

The background of the top section is a wide-angle photograph of a busy port terminal. In the foreground, there are numerous stacks of colorful shipping containers (blue, red, yellow, green) and several large blue gantry cranes. In the background, more port infrastructure, including more cranes and a bridge, is visible against a hazy sky. A semi-transparent teal box is overlaid on the lower part of the image, containing the text.

SAN PEDRO BAY PORTS
CLEAN AIR ACTION PLAN

WELCOME TO THE PORT OF LONG BEACH MAINTENANCE FACILITY

**Regulatory Update Information Session for Drayage Truck Drivers
July 15, 2022**



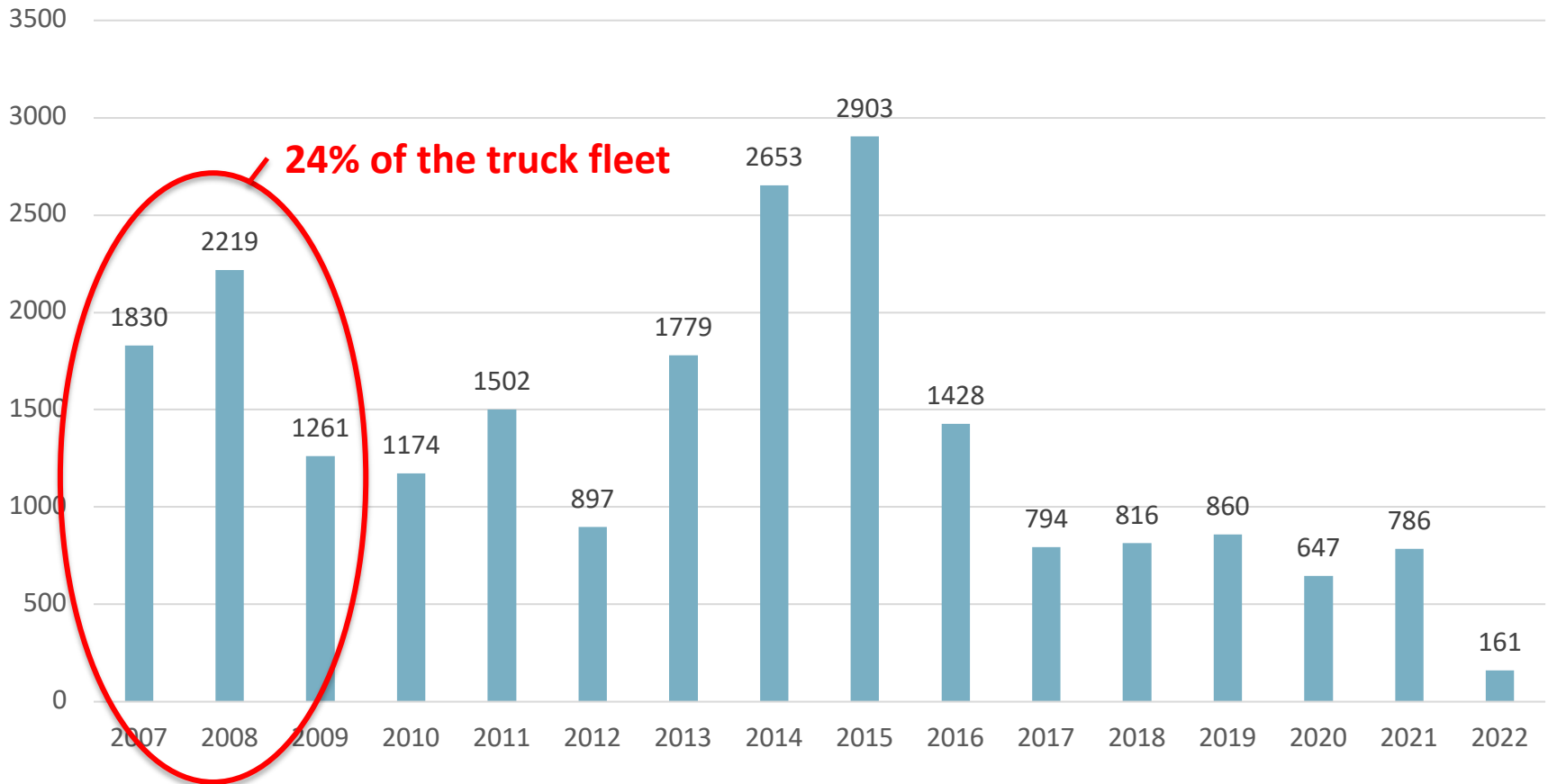
Port Trucks Today*

- 21,710 trucks are in the Port Drayage Truck Registry (PDTR)
- 10,055 2014+ trucks registered in the PDTR and make 58% of moves
- 76% of trucks in the PDTR have engines meeting 2010 EPA standards
- 24% of trucks in the PDTR are engine year 2007-2009 and perform 25% of the moves
- 801 LNG/CNG trucks are in the PDTR and perform 5% of moves
- 355 trucks with a 0.02g/bhp-hr or lower NOx engine in the PDTR
- 30 Zero Emission trucks in the PDTR

* Snapshot from May 2022



Port Trucks by Engine Year





Ports' Clean Truck Fund Rate

- Collection began at both Ports on April 1, 2022
- Charge \$10 per loaded TEU or \$20 per loaded FEU
 - Charged to BCOs or their specified agents for loaded containers hauled by truck – rate must not be paid by drivers
 - Zero-emission trucks are exempt
 - Port-specific exemptions for low NOx trucks
- Money will be allocated to support transition to zero emission trucks

An aerial photograph of a large city harbor, likely Seattle, showing a dense urban area, a large marina with many boats, and a deep blue body of water. A semi-transparent teal banner is overlaid across the center of the image, containing the text "Thank you!".

Thank you!



Drayage Trucks

Port of Long Beach – 7/15/2022

1



Camiones de Acarreo (Portuarios y Ferroviarios)

Puerto de Long Beach – 7/15/2022

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Topics in Today's Presentation

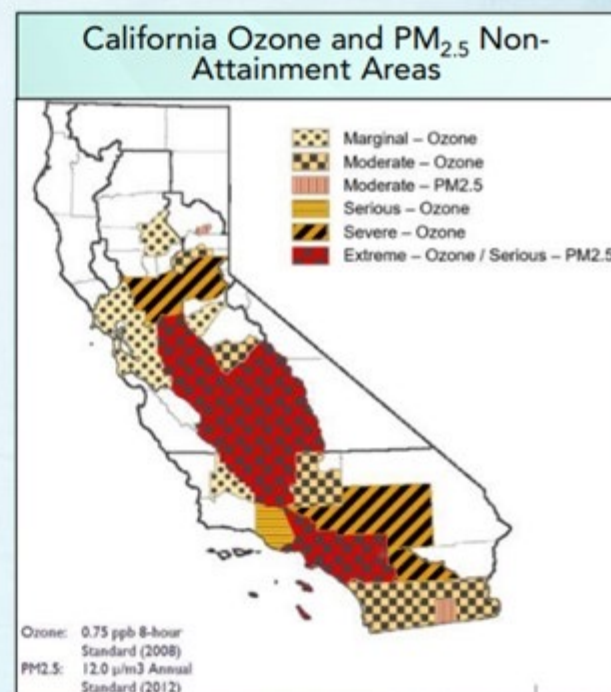
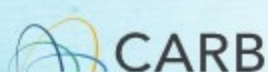
- Existing Regulations
 - Truck and Bus
 - Heavy-Duty Inspection & Maintenance
- New Drayage Regulation Under Development
- Incentives

Temas en la presentación de hoy

- Regulación Existente
 - Camiones y Autobuses
 - Inspección y mantenimiento de servicio pesado
 - Nueva regulación para camiones de acarreo en desarrollo
 - Incentivos

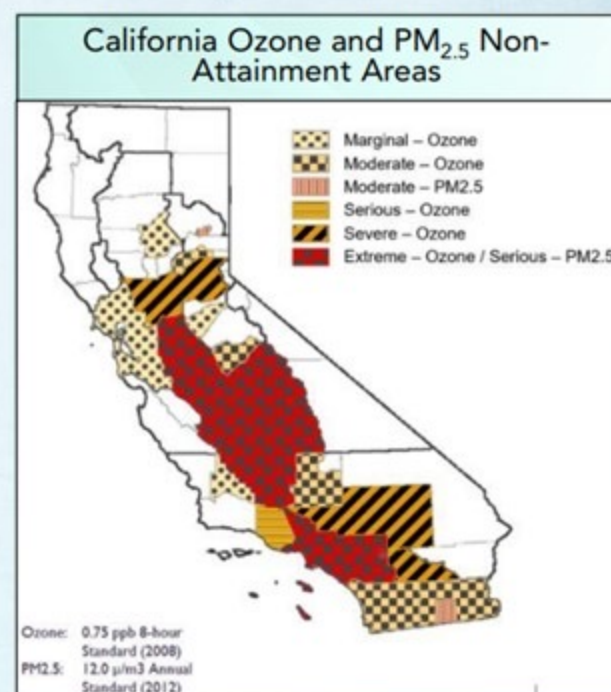
Major Oxides of Nitrogen (NO_x) and Fine Particulate Matter (PM_{2.5}) Emissions Reductions Needed

- California has the worst air quality in the nation
- Unique challenges in San Joaquin Valley and South Coast
- Heavy - duty trucks and federal sources* remain largest contributors
- More reductions needed to meet 2031 and 2037 attainment
- Nearly all heavy - duty trucks to have 2010 model year engines by 2023



Se necesitan importantes reducciones de emisiones de óxidos de nitrógeno (NO_x) y partículas finas (PM_{2.5})

- California tiene la peor calidad del aire en la nación
- Desafíos únicos en el Valle de San Joaquín y la Costa Sur
- Los camiones pesados y las fuentes federales* siguen siendo los mayores contribuyentes
- Se necesitan más reducciones para cumplir con los logros del 2031 y 2037
- Casi todos los camiones pesados tendrán motores del año modelo 2010 para el 2023





Truck and Bus Regulation

Presented by: Gerald Berumen
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Port of Long Beach – 7/15/2022

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Regulación de camiones y autobuses

Presentado por: Gerald Berumen
gerald.Berumen@arb.ca.gov

Puerto de Long Beach – 7/15/2022

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Truck and Bus Regulation

- Adopted in 2008 to help meet federal air quality standards and reduce community exposure to toxic air contaminants
 - Diesel vehicles with a GVWR¹ greater than 14,000 lbs
 - Particulate matter filters 2012-2016
 - Upgrades to 2010 model year engines 2015-2023
- Assisted affected vehicle owners to comply
 - Public outreach
 - Diesel Hotline
 - Information about funding and incentives



¹ Gross vehicle weight rating

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Regulación de camiones y autobuses

- Adoptada en el 2008 para ayudar a cumplir con los estándares federales de calidad del aire y reducir la exposición de la comunidad a contaminantes tóxicos del aire
 - Vehículos diésel con un GVWR¹ mayor a 14,000 lbs
 - Filtros de partículas de materia del 2012-2016
 - Actualizaciones a motores del año modelo 2010 del 2015-2023
- Se ayudó a los propietarios de vehículos afectados a cumplir
 - Divulgación pública
 - Línea de diesel
 - Información sobre financiación e incentivos



¹ Gross vehicle weight rating

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Final January 1, 2023, Deadline

- All 2007-2009 model year engines must be upgraded to 2010 model year or newer by January 1, 2023
 - No plans to modify compliance deadline
- Most vehicle owners have already complied
 - >85 percent already have 2010 engines
 - Remaining upgrades this year
 - About ~37,000 California registered trucks
 - Up to 190,000 trucks registered in other states

Fecha límite final, 1 de enero del 2023

- Todos los motores del año modelo 2007-2009 deben actualizarse al año modelo 2010 o más nuevo para el 1 de enero del 2023
 - No hay planes para modificar la fecha límite de cumplimiento
- La mayoría de los propietarios de vehículos ya han cumplido
 - >El 85 por ciento ya tiene motores 2010
 - Actualizaciones restantes este año
 - Alrededor de ~ 37,000 camiones registrados en California
 - Hasta 190,000 camiones registrados en otros estados

Flexibility Already Provided for Meeting the Final Compliance Deadline

- Supply chain issues were taken into account during rule development and a provision was included in the regulation for new truck purchases
- Manufacturer delay extension
 - Purchase a new truck before September 1, 2022
 - (Firm purchase agreements are not quotes, estimates, inquires, reservations, etc.),
 - May operate existing truck until the new vehicle is delivered

Flexibilidad ya proporcionada para cumplir con el plazo final de cumplimiento

- Los problemas de la cadena de suministro se tuvieron en cuenta durante el desarrollo de la regla y se incluyó una disposición en la regulación para las compras de camiones nuevos.
- Extensión por retraso del fabricante
 - Compre un camión nuevo antes de Septiembre 1 del 2022
 - (Los acuerdos de compra en firme no son cotizaciones, estimaciones, consultas, reservaciones, etc.),
 - Puede operar el camión existente hasta que se entregue el nuevo vehículo

Flexibility Through The Manufacturer Delay Process

- Report in January 2023 to claim extension
- Report existing vehicle into the Truck Regulation Upload, Compliance and Reporting System (TRUCRS)
- Email TRUCRS@arb.ca.gov and provide a copy of the purchase agreement
- Does not apply to pre-2007 engines

Flexibilidad a través del proceso por retraso del fabricante

- Reporte en enero del 2023 para reclamar la extensión
- Reporte el vehículo existente en el Sistema de Reporte, Cumplimiento y Carga de la Regulación de Camiones (TRUCRS)
- Envíe un correo electrónico a TRUCRS@arb.ca.gov y proporcione una copia del acuerdo de compra
- No se aplica a los motores anteriores al 2007

Flexibility Through The Manufacturer Delay Process (continued)

- California Air Resources Board (CARB) staff will review the email and documentation
- If approved staff will notify the truck owner
- The compliance option for the existing vehicle in TRUCRS will be updated to "Manufacturer Delay"
- The existing vehicle may be operated past January 1, 2023, until the replacement is delivered
- More detail in manufacturer delay fact sheet:
<https://ww2.arb.ca.gov/resources/documents/truck-and-bus-regulation-manufacturer-delay-extension>

Flexibilidad a través del proceso por retraso del fabricante (continuación)

- El personal del California Air Resources Board (CARB) revisará el correo electrónico y la documentación
- Si es aprobado, el personal le notificará al propietario del camión
- La opción de cumplimiento para el vehículo existente en TRUCRS se actualizará a "Manufacturer Delay"
- El vehículo existente puede ser operado más allá del 1 de enero del 2023, hasta que se entregue el reemplazo.
- Más detalles en la hoja informativa de retraso del fabricante:
<https://ww2.arb.ca.gov/resources/documents/truck-and-bus-regulation-manufacturer-delay-extension>

Reporting

Truck and Bus

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WELCOME TO ARBER, THE ARB EQUIPMENT REGISTRATION PROGRAM

ARBER is an online registration program for the Drayage Truck and Transport Refrigeration Unit Regulations. Please review the online system and regulation requirements before attempting to use ARBER.

View the [Online Registration System Requirements](#)

Program Contacts
For general ARBER questions, send an email to arber@arb.ca.gov

Drayage Truck Registration -

Toll-Free Helpline: 1-888-247-4521
Direct Line: 1-916-322-2277
Email: drayagetruck@arb.ca.gov
See the [Drayage Truck Program](#)
See the [Help Pages](#)

Transport Refrigeration Unit and Generator Set Registration -

Toll-Free Helpline: 1-888-878-2826
Email: arber@arb.ca.gov
See the [Transport Refrigeration Unit Program](#)
See the [Help Pages](#)
See the [Compliance Extension Forms](#)

Other Diesel Program Contacts -

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Reporte

Camiones y Autobuses

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Truck and Bus Assistance

Diesel Hotline: 866-634-3735 (866-6DIESEL)

Diesel Hotline e-mail: 8666diesel@arb.ca.gov

Asistencia de camiones y autobuses

Línea de diesel: 866-634-3735 (866-6DIESEL)

Correo electrónico de la línea de diesel:
8666diesel@arb.ca.gov



Heavy-Duty Inspection & Maintenance Regulation

Presented by: Dr. Hung-li Chang
Hungli.Chang@arb.ca.gov

Port of Long Beach – 7/15/2022

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Regulación de inspección y mantenimiento de servicio pesado

Presentado por: Dr. Hung-li Chang
Hungli.Chang@arb.ca.gov

Puerto de Long Beach – 7/15/2022

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Today's Discussion

- CARB's New Heavy-Duty Vehicle Inspection and Maintenance (HD I/M) Regulation
 - Senate Bill 210 (Leyva, Statutes of 2019) directed CARB to develop and implement comprehensive program
 - Board approved for adoption on December 9, 2021
- Requirements overview – what will truck owners need to do to comply?
- Resources for more information and CARB contacts



Debate de hoy

- Nuevo Reglamento de Inspección y Mantenimiento de Vehículos Pesados (HD I/M) de CARB
- El Proyecto de Ley del Senado 210 (Leyva, Estatutos del 2019) dirigió a CARB a desarrollar e implementar un programa integral
 - Aprobado por la Junta para su adopción el 9 de diciembre del 2021
- Resumen de requisitos – ¿Qué tendrán que hacer los propietarios de camiones para cumplir?
- Recursos para más información y contactos de CARB



Vehicles Subject to the HD I/M Program

- All non-gasoline on-road heavy-duty vehicles operating in California with a gross vehicle weight rating greater than 14,000 pounds
- This includes:
 - All diesel, alternative fuel, and hybrid vehicles
 - All California, out-of-state, and out-of-country registered vehicles that operate within California



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Vehículos sujetos al programa HD I/M

- Todos los vehículos pesados que no son de gasolina en la carretera que operan en California con una clasificación de peso bruto vehicular superior a 14,000 libras
- Esto incluye:
 - Todos los vehículos diésel, de combustible alternativo e híbridos
 - Todos los vehículos registrados en California, fuera del estado y fuera del país que operan dentro de California



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Implementation Timeline

- All applicable vehicles must demonstrate compliance to operate legally in California
- DMV will block registration on non-compliant California vehicles

**All previous requirements remain in force as new requirements are phased in*

Effective January 1, 2023

- High emitter vehicle screening starts with Remote Emissions Monitoring Devices (REMD)

Starting no earlier than July 1, 2023*

- Owner has paid annual \$30.00 compliance fee to CARB
- Owner has reported owner and vehicle information to CARB

Starting no earlier than January 1, 2024*

- Owner has demonstrated HD I/M compliance with periodic vehicle testing requirements by submitting a passing compliance test to CARB



Cronograma de implementación

- Todos los vehículos aplicables deben demostrar cumplimiento para operar legalmente en California
- El DMV bloqueará el registro en vehículos que no cumplan con las normas de California

**Todos los requisitos anteriores siguen en vigor a medida que se introducen gradualmente nuevos requisitos*

A partir del 1 de enero del 2023

- La detección de vehículos de alto emisor comienza con dispositivos de monitoreo remoto de emisiones (REMD)

Comenzando no antes del 1 de Julio del 2023*

- El propietario ha pagado una tarifa anual de cumplimiento de \$ 30.00 a CARB
- El propietario ha reportado la información del propietario y del vehículo a CARB

Comenzando no antes de enero 1 del 2024*

- El propietario ha demostrado el cumplimiento de HD I/M con los requisitos de prueba periódica del vehículo al enviar una prueba de cumplimiento aprobada a CARB



High Emitter Vehicle Screening

- Mobile and stationary REMD established throughout the state
- Screen for vehicles with excessive emissions that suggest mal-maintenance issues may be present
- Flagged vehicles required to submit a passing compliance test within 30 days of notification



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DetECCIÓN de vehículos de alto emisor

- REMD móvil y estacionario establecido en todo el estado
- Detección de vehículos con emisiones excesivas que sugieren que pueden estar presentes problemas de mal mantenimiento
- Los vehículos marcados deben presentar una prueba de cumplimiento dentro de los 30 días posteriores a la notificación



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Periodic Testing Requirements



- Semiannual (2x per year) periodic compliance testing requirements starting in 2024
 - Annual testing requirement for California-registered motor homes and agricultural vehicles
- After three years, periodic testing frequency increases to 4x per year for vehicles equipped with on-board diagnostics (OBD)
 - Agricultural vehicles and California-registered motor homes remain at annual inspection frequencies

Requisitos de pruebas periódicas



- Requisitos de pruebas de cumplimiento periódicos semestrales (2 veces por año) a partir del 2024
 - Requisito de prueba anual para casas rodantes y vehículos agrícolas registrados en California
- Después de tres años, la frecuencia de las pruebas periódicas aumenta a 4 veces por año para los vehículos equipados con diagnósticos a bordo (OBD)
 - Los vehículos agrícolas y las casas rodantes registradas en California permanecen en frecuencias de inspección anual

Vehicle Compliance Testing Methods



OBD-equipped vehicles

- OBD data scan (no Malfunction Indicator Light-related issues can be present)
- Via telematics service provider that meets CARB's data format requirements, or
- Via hand-held scan tool and dongles that meet CARB's data format requirements – performed by credentialed HD I/M tester



Non-OBD vehicles

- Smoke opacity test using Society of Automobile Engineers (SAE) J1667 protocol with smoke meter that meets SAE J1667 specifications (diesel vehicles only)
- Vehicle emissions control equipment inspection (visual inspection on all non-OBD vehicles)
- Testing performed by credentialed HD I/M tester

Métodos de prueba de cumplimiento del vehículo



Vehículos equipados con OBD

- Escaneo de datos OBD (No puede haber problemas relacionados con la luz indicadora de mal funcionamiento)
- A través de un proveedor de servicios telemáticos que cumpla con los requisitos de formato de datos de CARB, o
- A través de una herramienta de escaneo portátil y dongles que cumplen con los requisitos de formato de datos de CARB, realizados por un evaluador HD I/ M con credenciales



Vehículos no-OBD

- Prueba de opacidad de humo utilizando el protocolo J1667 de la Sociedad de Ingenieros de Automóviles (SAE) con medidor de humo que cumple con las especificaciones SAE J1667 (solo vehículos diésel)
- Inspección de equipos de control de emisiones de vehículos (inspección visual en todos los vehículos no OBD)
- Pruebas realizadas por un evaluador de HD I/M con credenciales

For More HD I/M Program Information

- For general HD I/M program information, visit CARB's website at: <https://ww2.arb.ca.gov/our-work/programs/heavy-duty-inspection-and-maintenance-program>
 - Also visit CARB's TruckStop HD I/M webpage: [HD I&M | TruckStop \(ca.gov\)](https://www.arb.ca.gov/truckstop/)
- For formal HD I/M rulemaking documents, visit: <https://ww2.arb.ca.gov/rulemaking/2021/hdim2021>
- Subscribe to receive HD I/M email updates at: https://public.govdelivery.com/accounts/CARB/subscriber/new?topic_id=hdim
- Program Contacts:
 - Krista Fregoso: krista.fregoso@arb.ca.gov
 - Jason Hill-Falkenthal: jason.hill-falkenthal@arb.ca.gov
 - Greg Coburn: greg.Coburn@arb.ca.gov
 - Cody Howard: cody.howard@arb.ca.gov



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Para o más información sobre el programa HD I/M

- Para información general sobre el programa HD I/M, visite el sitio web de CARB en: <https://ww2.arb.ca.gov/our-work/programs/heavy-duty-inspection-and-maintenance-program>
 - Visite también la página web TruckStop HD I/M de CARB: [HD I&M | TruckStop \(ca.gov\)](https://www.arb.ca.gov/truckstop/)
- Para documentos formales de elaboración de normas HD I/M, visite: <https://ww2.arb.ca.gov/rulemaking/2021/hdim2021>
- Suscríbase para recibir actualizaciones por correo electrónico sobre HD I/M en: https://public.govdelivery.com/accounts/CARB/subscriber/new?topic_id=hdim
- Contactos del programa:
 - Krista Fregoso: krista.fregoso@arb.ca.gov
 - Jason Hill-Falkenthal: jason.hill-falkenthal@arb.ca.gov
 - Greg Coburn: greg.Coburn@arb.ca.gov
 - Cody Howard: cody.howard@arb.ca.gov



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Advanced Clean Fleets for Drayage Trucks

Currently Being Developed

Presented by: La'Shaye Cobley, PhD

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Port of Long Beach – 7/15/2022

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Flotas limpias avanzadas para camiones de acarreo (portuarios y ferroviarios)

Actualmente en desarrollo

Presentado por: La'Shaye Cobley, PhD

lashaye.cobley@arb.ca.gov

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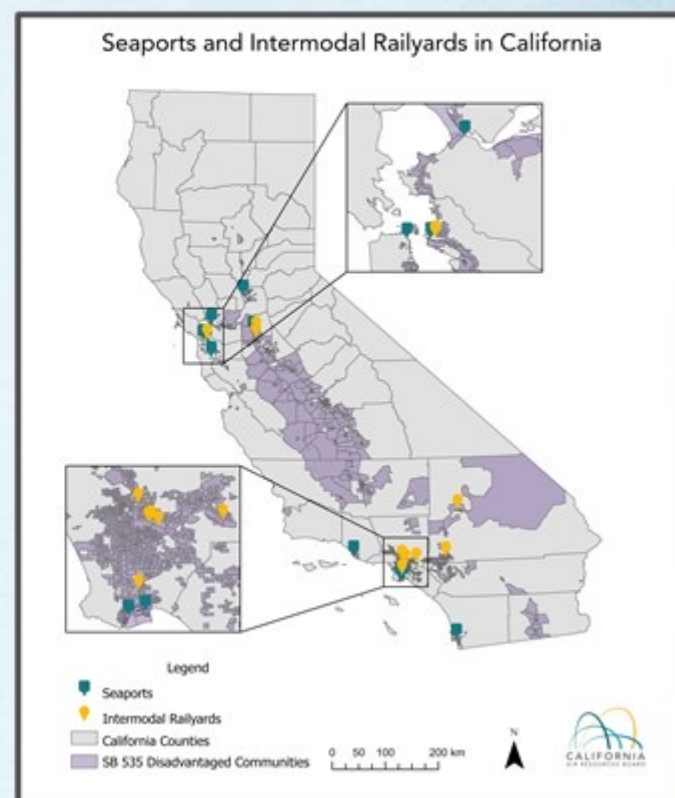
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Drayage Truck Background

Current drayage truck regulation sunsets in 2022

- Trucks will have to meet 2010 MY engine standards beginning in 2023

The seaports and intermodal railyards under the current drayage regulation are all located within ~1 mile of a disadvantaged community



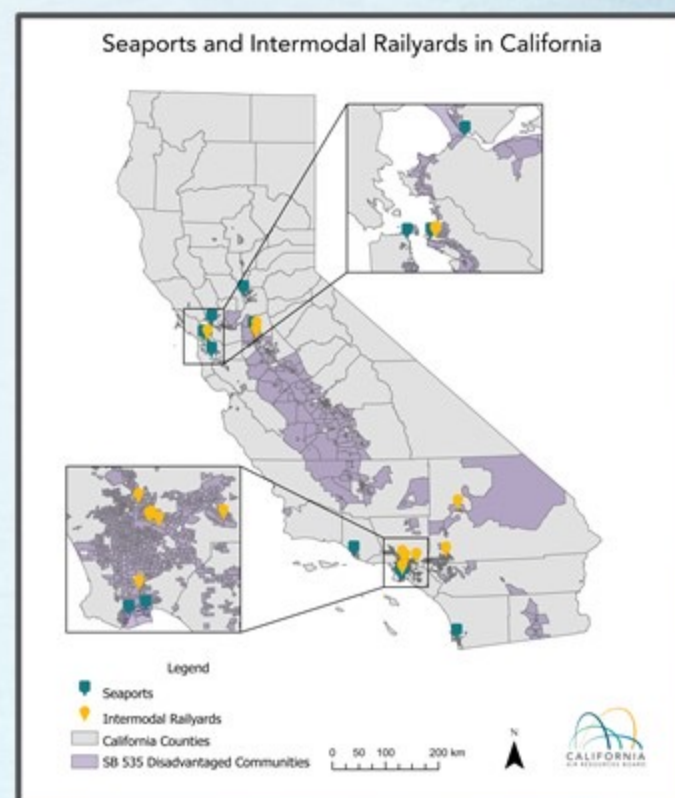
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Antecedentes del camión de acarreo

La regulación actual de camiones de acarreo expira en el 2022

Los camiones tendrán que cumplir con los estándares de motores año 2010 a partir del 2023

Los puertos marítimos y los patios ferroviarios intermodales bajo la regulación actual de drayage se encuentran dentro de ~ 1 milla de una comunidad desfavorecida.



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Proposed Drayage Truck Regulation

- Require Class 7-8 drayage trucks operating at California's seaports and intermodal railyards to be Zero-Emission Vehicles (ZEVs) by 2035
- Includes a phased-in approach for drayage trucks beginning in 2024



Regulación propuesta para camiones de acarreo

- Exige que los camiones de carga de Clase 7-8 que operan en los puertos marítimos y patios ferroviarios intermodales de California sean vehículos de cero emisiones (ZEV) para el 2035
- Incluye un enfoque gradual para camiones de acarreo a partir del 2024



Legacy Drayage Truck Requirements

“Legacy Drayage Truck” means a non-zero-emission drayage truck with a 2010 or newer engine model year that was registered in the Drayage Truck Registry on or before January 1, 2024.

By December 1, 2023	Register with The CARB Online System
Beginning in 2024	Visit a regulated seaport or intermodal railyard at least once each year to remain in The CARB Online System
Beginning in 2025	Annually report mileage by February 15 th (trucks over 12 years)
	Legacy drayage trucks can stay in the registry until they exceed the minimum useful life requirements <ul style="list-style-type: none"> Minimum useful life: Later of 13 years of engine certification OR 800,000 vehicle miles/18 years from engine certification.

Requisitos de camiones de acarreo heredados

“Camión de acarreo heredado” significa un camión de acarreo que no es de cero emisiones con un modelo del año 2010 o más reciente que fue registrado en el Registro de Camiones de Acarreo a más tardar el 1 de enero del 2024.

Para el 1 de diciembre del 2023	Regístrese en el sistema en línea de CARB
A partir del 2024	Visite un puerto marítimo regulado o un patio ferroviario intermodal al menos una vez al año para permanecer en el sistema en línea de CARB
A partir del 2025	Reporte anual del millaje antes del 15 de febrero (camiones mayores de 12 años)
	Los camiones de acarreo heredados pueden permanecer en el registro hasta que superen los requisitos mínimos de vida útil Vida útil mínima: Después de 13 años de la certificación del motor O 800,000 millas del vehículo / 18 años desde la certificación del motor.

ZEV Drayage Truck Requirements

"Zero-emission Vehicle" (ZEV) means an on-road vehicle with a drivetrain that produces zero exhaust emissions of any criteria pollutant (or precursor pollutant) or greenhouse gas under any possible operational modes or conditions.

Beginning in 2024	Any drayage truck added to the CARB Online System must be a Zero-Emission Vehicle
Beginning in 2035	All drayage trucks entering seaports and intermodal railyards must be Zero-Emission Vehicles



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Requisitos para los camiones de acarreo ZEV

"Vehículo de cero emisiones" (ZEV) significa un vehículo de carretera con una transmisión que produce cero emisiones de escape de cualquier contaminante criterio (o precursor contaminante) o gas de efecto invernadero bajo cualquier posible modo o condición operativa.

A partir del 2024	Cualquier camión de acarreo agregado al sistema en línea CARB debe ser un vehículo de cero emisiones
A partir del 2035	Todos los camiones de acarreo que ingresen a los puertos marítimos y a los patios ferroviarios intermodales deben ser vehículos de cero emisiones.



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Proposed Drayage Truck Extensions

Vehicle Delivery Delay Extension

- Available if vehicle delivery is delayed for reasons beyond truck owner's control
 - Ordered ZEVs at least 1 year in advance of deadline
 - Purchase agreement required
- Claim exemption during reporting period and provide proof of purchase



Infrastructure Construction Delay Extension

- Available if truck owner experiences ZE fueling and charging infrastructure construction delays that are beyond their control
 - Infrastructure construction must have begun 1 year prior to next compliance deadline
 - Eligible reasons include change of a general contractor, delays for obtain power from a utility, delays obtaining construction permits, delays due to unexpected safety issues, discovery of resources described in the California Environmental Quality Act, or natural disasters
- Submit request to Executive Officer for review

Extensiones propuestas para camiones de acarreo

Extensión por retraso en la entrega del vehículo

- Disponible si la entrega del vehículo se retrasa por razones fuera del control del propietario del camión
 - ZEV ordenados al menos 1 año antes de la fecha límite
 - Se requiere un acuerdo de compra
- Reclamar la exención durante el período del reporte y proporcionar prueba de compra



Extensión por retraso en la construcción de infraestructura]

- Disponible si el propietario del camión experimenta retrasos en la construcción de la infraestructura de carga y abastecimiento de combustible ZE que están más allá de su control
 - La construcción de la infraestructura debe haber comenzado 1 año antes de la próxima fecha límite de cumplimiento
 - Las razones elegibles incluyen el cambio de un contratista general, retrasos para obtener energía de una empresa de servicios públicos, retrasos en la obtención de permisos de construcción, retrasos debido a problemas de seguridad inesperados, descubrimiento de recursos descritos en la Ley de Calidad Ambiental de California, o desastres naturales
- Presentar una solicitud al Oficial Ejecutivo para su revisión

Next Steps

- Meeting materials posted on “Meetings and Events” page on CARB’s Advanced Clean Fleets webpage
- Submit comments to informal comment docket (https://www.arb.ca.gov/lispub/comm2/bcsubform.php?listname=acf-comments-ws&comm_period=1)
- For more information, please contact CARB staff by email (zevfleet@arb.ca.gov), or by phone at (866) 634-3735
- 45-Day rulemaking package early September 2022
- Board recommendation October 2022

Próximos pasos

- Materiales de la reunión publicados en la página “Meetings and Events” en la página web de flotas limpias avanzadas de CARB
- Envíe comentarios a expediente de comentarios informales (https://www.arb.ca.gov/lispub/comm2/bcsubform.php?listname=acf-comments-ws&comm_period=1)
- Para más información, por favor, contacte al personal de CARB por correo electrónico (zevfleet@arb.ca.gov), o por teléfono al (866) 634-3735
- Paquete de reglamentación de 45 días a principios de septiembre del 2022
- Recomendación de la Junta octubre del 2022



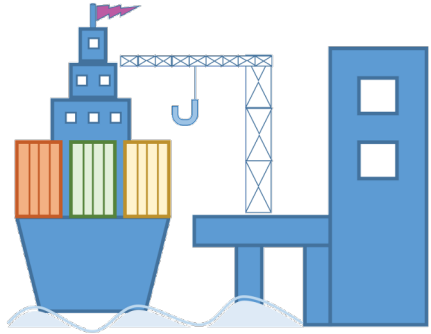
South Coast AQMD

Warehouse Indirect Source Rule

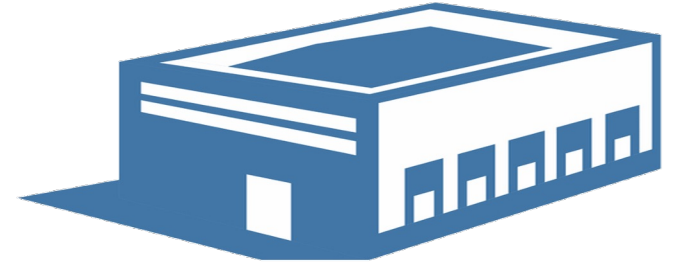
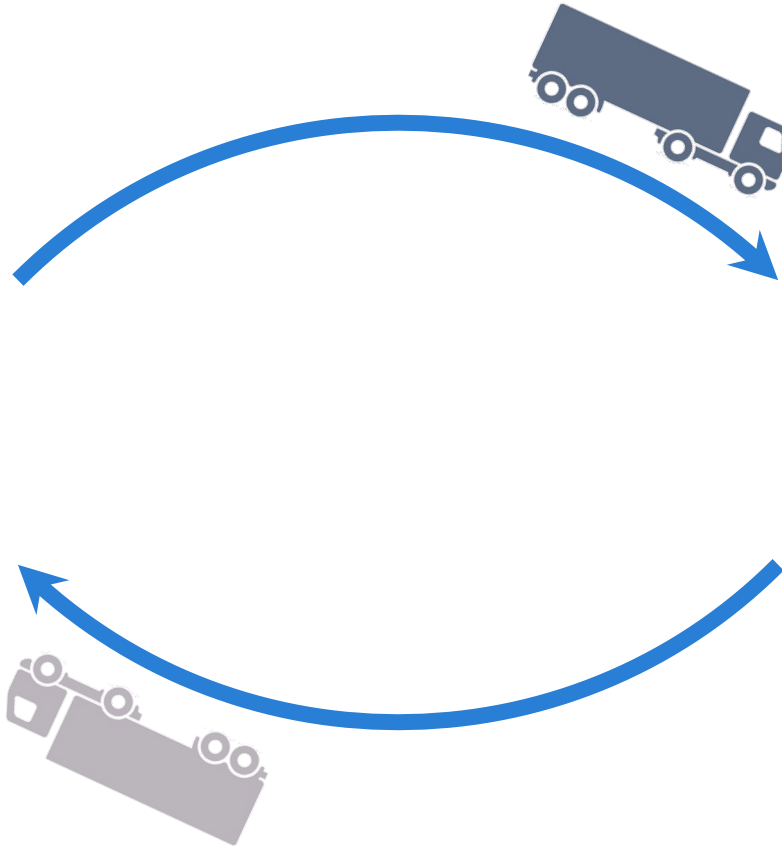
RULES 2305: WAREHOUSE ACTION AND INVESTMENTS TO REDUCE EMISSIONS
(WAIRE) PROGRAM

**REGULATORY UPDATE INFORMATION SESSIONS FOR DRAYAGE TRUCK DRIVERS
JULY 15, 2022**

Port/Warehouse Connection



**Port Clean Truck Program
& Upcoming CARB and
South Coast AQMD Rules**



South Coast AQMD Rule 2305

OVERVIEW OF RULE 2305

Requirements

Applicability

- Owners and operators of warehouses $\geq 100,000$ sf
- Owners are only subject to reporting, but they can voluntarily earn points

Phase-In

- Starting this year, warehouses introduced into program over 3 years
 - Largest are first
- Once in, stringency increases over 3 years

Annually Earn WAIRE Points

Warehouse Actions and Investments to Reduce Emissions (WAIRE) Menu

Mitigation Fee

Custom WAIRE Plan

Limited transfer/banking of excess WAIRE Points

Funds projects in communities near warehouses that paid the mit. fee

Reporting

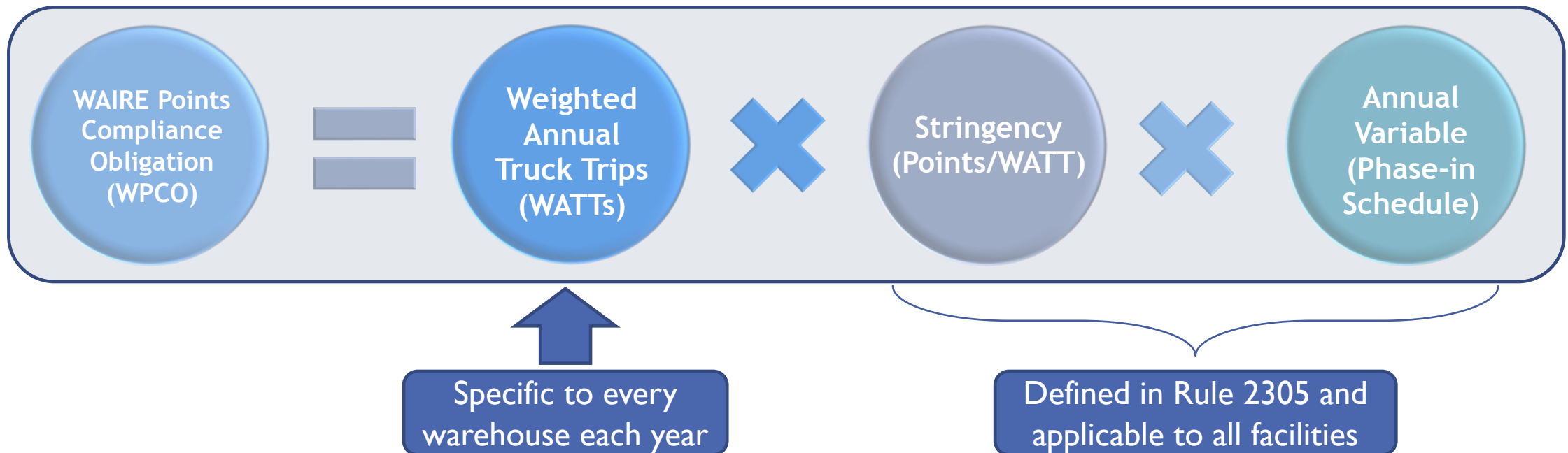
Warehouse Operations Notification

Initial Site Information Report

Annual WAIRE Report

HOW MANY POINTS DO WAREHOUSE OPERATORS NEED TO EARN?

- The Warehouse Points Compliance Obligation is the number of WAIRE Points that a warehouse operator must earn in the applicable compliance period
- The WPCO is calculated as follows:



The WAIRE Menu:
How Warehouse Operators Earn
WAIRE Points

WAIRE Menu Actions & Investments	Commercial Availability	
	Year 1 of R2305	Next 2-3 years
Acquire ZE Class 8		✓
Acquire ZE Class 4-7	✓	
Acquire ZE Class 2b-3	✓	
Acquire NZE Class 8	✓	
Acquire NZE Class 4-7	✓	
ZE Class 8 Visits		✓
ZE Class 4-7 Visits	✓	
ZE Class 2b-3 Visits	✓	
NZE Class 8 Visits	✓	
NZE Class 4-7 Visits	✓	
Acquire ZE Yard Truck	✓	
Use ZE Yard Truck	✓	
150-350 kW EVSE Acquisition	✓	
51-149 kW EVSE Acquisition	✓	
19.2-50 kW EVSE Acquisition	✓	
Up to 19.2 kW EVSE Acquisition	✓	
TRU Plug EVSE Acquisition	✓	
Begin construction on 19.2-350 kW charger project	✓	
Begin construction on up to 19.2 kW charger project	✓	
Begin construction on TRU Plug project	✓	
Finalize 19.2-350 kW Level charger project	✓	
Finalize up to 19.2 kW charger project	✓	
Finalize TRU Plug project	✓	
Hydrogen (H ₂) Station	✓	
Use Vehicle Charging Stations	✓	
TRU Charging	✓	
H ₂ Station Usage	✓	
Install Rooftop Solar Panels	✓	
Install Carport Solar Panels	✓	
Use Solar Panels	✓	
Install Stand-Alone HVAC Filter System	✓	
Replace HVAC Filters	✓	



>1,200 NZE trucks funded by South Coast AQMD since 2017



WAIRE Program Reporting Overview for Warehouse Operators

Phase	Warehouse Size (Square Feet)	Initial Site Information Report (ISIR) (One-Time)		Annual WAIRE Report (AWR)		
		Report Info	Due Date	Report Info	1 st Compliance Period	1 st Due Date
1	≥ 250,000	Baseline Information About Warehouse Operations	July 1, 2022	Compliance Information Describing How Warehouse Operator Earned Points	January 1, 2022 – December 31, 2022	January 31, 2023
2	≥ 150,000 - <250,000		July 1, 2023		January 1, 2023 – December 31, 2023	January 31, 2024
3	≥ 100,000 - <150,000		July 1, 2024		January 1, 2024 – December 31, 2024	January 31, 2025

Questions?



waire-program@aqmd.gov



(909) 396-3140



www.aqmd.gov/waire



www.aqmd.gov/sign-up → WAIRE Program Compliance

CARB Truck Loan Program

- Loan interest rate limited to 20%
- Prospective borrowers enroll by contacting one of 28 lenders in the program
- Borrower must meet criteria
 - Maximum: 10 vehicles in fleet, 100 employees, \$10 million in annual revenue
 - Vehicle registered with California DMV
- Eligible purchases: trucks with 2010 and newer CARB-certified engines, trailers with eligible tractor



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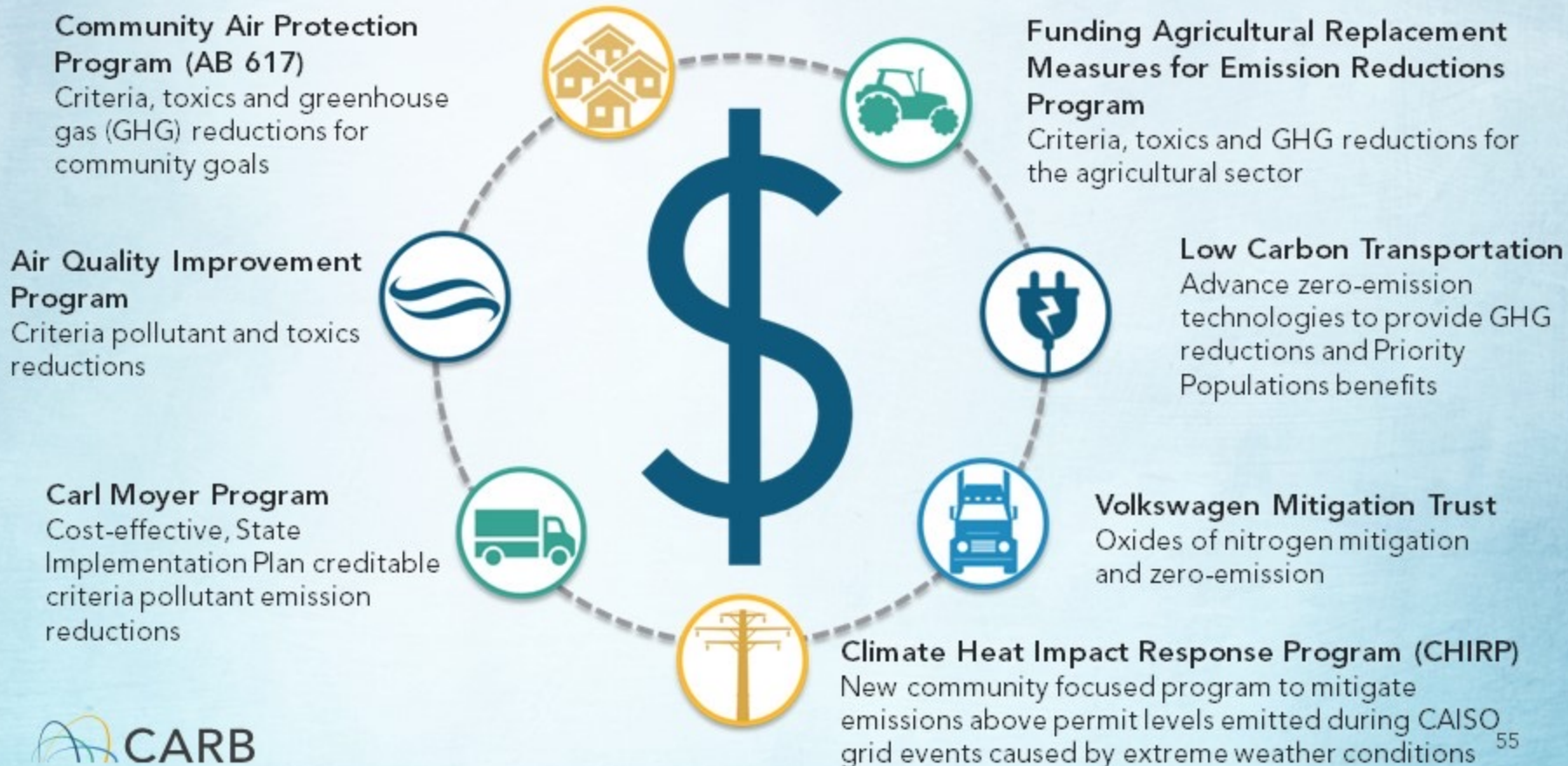
Programa de préstamos para camiones de CARB

- Tasa de interés del préstamo limitada al 20%
- Los posibles prestatarios se inscriben poniéndose en contacto con uno de los 28 prestamistas del programa
- El prestatario debe cumplir con los criterios
 - Máximo: 10 vehículos en la flota, 100 empleados, \$10 millones en ingresos anuales
 - Vehículo registrado con el DMV de California
- Compras elegibles: camiones con motores 2010 y más nuevos certificados por CARB, remolques con tractor elegible



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CARB's Portfolio of Incentive Programs



Portafolio de programas de incentivos de CARB



South Coast AQMD Incentive Programs for Drayage Trucks

Equipment Funding Session –
July 15, 2022

Aaron Katzenstein, PhD
Technology Advancement Office



Open Incentive Programs

- **Voucher Incentive Program (VIP)**
 - Fleets of 10 or fewer vehicles
 - Currently open on first-come first-served basis
 - Adequate funding available
- **Volkswagen Environmental Mitigation Trust California (VW)**
 - Combustion freight currently open
 - Zero Emission anticipated next month
 - \$10M available for each category



Voucher Incentive Program (VIP)

- Limited to owners/operators with fleets of 10 or fewer vehicles
- Drayage & Non-Drayage trucks with EMY 2007 – 2009 are eligible
- Replacements (Class 4-8):
 - Up to \$160K per truck with natural gas engine (0.02 g/bhp-hr NOx or cleaner)
 - Up to \$410K per truck for zero emission technologies
- Annual VMT of 50K or more qualifies for maximum funding
- At least 75% operation (mileage-based) in CA
- First-come first-served basis
- Adequate funding available (replenished regularly to keep up with program demands)



Voucher Incentive Program (VIP) Contact Information

- Interested applicants can apply directly through the approved VIP Dealers listed on our website: www.aqmd.gov/VIP
- For questions about the VIP Program, please contact Ash Nikravan at (909) 396-3260 or via email at anikravan@aqmd.gov



VW Program: Zero-Emission Class 8 Freight and Port Drayage Trucks (ZE)

Administered by South Coast AQMD

- Solicitation anticipated to reopen next month
- First-come, first-served basis – funds quickly allocated
- Approximately \$10 million in funds available statewide
- Open to all fleet sizes
- Freight, drayage, waste haulers, dump trucks, and concrete mixers EMY 2012 and older are eligible
- Replacements (Class 8 only)
 - Up to \$200K per truck for zero emission technologies
- For more information:

<https://xappprod.aqmd.gov/vw/zero-emission.html>



VW Program: Combustion Freight and Marine Projects (CFM)

Administered by South Coast AQMD

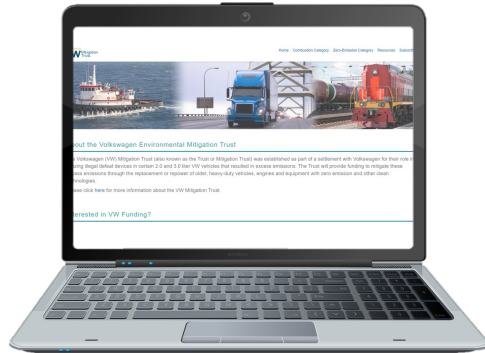
- Applications currently accepted on a first-come, first-served basis
- NZE only (0.02g/bhp-hr)
- 2012 or older EMY
- Open to all fleet sizes
- Class 7 & 8 – Freight, drayage, waste haulers, dump trucks, and concrete mixers
- Approximately \$10 million in funds available statewide
- Up to \$85k for replacement and \$35k for repower (private fleets)
- For more information or to apply:
<https://xappprod.aqmd.gov/vw/combustion.html>



VW Program: General Operation and Eligibility Requirements


- Operation Requirements
 - At least 75% of the time operated in CA during the past 12 months
 - New vehicle/engine must operate in CA for at least 75% of the time during the contract term (3 years)
 - **Freight Trucks*** – Existing trucks must operate a minimum of 20,000 miles/year
 - **Waste Haulers*** – Existing waste haulers must operate a minimum of 10,000 miles/year
- Inspections
 - Old and new vehicle/engine will need to be made available for inspections
- Compliance
 - Must be in compliance with applicable state and federal rules and regulations
- Scrapping
 - The old vehicle/engine must be scrapped
- *CFM solicitation annual mileage requirement


VW Program: Application and Contact Information




For more information or to apply, visit:

<http://www.aqmd.gov/vw>

 VW Program Hotline – Administered by South Coast AQMD

 (833) 894-7267

 vwfunds@aqmd.gov

 Staff is available Tuesday to Friday from 7:30 am to 5:30 pm

 Other Helpful Links

- [CA VW Landing Page](#)
- [CARB VW Website](#)
- [Consent Decree](#)
- [Beneficiary Mitigation Plan \(BMP\)](#)
- [California Map for Local Air District Websites](#)

Programs Accepting Applications – Drayage Trucks



VW CFM		VW ZE	VIP
Class 7 and 8 Freight, drayage, dump, concrete mixers, waste haulers		Class 8 Only Freight, drayage, dump, concrete mixers, waste haulers	Class 4-8 delivery, freight, drayage
Replacement or repower		Replacement only	Replacement only
At least 75% operation in CA during past 12 months		At least 75% operation in CA during past 12 months	At least 75% operation in CA during past 24 months
<u>Non-Waste Haulers</u> 20,000 miles/year	<u>Waste Haulers</u> 10,000 miles/year	No minimum annual mileage however trucks must be in operation	Must use lower mileage of the last two 12-month periods to determine voucher amount
Old EMY: 2012 or older		Old EMY: 2012 or older	Old EMY: 2007-2009
Replacement/repower vehicles certification level: 0.02 g/bhp-hr NOx		Replacement vehicles certification level: Zero-Emission	Replacement vehicles engine certification level: 0.02 g/bhp-hr NOx or cleaner
Up to \$85K for replacement and \$35K for repower		Up to \$200k for replacement	Up to \$160K for NZE and \$410K for ZE replacement
Destruction of old vehicle required		Destruction of old vehicle required	Destruction of old vehicle required



Ash Nikravan

(909) 396-3260

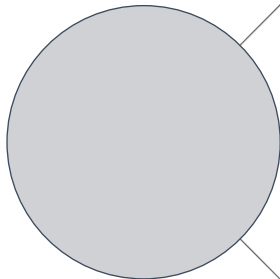
Anikravan@aqmd.gov

www.aqmd.gov/VIP



Email: vwfunds@aqmd.gov

Website: <http://www.aqmd.gov/vw>



All South Coast AQMD Incentive Programs:

www.aqmd.gov/home/programs



Energize
COMMERCIAL VEHICLES

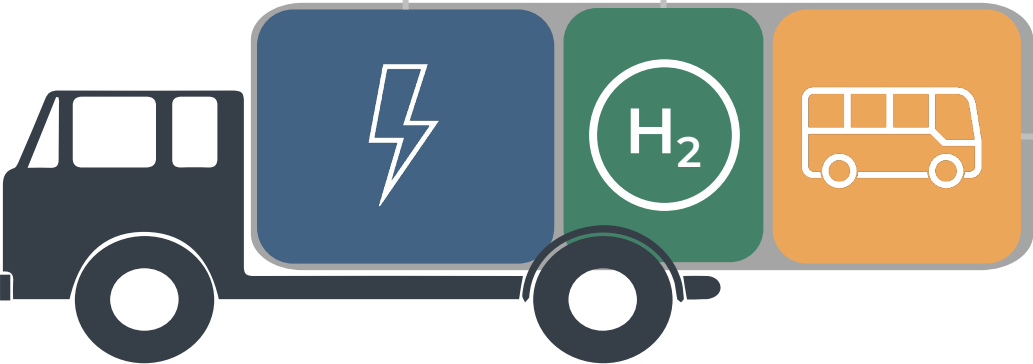
Overview of EnerglIZE

Energy Infrastructure Incentives for Zero-Emission Commercial Vehicles

Provides \$50M in financial incentives to increase the deployment of commercial zero emission medium- and heavy-duty (MHD) vehicle infrastructure.

Prioritizes equity and community involvement while making incentives available to a wide audience by offering assistance and support.

Funded by the California Energy Commission's (CEC) Clean Transportation Program.



How to Participate

Commercial Fleet

The EnergIIZE Commercial Vehicles Project can reduce 50 to 75 percent of equipment costs incurred by commercial fleets, off-road equipment users, and independent owner-operators. Apply directly or through an Approved Vendor for funding toward electric charging or hydrogen fueling equipment and one-time software costs. Your project may be eligible for additional incentives if you are installing infrastructure in a disadvantaged community (top 25 percent of [CalEnviroScreen4.0](#)) or a low-income community in [California Climate Investments' Priority Populations](#) as defined by AB 1550.



Eligibility and Funding Lanes



EV Fast Track

Applicants in this funding lane are ready to go and may already have prior experience applying for commercial MHD EV funding



EV Jump Start

Applicants in this funding lane will need to meet specific eligibility criteria and will be allotted more time to submit required documents



EV Public Charging Station





Applicants in this funding lane intend to develop publicly available charging stations for commercial MHD EVs



Hydrogen

Applicants in this funding lane intend to develop a hydrogen infrastructure project for commercial MHD vehicles

Incentive Structure: Summary

Applicant Category	EV Fast Track	EV Jump Start	EV Public Charging Station	Hydrogen
Application	Next Cycle is Q1 2023	Opens Sept 1 – 30, 2022	Opens Oct 14 – 28, 2022	Next Cycle is Q2 2023
Incentive Structure	50% of Hardware and Software Costs Incurred* 	75% of Hardware and Software Costs Incurred 	50% of Hardware and Software Costs Incurred* 	50% of Hardware and Software Costs Incurred* 
Project Cap	\$500k*	\$750k	\$500k*	\$2M*

**If an applicant participates during a funding lane other than Jump Start but meets one or more of the criteria outlined in Jump Start, that project is eligible for the incentive structure outlined under Jump Start. In which case, they are eligible for 75% of eligible costs and an increased project cap of \$750k (\$3M for hydrogen).*

Contact Us



877-ENR-GIZE
877-367-4493



[EnergIZE.org](https://www.energize.org)



48 S Chester Ave
Pasadena, CA 91106



SOUTHERN CALIFORNIA
EDISON[®]

Energy for What's Ahead[®]

Southern California Edison Medium- & Heavy-Duty Transportation Electrification

Carter J. Prescott
Director of Electrification



About Southern California Edison An Edison International Company

Who We Are

- One of the nation's largest electric utilities
- Headquarters in Rosemead, California
- More than 130 years of history

Who We Serve

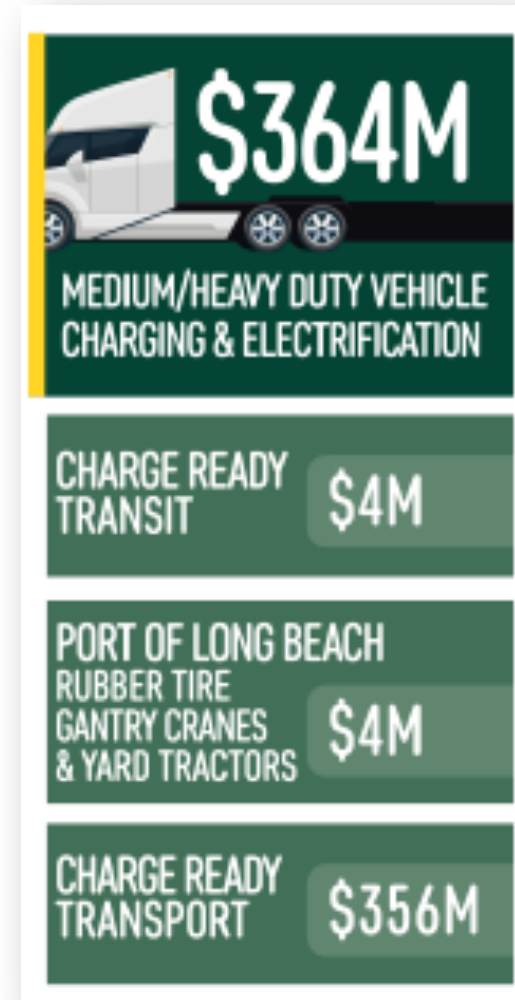
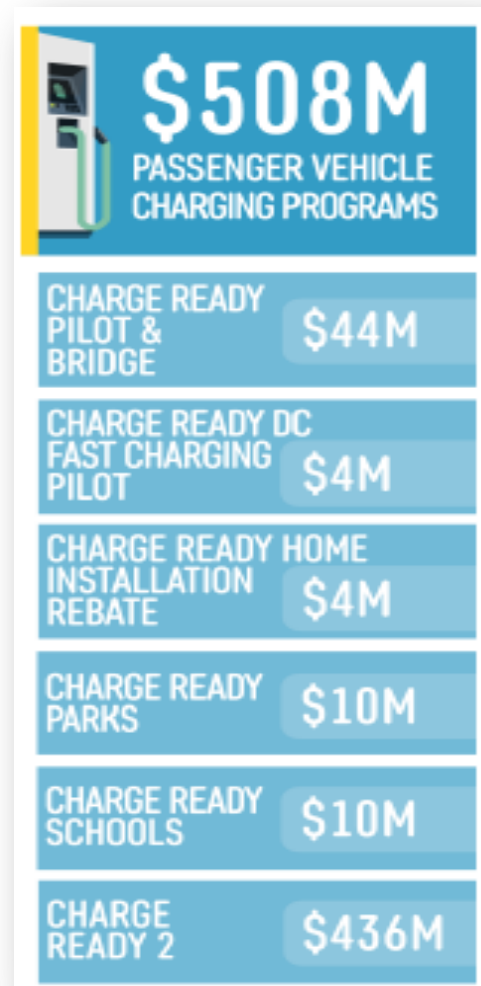
- 50,000 square miles of SCE service area across Central, Coastal and Southern California
- 15 million residents in service territory
- 5 million customer accounts

Clean Energy

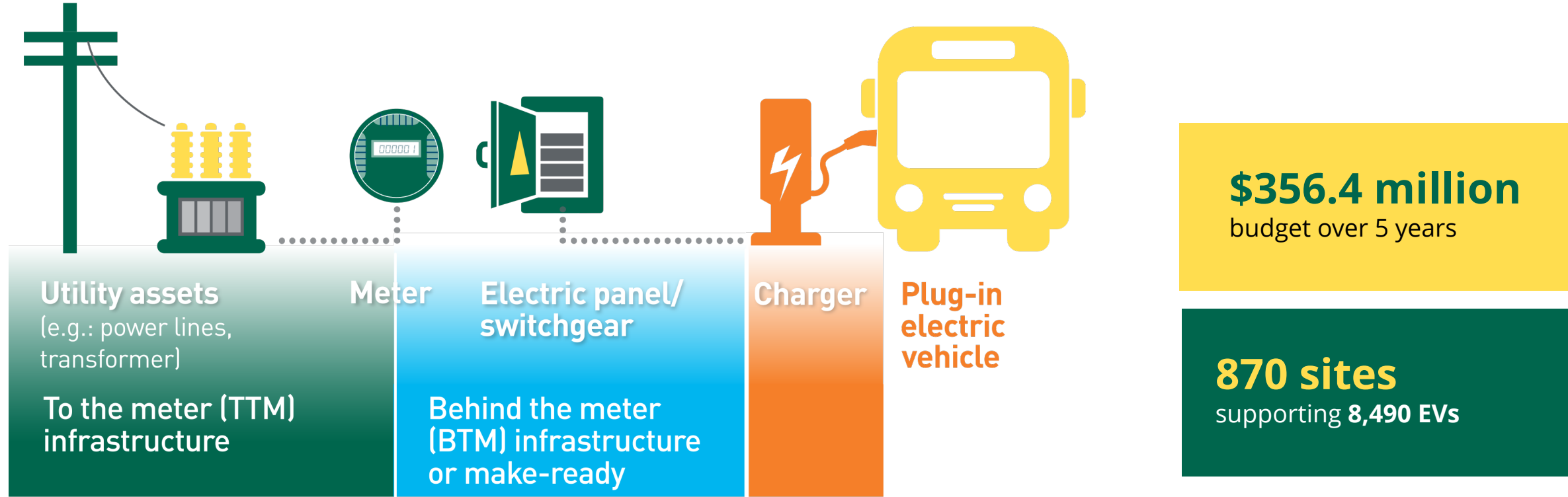
- Forty-three percent (42.6%) of the electricity that SCE delivers to customers comes from carbon-free resources, including solar and wind (2020)
- More than 4,000 rooftop solar installations connected on average per month (2020)
- With more than 2,000 MW of energy storage installed or contracted, SCE has one of the largest energy-storage portfolios in the nation (2020)



SCE is supporting the electrification of more than 550,000 vehicles over the next 5 years



Charge Ready Transport Covers the Cost to Build EV Charging Infrastructure for Medium/Heavy Duty Fleets



\$356.4 million
budget over 5 years

870 sites
supporting 8,490 EVs






SCE builds TTM and BTM infrastructure at no cost to customer.
Includes new transformers, service panels, trenching, conduit and other project elements.

Customer purchases, installs & deploys chargers and vehicles
Customer must choose chargers from approved product list. Some customers are eligible for a rebate up to 50%

Our TE Advisory Services Program provides customers with enhanced tools, education, and support to help make the transition to electric transportation

Program:	EV Readiness Studies	Webinars/Workshops	Grant Assistance	Events
Target Audience:	<ul style="list-style-type: none"> MDHD Fleet Customers Multi-family Commercial 	<ul style="list-style-type: none"> MDHD Fleet Customers Multi-family Commercial 	<ul style="list-style-type: none"> MDHD Fleet Customers 	<ul style="list-style-type: none"> MDHD Fleet Customers
Service:	<ul style="list-style-type: none"> Fleet & Site Studies Site Only Studies 	Quarterly Educational Webinars or Workshops	<ul style="list-style-type: none"> Grant Writing Assistance Grant Package Review Tools & Resources 	<ul style="list-style-type: none"> Ride n' Drives Demonstration Site Visits
Timeframe:	July 2021	August – December 2021	March 2022	Ongoing

Lessons Learned Inform Best Practices for Electrifying your Fleet

	Lesson Learned	Description
	Customers Need Assistance	<ul style="list-style-type: none"> Utilities help their customers understand the impact electrification will have on their fleet operations and provide significant technical coaching and advice Utilities serve as a trusted neutral party in choosing vehicles, charging equipment and deployment size
	Site Design is Complex	<ul style="list-style-type: none"> Complex sites require months of planning; fleets need support in determining exact count and layout of charging equipment The complexity often causes them to settle on smaller deployments that ultimately create rework and drive up costs
	Vehicles are not Ready	<ul style="list-style-type: none"> Customers wait on the outcome of grants to determine how many vehicles they can buy Many vehicles won't be available until 2023 or later
	Charging Equipment is in Development	<ul style="list-style-type: none"> Charging equipment should be safety certified by a nationally recognized testing lab (NRTL) Utilities and grant-funding agencies are important in driving the creation and adoption of charging standards
	Utilities & Regulators Can Help Keep Fueling Costs Low	<ul style="list-style-type: none"> Fleet owners need help in developing charging strategies that minimize fueling costs EV-friendly rate structures make electricity a cheaper fuel than diesel and gasoline; climate credits make electricity more cost-effective than natural gas

Join us on this ride.

[2021 EIX Sustainability Report](#)

[Pathway 2045 Whitepaper](#)



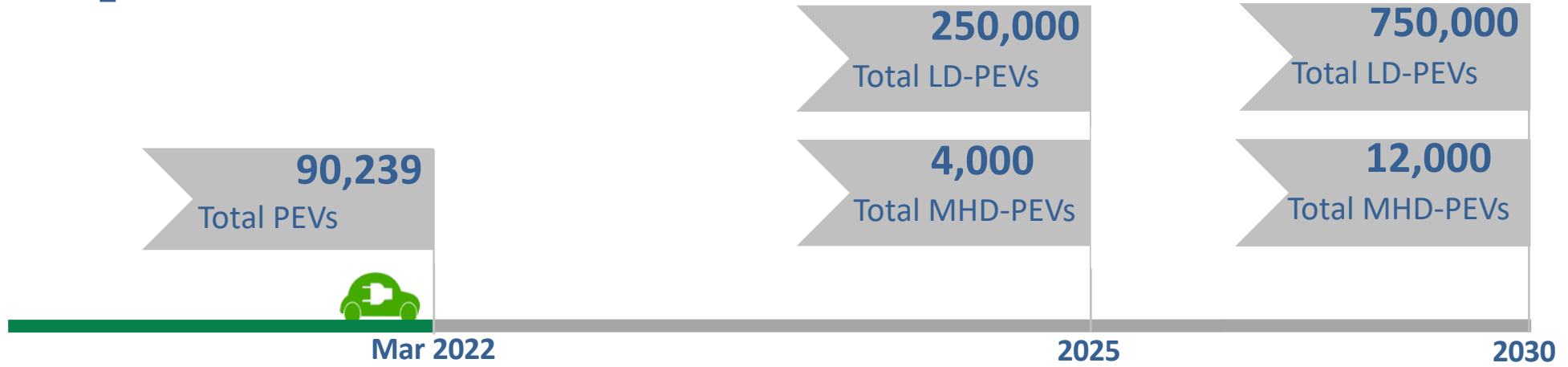


**Electric Transportation Programs
&
Grid Readiness**

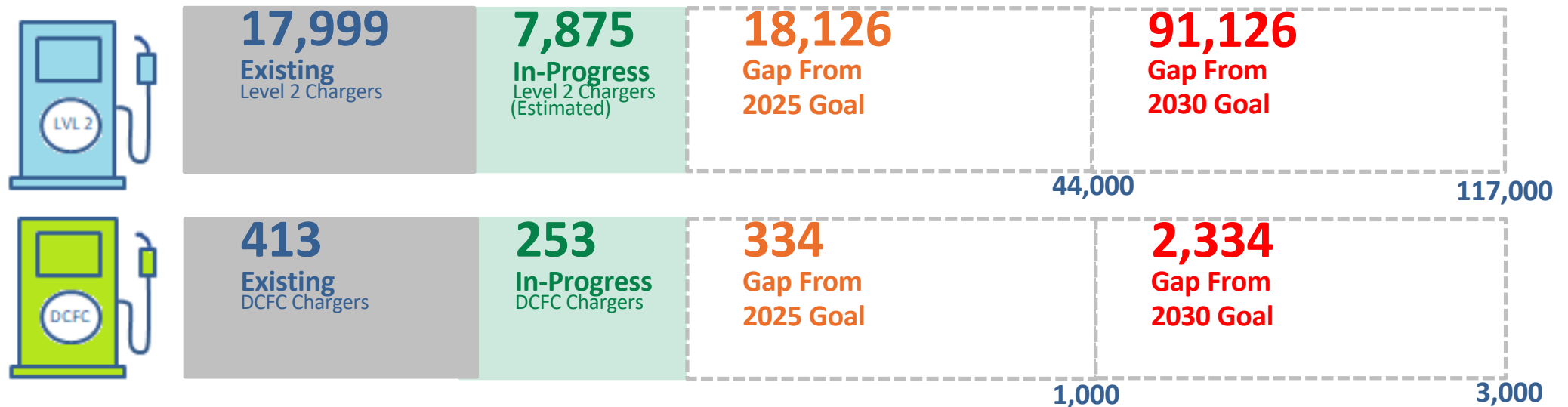
Yamen Nanne, PE
Manager of Distribution System Development

EV Adoption Goals & Infrastructure Needs

Vehicles



Infrastructure

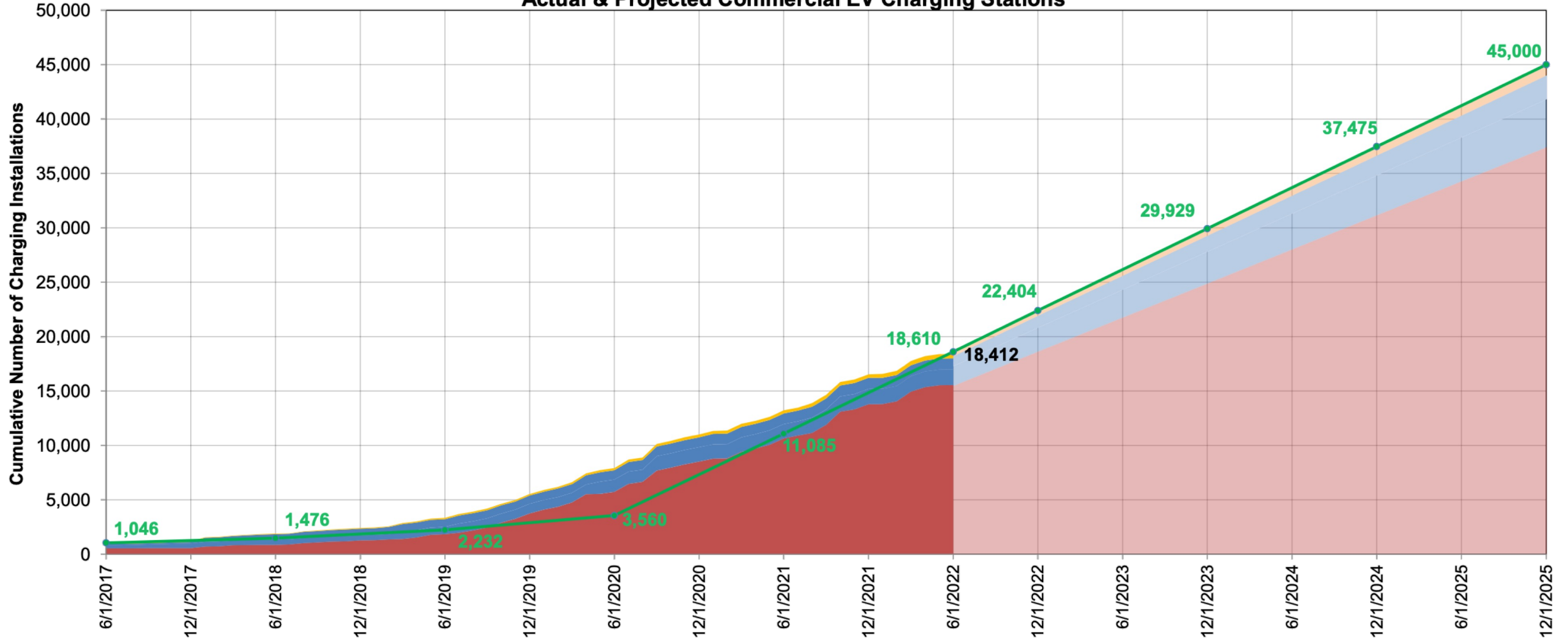


LD-PEV: Light Duty Plug-in Electric Vehicle

MHD-PEV: Medium and Heavy Duty Plug-in Electric Vehicle DCFC: Direct Current Fast Charger

Commercial EV Charging Stations in L.A.

Actual & Projected Commercial EV Charging Stations



Electric Transportation Programs



LADWP-Installed Electric Vehicle Infrastructure

- Public, Employee, & Fleet Use
- 1006 Level 2 Chargers (44 poles)
- 35 DC Fast Chargers



City Partnerships

- 1,442 City-owned (Non-DWP) L2
 - Half are publicly accessible
 - 426 Streetlight-mounted chargers
 - MOU with POLA to assist electrification efforts
 - EPRI Joint DWP + POLA Study to determine grid and charging needs



Customer-Owned Charging Rebate Incentive Programs

- 14,322 Commercial Charging Stations
- 4,189 Residential Charging Stations



Commercial EV Rebate Programs

Level 2 Chargers

- \$4,000 per charger
- \$5,000 per charger in disadvantaged communities
- **Increases access to charging at MUDs, workplaces, and public destinations**

DC Fast Chargers

- \$75,000 per charger
- **Improves access to fast charging and alleviates range anxiety**

Chargers for Medium- and Heavy-Duty Vehicles

- \$125,000 per charger
- **Helps electrify one of the largest source of pollution across the transportation sector**

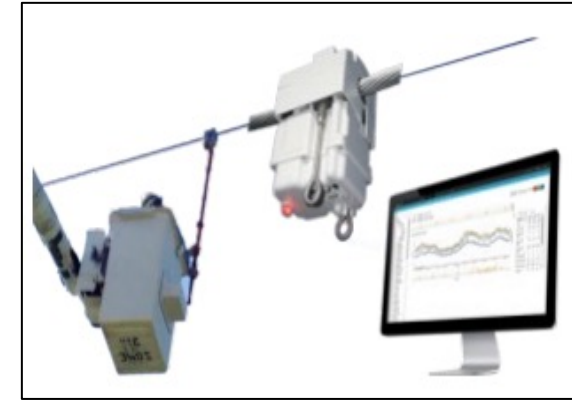
Distribution System Upgrades



Upgrade
4.8 kV Feeder



New
Distributing Stations



Expanded Implementation
Distribution Automation



Upgrade
34.5 kV Lines



New
Distribution **Voltage**
Conversion

Substation Upgrades Needed by 2035

Receiving Station



4 Receiving Stations exceed firm capacity

7 New RS Racks required

Distribution Station



50+ Distributing Stations exceed firm capacity

Up to 10 New DSs required

Project Collaborations



EPRI will gather utility and customer data and run multiple scenarios to develop a 15-year roadmap for Port of LA zero-emissions operation.