

LEADING THE CHARGE FOR ELECTRIC FLEETS

Medium- and Heavy-Duty EV Infrastructure Project Examples

As the transportation sector moves towards a zero-emissions future, fleet operators and municipalities have made significant strides in building out electric vehicle (EV) charging infrastructure. This collection highlights a handful of the many successful medium- and heavy-duty infrastructure projects that have already been deployed across California. The resources below demonstrate the diverse public, private and utility investments for ZEV infrastructure that will support scaled infrastructure deployment.

ELIGIBILITY FOR STATE AND FEDERAL RESOURCES

There is a slate of utility, private, and public funding sources that can support fleets in medium- and heavy-duty (MHD) EV infrastructure installation. The [CARB ZEV Infrastructure Resource](#) provides more funding information.



UTILITY FUNDING



The CPUC authorized [\\$738M dedicated for MHD trucks through 2024](#) and just announced [extending it for another 5 years through 2030](#) with an additional \$700M. Local utilities, like the Los Angeles Department of Water and Power, offer rebate and incentive programs as well.

PRIVATE FUNDING



Private companies are investing in building the nation's MHD EV charging network. [Daimler North America](#), [Volvo](#), [Pilot](#), and others are investing millions to build out the network. [WattEV](#) and others are also offering truck as a service (TaaS) model organizations.

PUBLIC FUNDING



California State General Funding dedicated [\\$2B from FY 21-22 to FY 25-26](#) for fueling infrastructure for MHD ZEV vehicles. At the federal level, the [Inflation Reduction Act offers incentives](#) worth 30% of up to \$100,000 per charging station over the next 10 years.

Medium- and Heavy-Duty EV Infrastructure Projects

"The Port of Long Beach is committed to becoming a zero-emissions seaport... Step-by-step, we are making progress toward meeting the goals of both zero-emissions terminal operations by 2030 and zero-emissions trucking by 2035."

SHARON L. WEISSMAN
Long Beach Harbor
Commission President



Photo taken from [Port of Long Beach website](#).

Port of Long Beach

The [Port of Long Beach](#) partnered with EV Connect to install the nation's first two public charging stations for heavy-duty electric trucks. Located at the Clean Truck Program Terminal Access Center, the public stations support the San Pedro Bay port's heavy-duty electric drayage trucks. Charging at these stations is free for the initial rollout period of the program.

The 145kW chargers will help the Port reach its goal to achieve zero-emissions trucking and a zero-emissions drayage truck fleet by 2035.

Penske Transportation Solutions

[Penske Transportation Solutions](#) unveiled its sixth heavy-duty EV charging station at its Ontario facility in August 2020. Coordinating with Fluence Energy at Siemens and AES Company, Penske installed an innovative battery energy storage system. The installation joins Penske's network of chargers in Southern California, including locations in San Diego, Chino, Anaheim, Temecula, and La Mirada.

The charging system has six charging positions and connects directly to a commercial truck's battery charging system. The 50kW to 150kW chargers power Penske's EV Class 8 tractors.

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Medium- and Heavy-Duty EV Infrastructure Projects

NFI

NFI welcomed Volvo VNR Electric Class 8 trucks and forklifts into its fleet and installed supporting on-site charging infrastructure at its Chino facility. The 2021 installation was part of the Volvo LIGHTS project and was a collaboration with several entities. The Volvo LIGHTS project was funded by CARB's California Climate Investments initiative, SCAQMD's Clean Fuels Fund, and Volvo Group and its partners.

NFI upgraded the facility's power supply and installed two 150kW chargers to support its heavy-duty vehicles. The facility's Level 2 forklift chargers support its Crown lithium-electric forklifts.

Dependable Supply Chain Services

Between 2019-2021, Dependable Supply Chain Services deployed Orange EV pure electric terminal Class 8 trucks, three Volvo heavy-duty electric Class 8 trucks, two yard tractors, and fourteen forklifts in Ontario as part of the Volvo LIGHTS Project.

The vehicles are supported by two 150kW chargers, ten L2 workplace chargers, four L2 10kW chargers, and fourteen L2 forklift chargers. The facility also installed solar panels and onsite energy storage.



Photo taken from Volvo LIGHTS website.

TEC Equipment

TEC Equipment deployed sixteen Volvo heavy-duty EV trucks, one EV forklift, and one Class 3 EV truck at its Fontana and La Mirada facilities as part of the Volvo LIGHTS project pilot.

The vehicles are supported by two 150kW chargers, two 50kW chargers, one 24kW charger, twenty L2 workplace chargers, and a number of mobile chargers.



Photo taken from TEC website.

Medium- and Heavy-Duty EV Infrastructure Projects

Performance Team and Prologis

Performance Team partnered with Prologis to establish two electric charging stations in November 2022. The charging sites, located in Santa Fe Springs and City of Commerce, provide more than 3.9 megawatts of total installed charging capacity and support 38 new Volvo VNR Electric Class 8 battery-electric trucks. These trucks support short-haul warehouse and distribution operations. The Santa Fe Springs installation can charge 16 trucks at once and allows the company to save time and energy. The Commerce Transport Center installation was installed in coordination with SCE and completed from design to energization within one year.

Anheuser-Busch Companies, LLC



Photo taken from Southern California Edison website.

Anheuser-Busch deployed 21 BYD 8TT Class 8 battery-electric delivery trucks at its Southern California distribution facilities in Pomona, Sylmar, and Carson. The trucks each haul about 20 tons reliably for 100 miles or more to deliver products. Anheuser-Busch installed twenty-one 40kW chargers at each of its three facilities in Southern California, as part of the SCE Charge Ready Transport program.

Antelope Valley Transit Authority

The Antelope Valley Transit Authority (AVTA) became the nation's first all-electric transit agency in April 2022, 18 years earlier than required by CARB's Innovative Clean Transit regulation. It serves Lancaster, Palmdale, San Fernando Valley, and Downtown Los Angeles.

It operates 57 BYD zero-emission buses, 10 GreenPower EV Star Microtransit vans, and 20 MCI battery electric commuter coaches. The vehicles are supported by 87 depot chargers as well as 50kW and 250kW WAVE wireless chargers.



Photo taken from AVTA website.

Medium- and Heavy-Duty EV Infrastructure Projects

Solano County Transit (SolTrans)

Solano County Transit in Northern California welcomed its electric highway bus and wireless inductive charger in September 2022 at the SolTrans Curtola Park & Ride Hub in Vallejo. The wireless inductive charger was installed by Momentum Dynamics and funded through the Transportation Development Act and the Bay Area Air Quality Management District's Transportation Fund for Clean Air grants. This project is part of the Solano Transportation Authority's plan to electrify its existing long-haul regional bus routes and install 7 inductive charging pads at their transit centers by 2024. The plan received \$2.7M from the Transit and Intercity Rail Program and \$1.7M from the California Energy Commission Bestfit Innovative Charging Solutions Grant Program.

WallyPark Airport Parking

Airport parking company WallyPark in Los Angeles operates 40 electric shuttle buses to transfer clients to and from Los Angeles International Airport. Working with Green Water and Power, WallyPark installed twenty-four 50kW level 3 chargers to support their EV buses. According to Green Water and Power President and Founder Daniel Gold, LADWP's incentive dollars covered the cost of the EV infrastructure installation in its entirety. The infrastructure installation at WallyPark was completed within one year.



"We are so proud to bring this technology and zero emission bus to Solano County...We are committed to bringing ambitious clean air strategies to our county's public transportation system."

BETH KRANDA
SolTrans Executive Director