

## Responses to Questions from USEPA/FHWA on the I-710 Clean Truck Program

June 4, 2020

### Preface

Metro and Caltrans have engaged in interagency consultation on the I-710 Project throughout the Project's development and environmental assessment process. In 2018, this included discussion of the Projects Particulate Matter (PM) Air Quality (AQ) Conformity assessments with USEPA and SCAQMD. Based on those discussions concerning project-level air quality conformity, two main items were identified as necessary to demonstrate that the Project was Not a Project of Air Quality Concern ("Not a POAQC") for PM. The first was a technical demonstration the Project reduced diesel truck and vehicle trips below No-Build levels (see attached "EPA 09.14.18 ZE-NZE Information Request" sent to USEPA on 10/3/2018). The second item related to the details of the Clean Truck Program, the Project's programmatic element that reduces diesel truck trips. The latest communication on the level of necessary detail for the Clean Truck Program in the environmental approval process was the 10/29/2019 letter from Metro and Caltrans to USEPA, which includes USEPA's 10/23/2018 preliminary information request on a truck program commitment and the Memorandum of Understanding (MOU) establishing a Steering Committee for the Clean Truck Program. In addition, the Metro Board recently approved \$50M for the Clean Truck Program upon the Project's Record of Decision (see response to Question 5 below).

Based on this progress, Metro/Caltrans have requested the next interagency consultation meeting (scheduled for June 9, 2020). In advance of that meeting, USEPA and FHWA have sent nine questions. This document includes Metro/Caltrans responses to those questions in advance of the meeting.

1. Please give an overview of the I-710 Clean Truck Program.

A: See attached I-710 Clean Truck Program Description.

2. What entity would implement the program? How would the implementation of the program be documented and reported? What are Caltrans and Metro's role?

A: Metro will be the implementing Agency. Implementation will be guided by a Steering Committee operating under the auspices of the LA Metro Countywide Clean Truck Initiative Working Group. Caltrans will be part of a Steering Committee. Status of Program development and implementation will be documented through board reports made to the Metro Board of Directors.

3. How will heavy duty diesel trucks, to be replaced, be identified and selected?

A: At this point we envision this as a voluntary incentive program for Class 7 and 8 diesel trucks. Applicants will apply for program funds. Candidates for the incentive will need to

verify that the replacement truck meets the minimum emissions requirements for zero- and near zero-emissions trucks set forth by the Program. However, Metro is interested in making sure the Program is as effective as possible. We plan to evaluate other implementation strategies, such as a subsidized lease program, that would help remove entry barriers, which in turn may result in more trucks being replaced faster.

4. What vehicle types/technologies would be used to replace diesel trucks? Would the program use a minimum % of ZE? How will the replacement vehicles be tracked for use of the I-710 corridor?

A: The program is technology neutral. However, minimum emission requirements will need to be met, including SCAQMD/CARB zero emissions technology definitions and/or at or below NOx standard of 0.02 grams per brake horsepower-hour (g/bhp-hr NOx). No minimum share for zero emissions trucks has been set. These requirements must be met in order to keep the funding and stay in the program. As with other truck funding programs, compliance would be assessed annually through a global positioning (GPS-based) Automatic Vehicle Locator (AVL) or similar system that would log mileage within the I-710 Corridor limits.

5. How many trucks will be funded, how was that number determined, and how will it be documented with implementation of the project?

A: 4,000 trucks based upon an estimated Program cost of \$100 million. Implementation of the Program, including numbers of trucks deployed, will be documented through board reports made to the Metro Board of Directors. Also, please see response to Question 7.

6. What are the anticipated funding sources for the Program? How would the funding be tracked and documented?

A: Measure R/M for now - \$50 million already programmed by the [Metro Board](#). We anticipate pursuing TCEP funding and other state and federal funding sources, as well as looking to leverage public funds with private funding. We look forward to working with all stakeholders in pursuing additional funds to be directed to this corridor. Program costs and funding will be tracked by Metro staff and will follow reporting requirements set forth by each of the respective funding sources/agencies. Status of Program implementation, including an annual review Program revenue sources, expenses, and disbursements will be documented via staff reports to the Metro Board of Directors.

7. How much will the Program cost to implement? What assumptions will be used to estimate the costs for ZE/NZE trucks? How many diesel vehicles would that level of funding replace?

A: the total cost of the program will ultimately depend on the pace of commercialization of near-zero and zero-emission technologies, and how these trends will influence the unit costs of acquiring and operating zero- and near zero-emissions trucks relative to diesel trucks. For the purposes of the air quality analysis in the EIR/EIS, we used \$100 million as a starting assumption and the per/unit subsidy cost we used resulted in 4000 clean trucks by 2035. Just as with other similar programs in existence (e.g. Carl Moyer), we will continue to update the cost assumptions throughout the life of the program based on the actual pace of commercialization as these program trucks are deployed on I-710. The target will remain to replace 4000 trucks by 2035.

8. When would the program start? Are there annual or other implementation milestones? When would the Program end?

A: In the EIR/EIS, we have stipulated that *“The first annual funding contribution for the truck program would be provided within twelve months after programming/allocation of construction funding, and implementation of the program would occur no sooner than the start of construction.”* However, given Metro Board’s recent action to advance this Program as an early action item, implementation will start and be phased in parallel to investments on the freeway/arterials, conditional to ROD approval and funding availability (recent declines in sales tax revenues due to the COVID-19 situation will impact Metro’s cash flow at least for the next 6 months). The Steering Committee will begin to meet in the Fall of 2020. This Committee will also develop a phasing plan with milestones. Full deployment is projected to be complete by 2035.

9. How would program development, implementation, documentation/milestone achievements be shared with interagency partners? With the public?

A: Program oversight would be provided by the Steering Committee, a sub-committee of the LA Metro Countywide Clean Truck Initiative Working Group. Regular presentations will be made at standing meetings of the Metro Countywide Clean Truck Initiative Working Group and I-710 Technical Advisory Committee, whose deliberations are open to members of the public. Regular reports will also be presented to the Metro Board of Directors.

**“EPA 09.14.18 ZE-NZE Information Request” sent to USEPA on 10/3/2018**

Table 1. Heavy Duty Truck Traffic<sup>1</sup>  
I-710 Corridor Project

Segment	I-710 Corridor Truck Volumes - Heavy Duty Trucks <sup>1</sup> (Annual Average Daily Traffic)											
	2035 No Build				2035 Alternative 5C				Change in AADT Volumes (Increase / Decrease)			
	Diesel <sup>2</sup>	Non-Diesel <sup>2</sup>		Total <sup>4</sup>	Diesel <sup>2</sup>	Non-Diesel <sup>2</sup>		Total <sup>4</sup>	Diesel <sup>2</sup>	Non-Diesel <sup>2</sup>		Total <sup>4</sup>
		Gasoline <sup>3</sup>	ZE/NZE			Gasoline <sup>3</sup>	ZE/NZE <sup>5</sup>			Gasoline <sup>3</sup>	ZE/NZE <sup>5</sup>	
SR-60 to I-10	17,702	1,940	0	19,642	15,657	1,840	3,711	21,208	-2,045	-100	3,711	1,566
I-5 to SR-60	27,176	2,540	0	29,716	26,038	2,633	6,657	35,328	-1,138	93	6,657	5,612
Washington Blvd. to I-5	29,961	2,706	0	32,667	28,190	2,807	7,238	38,235	-1,771	101	7,238	5,568
Atlantic Blvd to Washington Blvd	30,926	2,712	0	33,638	27,963	2,784	7,086	37,833	-2,963	72	7,086	4,195
Florence Ave to Atlantic Blvd	33,549	2,576	0	36,125	31,237	2,725	8,415	42,377	-2,312	149	8,415	6,252
Firestone Blvd to Florence Ave	34,962	2,531	0	37,493	31,977	2,644	8,695	43,316	-2,985	113	8,695	5,823
Imperial Hwy to Firestone Blvd	35,626	2,405	0	38,031	32,105	2,470	8,848	43,423	-3,521	65	8,848	5,392
I-105 to Imperial Hwy	36,541	2,404	0	38,945	32,591	2,452	9,002	44,045	-3,950	48	9,002	5,100
Rosecrans Ave to I-105	50,281	2,520	0	52,801	40,365	2,406	11,610	54,381	-9,916	-114	11,610	1,580
Alondra Blvd to Rosecrans Ave	51,252	2,600	0	53,852	41,416	2,513	11,856	55,785	-9,836	-87	11,856	1,933
SR-91 to Alondra Blvd	49,851	2,438	0	52,289	40,106	2,333	11,571	54,010	-9,745	-105	11,571	1,721
Long Beach Blvd to SR-91	53,280	1,962	0	55,242	44,645	2,040	13,183	59,868	-8,635	78	13,183	4,626
Del Amo Blvd to Long Beach Blvd	52,936	1,855	0	54,791	44,772	1,951	13,279	60,002	-8,164	96	13,279	5,211
I-405 to Del Amo Blvd	52,092	1,589	0	53,681	44,026	1,685	13,116	58,827	-8,066	96	13,116	5,146
Willow St to I-405	50,712	892	0	51,604	43,888	1,062	13,508	58,458	-6,824	170	13,508	6,854
Pacific Coast Hwy to Willow St.	50,555	865	0	51,420	43,771	1,013	13,523	58,307	-6,784	148	13,523	6,887
Anaheim St to Pacific Coast Hwy	48,340	809	0	49,149	38,714	773	12,045	51,532	-9,626	-36	12,045	2,383
Pico Ave to Anaheim St	46,573	403	0	46,976	34,412	678	10,695	45,785	-12,161	275	10,695	-1,191
South of Pico Ave	38,546	265	0	38,811	31,129	470	9,796	41,395	-7,417	205	9,796	2,584

Notes:

- <sup>1</sup> Total truck trips include heavy duty truck vehicle classes (including port trucks).
- <sup>2</sup> The share of diesel/non-diesel trips by fuel type is estimated using the EMFAC2014 vehicle fleet distribution determined from the EMFAC2014 output for VMT in Los Angeles County in 2035.
- <sup>3</sup> Gasoline truck trips also include natural gas truck trips that do not meet the standard of a ZE/NZE vehicle.
- <sup>4</sup> Total truck trips are the sum of diesel, gasoline, natural gas, and ZE/NZE trips.
- <sup>5</sup> ZE/NZE trips under Alternative 5C include the I-710 ZE/NZE Truck Deployment Program.

Abbreviations:

ZE/NZE - zero emission/near-zero emission  
AADT - annual average daily traffic

# Diesel Truck Trips on I-710 (Daily, Year 2035)

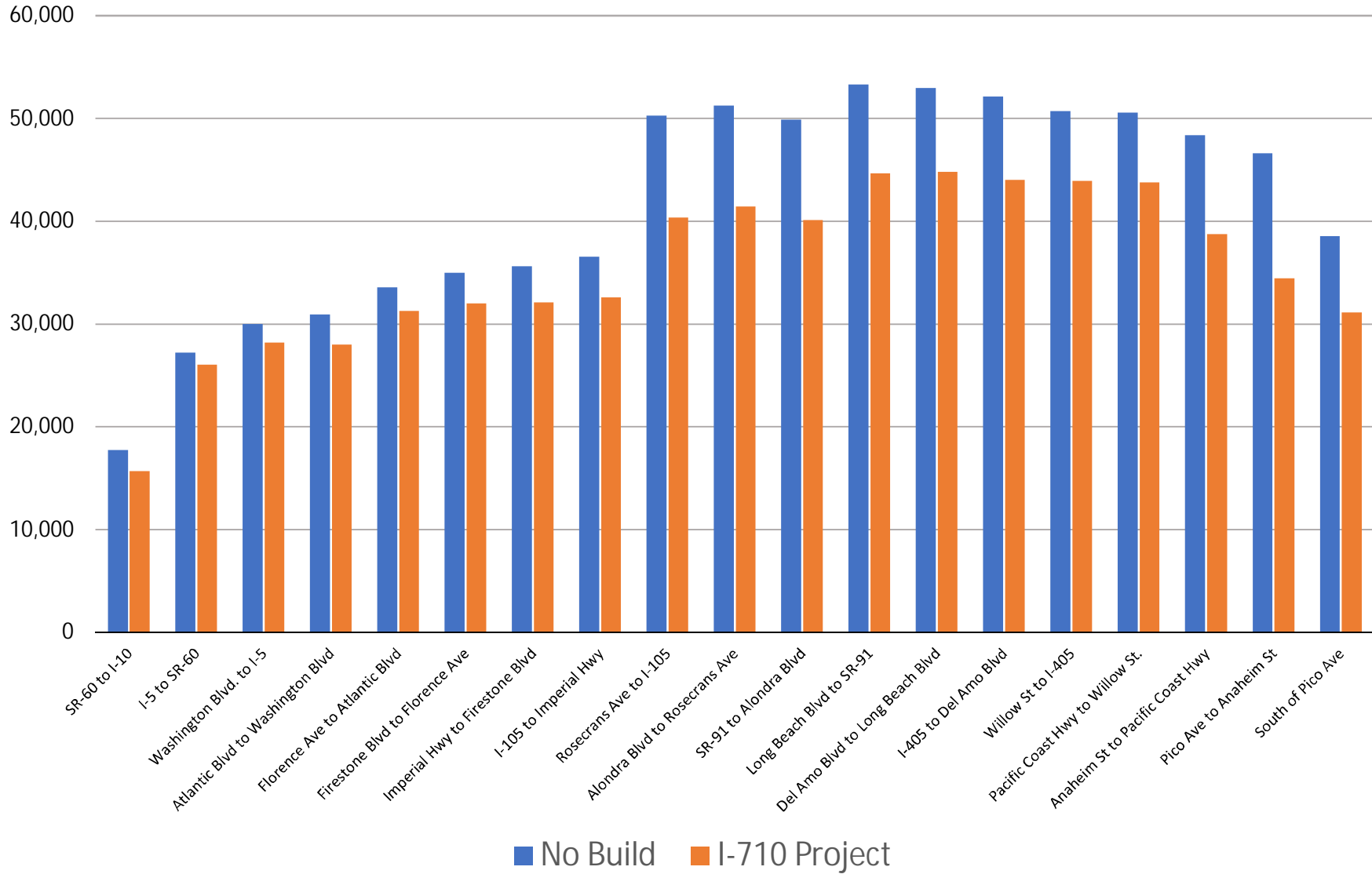


Table 2. Total Traffic<sup>1</sup>  
I-710 Corridor Project

Segment	I-710 Corridor Traffic Volumes - All Vehicle Types <sup>1</sup> (Annual Average Daily Traffic)											
	2035 No Build				2035 Alternative 5C				Change in AADT Volumes (Increase / Decrease)			
	Diesel <sup>2</sup>	Non-Diesel <sup>2</sup>			Diesel <sup>2</sup>	Non-Diesel <sup>2</sup>			Diesel <sup>2</sup>	Non-Diesel <sup>2</sup>		
		Gasoline <sup>3</sup>	ZE/NZE <sup>4</sup>	Total <sup>5</sup>		Gasoline <sup>3</sup>	ZE/NZE <sup>4</sup>	Total <sup>5</sup>		Gasoline <sup>3</sup>	ZE/NZE <sup>4</sup>	Total <sup>5</sup>
SR-60 to I-10	19,922	155,166	13,832	188,920	17,913	157,577	17,770	193,260	-2,009	2,411	3,938	4,340
I-5 to SR-60	29,548	166,261	14,779	210,588	28,761	190,658	23,630	243,049	-787	24,397	8,851	32,461
Washington Blvd. to I-5	32,600	184,920	16,449	233,969	31,169	208,455	25,802	265,426	-1,431	23,535	9,353	31,457
Atlantic Blvd to Washington Blvd	33,575	185,627	16,512	235,714	30,890	204,835	25,325	261,050	-2,685	19,208	8,813	25,336
Florence Ave to Atlantic Blvd	36,038	174,450	15,515	226,003	34,195	206,918	26,848	267,961	-1,843	32,468	11,333	41,958
Firestone Blvd to Florence Ave	37,550	181,160	16,125	234,835	34,987	210,416	27,451	272,854	-2,563	29,256	11,326	38,019
Imperial Hwy to Firestone Blvd	38,290	186,368	16,607	241,265	35,136	211,767	27,742	274,645	-3,154	25,399	11,135	33,380
I-105 to Imperial Hwy	39,394	199,367	17,780	256,541	35,749	220,429	28,679	284,857	-3,645	21,062	10,899	28,316
Rosecrans Ave to I-105	52,822	177,960	15,837	246,619	43,020	185,688	28,155	256,863	-9,802	7,728	12,318	10,244
Alondra Blvd to Rosecrans Ave	54,055	196,106	17,468	267,629	44,429	210,531	30,634	285,594	-9,626	14,425	13,166	17,965
SR-91 to Alondra Blvd	52,365	175,969	15,665	243,999	42,725	183,084	27,888	253,697	-9,640	7,115	12,223	9,698
Long Beach Blvd to SR-91	55,385	147,294	13,119	215,798	47,125	173,229	28,636	248,990	-8,260	25,935	15,517	33,192
Del Amo Blvd to Long Beach Blvd	54,947	140,736	12,537	208,220	47,089	161,892	27,717	236,698	-7,858	21,156	15,180	28,478
I-405 to Del Amo Blvd	54,087	139,315	12,433	205,835	46,219	153,101	26,785	226,105	-7,868	13,786	14,352	20,270
Willow St to I-405	52,341	113,373	10,154	175,868	45,955	143,735	26,387	216,077	-6,386	30,362	16,233	40,209
Pacific Coast Hwy to Willow St.	52,012	101,494	9,084	162,590	45,575	125,571	24,767	195,913	-6,437	24,077	15,683	33,323
Anaheim St to Pacific Coast Hwy	49,611	88,526	7,918	146,055	40,131	98,630	20,879	159,640	-9,480	10,104	12,961	13,585
Pico Ave to Anaheim St	47,667	75,945	6,819	130,431	35,631	84,789	18,288	138,708	-12,036	8,844	11,469	8,277
South of Pico Ave	38,682	9,624	845	49,151	31,293	11,768	10,816	53,877	-7,389	2,144	9,971	4,726

Notes:

- <sup>1</sup> Total vehicle trips include drive alone autos/shared ride vehicles and heavy duty truck vehicle classes (including port trucks).
- <sup>2</sup> The share of diesel/non-diesel trips by fuel type is estimated using the EMFAC2014 vehicle fleet distribution determined from the EMFAC2014 output for VMT in Los Angeles County in 2035.
- <sup>3</sup> Gasoline vehicle trips also include natural gas vehicle trips that do not meet the standard of a ZE/NZE vehicle.
- <sup>4</sup> ZE/NZE vehicle trips include electric automobiles. Under Alternative 5C, ZE/NZE trips also include the I-710 ZE/NZE Truck Deployment Program.
- <sup>5</sup> Total trips are the sum of diesel, gasoline, natural gas, and ZE/NZE trips.

Abbreviations:

ZE/NZE - zero emission/near-zero emission  
AADT - annual average daily traffic

**I-710 Corridor Project RDEIR/SDEIS**  
**Response to Comments on “Not a Project of Air Quality Concern” Path**

Reference	Comments	Responses
<p>September 14, 2018  Teleconference Call  Information Request  (Ben Machol)</p>	<p>Please provide additional information on the methodology that was used to develop the 24.64% ZE/NZE VMT estimate on I-710 for the 4,000 ZE/NZE trucks from the I-710 ZE/NZE Incentive Program.</p>	<p>The factors used to produce the VMT estimate for the I-710 ZE/NZE Truck Deployment Program were developed based on detailed discussions related to major I-710 truck markets and travel patterns in the I-710 Corridor. These discussions were conducted with SCAQMD staff over a period of several months between Feb. 2014 and May 2015. These steps are outlined as follows.</p> <ul style="list-style-type: none"> <li>➤ The original focus for the I-710 ZE/NZE truck methodology was the proposed ZE/NZE Freight Corridor included in <b>Alternative 7</b>: <ul style="list-style-type: none"> <li>• The I-710 Travel Demand Forecast Model reports average daily vehicle trips for the Freight Corridor. Only trucks are eligible to use the Freight Corridor and the model assigned trucks to the Freight Corridor based on the relative attractiveness (in terms of travel times) of the Freight Corridor compared to other travel choices such as the adjacent I-710 general purpose lanes. The physical configuration of the Freight Corridor allowed for a straightforward examination of types of trips taking place, by truck travel market (Port trips, Transload-Secondary trips, Intermodal Domestic trips, and Pure Domestic trips [Light-, Medium- and Heavy-Heavies]), by average trip length.</li> <li>• Using the above truck travel market analysis, Freight Corridor truck trips were converted into numbers of trucks (i.e., based on the average number of round trips per truck market type over the course of an average weekday). This step produced an estimate of the numbers of Freight Corridor trucks that would need to be incentivized to turn ZE/NZE for Alternative 7.</li> <li>• The next step was to obtain an estimate endorsed by SCAQMD (with input from CARB) on a reliable, average unit incentive subsidy cost per ZE/NZE truck class [Light-, Medium-, and Heavy-Heavy] for the future year to utilize in the analysis. The unit costs were applied to the numbers of ZE/NZE trucks estimated for the Freight Corridor to produce a total ZE/NZE truck fleet cost estimate for Alternative 7.</li> </ul> </li> <li>➤ The same factors and steps developed for the Alternative 7 ZE/NZE methodology were utilized for the <b>Preferred Alternative (Alternative 5C)</b>, only in reverse sequence: <ul style="list-style-type: none"> <li>• A target level cost for the ZE/NZE program component was established first (\$100m). [Note: Alternative 5C was originally developed to be a more practical, less costly fall back option to Alternative 7. The internal target level of \$100m for the ZE/NZE funding program was the maximum amount judged to be potentially feasible.]</li> <li>• To optimize these program dollars and maximize air quality benefits, the funding for Alternative 5C was steered exclusively to Heavy-Heavy Duty Trucks (HHDT). The</li> </ul> </li> </ul>



		<p>average unit ZE/NZE subsidy costs (average of \$25k per Heavy-Heavy Duty Truck) developed for Alternative 7 were applied to the \$100 m Alternative 5C target level ZE/NZE program cost to estimate the number of ZE/NZE trucks for Alternative 5C. [\$1,000,000 Program / \$25,000 per Truck ZE/NZE Incentive Cost = 4,000 ZE/NZE Trucks]</p> <ul style="list-style-type: none"> <li>Using the same conversion factors developed for Alternative 7, the numbers of trucks were converted from trucks into average daily truck trips according to the respective major truck travel markets (Port trips, Transload-Secondary trips, Intermodal Domestic trips, and Pure Domestic trips). Further, since the subsidies would be provided to recipients on a VMT basis (i.e., eligible trucks would need to demonstrate that they traveled frequently on I-710 for sufficient distances), an estimate of the minimum VMT requirement for eligibility was established for the Program that aligned with the average trip lengths on I-710 for the high propensity truck travel markets (i.e., the Port trips, Transload-Secondary trips, Intermodal Domestic trips) as well as those Pure Domestic Heavy-Heavy Duty trips that would also make more than one roundtrip per day on I-710 on average. This is because even though the I-710 Corridor is over 19 miles in length per direction, not all of the trucks travel the full length of the Corridor. [No. of Round Trips per Truck per Weekday x No. of Directional Trips per Round Trip x Average Directional Trip Length x No. of ZE/NZE Trucks = Total Estimated ZE/NZE I-710 HHD Truck VMT. Or, <math>2 \times 2 \times 10.625 \times 4,000 = 170,000</math>.]</li> <li>In order to estimate the percentage of I-710 HHD Truck VMT that would be ZE/NZE, total Daily HHD Truck VMT was extracted from the I-710 Travel Demand Forecast Model for Alternative 5C for the I-710 freeway traffic links only. [I-710 ZE/NZE HHDT VMT / I-710 HHDT VMT = I-710 ZE/NZE HHDT VMT Percentage. Or <math>170,000 / 689,925 = 24.64\%</math>.]</li> <li>This last step – the I-710 ZE/NZE Program VMT conversion to the 24.64 percentage – was necessary for Alternative 5C, but not for Alternative 7. Since it is a funding program, the specific, future distribution of these ZE/NZE trips (i.e., exactly which individual trucks will be funded or the precise mix of the ZE/NZE fleet among the potential truck travel markets or where each truck enters and exits I-710) cannot be known; only that the funding program will produce a certain share or level of ZE/NZE VMT on I-710 based on the program requirements. This percentage was applied even-handedly to the Heavy-Heavy Duty Truck traffic – as only Heavy-Heavy Duty Trucks are eligible for program funds – to provide the final ZE/NZE estimates for I-710 traffic for the proposed project.</li> </ul>
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# **I-710 Clean Truck Program Description**

# I-710 Clean Truck Program

## Overview

The I-710 Clean Emissions Truck Deployment Program is an element of the I-710 Project that will replace 4,000 conventional diesel trucks that travel on I-710 with zero- and near zero-emissions trucks. The I-710 Clean Truck Program is designed to improve both existing and future air quality for residents, employees, seniors, and school children that live, work, and play near the I-710 freeway.

## What Types of Trucks Are Eligible?

In order to qualify for program funding, trucks must meet minimum requirements for emissions standards and amount of travel within the I-710 Corridor. Heavy-duty (Class 7 and 8) trucks must meet minimum requirements for zero- and near zero-emissions standards by being certified by the California Air Resources Board (CARB) at or below the optional 90% lower oxides of nitrogen (NOx) standard of 0.02 grams per brake horsepower-hour of oxides of nitrogen (g/bhp-hour NOx) and/or by meeting CARB and/or South Coast Air Quality Management District (SCAQMD) zero emissions technology definitions. No diesel-powered truck would be eligible.

## I-710 Travel Requirements

To be eligible for funding from this program, there will be minimum requirements for travel on the I-710 freeway. As with other truck funding programs, compliance could be assessed annually through a global positioning system (GPS-based) Automatic Vehicle Locator (AVL) or similar system that would log mileage within the I-710 Corridor limits. For a period of ten years after the funding is provided, a recipient truck that did not meet the annual minimum vehicle miles traveled (VMT) within the I-710 Corridor requirement would be required to reimburse one-fifth of the program funding, or potentially up to their full program funding amount. If the recipient truck failed to meet the annual VMT requirement for two years, all program funding for that truck would have to be reimbursed. If the truck is sold during the ten-year period after funding is provided, the purchaser would be required to comply with the program requirements.

## Who Can Receive Program Funds?

Individual owner-operators, as well as privately-owned fleets with heavy duty trucks that travel frequently on I-710, would be eligible to receive incentive funding (or lease subsidies) for the acquisition of zero- and near zero-emissions trucks through the program.

## Program Funding

Original forecasts for the program estimated that approximately \$100 million in incentive funding would be needed for truck owner-operators to enable them to transition from diesel trucks to zero- and near-zero emissions trucks. These estimates were developed in conjunction with SCAQMD

staff, relying upon zero-emission truck commercialization studies prepared for the I-710 Corridor which examined the future cost to own and operate a zero- and near-zero truck on average relative to a conventional diesel truck. In March 2017, the Metro Board of Directors raised the funding target level for the program from \$100 million to \$200 million. In April 2020, the [Metro Board programmed](#) \$50 million in locally controlled funds to provide seed funding and to leverage the remaining \$150 million.

### **Schedule for Implementation**

The I-710 Clean Truck Program will be implemented in parallel with the other elements of the overall I-710 Project once the Final EIR/EIS is conclusively determined to be valid under CEQA and NEPA or by final judgment or final adjudication. The first annual funding contribution for the program will be provided either prior to or within twelve months of the programmed allocation of construction funding for I-710. The I-710 Clean Truck Program will be scaled consistent with the staged construction of the I-710 Project. Subject to commercial availability timing, full deployment of the I-710 zero- and near zero-emissions trucks is projected to occur by 2035.

### **Fueling / Charging Infrastructure**

In addition, the I-710 Project will fund the construction of up to 20 electric charging stations and 10 hydrogen refueling stations within the I-710 Corridor within three years after the Final EIR/EIS is conclusively determined to be valid under CEQA and NEPA or by final judgment or final adjudication. Specific locations of these charging and refueling stations are still to be determined but would be targeted to locations served by heavy duty vehicles such as intermodal terminals (ports/rail yards) and warehouse/distribution centers. This infrastructure effort will likely be accomplished in partnership with the Ports, Freight railroads and other stakeholders.