

**Board Report**

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**PLANNING AND PROGRAMMING COMMITTEE
JUNE 14, 2023**

**SUBJECT: LONG BEACH-EAST LOS ANGELES CORRIDOR ZERO EMISSION TRUCK (ZET)
PROGRAM STATUS UPDATE**

ACTIONS: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer to program up to \$3 million of the Board authorized \$50 million seed funding programmed for the LB-ELA Corridor ZET Program as Metro's contribution to leverage federal and regional funds contingent upon the demonstration of full project funding; and
- B. RECEIVING AND FILING the report on updates for the Long Beach-East Los Angeles (LB-ELA) Corridor Zero Emission Truck (ZET) Program.

ISSUE

At the March 16, 2022, Metro Board meeting, staff presented a status update on the LB-ELA Corridor (formerly the I-710 South Corridor) ZET Program, including the formation of the ZET working group, its membership, and information shared and input received since the commencement of the working group to inform the scope of the ZET Program.

The working group meets regularly to provide guidance on the ZET Program to support an accelerated transition of heavy-duty trucks operating in the LB-ELA Corridor from diesel to ZE technology.

Through its discussions and coordination with the LB-ELA Corridor Plan Task Force, the Community Leadership Council (CLC) and Equity Working Group (EWG), the ZET working group developed the LB-ELA Corridor ZET Program Principles to provide the operating framework for staff to identify existing and develop new projects and programs consistent with the Board-approved Task Force Vision, Goals, and Guiding Principles adopted in September 2022 (File #2022-0330).

Staff has identified an opportunity to leverage a portion of the \$50 million (up to \$3 million) in seed funding for a \$15 million ZET charging facility identified by the Los Angeles Cleantech Incubator

(LACI), funded initially with a \$1.5 million Community Project Funding award secured Representative Nanette Diaz Barragán (CA-44), and owned by the Harbor Department of the City of Los Angeles (Port of LA).

This project demonstrates alignment with the ZET Program Principles, and staff believes Metro's funding commitment will support the advancement of Board direction by catalyzing other regional agencies, including the Port of LA, and private partners to fully fund the project and leverage Metro's contribution with an additional \$12 million.

This report also provides other updates on ZET Program progress and accomplishments.

BACKGROUND

The LB-ELA Corridor ZET Working Group commenced in November 2021 in response to an approved October 2021 Board motion from Directors Hahn and Dutra (Attachment A) that provided staff direction to recommit \$50 million from the original I-710 South Corridor Project as seed funding to support the development of a ZET Program, with a funding target of \$200 million, as part of the new LB-ELA Corridor Investment Plan.

The working group is charged with developing a ZET Program to support the accelerated conversion of drayage and other heavy-duty trucks operating within the LB-ELA Corridor from diesel to zero-emission technology. Its membership includes representatives from community-based organizations, public health and environmental advocacy groups, the trucking and freight industry, utility providers, academia, Caltrans, California Air Resources Board (CARB), Ports of Los Angeles and Long Beach, South Coast Air Quality Management District (AQMD), and local governments. All meetings are open to the Task Force's Community Leadership Committee (CLC) as well.

One major area of focus for the working group is to identify shovel-ready projects for heavy-duty ZE truck charging or fueling stations, evaluate such projects' alignment with the LB-ELA Corridor ZET Program Principles it developed, and determine if the use of Metro's programmed seed funding would advance these principles and Board direction.

Concurrent with the working group's efforts, LACI created the I-710 Investment Blueprint for Heavy-duty Charging Depots, which identified 14 potential sites that could be developed for battery electric charging to support heavy-duty trucks within the LB-ELA Corridor. For one of the 14 sites, LACI received a Community Project Funding award sponsored by Representative Nanette Diaz Barragan for \$1.5 million. This site is owned by the City of Los Angeles Harbor Department (Port of LA) and intended to be leased and developed.

The working group has reviewed LACI's proposal for this new site and finds it is in alignment with the ZET Program principles. The working group also finds this project to be a good opportunity for Metro to leverage its seed funding to secure other funding sources to implement the project, while also getting closer to meet the funding target of \$200 million.

DISCUSSION

Since the last update to the Board in March 2022, Metro staff and partner agency staff presented materials to facilitate the working group discussions that resulted in the LB-ELA Corridor ZET Program Principles and Framework.

The following section highlights the I-710 Investment Blueprint developed by LACI and reports on working group activities conducted to shape the ZET Program Principles and preliminary performance measures, information provided on anticipated ZET population and associated demand, truck travel behaviors within the corridor, workforce investment mechanisms, and focus group discussions. The section concludes with grant funding opportunities and next steps.

LACI Investment Blueprint for Heavy-duty Charging Depots

LACI staff presented findings from its I-710 Investment Blueprint for Heavy-duty Charging Depots (Investment Blueprint). The Investment Blueprint calculates the charging infrastructure needed to achieve the goal of having 40 percent of drayage trucks serving the Ports of Long Beach and Los Angeles be zero-emission by the year 2028. To reach this target, the Investment Blueprint analysis indicates that at least \$280 million would be needed to deploy at least 135 public chargers and 620 private chargers to support approximately 1,800 drayage trucks that operate within the I-710 Corridor.

LACI identified hotspots for trucks, based on the truck traffic analysis, that were stationary for (a) 30 minutes to three hours and (b) longer than three hours to provide a useful proxy for determining favorable locations for (a) fast charging and (b) domicile charging. For their analysis of potential sites, LACI considered a wide range of land use types, including gas stations, warehouses, distribution centers, fleet depots, and industrial yards. The Investment Blueprint also included assessments of 14 sites within the I-710 Corridor, with four sites that received in-depth assessment in partnership with Communities for Environmental Health and Justice (CEHAJ).

One of the identified sites is owned by the Port of LA, which received a federal Community Program grant award for \$1.5 million at the request of Congresswoman Nannette Barragán (CA-44). LACI staff demonstrated the project's alignment with the ZET Program principles (discussed in the next section) and requested Metro to contribute a portion of the LB-ELA ZET Program seed funding to support the development of this site.

Metro staff believes this contribution could catalyze funding from other regional agencies, including the Port of LA, and private entities to fund the project fully. Staff also believes this contribution of up to \$3 million towards a total project cost of \$15 million fulfills Metro Board direction to leverage the \$50 million seed funding to reach a funding target of \$200 million.

Program Principles and Preliminary Performance Measures

The working group members participated in breakout sessions in 2022 (May and June 2022) to formulate program principles for the LB-ELA Corridor ZET Program. Five major themes were identified: 1) community engagement, 2) strategic partnerships and funding opportunities, 3) legislative and policy initiatives, 4) truck subsidies, and 5) environmental impacts and equitable outcomes. Staff turned the insights from the breakout sessions into preliminary program principles

and identified five tasks to be pursued as a program framework.

In refining the program principles and framework, the working group incorporated community desires that were highlighted through the LB-ELA Corridor Task Force's CLC and and freight industry needs that were raised during the discussions.

The ZET Working Group agreed to support the following eight Program Principles (detailed description in Attachment B):

1. **Maximize Leverage of Seed Funding** by collaborating with regional partners and funding agencies
2. **Expeditious Deployment of Resources** to maximize the buying power and benefit of investment while supporting community engagement and effective outreach
3. **Coordination** with regional and funding partners, government agencies, and key stakeholders
4. **Community Engagement** that centers corridor residents and stakeholders throughout the development process
5. **Workforce Development** that ensures community benefits and access to opportunity through the pursuit and implementation of ZE technology
6. **Corridor Community Benefits** by creating economic opportunities, improving air quality, and reducing long-standing health impacts generated by diesel trucks
7. **Equitable Outcomes** ensured by performance metrics that evaluate sustainable outcomes
8. **Legislative Platform** designed to support the accelerated, equitable deployment of ZE technology by reducing barriers to and increasing incentives for adoption

Additionally, in response to technical presentations and information provided by staff and experts at the regional, state, and federal level, at its October 2022 meeting, the working group voted to support as a guiding framework, under Maximize Leverage of Seed Funding principle, that Metro designate \$45 million of the \$50 million programmed to support the implementation of ZE Heavy-duty Truck Infrastructure. The remaining \$5 million will be reserved to support planning, technical assistance, and community-focused elements of the ZET Program. The \$50 million seed funding will be leveraged to attract regional, state, and federal funding to meet the Board's \$200 million target.

To advance this recommended approach to fulfilling the Board's directive for the ZET Program, staff has identified a two-pronged approach comprising a near-term and medium-term strategy to secure the \$200 million funding target and fulfill the Program Principles.

In the near-term staff will identify existing project opportunities in the LB-ELA Corridor that are seeking funding through established regional and state programs, such as MSRC, the Carl Moyer Program: Infrastructure (CARB), the Clean Transportation Program (CEC) and the EnergIIZE Program (CEC). Staff's goal will be to partner with the private sector, public agencies, and communities to identify opportunities to leverage ZET Program funding with other private, regional, state and/or federal funding to deliver these ZE infrastructure projects in accordance with the program principles and in support of realizing the overall Program funding target. The staff recommendation in this report is the first example of executing this near-term strategy.

Concurrently, staff is leading discussions with the working group to develop a medium-term approach

to initiate one or more regionally-focused ZET charging/fueling Infrastructure facilities within the LB-ELA Corridor. This infrastructure will serve as a regional catalyst for advancing ZE heavy-duty truck adoption, deliver community benefits, and leverage large amounts of regional, state, and federal funds.

During this series of discussions, the working group identified preliminary performance measures and desired outcomes of the LB-ELA Corridor ZET Program (Attachment C).

Technical Presentations: LA County ZE Infrastructure Needs and LB-ELA Corridor Truck Market Segmentation:

The working group has received and engaged in discussions on several technical presentations over the past year, each designed to further a collective understanding on the ZE charging/fueling demand and infrastructure needs.

LA County ZE Infrastructure Needs

In August 2022, CARB staff presented their broader effort to reduce greenhouse gas (GHG) emissions and criteria pollutants, including a supply-side strategy to produce medium and heavy-duty zero-emission vehicles in anticipation of increasing demand for such vehicles because of Advanced Clean Fleets (ACF) regulation (enacted on April 28th 2023). The ACF regulation requires all drayage trucks entering seaports and intermodal yards to be zero-emission by 2035. Based on the ACF technology assumptions, the staff presented the overall vehicle population of statewide Class 2b (light duty) through Class 8 (heavy duty) vehicles through the year 2050.

Following the CARB presentation, Metro staff presented the findings from its commissioned Clean Truck Technology Comparative Report (Attachment D), which focused on providing technical information to support the transition to ZE heavy duty truck adoption in LA County. The report discusses changes to the composition of the drayage truck population because of the ACF regulation in LA County, and a preliminary assessment of ZE infrastructure needs and investment estimate to support both battery electric and hydrogen drayage trucks within LA County. These findings were presented to the working group as one scenario that highlights LA County's existing and future infrastructure and investment needs to support zero-emission drayage trucks.

The report compared emission reduction levels across four engine types; diesel, natural gas, battery electric and hydrogen, and assessed technology capability accordingly to truck duty cycles, market readiness and cost, and included recommendations for supporting wider and expeditious deployment of ZE truck infrastructure.

LB-ELA Corridor Truck Market Segmentation

To further the understanding of types of heavy-duty trucks that operate within the LB-ELA Corridor and the level of investment needed to support ZE trucks along the Corridor, staff from Cambridge Systematics and LACI presented the following items:

Cambridge Systematics staff presented truck travel patterns and volumes within and through the LB-

ELA Corridor to highlight clear nodes that are served by drayage trucks and local demand serving trucks. These travel patterns provide insights into potentially desirable areas to locate charging or fueling stations to meet the demand from zero-emission drayage and local demand serving trucks.

Investing in Workforce Development

The working group identified job training and workforce development as elements of the ZET Program to create opportunities to generate corridor community benefits and pathways for a more inclusive economy and upward mobility for LA County residents. The working group indicated a particular interest in local hiring targets to be included in the ZET Program as a mechanism to offer direct benefits to local residents. As such, workforce development is memorialized as a Program Principle, and staff continues to research, seek guidance, and develop collaborative approaches to implementing this goal.

Staff developed a series of presentations and discussions for the working group, starting with a presentation from the Center for International Trade and Transportation (CITT) at Cal State University, Long Beach that informed on skills mismatch between what logistics employers seek and types of training that students receive at education institutions, particularly in logistics industry middle management. This presentation also touched on the importance of gathering information from target communities as to challenges they experience in finding job opportunities and accessing jobs as part of Metro efforts in supporting workforce development.

Investing in workforce development and supporting an inclusive economy requires a well-established network of job creation catalysts, training providers, workforce resource centers and a willing workforce. To this point, the second presentation in a series invited expert panelists from the South Bay Workforce Investment Board, California Community Colleges Workforce and Economic Development Division, and CITT to discuss existing relationships across workforce development sectors, how they work together to create a network of resources to meet existing and future demand for skilled workforce, and Metro's role as a catalyst for job opportunities.

In addition to these expert panel discussions, staff continues to explore mechanisms to incorporate local hiring and targeted hiring policies into the LB-ELA Corridor ZET Program.

Private Industry Stakeholder and Community Focus Groups

Metro and LACI staff co-hosted two focus group meetings to define parameters for the development of regionally significant ZE charging/fueling infrastructure for the ZET Program.

The first focus group invited leaders from private industry and utilities to discuss the role ZE infrastructure can play in the adoption and use of ZE heavy-duty trucks, required specifications and features for ZE infrastructure to incentivize fleets to transition to ZE technology, and the role of utilities in providing energy to and supporting the development of ZE charging/fueling infrastructure for heavy-duty trucks.

Private industry stakeholders emphasized the importance of charging stations to operate reliably and

accommodate large vehicle maneuverability and driver needs through amenities. The industry anticipates Megawatt Charging Systems to be the future standard but also anticipates the need to generate energy on-site to compensate for the magnitude of investment needed to upgrade existing energy capacity or stabilize energy prices during peak hour consumption. The industry stakeholders acknowledged that acquiring real estate is extremely challenging in an urbanized area such as the LB-ELA Corridor, particularly with parcels with the right location and size to be developed for charging and refueling sites. They suggested staff evaluate where trucks currently refuel with diesel and consider multiple smaller sites rather than one large regional site to capture all needs presented.

The second focus group invited community representatives and advocates to discuss potential impacts and benefits that are or could be associated with the installation of ZE infrastructure within the LB-ELA Corridor. These participants reiterated the need to engage truck drivers, especially from smaller fleets, to gain their perspective and suggested having additional focus groups to understand how the ZET Program development could best address their needs. A need for community education was also identified as a priority to support safety for local residents, avoid unintended consequences, and avoid locating infrastructure near and around sensitive receptors.

Staff intends to use the information gathered from these focus groups and follow-up sessions to further refine the development of one or more ZE infrastructure facilities as part of the medium-term strategy for the ZET Program.

Opportunities to Leverage Metro Funding

MSRC Request for Information (RFI) on Publicly Accessible Zero-Emission Goods Movement Infrastructure

In September 2022, MSRC released an RFI to seek information and identify potential partners that can assist the MSRC in deploying publicly accessible electric vehicle supply equipment and hydrogen refueling infrastructure within the South Coast AQMD region. The purpose of the RFI is to understand the current state of the industry, including but not limited to interest levels, technologies, costs, business cases, and schedule requirements unique to installing and operating infrastructure to support the deployment of zero-emissions trucks.

MSRC received 23 responses from a combination of private and public entities, including Metro and LACI. Out of the 23 responses, Metro staff identified 18 sites that were proposed within the LB-ELA Corridor, and conducted a preliminary assessment on how they align with the ZET Program Principles. Metro staff will be working closely with MSRC to gather more details on promising sites to conduct a full assessment and present the findings to the Working Group.

One of the sites identified is the LACI recommended site that has received a federal Community Program award (see below) and is the subject of staff's recommendation to program up to \$3 million as local match to leverage other funding to implement this facility.

Other Federal Funding Opportunities

The Federal Highway Administration issued a notice of funding opportunity for the [Charging and](#)

[Fueling Infrastructure \(CFI\) Discretionary Grant Program <https://www.transportation.gov/rural/grant-toolkit/charging-and-fueling-infrastructure-grant-program>](https://www.transportation.gov/rural/grant-toolkit/charging-and-fueling-infrastructure-grant-program) in March 2023, covering Fiscal Years 2022 and 2023. This program is the first discretionary funding opportunity to support zero-emission charging or alternative fueling infrastructure through the Bipartisan Infrastructure Law. The CFI Program offers up to \$350 million available through the Alternative Fuel Corridor Grants (Corridor Program). The Corridor Program aims to support the buildout of charging and alternative fueling infrastructure along designated Alternative Fuel Corridors and emphasizes a corridor approach.

In support of advancing the program principles and goals, staff considered submitting an application for the CFI Program and coordinated with regional agencies such as the Ports of Long Beach (POLB) and Los Angeles (POLA), the AQMD, and the MSRC to determine if a joint application in support of the LB-ELA Corridor was feasible. During this deliberation the California Energy Commission (CEC) and Caltrans informed our regional partners that those agencies are jointly working on a tri-state application with Oregon and Washington states to pursue funding from the Corridor Program for projects along I-5.

CEC and Caltrans requested Metro, POLA, POLB, AQMD and MSRC to join in the tri-state effort and include the LB-ELA Corridor ZET Program in the scope of the application. Given the highly competitive nature of this program at the national level, Metro staff determined that a partnership with the state would provide the LB-ELA Corridor with the best opportunity for success to receive funding in this cycle of the CFI Program.

CEC and Caltrans joint team coordinated with Metro and our regional partners in the development of the grant application, which includes three locations within the LB-ELA Corridor and submitted it by June 13, 2023. Should this grant application receive an award, Metro staff would seek a Board approval to contribute a portion of the seed funding towards projects that are located within the LB-ELA Corridor, up to an amount that is consistent with the Board directive on leveraging the seed funding.

Future Grant Funding Opportunities

Staff's medium-term strategy to develop regionally significant ZE infrastructure for heavy-duty trucks in the LB-ELA Corridor will strategically target future cycles of regional, state, and federal funding well-suited to provide a large amount of leveraged funding to match ZET Program funds. Eligible grant programs include Cycle 4 (FY2024) and Cycle 5 (FY2026) of the Senate Bill 1 Trade Corridor Enhancement Program (TCEP) administered by the California Transportation Commission and the annual Infrastructure for Rebuilding America (INFRA) program administered by the US Department of Transportation.

Looking Ahead

LACI's I-710 Investment Blueprint and MSRC's RFI responses offer a great immediate outlook on where ZE truck supporting infrastructure could be developed within the LB-ELA Corridor in the near term, and potential projects for which Metro seed funding could be applied and leveraged. To realize the buildout of the infrastructure for the Corridor, staff acknowledges that further analyses are needed to develop a plan for sites that meet the regional needs, technology advancement for ultra-fast

charging and hydrogen dispensing, addressing permitting processes, a need for a funding strategy, advocacy for legislative changes to fully benefit small businesses that are engaged in drayage operations, and stronger and closer collaboration with stakeholders and partners who play critical roles in realizing such an infrastructure.

DETERMINATION OF SAFETY IMPACT

This Board action will not have any safety impacts.

FINANCIAL IMPACT

Impact to Budget

Programming up to \$3,000,000 as Metro's contribution towards the LACI/City of Los Angeles/Port of Los Angeles project will derive from the \$50,000,000 seed funding that the Board authorized for the LB-ELA ZET Program. As the location of the site is not within the Gateway Cities subregion, the Measure R Gateway Cities subregion highway program funding associated with the original I-710 South Corridor Project will not be eligible for use; alternatively. Staff has identified Congestion Mitigation and Air Quality (CMAQ) Improvement funds as a source of the Metro contribution, subject to the actual project definition, consistent with the Financial Stability Policy which directs staff to prioritize available CMAQ Program federal grants to the greatest extent possible for any eligible operations costs (File #2022-0448). The CMAQ funding recommended for this contribution would be from the amount remaining above and beyond the full allowed use of this funding source for transit operations.

EQUITY PLATFORM

The LB-ELA ZET Working Group meets monthly to inform the LB-ELA ZET Program development process to ensure equitable outcomes. Developing the LB-ELA ZE Truck Program will directly address the pollution, air quality, and public health impacts caused by the operation of thousands of diesel trucks daily within the LB-ELA Corridor.

The working group members include representatives from air quality, environment, and public health advocacy groups from within the Corridor. At the commencement of the working group, staff asked CBO representatives for guidance on additional members to be invited. Based on their recommendations, staff requested CLC and Task Force members to participate in the ZET Working Group.

In response to input from community representatives, Metro will continue to engage and include members of the CLC in the development of the ZET Working Group recommendations and receive the CLC's review of the recommendations prior to finalization. To date, staff shared the LB-ELA ZET Program Goals and Principles with the CLC and Equity Working Group to ensure the goals and principles align with the overall equity principle, vision, and goals of the LB-ELA Corridor Investment Plan.

In January 2023, the LB-ELA ZET Program team conducted a focus group meeting to seek input from the Corridor communities on effective ways to engage Corridor residents and businesses, support small businesses that would be impacted from the vehicle technology transition, ensure community safety from heavy-duty vehicles, and avoiding sensitive receptors in identifying potential sites for charging or fueling stations. Nine out of 14 participants represented the Corridor communities, who are also active LB-ELA ZET Working Group members.

The working group members continue to emphasize the community's desire for job opportunities as one of the equitable outcomes of Metro investments. Staff has responded to this inquiry by scheduling expert panels on workforce development and investment in labor skills and continues defining Metro's role as a project sponsor and partner in enabling workforce and training mechanisms to benefit the Corridor communities.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Collaboration among the LB-ELA Corridor stakeholders through LB-ELA Corridor Task Force, CLC, Equity Working Group and the community, agency, and industry partners that compose the LB-ELA ZET Working Group is consistent with the following goals of the Metro Vision 2028 Strategic Plan:

Goal 4: Transform LA County through regional collaboration and national leadership.

Goal 5: Provide responsive, accountable, and trustworthy governance within the Metro organization.

ALTERNATIVES CONSIDERED

The Board can choose not to approve the local match request in support of the identified ZE truck charging site. However, this alternative action is not recommended as this project is the first opportunity for Metro to leverage Board-approved funds in pursuit of delivering publicly accessible charging infrastructure within the LB-ELA Corridor for heavy-duty drayage trucks and towards fulfilling the funding target of \$200 million, in accordance with Board direction.

NEXT STEPS

Staff will work with the Port of LA and the City of Los Angeles to incorporate mechanisms to bring community desired benefits through Metro contribution for the site development.

Staff will continue to lead the LB-ELA ZET Working Group's efforts to refine and advance the LB-ELA Corridor ZET Program and secure professional services to develop a business plan for implementation, particularly focused on regional site assessment and identification, cost estimates, attracting discretionary funding, and potential private partner selections in advancing the medium-term strategy for the program.

ATTACHMENTS

Attachment A - October 2021 Motion by Directors Hahn and Dutra

Attachment B - LB-ELA ZET Program Principles

Attachment C - LA-ELA ZET Program Preliminary Performance Measures

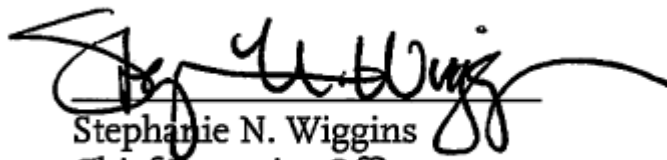
Attachment D - Clean Truck Technology Comparative Report

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