%	41% - 60%	61% - 80%	Over 80%

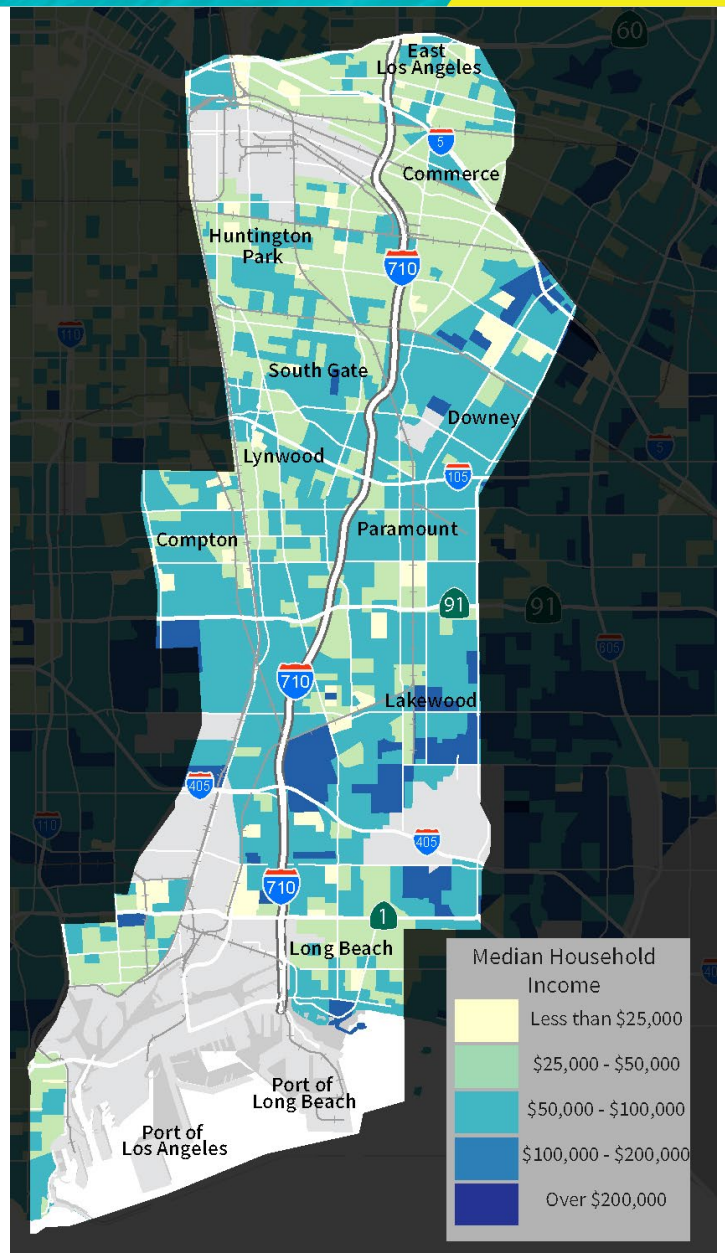
There are 845 American Indians in the study area, 0.6% of LA County American Indians

Source: 2015-2019 American Community Survey

Household Income

- Lower Median Household Income than LA County on Average
- Study area has proportionately less households with high incomes than LA County
- Neighborhoods west of I-710 tend to have lower household income
- Northern portion of Study Area has lowest income overall

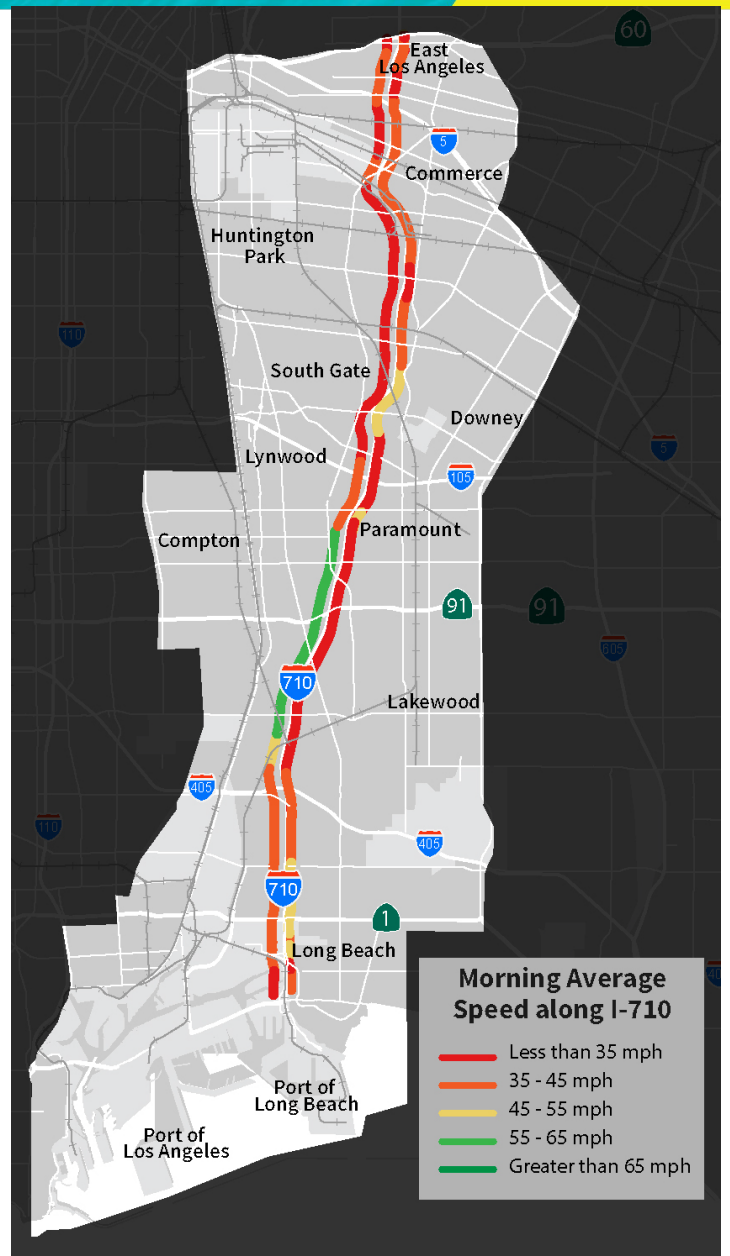




Source: 2015-2019 American Community Survey

I-710 Freeway Morning Speed

- Speeds represent the most congested morning hours
- Much of I-710 has speeds under 45 miles per hour with a substantial portion of the corridor under 35 mph
- The highest speeds in the morning are in the mid-corridor area southbound between I-405 and I-105

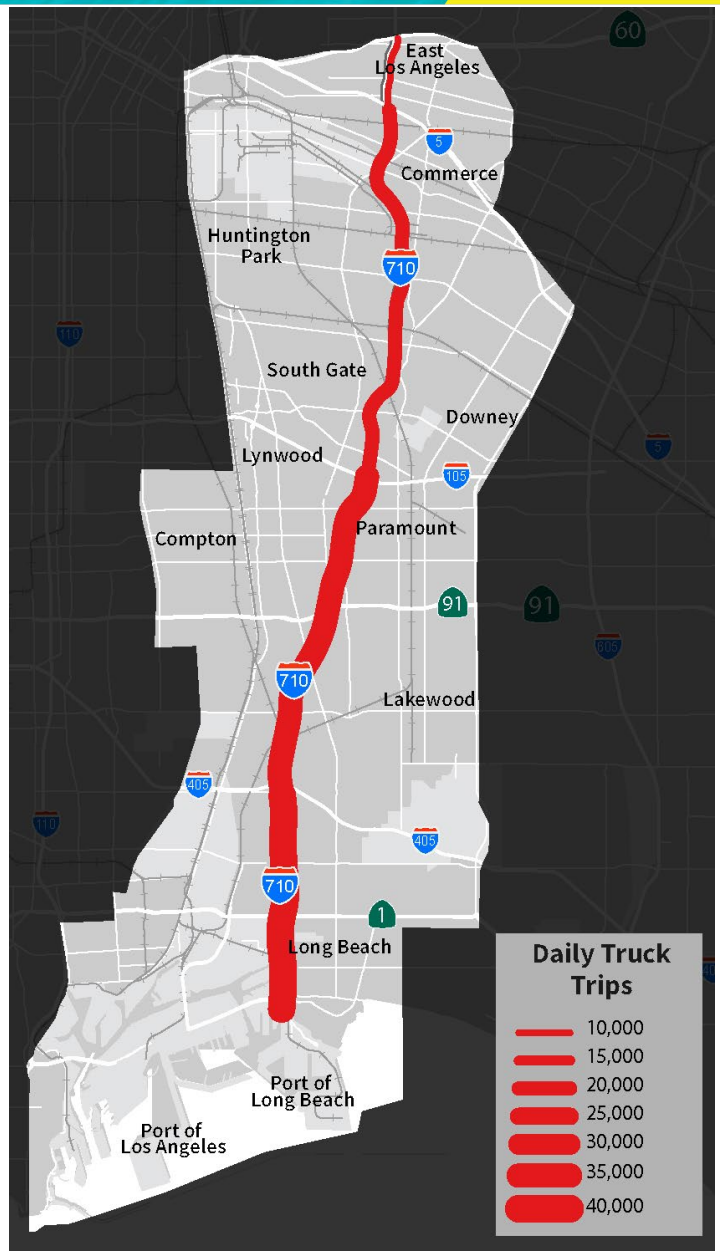


Source: National Performance Management Research Data Set (NPMRDS)

I-710 Daily Truck Trips

- Substantially heavier truck volumes occur at southern end of corridor, near the Ports with nearly 40,000 daily heavy-duty trucks
- Truck volume and truck percentage is extremely high south of SR-91 as compared to typical freeways
- South of I-405 most of the heavy- duty trucks are oriented to Port activities
- Truck trips decrease substantially north of I-105

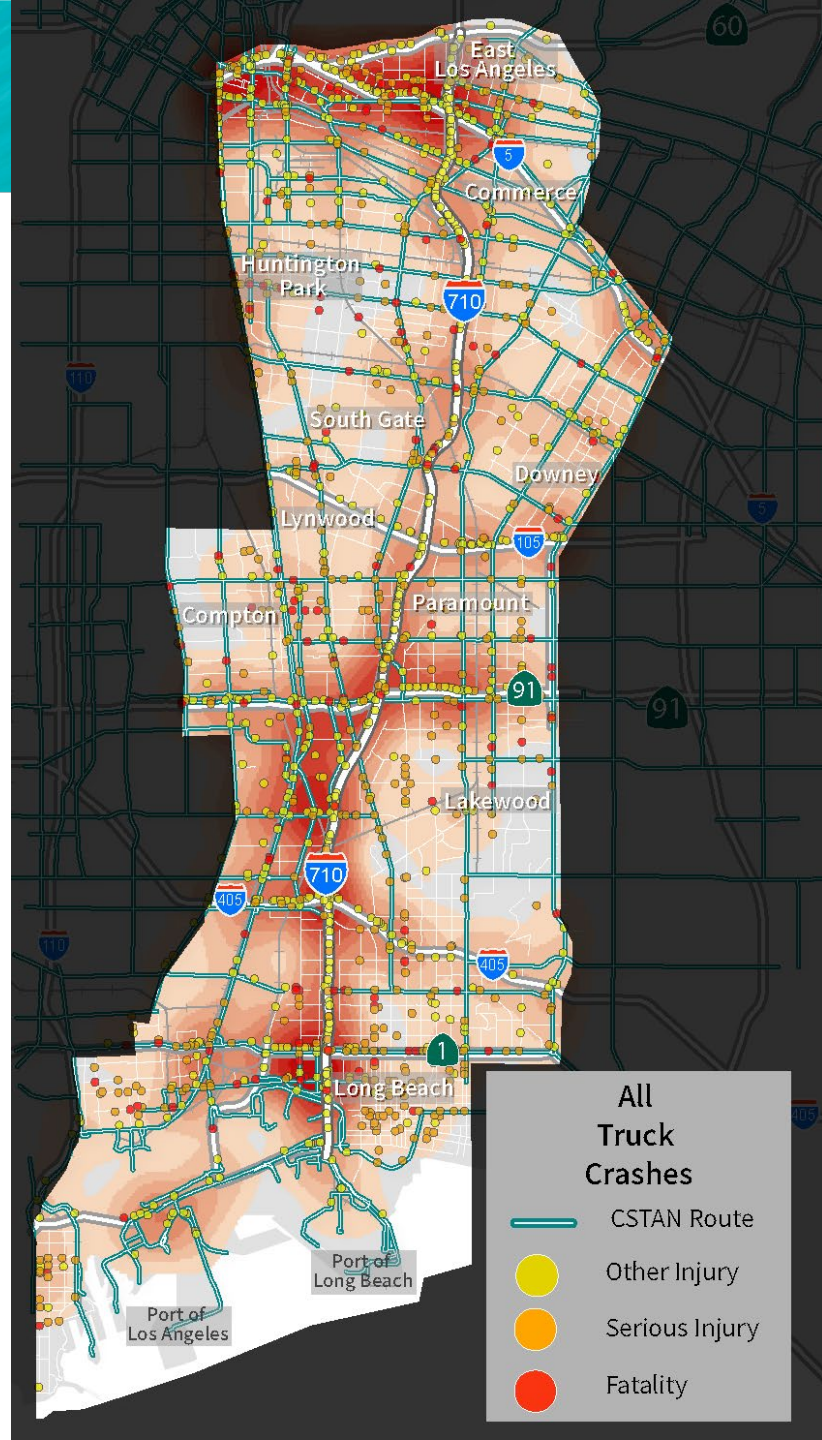
I-710 Mainline location:	Daily Truck Trips	Port Truck %
Bet. SR60 & I-10	10,000	10%
Bet. I-5 & SR60	15,000	13%
Bet. I-105 & I-5	19,000	32%
Bet. SR91 & I-105	34,000	53%
Bet. I-405 & SR91	35,000	69%
South of I-405	39,000	85%



Source: PortTAM

Truck Crashes and CSTAN Network

- The 710 Freeway has a high level of truck crashes occurring along the full extent
- Hot spots include the northwestern portion of the Study Area and along several CSTAN routes;
  - Del Amo Blvd
  - Anaheim Street
  - PCH
  - Alameda Street
  - Long Beach Boulevard

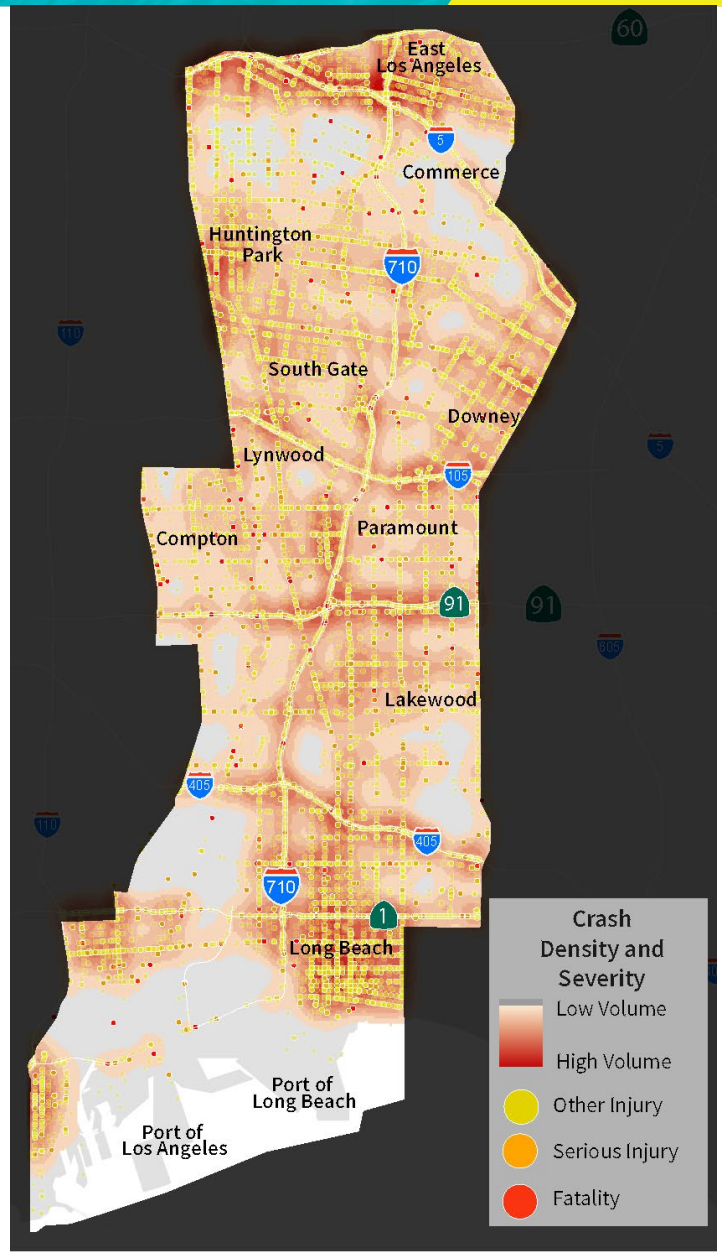


Metro

Source: Regional Integration of Intelligent Transportation Systems (RIITS)

All Crashes – Location and Severity

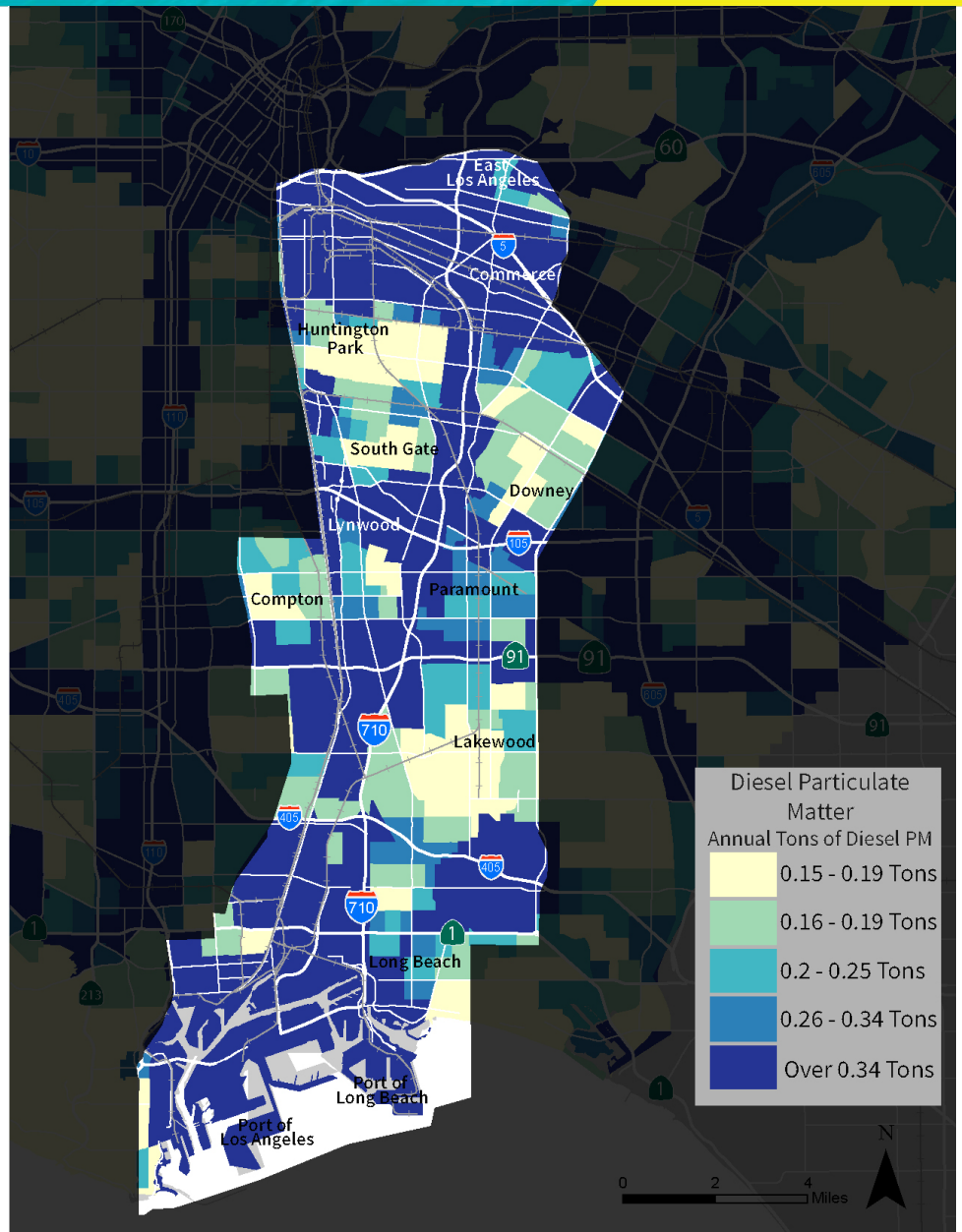
- All crashes are shown, including vehicle only, bicyclist-involved and pedestrian-involved crashes
- Darker red color indicates relatively more crashes concentrated close to each other in an area
- Northern portion of study area and downtown Long Beach have the highest concentration of crashes
- Note this shows total crashes and not crash rates



Source: Transportation Injury Mapping System (TIMS), 2017-2019

Diesel Particulate Matter

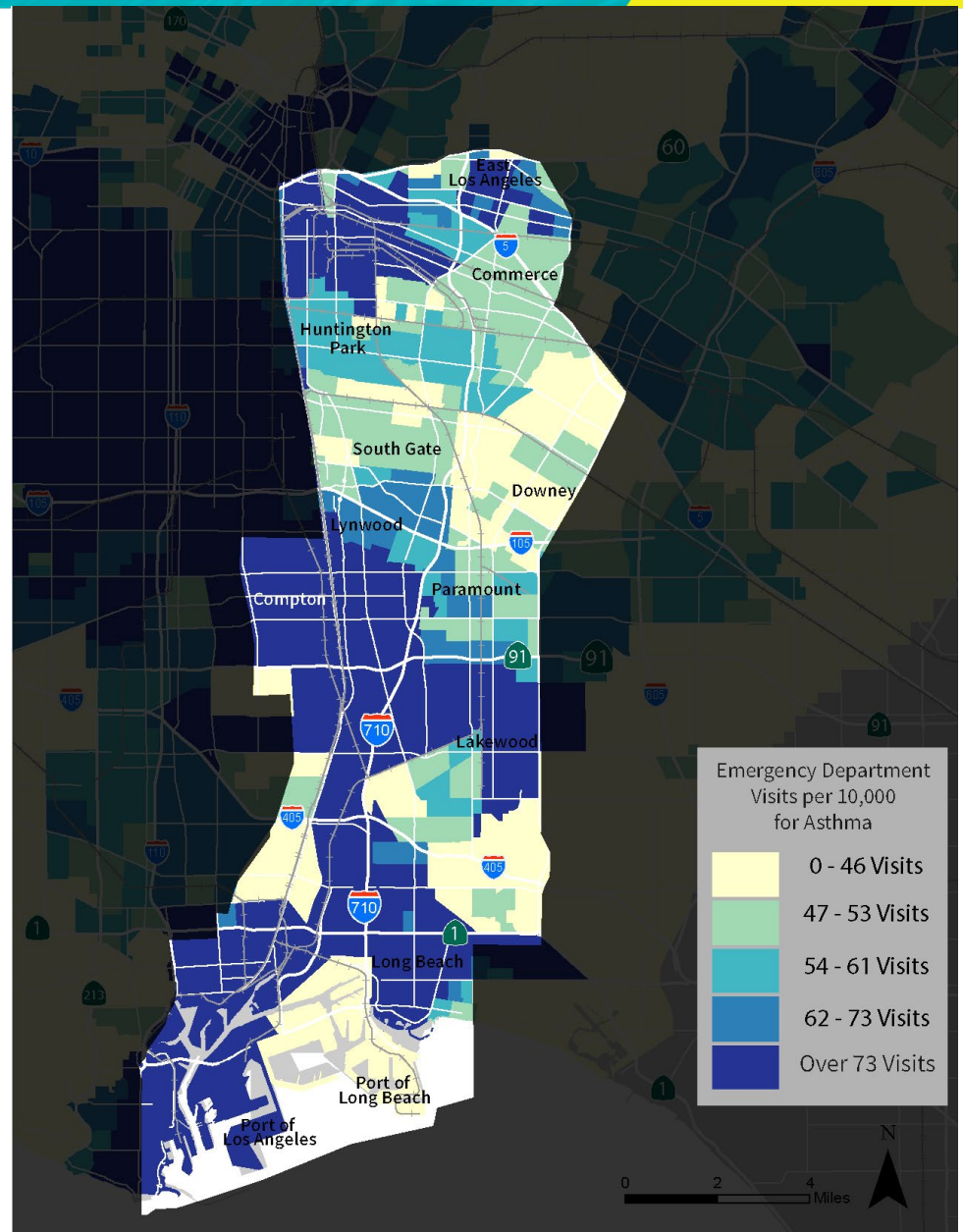
- Diesel Particulate Matter (PM) comes from exhaust from trucks, buses, trains, ships, and other equipment with diesel engines.
- Diesel PM contains hundreds of different chemicals, many of which are harmful to health and contribute to cancer risk.
- This map captures tons of diesel PM emitted per year by both mobile and stationary sources within and nearby populated parts of each census tract.
- Diesel PM concentrations occur throughout the Study Area, including around the Ports, south Long Beach, near I-710/SR-91 interchange, along I-710, and the northern portion of Study Area



Source: CalEnviroScreen 4.0

Asthma Rate

- Many factors influence asthma rates, including air pollution.
- One way to measure asthma rates is the estimated number of emergency department visits for asthma per 10,000 people over the years 2015 to 2017.
- The highest category of asthma incidents tends to be clustered and located throughout the Study Area



Source: CalEnviroScreen 4.0

The Original I-710 South Corridor Project: From Beginning to Conclusion

Metro

I-710 South Corridor Project

Scope: I-710 from Ocean Blvd. in Long Beach to SR-60 (18 miles)

Purpose and Need:

- Improve air quality and public health
- Improve traffic safety
- Address design deficiencies
- Address projected traffic volumes
- Address projected growth in population, employment, and economic activities related to goods movement

Metro

I-710 South Corridor Project

TIMELINE

> 2001 – Major Corridor Study initiated

> 2005 – Major Corridor Study completed

> 2008 – Initiation of EIR/EIS

> 2008 – LA County voters approve **Measure R** overwhelmingly
  - Includes **$590 Million** for ”I-710 South and/or Early Action Projects”
  - Funding is categorized as Gateway Cities subregion, Highway Capital subfund

> 2012 – EIR/EIS circulated

> 2016 – LA County voters approve **Measure M** overwhelmingly
  - Includes **$500 Million** for “I-710 South Corridor Project”
  - Funding is categorized as Gateway Cities subregion, Highway Construction subfund

> 2017 – Revised Draft EIR/Supplemental Draft EIS circulated

> 2018 – Final EIR/Final EIS Initiated
  - Metro Board passes multiple motions guiding development of project

Metro

I-710 South Corridor Project

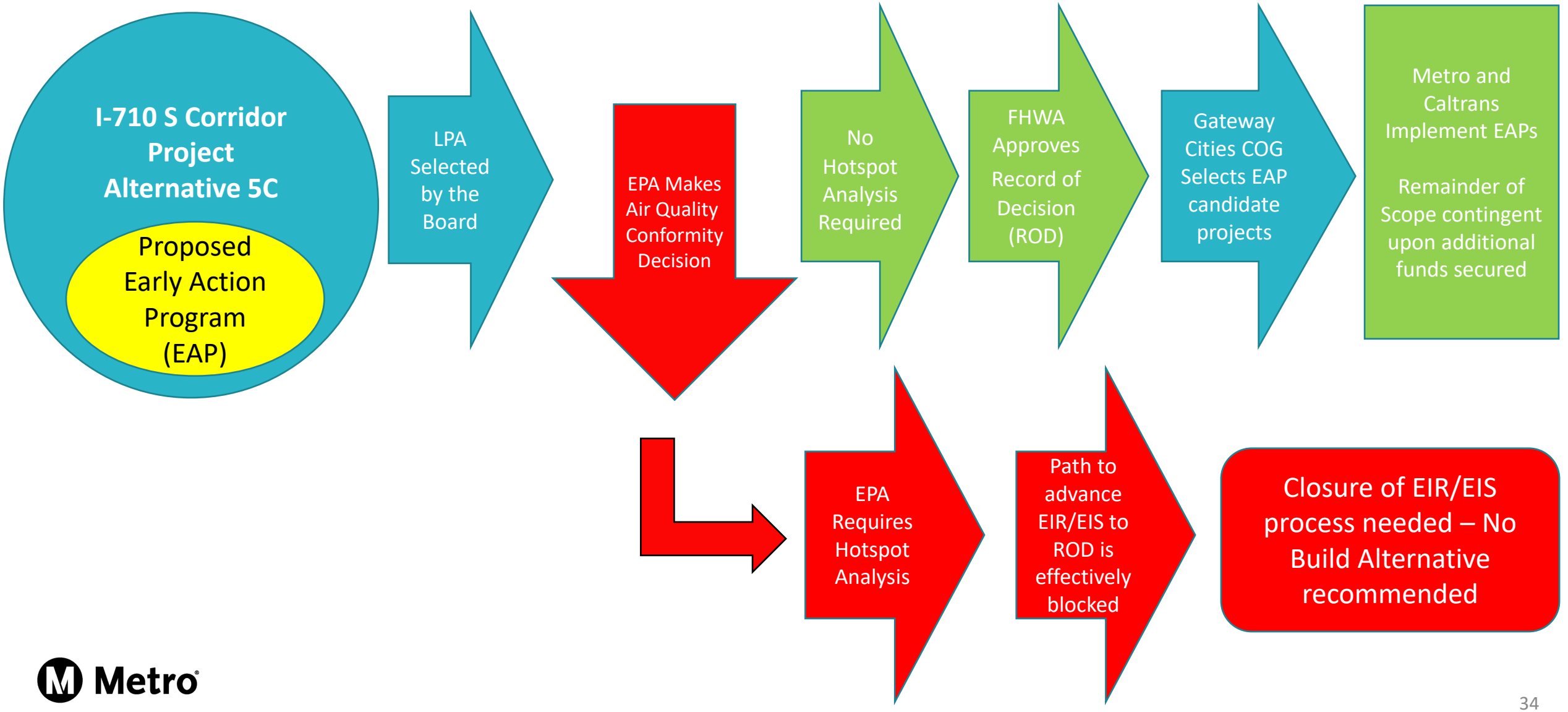
- March 2018 – Metro Board of Directors **adopts Alternative 5C** as the Locally Preferred Alternative (LPA) over Alternative 7 (ZE truck viaduct) and Alternative 1, the "No Build".
- May 2021 – **New Board Direction provided** due to the following factors:
  - EPA requirement of a hotspot analysis for air quality conformity determination
  - Ongoing concerns about community and environmental impacts
  - New State direction withdrawing support due to equity and climate change policy considerations.
- **Outcome:** Suspend all work advancing the Final Environmental Document
- **Direction:**
  - Re-evaluate project elements to meet policy objectives
  - Re-engage communities and corridor stakeholders to develop a new vision that is multimodal and sensitive to community needs
  - Re-evaluate EAP candidate projects through new process
- **Result:** Metro and Caltrans initiated the 710 Task Force in September 2021 to address Board direction and develop a new multimodal Investment Plan for the I-710 South Corridor
- **No Build:** Caltrans requests Metro replace Alternative 5C with Alternative 1, the "No Build", as the LPA
  - Metro Board votes to approve "No Build" alternative as the LPA in May 2022

Metro

I-710 South Corridor Project:
Why the No Build Alternative is Needed

Metro

Original Pathway to Implement LPA 5C under EIR/EIS



No Build Alternative – Rationale

Considerations:

- Build Alternative 5C (as well as Alt. 7) faces insurmountable policy issues and regulatory barriers to advancement through environmental process, specifically with U.S. EPA
- Heavy usage of I-710 South by diesel trucks makes avoiding a “hotspot” analysis improbable if adding new lanes, etc., that induce diesel truck trips
- Displacement of people and businesses in disadvantaged communities, oftentimes majority communities of color, creates major disparities
- Caltrans withdrew support from Alternative 5C due to displacement and environmental concerns
  - Caltrans’ support for improvements on its facility and for state/federal funding is necessary

No Build Alternative – Rationale

Selecting the No Build Alternative:

- Responsive to the Board's concerns related to community, property, equity, and environmental/air quality impacts.
- Brings proper closure to the now-suspended I-710 South Corridor Project environmental process
- Opens the opportunity for the 710 Task Force to develop the I-710 South Corridor Investment Plan (710 IP)

Metro and Caltrans can then focus on:

- Working with community leaders to develop a more robust and inclusive community engagement strategy and Task Force infrastructure to support public input into the development of the 710 IP
- Generating more sustainable, equitable, and multimodal transportation projects and programs to move people and goods through the corridor and improve quality of life for impacted members of corridor communities.
- Reducing Vehicle Miles Traveled (VMT), greenhouse gases and diesel particulate matter in the corridor as a result of the implementation of the 710 IP

Metro

No Build Alternative – Implications

Implications

- All previously considered EAP candidate projects are nullified
- Any previously considered improvements will have a chance to be considered through 710 Task Force process, if consistent with the Task Force-approved Vision, Goals and Multimodal Strategies
- Any projects/programs recommended by the 710 Task Force and ultimately approved by the Metro Board will need to be evaluated through a new environmental process
- EAPs that are already approved and environmentally cleared (e.g., Shoemaker Bridge, ICM, 710 Soundwalls) will not be affected by this decision
- Process expected to take about eight to 12 months to complete

710 Task Force:
A New Vision for Investment

Metro

Background - 710 Task Force

- Created to re-engage impacted communities in a new process more aligned with current Board, State, and Federal priorities
  - EPA has met with community groups and supports this process
  - Caltrans declared that it no longer supports the prior EIR scope / wants to see new approach to better engage and address concerns from communities.
  - Need to develop a multimodal approach to investment in the communities and transportation options within the corridor.
- Metro and Caltrans has asked the Task Force to develop the overall vision and goals for the I-710 South Corridor and create an Investment Plan, including implementation strategies, to report to the Metro Board for consideration in 2023
- Metro Board programmed $50 Million for a Zero-Emission Truck Program that is part of the overall Task Force effort – goal is to leverage state/federal funds to meet a $200 Million target
  - Major focal point is on public ZE charging/fueling infrastructure within the corridor
  - Close coordination needed with regional stakeholders, especially POLA/POLB, to create cohesive, integrated approach to accelerating ZE Class 8 truck deployment in LA County

Metro

710 Task Force Membership / Ex Officio

Metro

May 2022 I-710 South Corridor Motion (Hahn, et al.)

A. Develop and Implement a project Investment Plan, which:

1. Incorporates feedback from the 710 Task Force and its Working Groups and Community Leadership Committee, the Corridor Cities, and the Gateway Cities Council of Governments, and community stakeholders;

2. Aligns initiatives with funding opportunities, including:

   a. An Early Investment Plan for a minimum of three initiatives that will apply for available State and Federal funding opportunities in Calendar Year 2022; and

   b. A Mid- and Long-Term Investment Plan for initiatives that can reasonably apply for Federal and State funding opportunities in out years;

3. Leverages applicable Measure R and Measure M funds to maximize deliverables and Federal and State funding matches;

Metro

May 2022 I-710 South Corridor Motion (cont.)

4. Provides a suite of major investments that can be completed no later than 2028;

5. Identifies Federal funding opportunities that can be incorporated into the Infrastructure Investment and Jobs Act "Grants Strategy and 5-Year Implementation Plan" currently under development for presentation to the Metro Board;

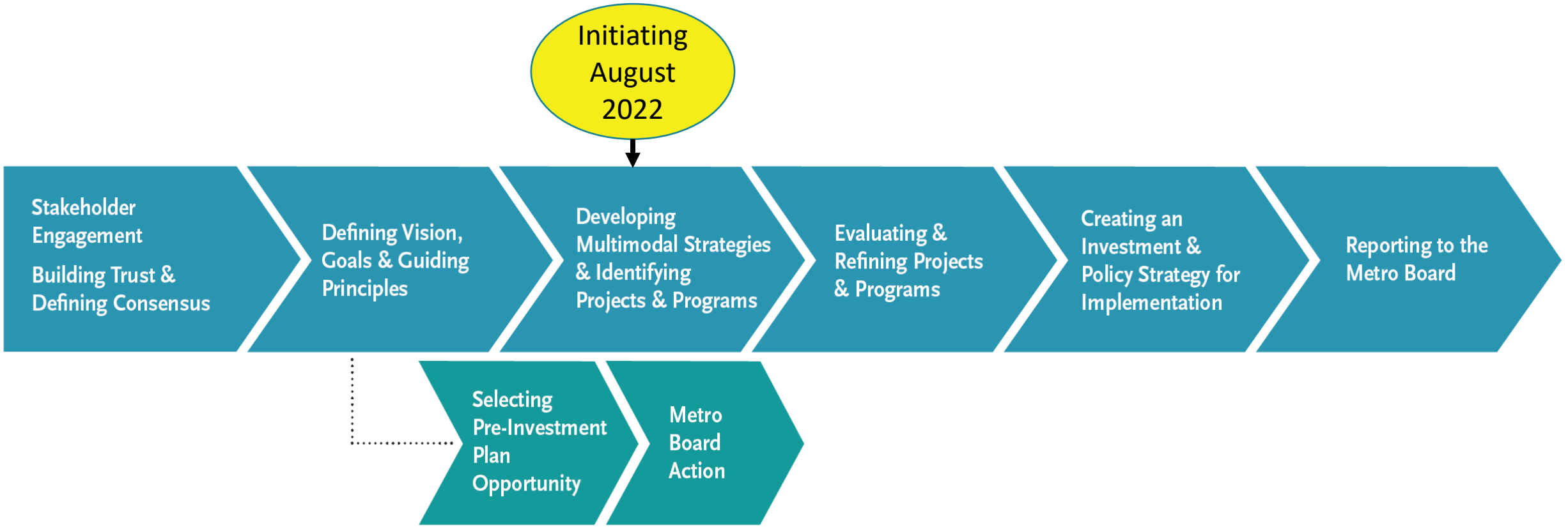
B. Engage the California Department of Transportation and State Transportation Agency, California Air Resources Board, California Energy Commission, and the U.S. Departments of Energy and Transportation and U.S. Environmental Protection Agency, to develop guidance around the Mid- and Long-Term Investment Plan.

C. Engage city, county, and regional partners, including the South Coast Air Quality Management District and Los Angeles Cleantech Incubator, to organize and support local initiatives as part of the project's Investment Plan; and

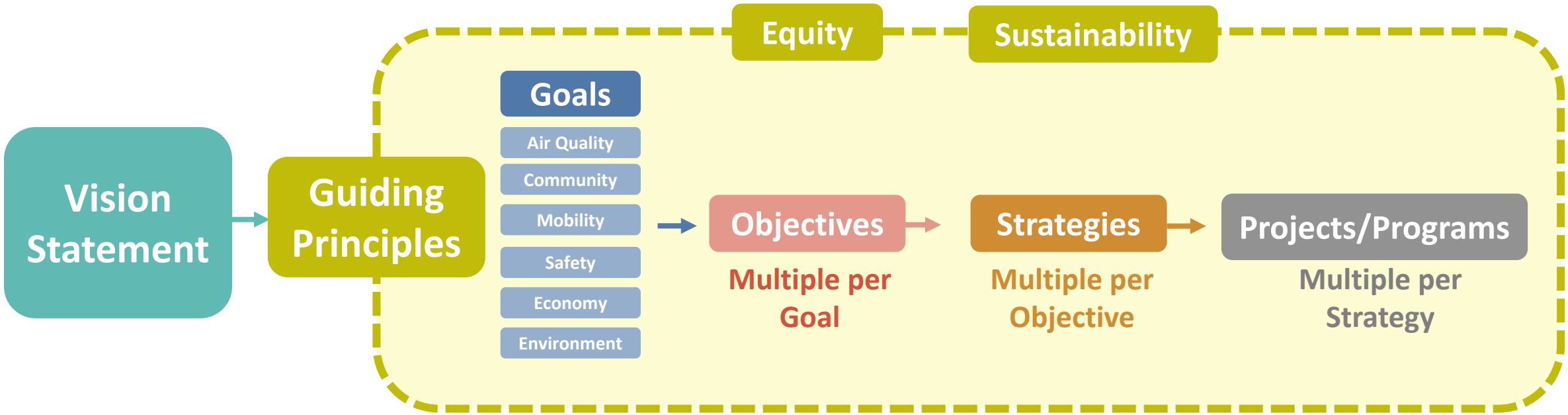
D. Report back in September 2022 on the development and implementation of this Investment Strategy, including the minimum of three initiatives applying for available State and Federal funding in Calendar Year 2022.

Metro

Process and Goals - Task Force Milestones



Vision Statement, Guiding Principles, and Goals



Metro

Approved Vision Statement Recommendation

Approved Vision Statement
(July 11, 2022)

An equitable, shared I-710 South Corridor transportation system that provides safe, quality multimodal options for moving people and goods that will foster clean air (zero emissions), healthy and sustainable communities, and economic empowerment for all residents, communities, and users in the corridor.

Metro

Approved Equity Guiding Principle

Guiding Principle

A value that guides all processes and outcomes through a cohesive and intentional framework

The I-710 South Corridor Investment Plan is founded on the Guiding Principle of Equity: "A commitment to: *(1) strive to rectify past harms; (2) provide fair and just access to opportunities; and 3) eliminate disparities in project processes, outcomes, and community results."*

"The plan seeks to elevate and engrain the principle of Equity across all goals, objectives, strategies, and actions through a framework of Procedural, Distributive, Structural, and Restorative Equity, and by prioritizing an accessible and representative participation process for communities most impacted by the I-710."

Metro

Approved Sustainability Guiding Principle

Guiding Principle

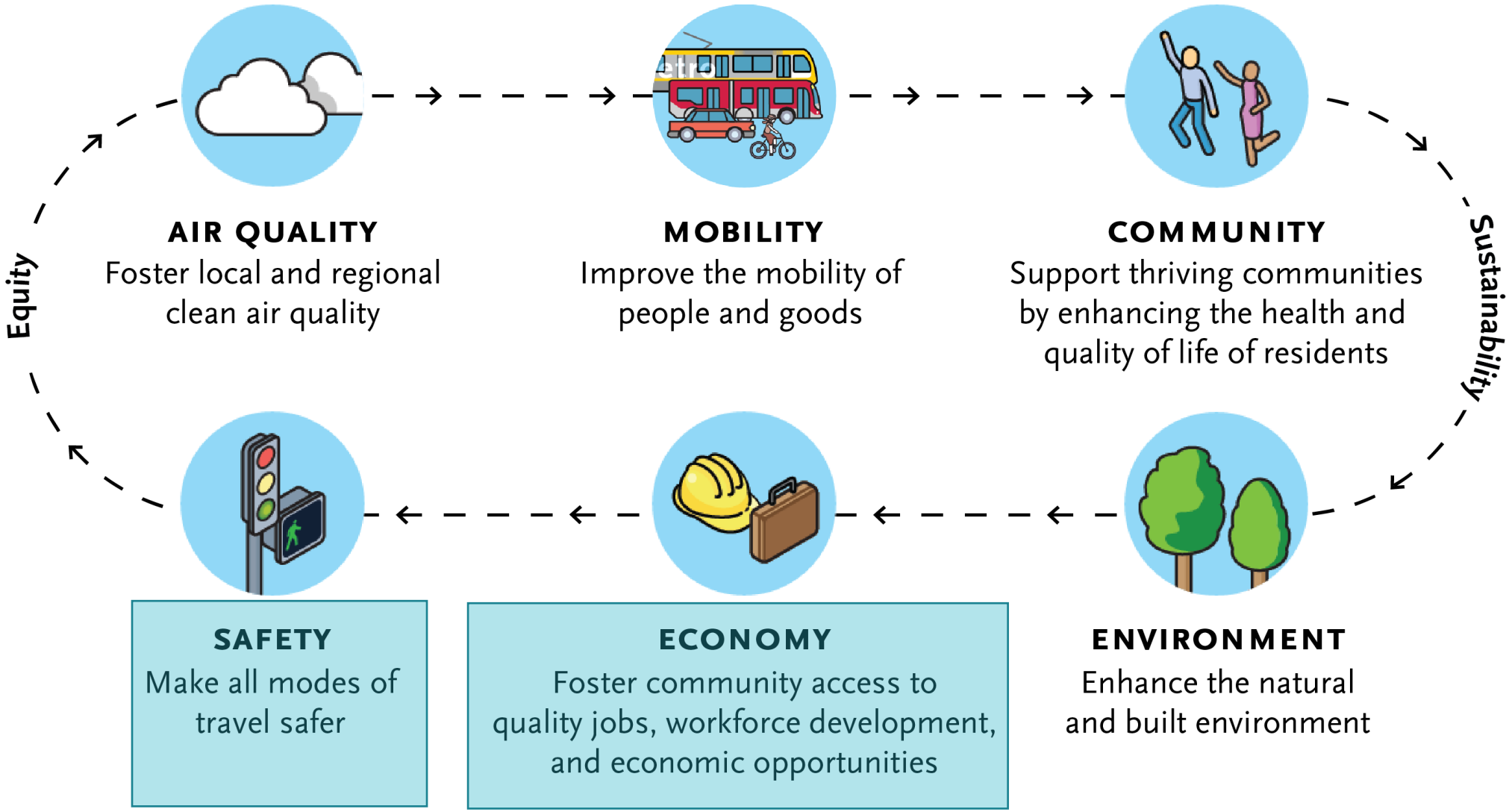
A value that guides all processes and outcomes through a cohesive and intentional framework

The I-710 South Corridor Investment Plan is founded on the Guiding Principle of Sustainability: *"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs“*

"A commitment to sustainability is the satisfaction of basic social and economic needs, both present and future, and the responsible use of the natural environment, all while maintaining or improving the well-being of the environment on which life depends."

Metro

Approved Goals (plus two to be finalized)



Next Steps

- Develop Multimodal Strategies, Projects and Programs for consideration to advance approved Vision Statement, Goals and Guiding Principles
- Return to the Board in September with:
  - Update on Task Force progress
  - Recommendation for Pre-Investment Plan Opportunity
  - Recommendation for Rebranding of Corridor
- Evaluate and refine proposed Projects and Programs for the Investment Plan
- Develop the I-710 South Corridor Investment Plan
  - Implementation of prioritized projects
  - Proposed leveraging of remaining local sales tax dollars
  - Proposed legislative platform to advance Investment Plan
- Task Force sends Investment Plan recommendation to the Metro Board in 2023

Metro

For More Information

- Visit the 710 Task Force Corridor Investment Plan Information Hub:
  - https://710-south-corridor-task-force-lametro.hub.arcgis.com/

- Metro webpage: https://www.metro.net/projects/i-710-corridor

- Existing Conditions video:
  - Link found at Information Hub → Meeting Materials → Meeting #4 (January 2022)

Metro

Stay connected to this project

Michael Cano, *Executive Officer (Interim)*
Countywide Planning & Development
Metro
One Gateway Plaza, MS 99-13-1
Los Angeles, CA 90012

213.922.4710

710corridor@metro.net

metro.net/projects/i-710-corridor

@metrolosangeles

losangelesmetro

Metro

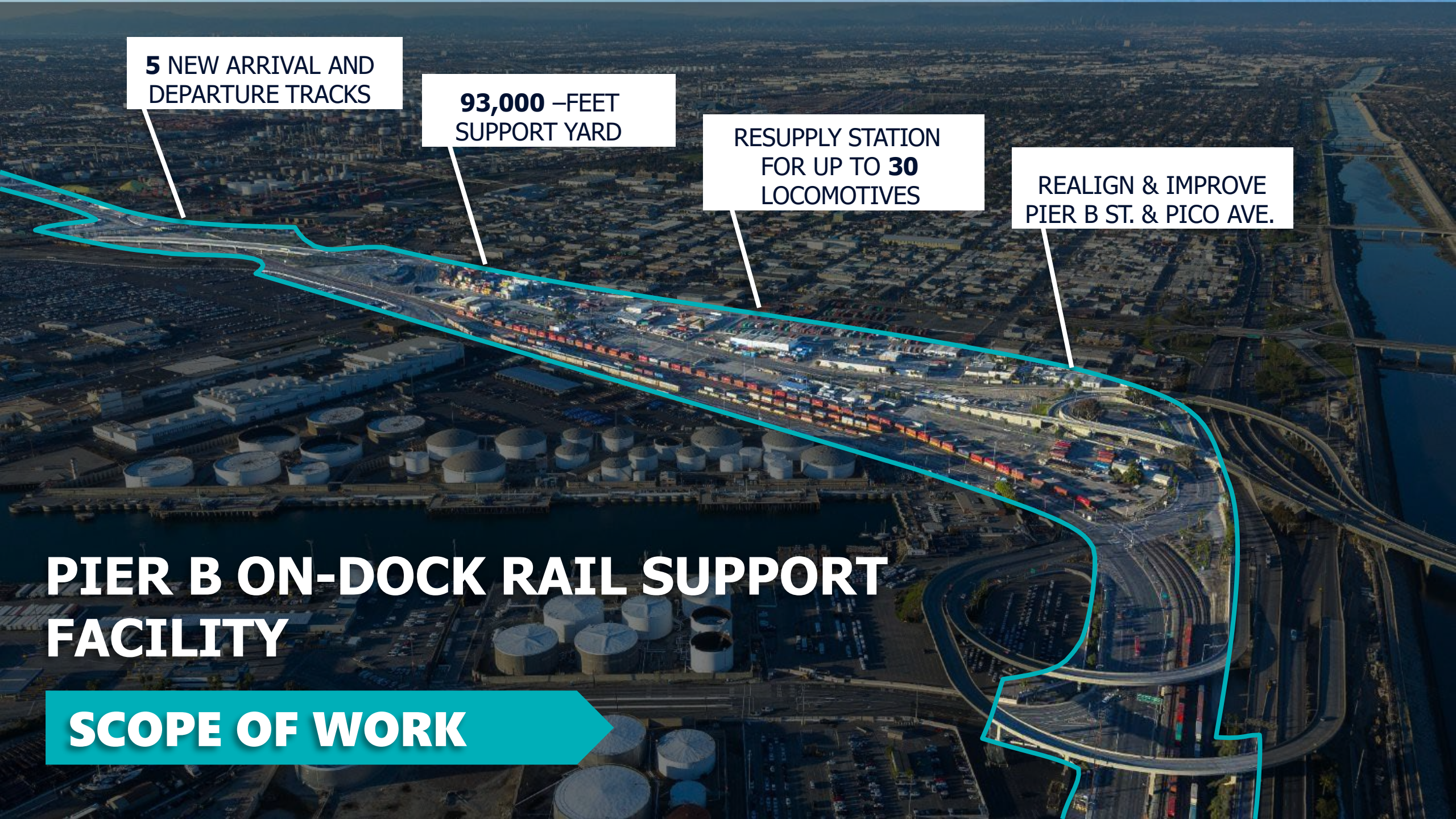
B. POLB Pier B On-dock Rail Update

Port of
LONG BEACH
THE PORT OF CHOICE

Pier B On-Dock Rail Support Facility Program

Sustainable Supply Chain Advisory Committee
July 20, 2022

Mark Erickson, P.E.
Deputy Chief Harbor Engineer
Program Management Division



PIER B ON-DOCK RAIL SUPPORT FACILITY

SCOPE OF WORK

PIER B ON-DOCK RAIL SUPPORT FACILITY
PROGRAM GOALS

Serve Forecasted Cargo Demand

Position the Port to handle up to 35% of that cargo by train

Serve longer trains more efficiently

PROGRAM BENEFITS

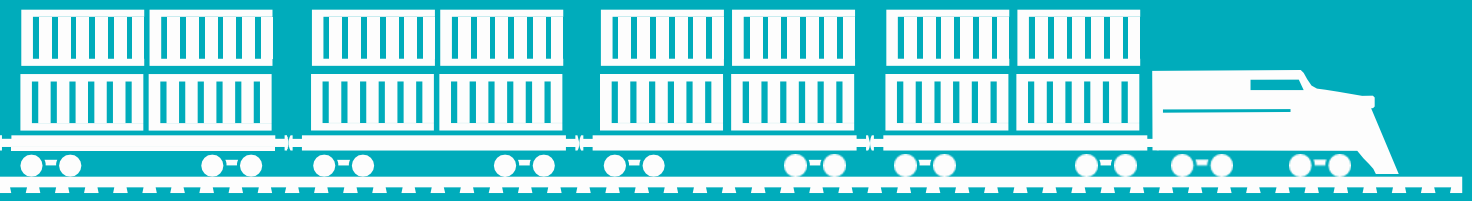
Higher ACTA Revenue due to rail growth

Improved Competitiveness More Jobs

Reduce Truck Traffic

Lower Emissions

Reduced Shipping Cost



ONE

TR

750

Truck trips eliminated by one double-stacked on-dock train

Record Trade: 2022 +5.3%

EMISSION REDUCTION

THE PORT MEETS **2023** AIR GOALS EARLY

90% ↓ DIESEL SOOT

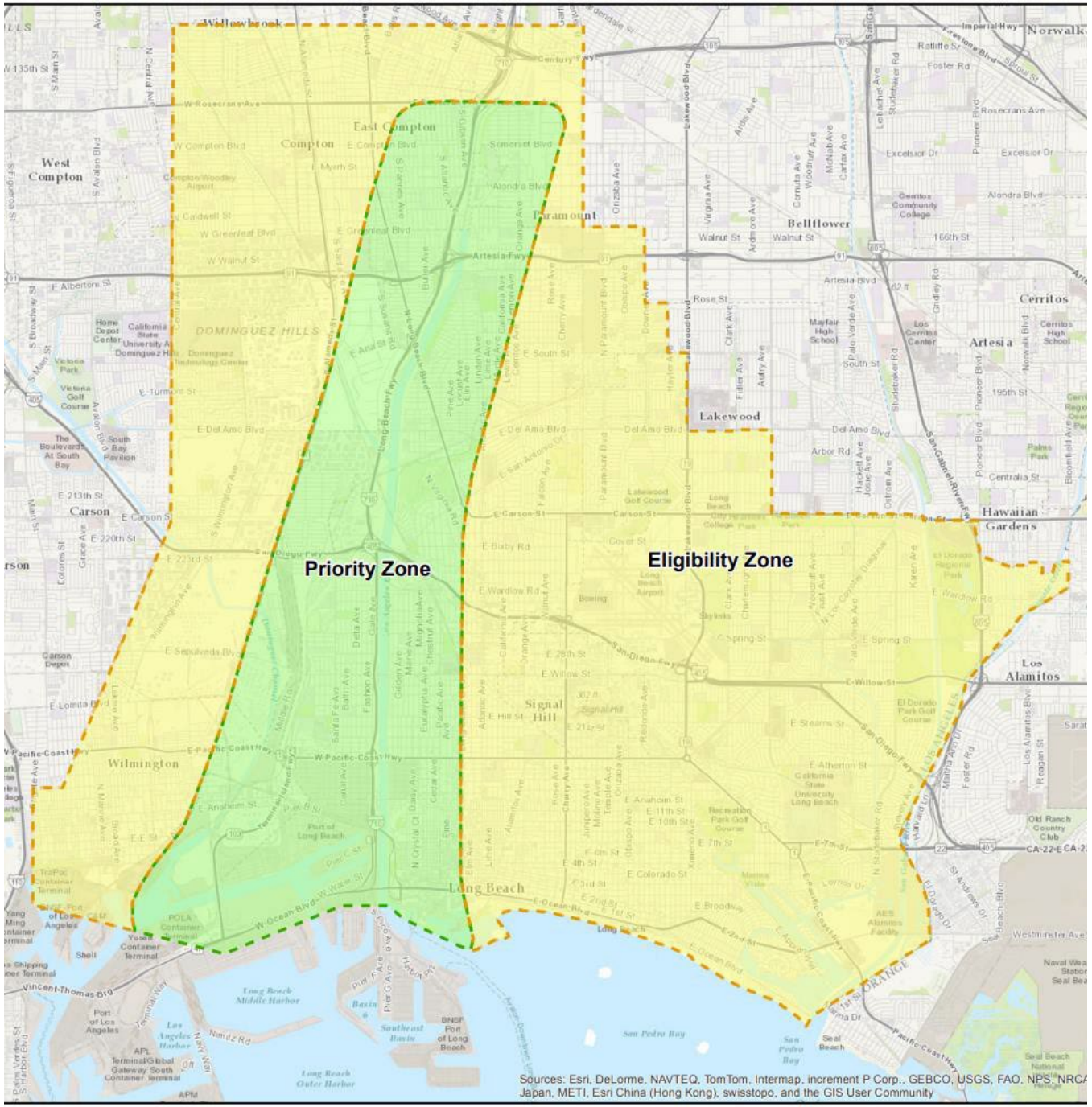
62% ↓ NITROGEN OXIDES

97% ↓ SULFUR OXIDES

10% ↓ GREENHOUSE GASES

THIS WAS DURING A TIME WHEN CONTAINER CARGO JUMPED 21%

Compared to **2005** Levels



Community Grants

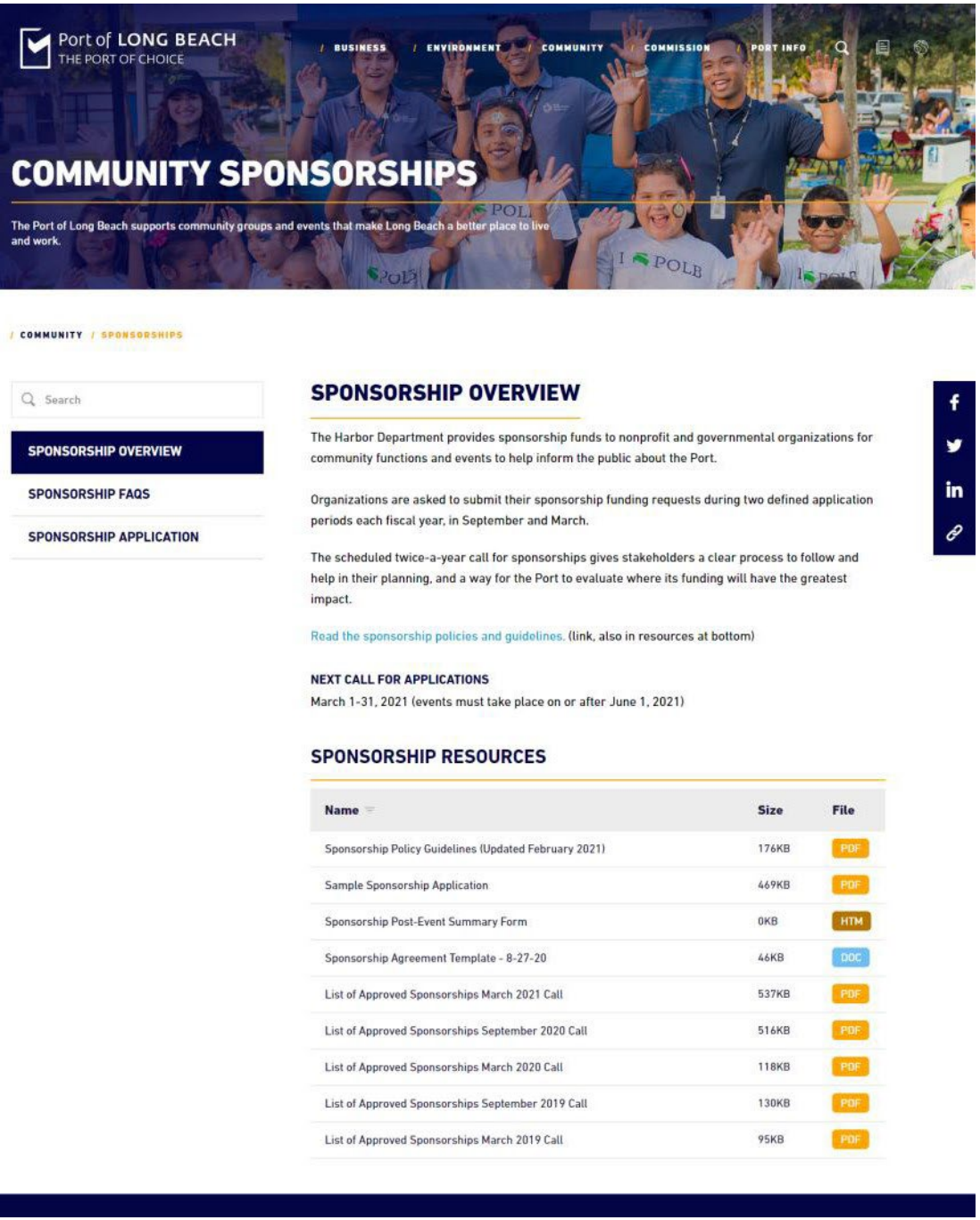
$65M grant program funded by Port:

- $33.1M funded so far
- $1.55M contribution for Pier B On-Dock Rail Support Facility

Eligibility Zone: Long Beach, Wilmington, Carson, Compton, Paramount

Eligible Categories:

- Community Health
- Facilities Improvement
- Community Infrastructure



Community Sponsorship

$10 million funding community organizations and events since 2007.

- Promoting local groups that advance the Port's mission.

$1,000,000 in funding annually.

Application Period:

- Sept 1-30 for events after Dec 1.
- Mar 1-30 for events after Jun 1.

https://polb.com/community/sponsorships/#sponsorship-overview

Recent Public Outreach

March 3, 2022	Quarterly Stakeholder Outreach
May 11, 2022	Los Angeles Permit Public Hearing
May 17, 2022	Wilmington Chamber Outreach
June 3, 2022	Wilmington Chamber Follow-Up
June 15, 2022	Quarterly Stakeholder Outreach

Planning Approvals

2018	**Long Beach Final EIR Approval**	✓
2022	**US Maritime Administration EIS Approval**	✓
2022	**LA Coastal Development Permit**	✓
2022	State Coastal Development Permit	

https://polb.com/documents/#ceqa-nepa

Air Products and Chemicals, Inc. – Master Joint Revocable Permit

Paramount Pipeline, LLC – Master Joint Revocable Permit

Pier B On-Dock Rail Support Facility Project

Print Excel CSV Copy PDF

Documents	Notice Type	Public Review Period	Upcoming Meetings
Draft EIS Request for Air Quality General Conformity Air Quality General Conformity Analysis Appendix	DEIS	Closed	
Final EIR (55MB file) Staff Report including Resolution, Statement of Overriding Considerations and Findings of Fact, and Mitigation Monitoring Report Program	FEIR	Closed	
Draft EIR **Appendices** Appendix A - Air Quality Appendix B - Traffic Analysis Appendix C - Rail Grade Crossings Analysis Appendix D - Noise Measurements Appendix E - Scoping Comments Appendix F - Glossary of Terms Written Comments on DEIR	DEIR	Closed	

Deep Draft Navigation Study and Channel Deepening Project

World Oil Tank Installation Project

Pier 400 Corridor Storage Tracks Expansion Project

Southern California Edison Transmission Tower Replacement Project

Long Beach Cruise Terminal Improvement Project

Port Master Plan Update Program EIR

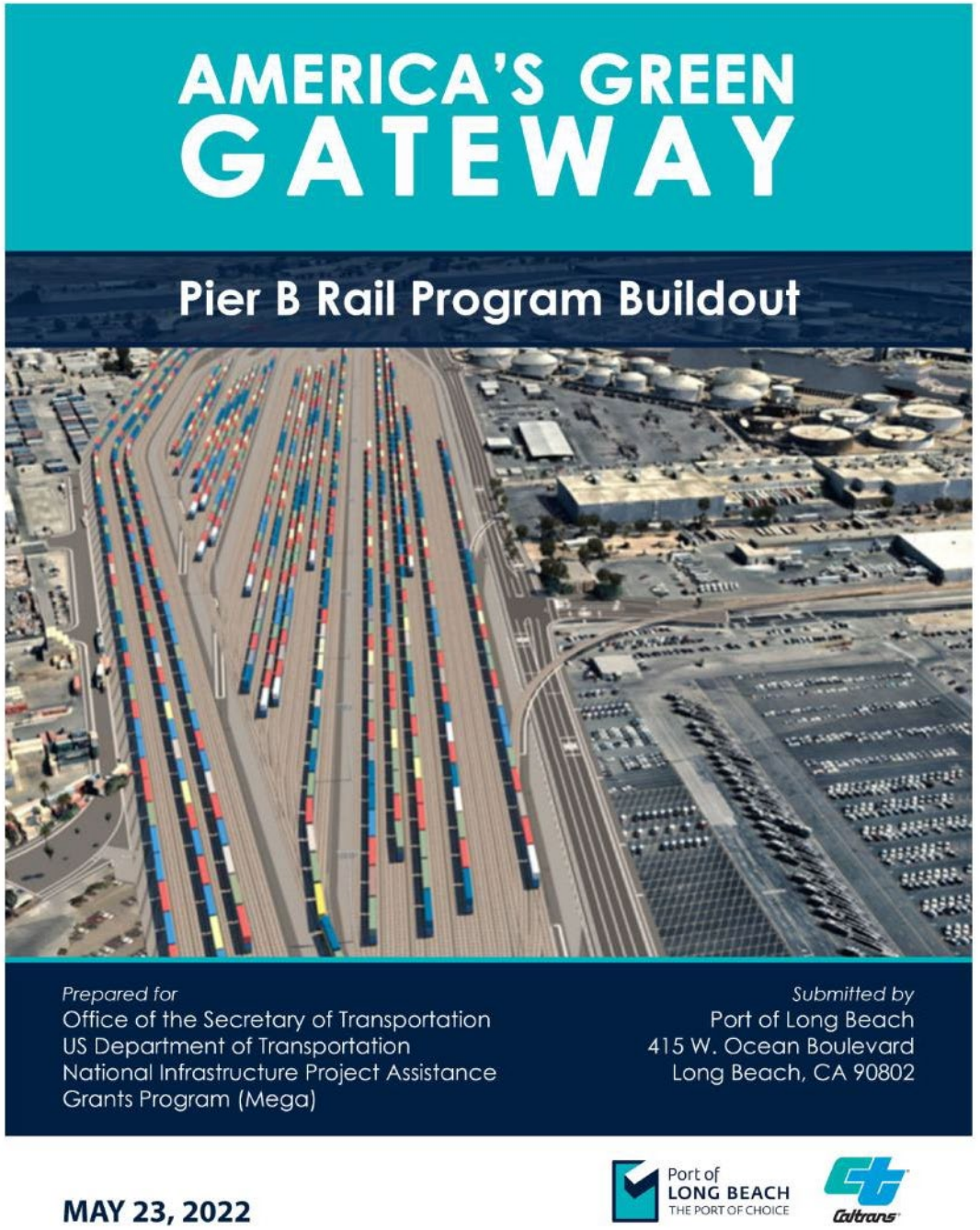
Cost, Schedule & Funding

$1.5B Estimated Program Cost

2032 Completion Target

Grant Funding is Critical to Delivery

- Applied for $500M in Grant Funding from USDOT MEGA Grant Program
- Awarded $53M in Grant Funding from US Maritime Administration Port Infrastructure Development Program
- Awarded $10M in Grant Funding LA County Measure R
- Awarded $16M in LA Metro CMAQ / RSTP federal funds

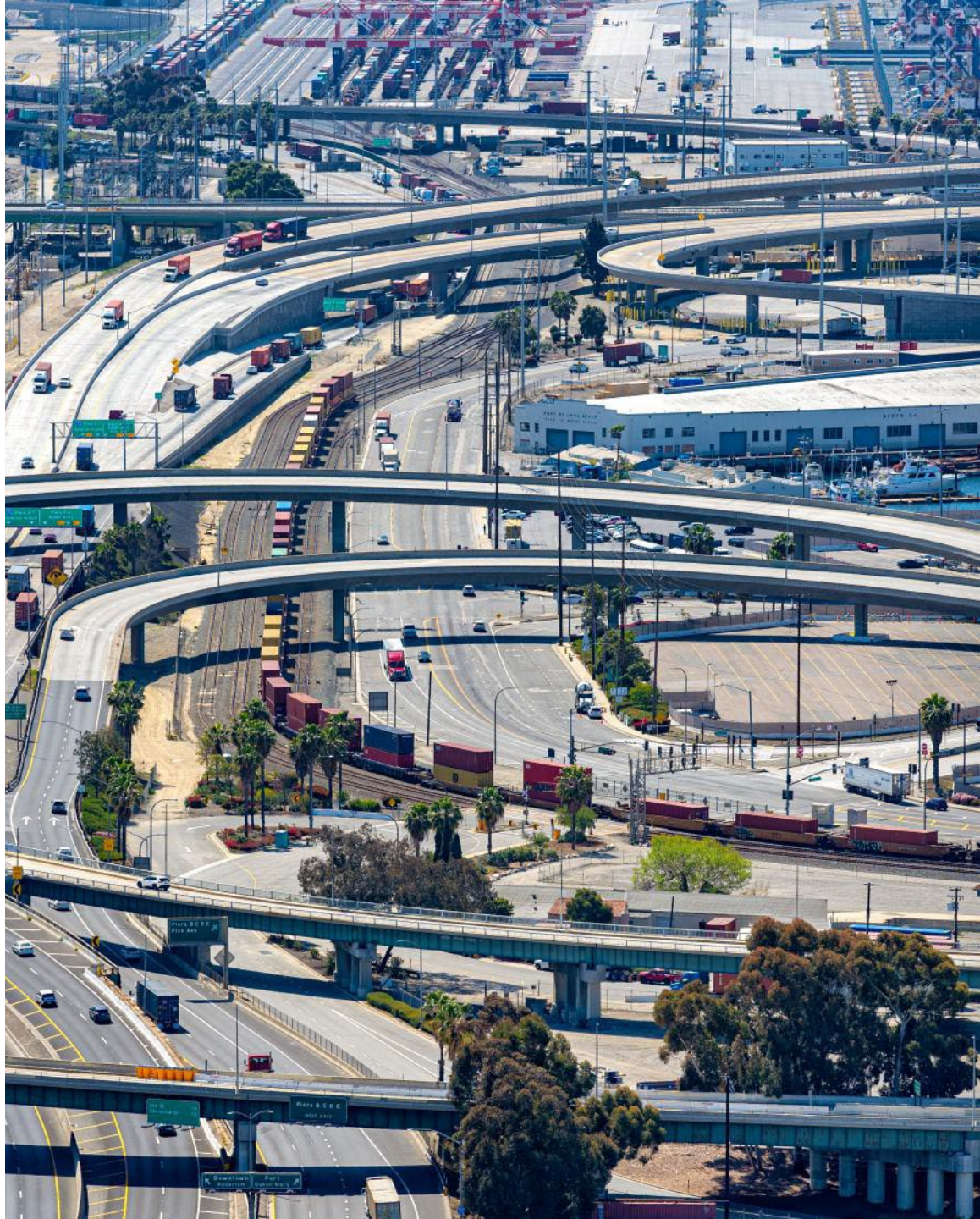


Design Progress

Projects in Design:

- East Expansion (bid 12/2023)
- West Expansion & Pier B Street Realignment (bid 12/2023)
- Locomotive Facility (bid 6/2023)
- LA-04 Pump Station (bid 3/2024)
- Dominguez Channel Bridge Widening (bid 7/2024)
- Shoemaker Bridge Ramps Demolition (bid 3/2024)

Property Acquisition, Business Relocation & Utility Relocation on-going




THANK YOU
5445
5445
9TH STREET
BNSF
Pier B St

C. CARB Locomotive Regulation

CALIFORNIA
AIR RESOURCES BOARD

Proposed In-Use Locomotive Regulation

Sustainability Supply Chain Advisory Committee

July 20, 2022

CARB's Objectives

Cut community health risk
(support Assembly Bill 617 emission reductions)

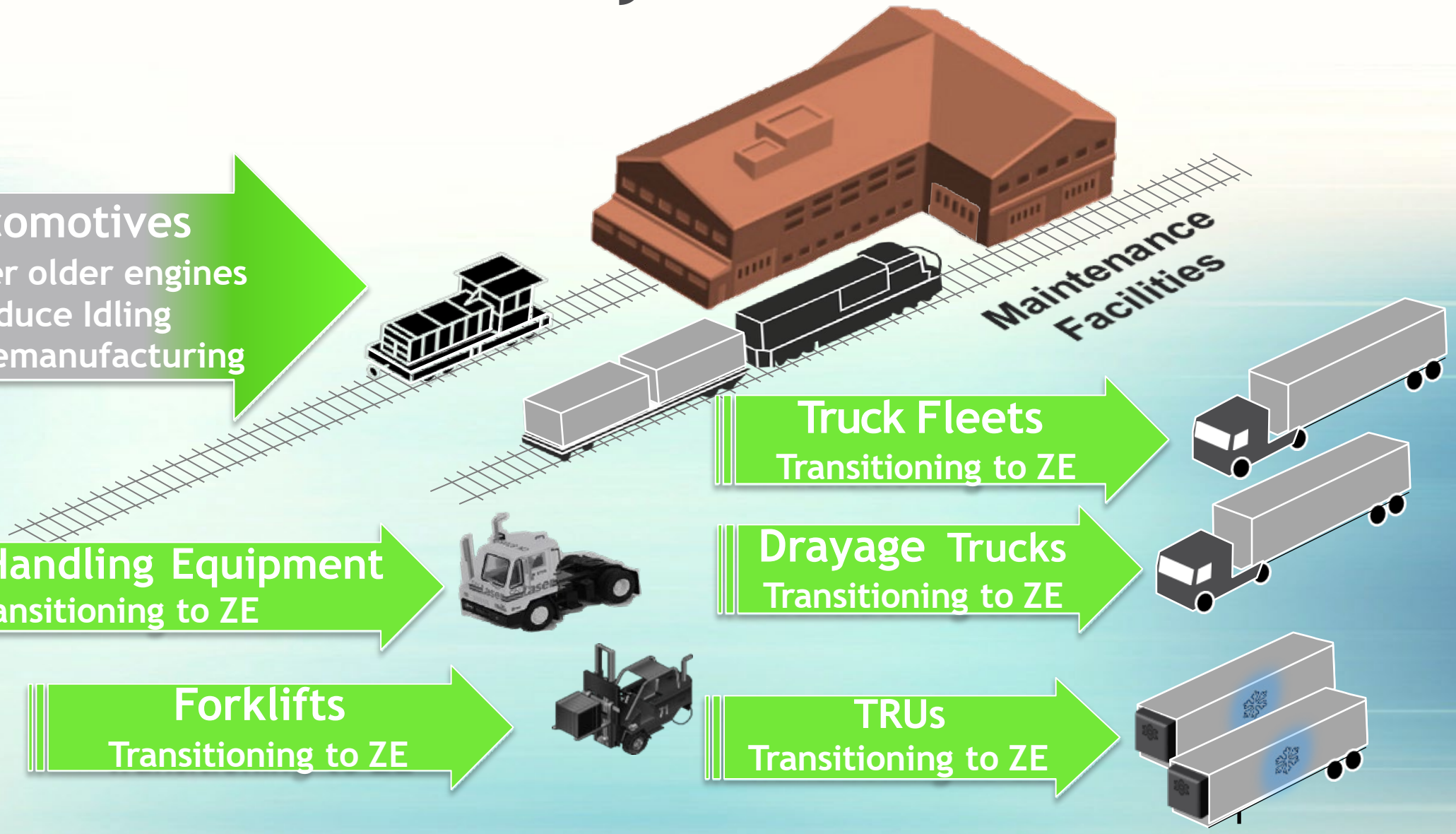
Help attain regional air standards
(support State Implementation Plan)

Mitigate climate change (support Scoping Plan and Short-Lived Climate Pollutant Reduction Strategy)

Governor's Executive Order N-79-20

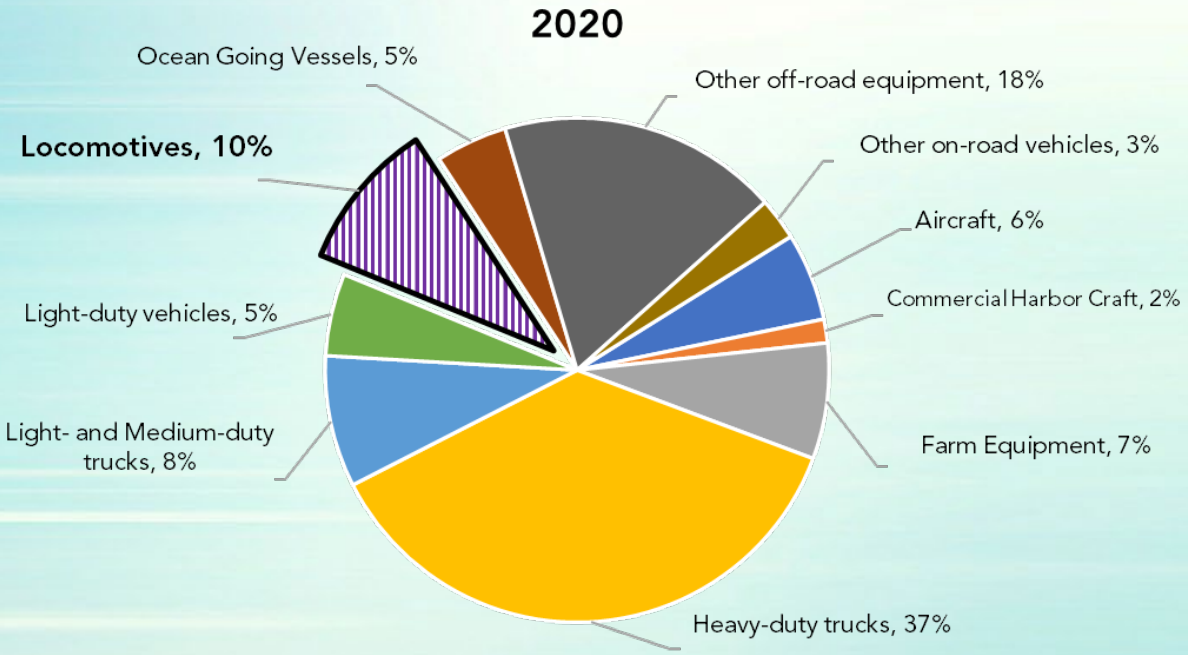
CARB

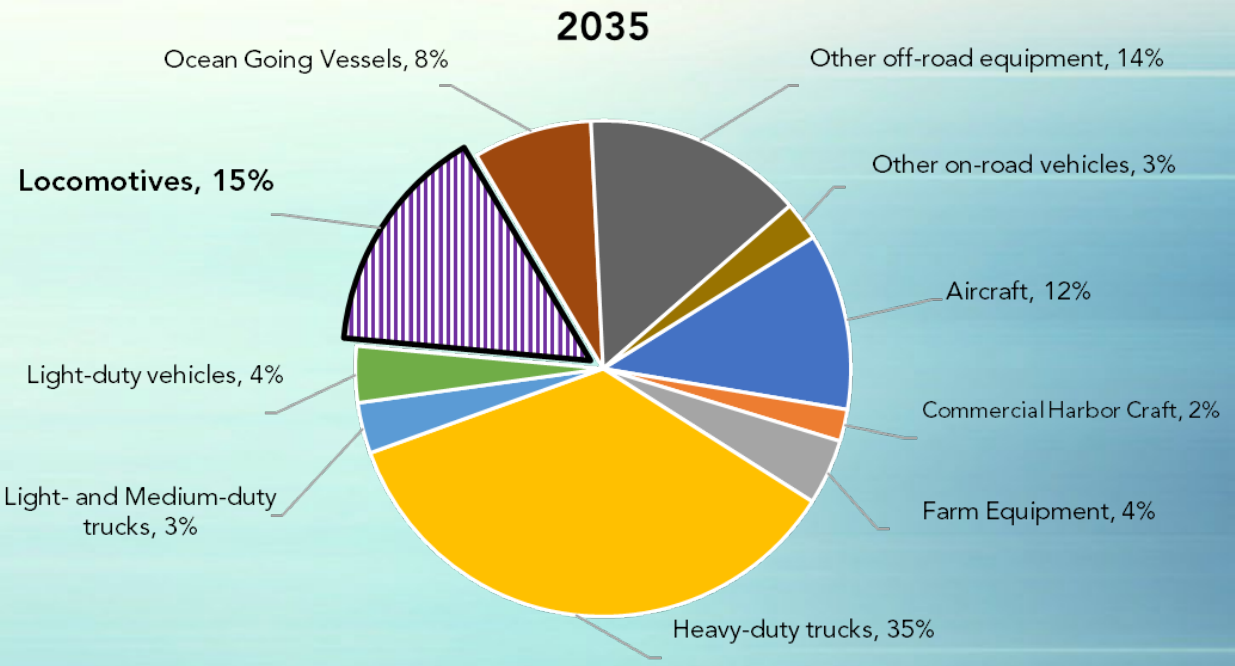
Railyard



CARB

Statewide Freight NOx Emissions

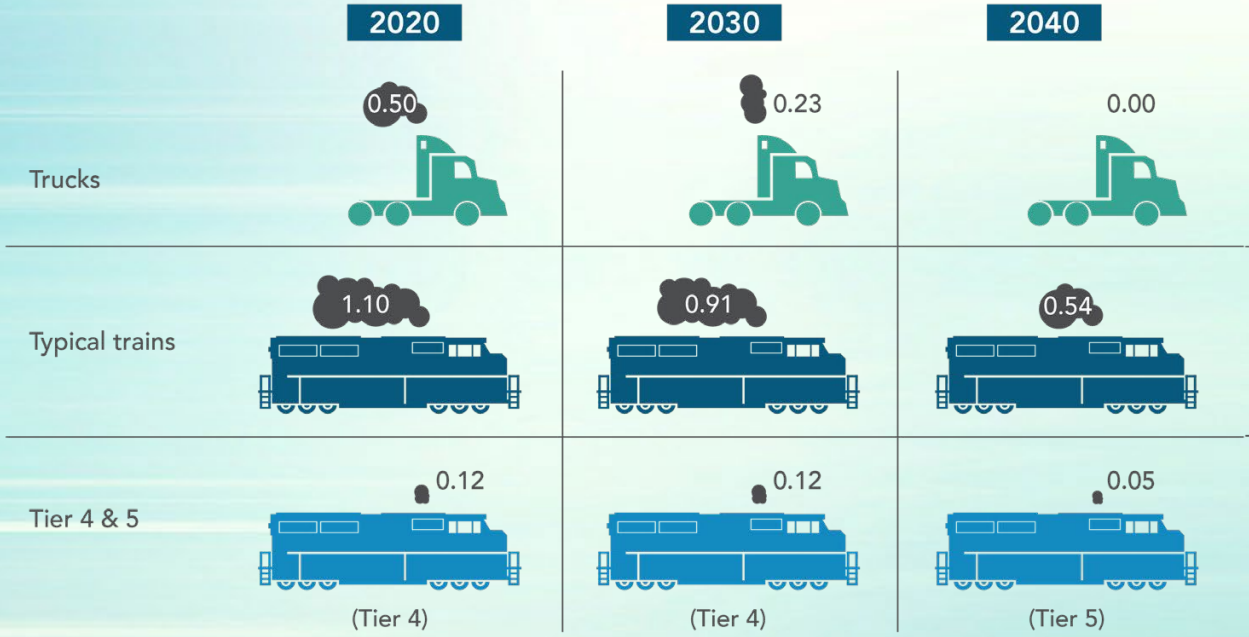




CARB

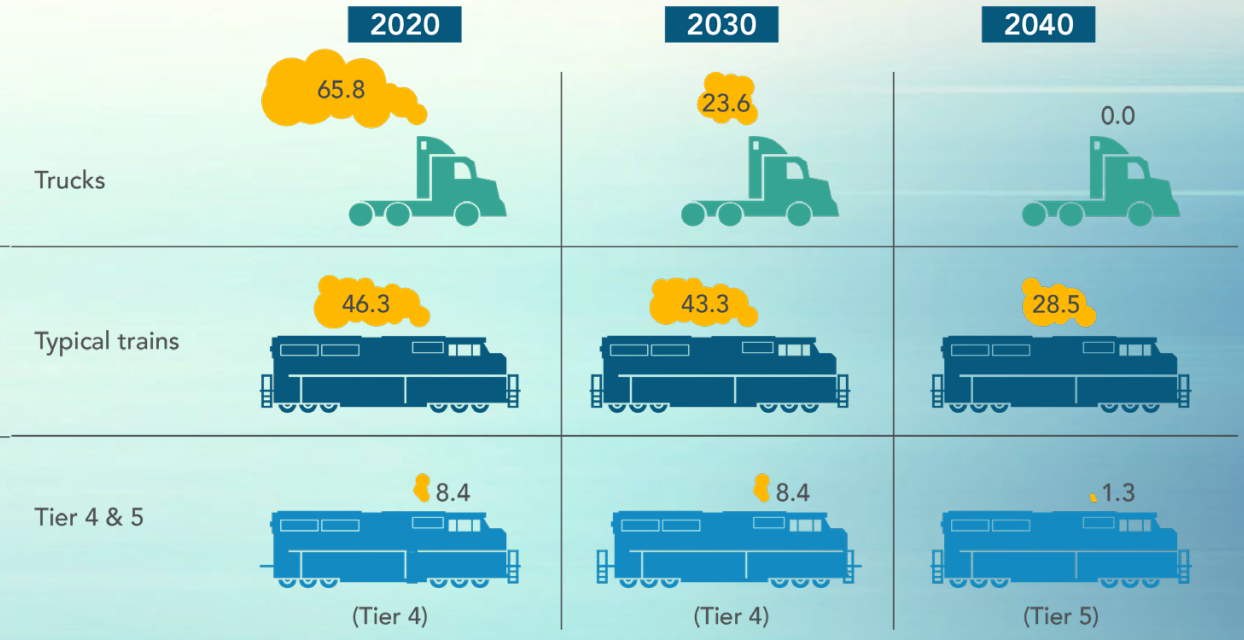
Draft Truck vs Train Emissions Analysis

Total $PM_{2.5}$ Emissions in Communities within 20 Miles of the Ports



All emissions are in pounds

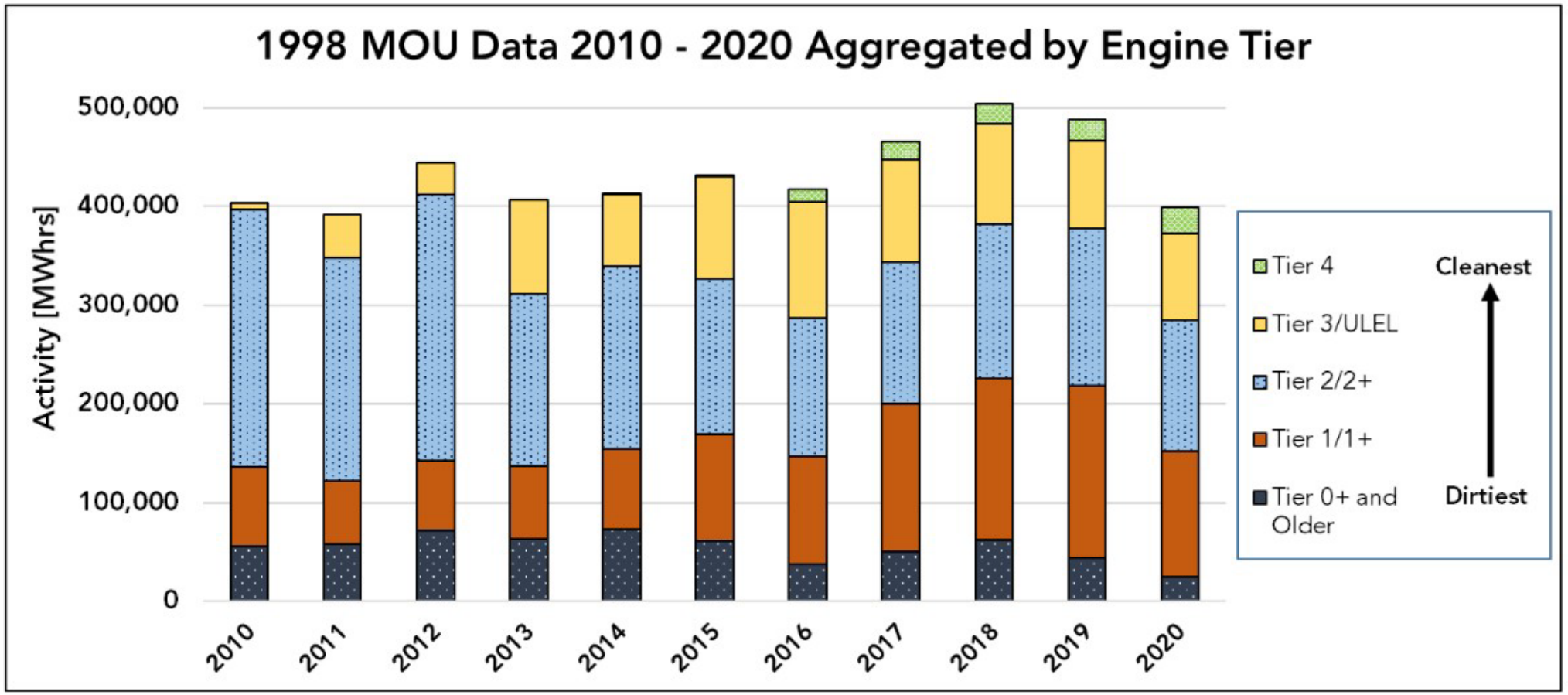
Total NO_x Emissions in Communities within 20 Miles of the Ports



All emissions are in pounds

CARB

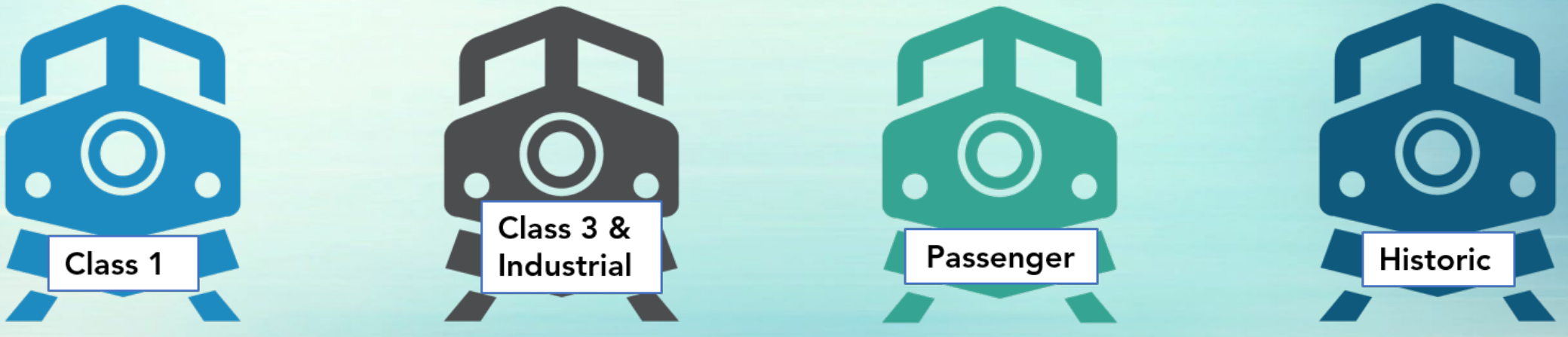
Locomotive Activity and NOx Emissions in the South Coast



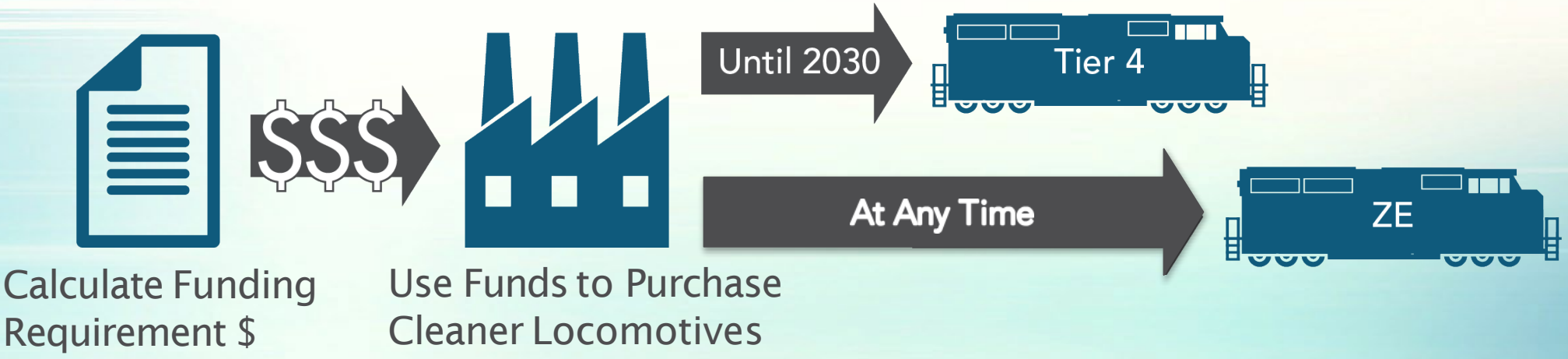
In-Use Locomotive Regulation

New Regulation for Board Consideration November 2022

- Main Regulatory Concepts:
  - Spending Account
  - In-Use Operational Requirements
  - Idling Requirements
  - Registration and Reporting Requirements



Spending Account (2023+)



- Funding Requirement = PM & NOx Emission Factor x Usage (MWh)
- Funds are held in internal account
- Can be used for ZE locomotives, ZE railcar vehicles, ZE infrastructure, ZE pilots, ZE demonstrations and Tier 4 Locomotives until 2030.

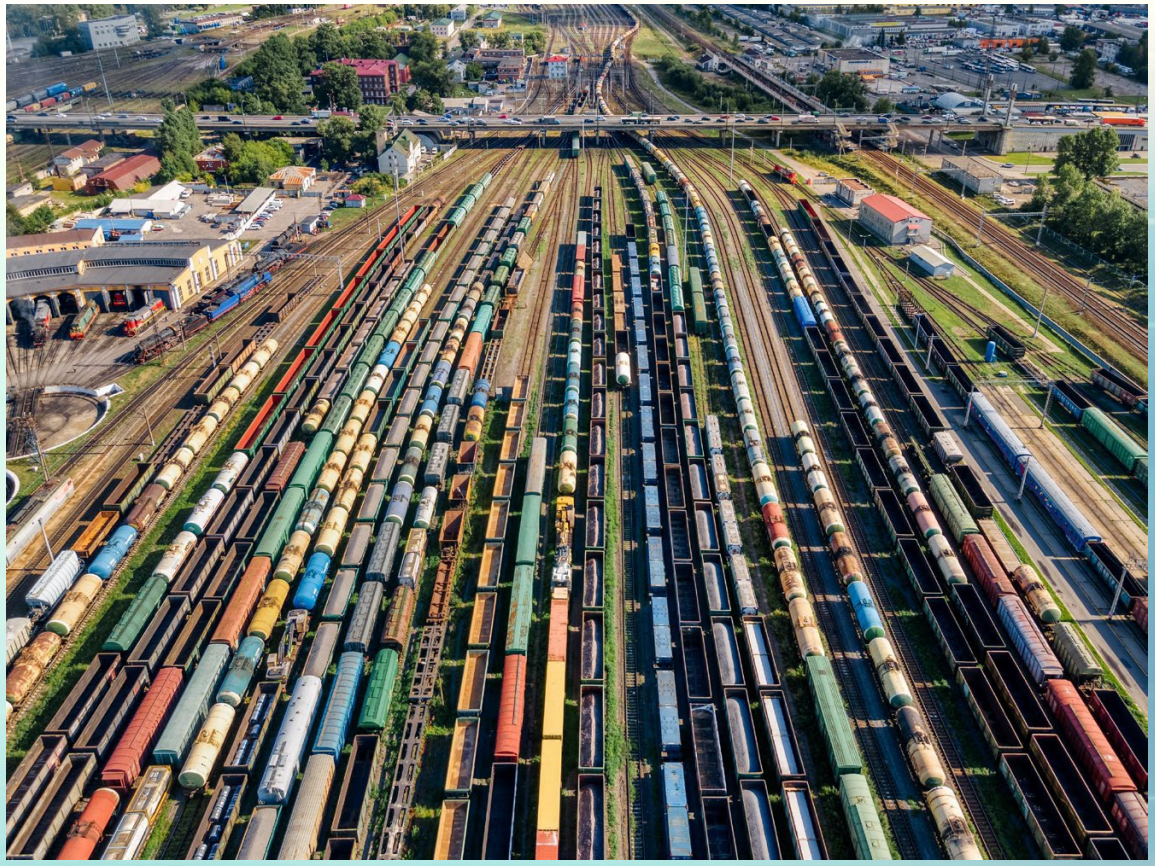
CARB

In-Use Operational Requirements (2030+)

- Locomotives less than 23 years old can operate in CA
- Switch, industrial and passenger locomotives operating in CA built in 2030+ must be ZE.
- Line haul locomotives operating in CA built in 2035+ must be ZE to operate in CA

Locomotive Idling and Reporting Requirements (2023+)

- Implement U.S. EPA 30 minute Idling limit
  - Makes the rule CARB enforceable
  - Enforcement by Air Districts possible through enforcement MOU
- Annual Reporting and Recordkeeping
  - Per locomotive reporting
  - Greater picture of true CA locomotive emissions



CARB

Regulatory Flexibility

- Alternative Compliance Plan (ACP)
- Temporary Operating Waiver
- Historic Railroad Low-Use Exemption
- Small Business Hardship Extension

CARB

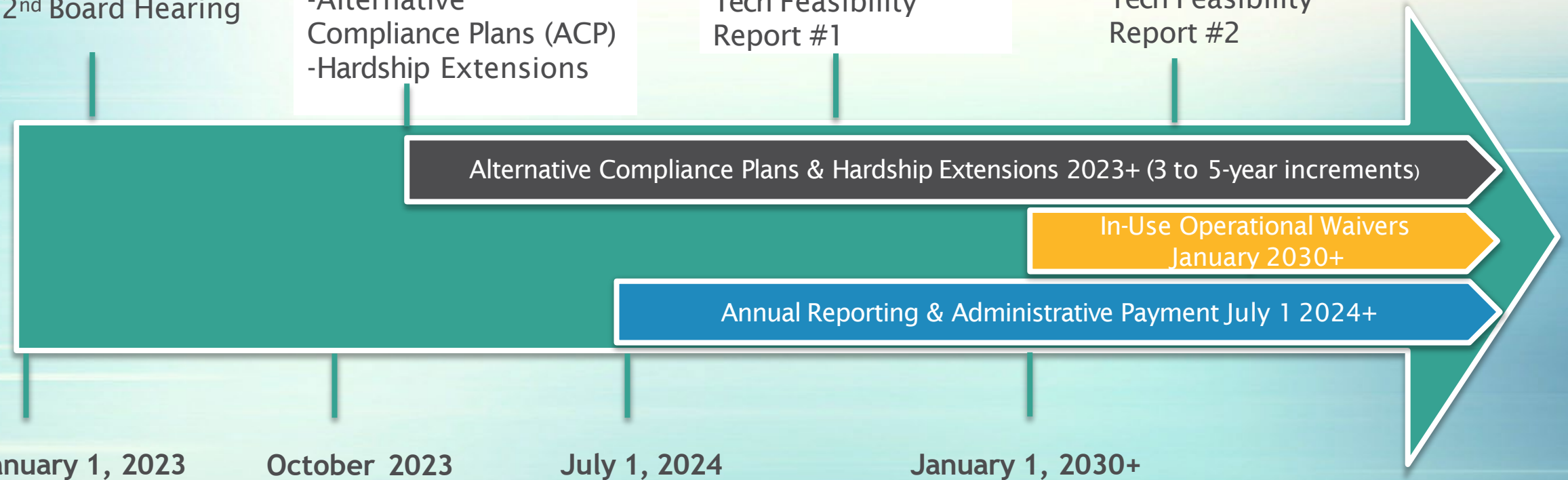
Locomotive Regulation Timeline

March/April 2023
2nd Board Hearing

November 2023
-Historic Locomotive Low Use Exemptions
-Alternative Compliance Plans (ACP)
-Hardship Extensions

January 2026 - 2027
Tech Feasibility Report #1

January 2031-2032
Tech Feasibility Report #2



January 1, 2023
Railroads Start Tracking MWhs

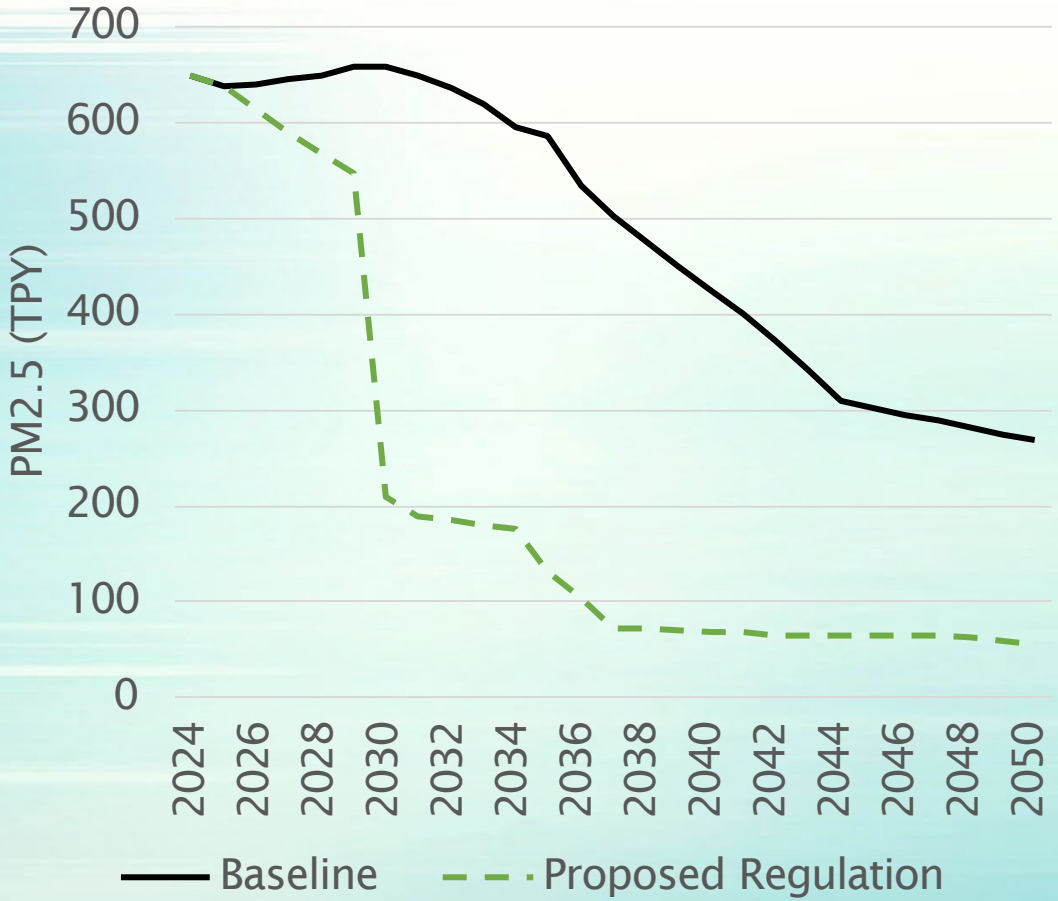
October 2023
Effective Date

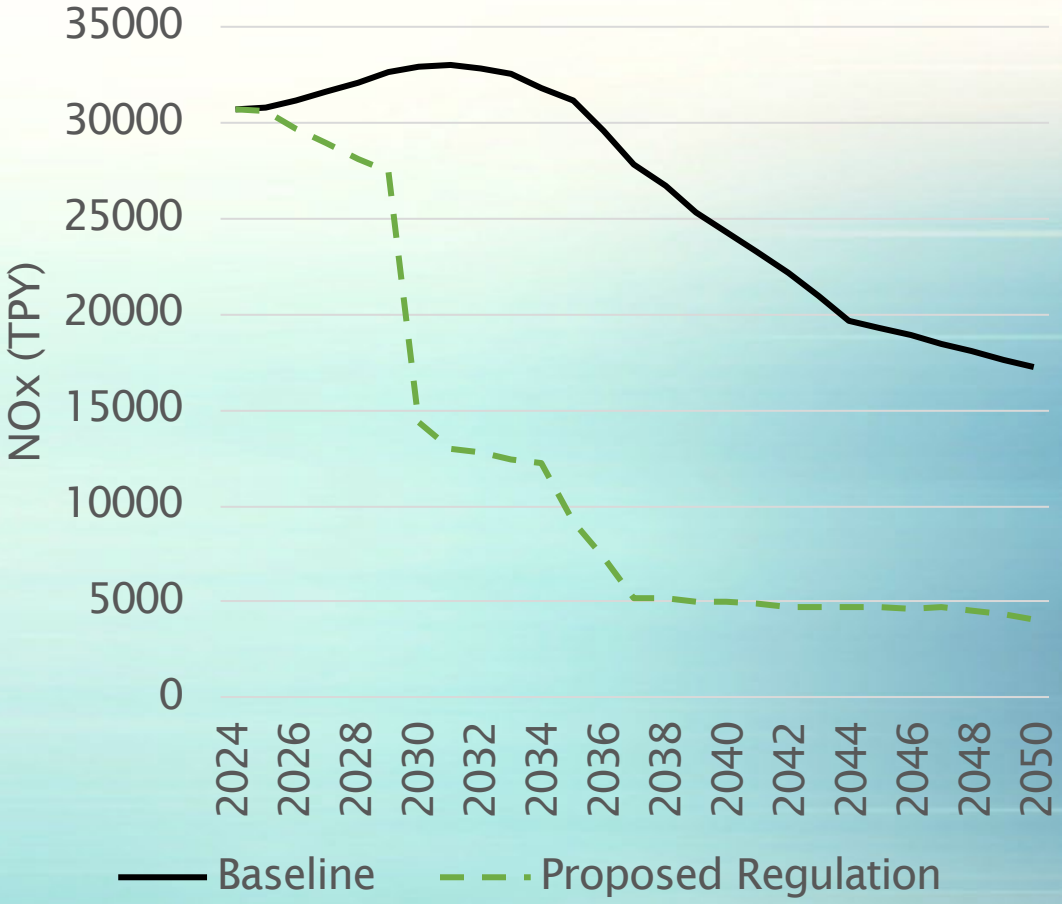
July 1, 2024
Reporting and Spending Account Deposits Begin

January 1, 2030+
In-Use Operational Requirements Waivers

CARB

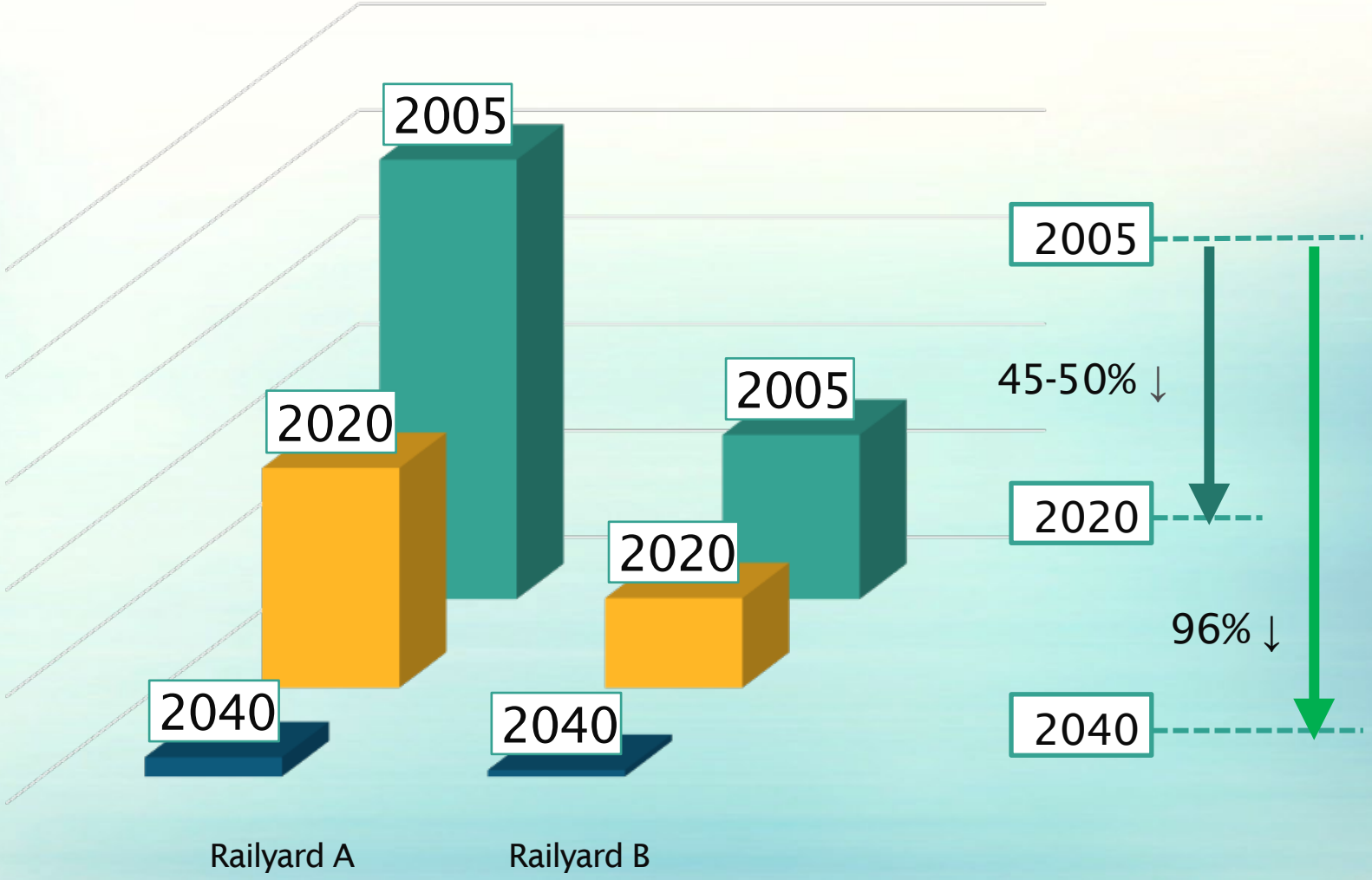
Estimated Emission Reductions





CARB

Average Cancer Risk within 1 Mile of a Railyard



CARB

Standardized Regulatory Impact Assessment (2023 – 2050)

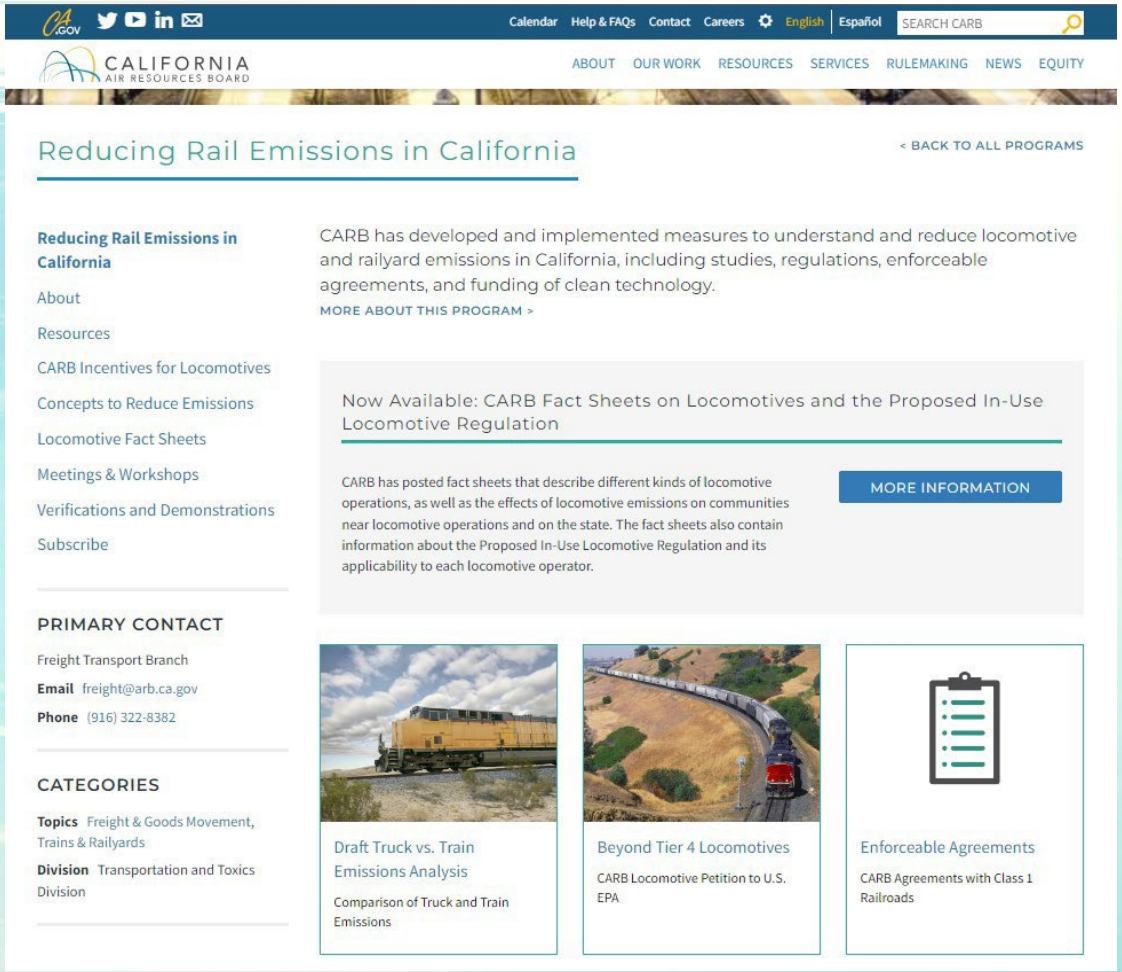
- Estimated cost to locomotive operators = $15.9 billion
- Statewide valuation of avoided adverse health outcomes from the Proposed Regulation (2019$)

Outcome	Valuation
Avoided Premature Deaths	$32,243,896,000
Avoided Hospitalizations	$60,033,000
Avoided Emergency Room Visits	$1,253,000
Total	**$32,305,183,000**

Incentives

- Applicants contract Air District
  - Grants executed regulation is adopted would be subject to a reduced grant life.
- Applicants: Class II, III, Industrial, and Passenger
- Up to 85% of eligible costs on locomotive replacement or repower to Tier 4 or zero emission
- Maximum grant life 15 years
- Infrastructure grants evaluated on a case-by-case basis.
- Visit: https://ww2.arb.ca.gov/our-work/programs/reducing-rail-emissions-california/carb-incentives-locomotives

More Information



- Website: https://ww2.arb.ca.gov/our-work/programs/reducing-rail-emissions-california

Contact:

Layla.Gonzalez@arb.ca.gov

or

Freight@arb.ca.gov

CARB

D. Progress Rail Advanced Technologies Update

PROGRESS RAIL

Emissions Reduction Solutions

Progress Rail
A Caterpillar Company

WE KEEP YOU ROLLING

Sustainable Solutions for Rail

Progress Rail is committed to delivering a suite of options to drive sustainable rail operations

Be the recognized leader in rail decarbonization
by providing comprehensive solutions that help our customers meet their goals.

Prioritize:

- Safety
- Sustainability
- Transition Path

Progress Rail
A Caterpillar Company

EMD® Joule Battery Electric Locomotives

Industry Leading Clean Power

Progress Rail is a global leader in battery electric locomotives

- World's largest battery electric vehicle for use in Australian mining applications
  - More than double the energy storage of competing products

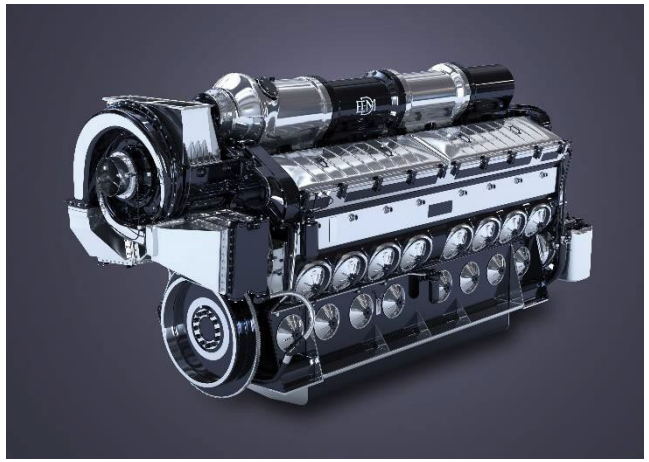
- The world's broadest selection of battery electric locomotives
  - Ensures our customers have solutions for their railways. Yard, regional, mining, and long-range.

- Progress Rail's combination of advanced rail technologies (Talos, ATO, and EMD® Joule locomotives) can deliver customers meaningful fuel savings and price volatility insulation

Progress Rail
A Caterpillar Company

Exhaust Emissions Reduction – Progress Rail Solutions

Caterpillar 2021 Energy & Transportation Accomplishments



Renewable Fuel Development

- Approval of B20 for use in all EMD® 710 engines
- Testing of up to B100 and R100 with Canadian National & Renewal Energy Group

EMD® Joule Battery Electric Locomotives

- Zero exhaust emissions operations of Vale EMD® Joule
- Partnerships with PHL, FMG, BHP, BNSF and UP

Hydrogen Fuel Cell Development BNSF and Chevron

- Demonstration of a locomotive powered by hydrogen fuel
- Partnership for technology demonstration & development

Progress Rail
A Caterpillar Company

EMD® Joule Locomotive Capabilities & Features

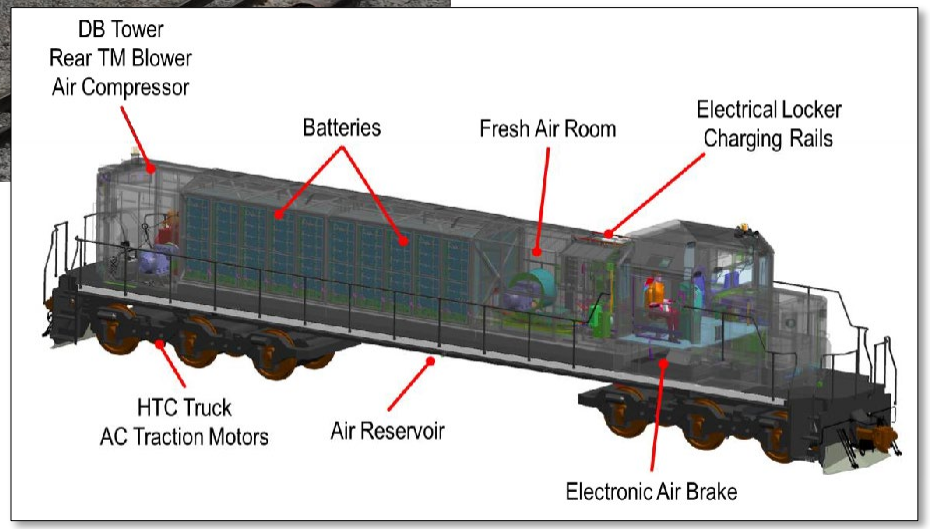
Joule locomotives will meet or exceed diesel performance, excluding range

Capabilities

- Produces the same *or more* HP & TE as a diesel
- Endurance limitations (“smaller fuel tank”)
- Well suited for selected (captive) corridors and yards
- Zero exhaust emissions operation

Features

- AC traction with individual axle control
- Regenerative braking using blended braking
- Inverter-driven auxiliary equipment
  - Motor-driven rotary screw air compressor
- Very low noise (<70dB) and vibration



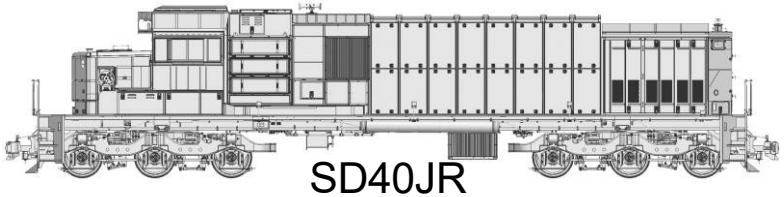
Emissions Reduction Solutions

Battery locomotive configurations

LOW CLEARANCE, NARROW CARBODY		Energy Storage (current max)	Suitable Services	# of Axles
GT38JB	**NEW:** 4-axle switching & short haul	**4 MWh**	Yard & Switching	4
GT38JC	**NEW:** 6-axle switching & short haul	**4 MWh**	Yard & Switching	6
HIGH CLEARANCE 6-AXLE NARROW CARBODY				
SD70J	**NEW:** SD70ACe-style heavy haul	**8 MWh**	Yard, Regional, & Hybrid Consist	6
SD40JR	**REPOWER:** SD38/40 switching & short haul	**4 MWh**	Yard & Switching	6
HIGH CLEARANCE 8-AXLE WIDE CARBODY				
SD70J-BB	**NEW:** heavy haul mining 8-axle	**14.5 MWh**	Regional, & Hybrid Consist	8


GT38JB


SD70J


SD40JR

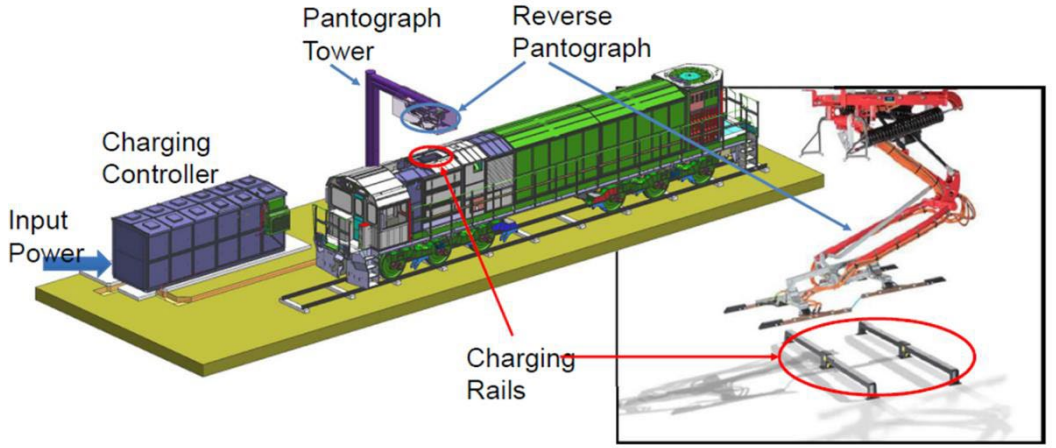

SD70J-BB

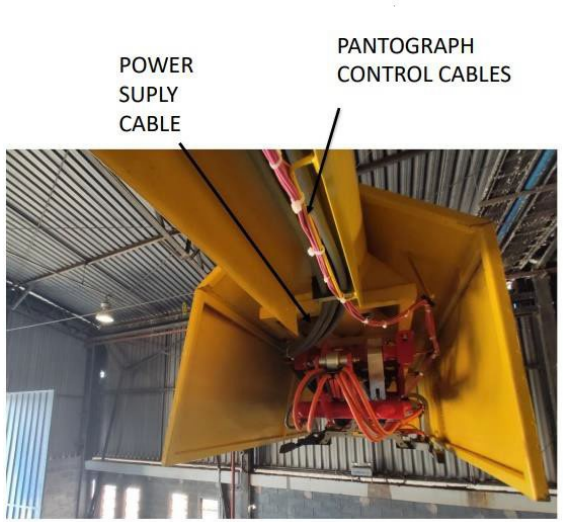
Progress Rail
A Caterpillar Company

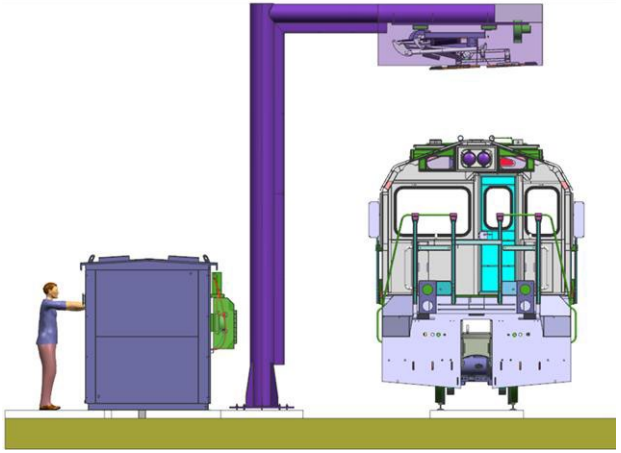
Battery Electric Locomotive Charging

Critical factor for adoption success

- Current System
  - Reverse pantograph with Wifi Communication
  - 700 & 1400 kW charging powers
    - Multiple chargers can increase power
- AAR Standardization
  - Industry currently trending toward traditional pantograph
  - Sub-group reviewing MCS
- MCS integration
  - Aids interoperability, development, & Cat alignment
  - Avoids unique railroad equipment







Closing & More Discussion

Progress Rail
A Caterpillar Company

E. BNSF’s ZE Locomotive Project Update

F. Union Pacific ZE Locomotive Project Update

UNION PACIFIC JOURNEY TO NET ZERO EMISSIONS

—

Jason Fox, Senior Director – Locomotive Engineering & Quality

7.20.2022

Diesel Free Future

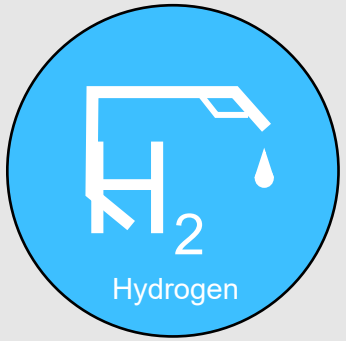
2018 – 2030

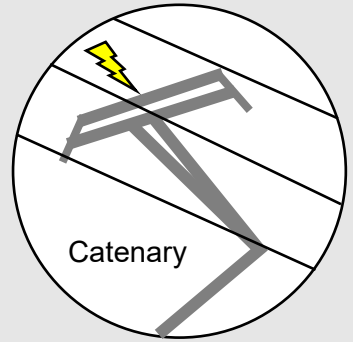
- SBTi target for GHG emissions reduction
  - UP to make 26% reduction in GHG emissions by 2030 (against 2018 baseline)
    - Locomotive operations account for over 85% of our calculate total emissions
- GHG reduction strategy
  - Biodiesel and renewable diesel
  - Locomotive improvements and fuel efficiency technology

SCIENCE BASED TARGETS

The Look Towards 2050 – Net Zero Emission

- A diesel free future include three options



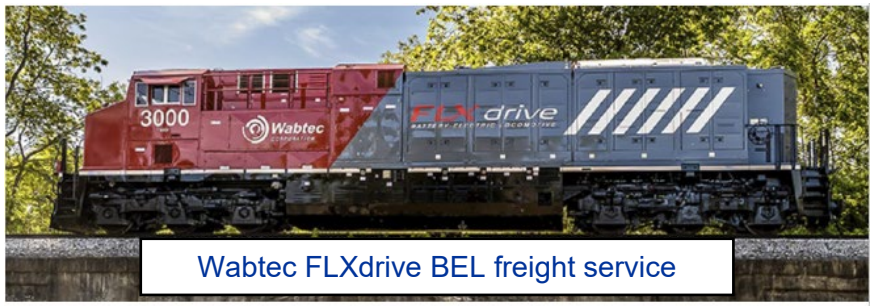


Battery Electric Locomotive (BEL)

Freight Service

Today's Use

- Wabtec FLXdrive testing with BNSF between Barstow and Stockton
  - 2.4 MWh capacity, range is 34 miles, diesel is 1000 miles
  - Current use case is a hybrid fuel saving solution (2-3% flat grade, 10-15% mountain grade)



Wabtec FLXdrive BEL freight service

Advantages

- Zero point-source emissions at the locomotive
- Locomotives are less complex and lower maintenance
- Existing power grid would be utilized
- Battery technology will improve rapidly with increased adoption

Disadvantages

- Range is insufficient today to replace a diesel engine
- Interoperability is required between carriers
- New locomotives required along with Reliability Growth Testing (RGT)
- Locomotive cost is higher than diesel engines

Battery Electric Locomotive (BEL)

Recommended

Yard Switching Service

Today's Use

- Progress Rail Joule BEL in service with Vale in Brazil
  - 1.9 MWh capacity, 36 hours of operation per charge
- PHL to take delivery of a 2.4MWh locomotive in Q3 2021

Progress Rail Joule BEL yard switcher

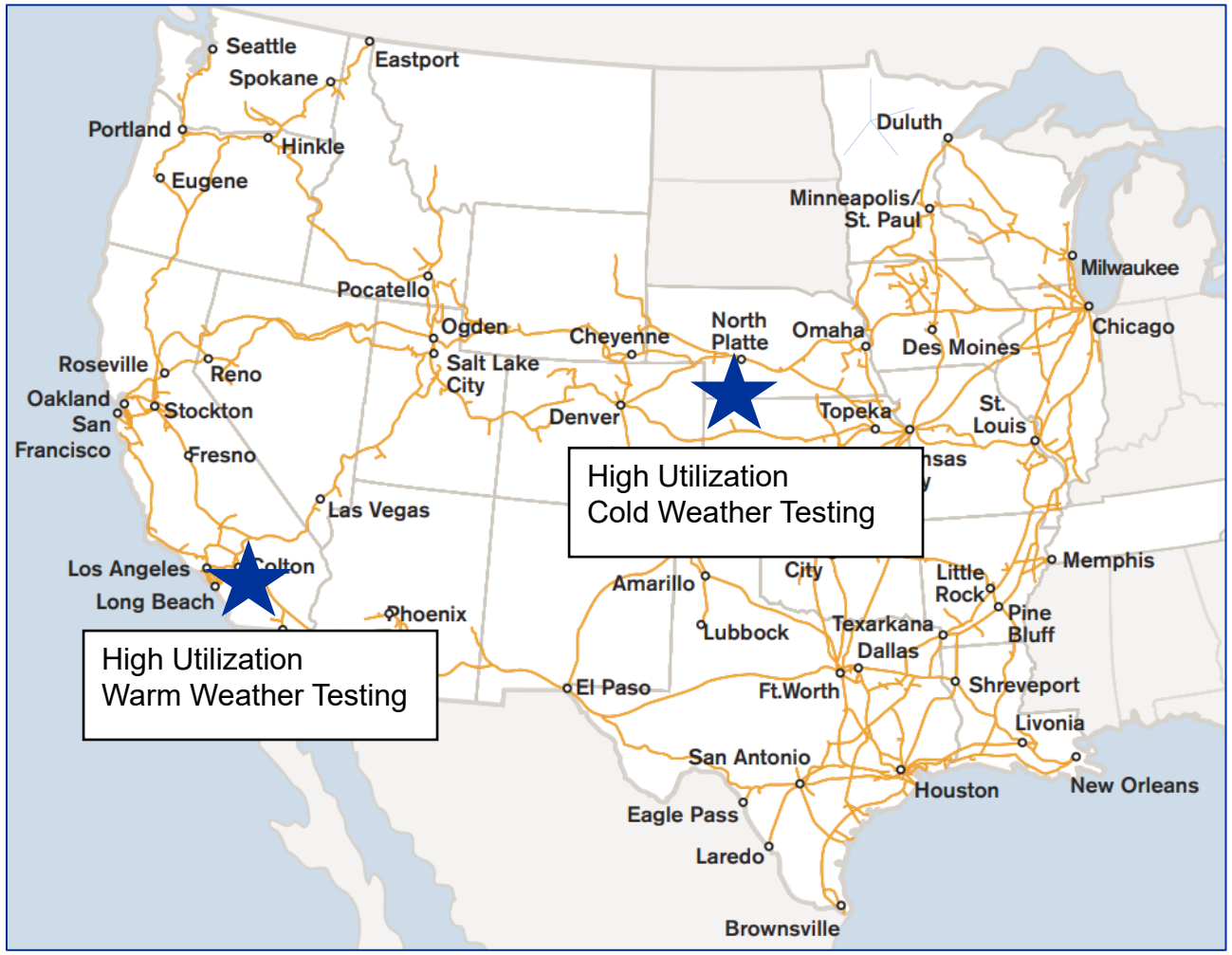
Advantages

- In use today
- Zero point-source emissions at the locomotive
- Low noise in population centers
- Existing power grid would be utilized
- Reduction in locomotives needed (AC traction)
- Locomotives are less complex and lower maintenance
- No need for interoperability with other carriers

Disadvantages

- New locomotives needed along with Reliability Growth Testing (RGT)
- Locomotive cost is higher than diesel engines

Battery Electric Locomotive (BEL)



- Battery electric switchers used in Brazil today
- Captured service to test technology
- Capitalize on existing infrastructure
- Zero point emissions technology
- 10 units will be placed at North Platte
- 10 units will be placed at LA – DERA funded locomotive will be Wabtec
- Testing in high utilization yards
- Testing in different climates

G. POLA ZE Locomotive Projects

Sustainable Supply Chain Advisory Committee

Advanced Locomotive Projects

THE PORT OF LOS ANGELES

Christine Batikian
Environmental Specialist

July 20, 2022

Background

- POLA's rail network consists of:
  - 116 miles of rail
  - Five (5) on-dock railyards
  - One (1) near-dock railyard
  - Five (5) off-dock mainline railyards
- 3 railway companies service POLA
  - BNSF – Burlington Northern Santa Fe
  - UP – Union Pacific Railroad
  - PHL – Pacific Harbor Line
- About 35% of intermodal containers use POLA's rail network
- About 26% of all cargo moving through POLA uses the on-dock rail network

POLA – UP Electric Switch Locomotive Project

- EPA awarded POLA $2,025,000 grant through DERA FY 2021
- Replace one (1) existing Tier 0+ switch locomotive with one (1) new battery-electric switch locomotive
- Deployment Partner: Union Pacific
- Project Locations: West Colton Switch Yard & demonstration at Intermodal Container Transfer Facility (ICTF)
- Project Period: 3 years (10/1/2021 – 9/30/2024)
- Total Estimated Project Cost: $4,500,000
  - Union Pacific cost share: $2,475,000 (55%)
- Anticipated locomotive delivery by end of Q2 2024

Emissions Benefits

- Locomotive can work independently and in a consist
- Estimated **Yearly** Emissions Reductions
  - 8 tons of NOx
  - 0.3 tons of DPM
  - 450 tons of CO2
- Yearly reductions equate to **~89** passenger vehicles off the road

PHL ZE Switch Locomotive Demonstration

- Proposal submitted to the Ports' TAP for funding consideration
- Recommended by TAP AC and currently going through approval process
- PHL has partnered with Progress Rail and Dynalectric to design and demonstrate a ZE switch locomotive and associated charging infrastructure
- Design and development of locomotive is underway with delivery scheduled by December 31, 2022
- Total Estimated Project Cost: $4,751,904
  - $1,213,640 requested from the Ports to provide charging infrastructure

Emissions Benefits

- Estimated **Yearly** Emissions Reductions
  - Over 2.3 tons of NOx
  - About 400 tons of CO2

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Thank you!

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6. Funding Opportunities & Advocacy

a. Port and Freight Infrastructure Program
b. State Budget Approval
c. Strategy and Advocacy for Maximizing Federal Infrastructure Funding
d. Federal Regional Hydrogen Hub (Ports)
e. Stakeholder Advocacy Engagement

A. Port and Freight Infrastructure Program

Port and Freight Infrastructure Program Draft Guidelines Overview

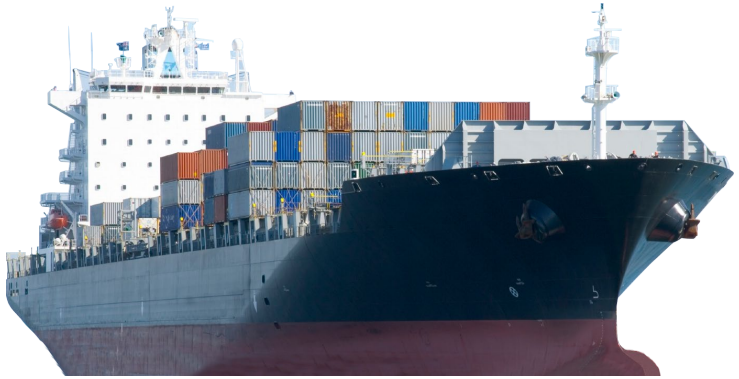
Presenters:

Eric Fredericks, Freight Policy Coordinator, CalSTA

Giles Giovinazzi, Senior Advisor, CalSTA

Port and Freight Infrastructure Program: Background / Purpose, Goals and Objectives

- Executive Order N-19-21 / Governor Newsom's $1.2 billion FY22-23 Budget Proposal for Port Infrastructure and Goods Movement
  - CalSTA April 2022 Listening Sessions
  - SB 198 Omnibus Transportation Trailer Bill – Signed by Governor Newsom June 30, 2022
- Port and Freight Infrastructure Program Guidelines – Purpose, Goals and Objectives:
  - *"The Port and Freight Infrastructure Program seeks to improve the capacity, safety, efficiency and resilience of goods movement to, from and through California's maritime ports, while also reducing greenhouse gas emissions and harmful impacts to communities adjacent to the corridors and facilities used for goods movement."*
  - *"These improvements are critical to enhancing and modernizing the multimodal freight transportation system, growing the economic competitiveness of California's freight sector, promoting transportation equity, reducing freight-related deaths and injuries, and improving system resilience by addressing infrastructure vulnerabilities associated with security threats, climate change and natural disasters"*



Port and Freight Infrastructure Program: Schedule / Eligible Projects

- **Schedule**
  - **Release Draft Guidelines** – July 2022
  - **Guidelines Workshops**
    - Workshop 1: Early/Mid-August 2022 (Daytime)
    - Workshop 2: Early/Mid-August 2022 (Late-Afternoon/Evening)
  - **Closing Date for Comments of Draft Guidelines** – Late August 2022
  - **CalSTA Publishes Guidelines/Call for Projects** – Mid-September 2022
  - **Project Applications Due** – Mid-November 2022
  - **CalSTA Award Announcement** – Late December 2022/Early January 2023

- **Eligible Projects (per SB 198) – including, but not limited to**:
  - Port-specific high-priority projects
  - Intermodal railyard expansion and electrification
  - Goods movement railway corridor capacity projects
  - High-priority grade separations
  - Zero-emission goods movement demonstration projects

Port and Freight Infrastructure Program: Eligible Entities / Leveraging Federal Investment

Eligible Entities - Funding for eligible projects shall be allocated to public agencies that administer or operate the projects as follows:

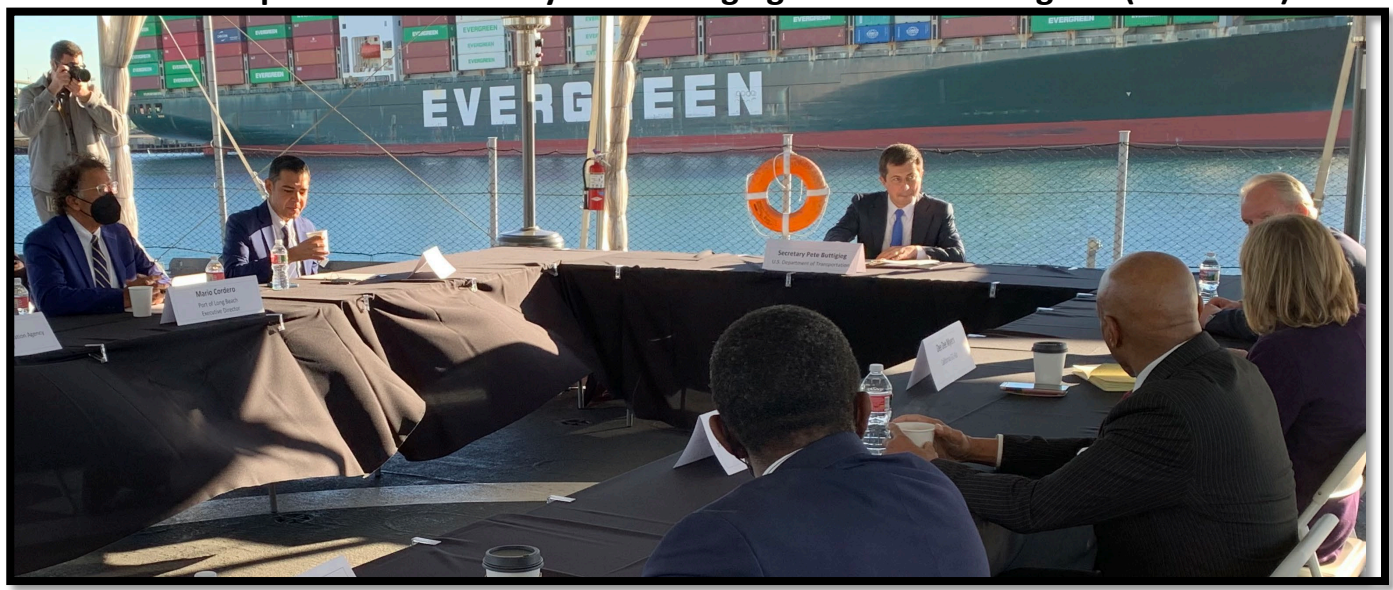
- **70%** for infrastructure projects supporting goods movement related to **POLA/POLB**
- **30%** for other high-priority projects supporting ports and goods movement infrastructure **in the rest of the state, including inland ports**
- Public agencies may partner with private operators of projects, such as freight railroads, to implement an eligible project
- **Non-port applicants are strongly encouraged to consider partnering with ports as co-applicants or including Letters of Support from ports** that articulate their project's effectiveness in relieving port congestion; port support will be considered in the project's evaluation for the award of funds

Funding Match and Leveraging State/Federal Investment

- No minimum match requirement, but **substantial committed federal, state, local, regional or private match is desirable and will be considered in the project's evaluation for the award of funds**

- **Project sponsors should articulate how Program funding will be used to leverage the maximum amount of federal/state funding and/or financing**

U.S. Transportation Secretary Pete Buttigieg – Port of Los Angeles (Jan. 2022)



Port and Freight Infrastructure Program: Construction Readiness / Innovative Projects

Construction Readiness Priority

- **At least 75 percent of Port and Freight Infrastructure Program funding** will be awarded to projects reasonably expected to begin construction **within 24 months after funding is awarded**

Innovative / Pilot Projects

- **Remaining funds may be awarded to support the planning and development stages** of projects that are not reasonably expected to begin construction within 24 months after funding is awarded. This includes **innovative or pilot demonstration projects.**

Port and Freight Infrastructure Program: Evaluation Criteria

Evaluation Criteria (Aligns with SB 198 Goals)

- Improve the capacity of California ports to manage increasing volumes of freight and improve the efficiency of goods movement to, from, and through California ports
- Reduce criteria pollutants and greenhouse gas emissions
- Promote transportation equity.
- Maintain, enhance, and modernize the multimodal freight transportation system
- Grow the economic competitiveness of California's freight sector through increased system efficiency and productivity
- Reduce freight-related deaths and injuries
- Improve system resilience by addressing infrastructure vulnerabilities associated with security threats, climate change, and natural disasters

Questions?

B. State Budget Approval

C. Strategy and Advocacy for Maximizing Federal Infrastructure Funding

D. Federal Regional Hydrogen Hub (Ports)

E. Stakeholder Advocacy Engagement

7. Conclusion & Next Steps

a. Next Meeting: September 21st, 2022 – ZE Trucks & CHE Implementation
b. Upcoming Agendas:
    a. November: Workforce Development

Appendix: Committee Focus in 2022

Date	Theme	Specific Topics	Potential Guests
January 26th	• SSCAC 2022 Level-Set	• Updates from Members, Mayors, Ports on 2022 activities & priorities • Updates from CARB, Ports on funding programs, strategies • Progress with existing SSCAC recs • Definition of "sustainability"	
March 16th	• CTP Implementation & ZE Infrastructure	• CTP Implementation • Regional blueprint projects	• UCLA • CEC
May 18th	• Marine Vessels – 2021 activity & technology opportunity	• Approach to the 2021 emissions inventory • Commercial Harbor Craft regulation hearing • SPBP Technology Feasibility Assessment	• Thetius (IoT on vessels) • Ballard (Fuel Cell propulsion)
July 20th	• Increased Efficiency & On-dock Rail	• Federal focus & funding • Research & resources for needs, impact assessments • Short-haul rail ZE opportunities • CARB locomotive regulation	• Everport Terminal Services • METRANS
September 21st	• ZE Trucks & CHE Implementation	• CTP Update • ACF Rulemaking	• TBD
November 16th	• Workforce Development	• Training center developments • Member activities • Research & findings in 2022	• Green Workforce Coalition • CSULB, UCLA