UC Berkeley Issues Roadmap to Electric Truck Incentives

A report issued today by the Goldman School of Public Policy provides a roadmap to California state programs designed to boost markets for electric trucks, freight equipment and supporting infrastructure. Approximately $1.8 billion is available to buy-down the initial cost of a wide range of equipment to reduce emissions from heavy-duty diesel-powered vehicles and cargo handling equipment.

California has long recognized that diesel emissions are responsible for lung cancer, heart disease and other adverse health effects. A series of federal and state tailpipe standards reduced emissions substantially, but recent air quality monitoring data show that people living near heavy truck traffic, ports and warehouse complexes still suffer high exposure to diesel pollution. This often occurs in minority, low-income neighborhoods, where diesel exposure can be 2-3 times higher than in areas that are more affluent.


David Wooley, Director of Goldman School’s Environmental Center noted that fuel (electricity) and maintenance costs of electric trucks are lower than for diesel engines, but initial purchase costs are currently higher. Cash incentives lower the cost for early adopters and help create market demand that will drive down the cost of electric truck and freight equipment.

“Trucking is ripe for change. Dozens of manufacturers, including Toyota, Volvo, Siemens, TESLA, BYA, Bosch, Cummins, and Proterra produce equipment that can carry heavy loads 100 miles between charges. Daimler and others will sell medium and heavy-duty electric trucks with 200-250 mile range by 2021. The state incentives set up a vibrant new market for batteries, electric drive-trains, charging equipment and power infrastructure.”

The funding also has other important benefits. With two-thirds of CA’s crude oil supply coming from imports, California’s clean vehicle incentive programs move the state toward energy independence. Trucking electrification also lowers risks from rising fossil fuel prices and supply
interruptions. Moreover, with California’s efforts to decarbonize the electric sector, greenhouse gas emissions associated with electric trucks are dramatically lower than diesel powered engines.

Wooley noted that the state funding complements other actions to reduce emissions from freight operations.

- The Port of Oakland recently issued a draft plan to achieve zero diesel emissions from freight operations,
- Los Angeles ports plan to incentivize zero emission trucking through port access charges, and
- Several Bay Area cities will sign a “Diesel Free by ‘33” pledge at Governor Brown’s Global Climate Action Summit in September.

Principal author, Stacey Davis of the Center for Clean Air Policy, stated:

The Report empowers affected communities, truck and fleet owners, and large indirect sources (e.g., ports) to shift away from older diesel technologies, reduce fuel costs and develop funding strategies to purchase low- and zero-emitting equipment and supporting electric power and charging infrastructure.

The report catalogues a broad array of state funding programs available to reduce the cost of clean transport equipment and increase investment in low- and zero-polluting freight equipment. It provides a roadmap to funding programs, and guides applicants through the differing eligibility criteria, application rules, timeframes, and funding limits. The paper also identifies opportunities to secure funding from multiple programs for a single purchase (“stacking”).