



Northern California Megaregion Zero Emission Medium- and Heavy-Duty Vehicle Study

Receive & File

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Attachments: Yes

Referring Committee: Transportation

Issue:

This item provides an update of the Northern California Megaregion Zero Emission Medium and Heavy-Duty Vehicle Study.

Request:

This item is receive and file only.

Recommendation for Board:

None; this is for information only.

Recommendation for Committee:

None; this is for information only.

Background:

In 2022, SACOG submitted an application for a Caltrans Sustainable Transportation Planning grant to develop a Northern California Megaregion Medium/Heavy Duty (M/HD) Zero Emission Vehicle (ZEV) Study in the 15-county megaregion. At their September 2022, meeting, the SACOG board authorized staff to conduct contracting and budgeting activities to initiate the plan.

Since then, staff have procured a consultant to support the development of the study. Frontier Energy, an organization that has worked with local governments, utilities, and private industry to define and develop strategies for energy production, energy efficiency, and advanced transportation has led the development of the plan.

The study identified actions and milestones to implement the electric charging and hydrogen refueling infrastructure needed to support the deployment of M/HD ZEVs. The plan is needed to address the responsibilities outlined in Executive Order N-79-20, which requires all operations of M/HD vehicles to be 100 percent zero-emissions by 2045 (by 2035 for drayage trucks) where feasible. The study addresses the critical infrastructure issues, policy needs, and community engagement efforts necessary to support this transition.

Discussion/Analysis:

The study employed a human-centered approach, integrating input from diverse stakeholders, including local governments, utilities, air districts, trucking operators, station developers, and community members. The strategy focused on forecasting ZEV adoption, identifying optimal sites for charging and hydrogen stations, establishing clear evaluation criteria, and developing detailed, site-specific implementation plans.

A comprehensive data collection and analysis process was undertaken to achieve the project's goals. This included mapping existing and planned infrastructure, assessing community impacts, and evaluating utility capacities. The project also prioritized the engagement of disadvantaged communities, ensuring their voices were heard and their needs addressed throughout the planning process.

Under the guidance of a Steering Committee and with significant stakeholder and community input, the study aimed to:

- Identify and build sustainable partnerships
- Take action to enable near-term charging and hydrogen stations
- Specify mid-term “no regrets” decisions for the next stage of development
- Craft long-term policies and processes that avoid having stranded assets

The study aimed to identify at least 11 zero-emission fueling stations for trucks along the major freight corridors: I-5, I-80, Highway 99, Highway 50, I-580, and I-205. Each site has an action plan that includes partnerships, business models, community engagement, electrical upgrades, and roadway improvements needed for the deployment to be successful. Each action plan element has a timeline and a way to measure deployment success.

The study identified 17 sites for ZEV fueling stations that will support freight and goods movement in the Bay Area, Sacramento region, and Sierra, listed in the table below. These locations were chosen based on traffic volume, proximity to existing and planned infrastructure, community impact, and utility capacity.

Six of the original 17 sites (35 percent) were “claimed” by a fuel station developer during the project. The project team coordinated with the fuel station developers to offer support but did not analyze these properties further. The project team evaluated and analyzed 11 sites, shown in the table below. Factsheets for each site were developed to encourage development and can be found in the final report beginning on Page 77.

Address	City	County	Corridor	Land
1001 Sutter Street	Yuba City	Sutter	Hwy 99	.61 acres, near baseload fleets
695-710 Spaans Drive	Galt	Sacramento	Hwy 99	4 acres on high-travel routes
15314 N. Thornton Road	Lodi	Sacramento	Hwy 99	5 acres on high-travel routes
1422-1510 Boeing Way	Stockton	San Joaquin	Hwy 99 and I-5	11 acres, on high-travel routes, near baseload fleets

Address	City	County	Corridor	Land
8638 Sparling Lane	Dixon	Solano	I-80	Caltrans Maintenance station, large baseload fleet, critical facility during emergencies
2243 Cornelian Drive	South Lake Tahoe	El Dorado	Hwy 50	Caltrans maintenance station, critical facility during emergencies
41975 Nyack Road	Emigrant Gap	Placer	I-80	1 acre, unauthorized truck parking, chain station
8308 Pedrick Road	Dixon	Solano	I-80	10 acres, on high-travel routes, near baseload fleets
3151 South Highway 99	Stockton	San Joaquin	Hwy 99	3 acres, on high-travel routes, near baseload fleets
920 Performance Drive	Stockton	San Joaquin	Hwy 99 and I-5	8 acres, zoned for truck yard, on high-travel routes, near baseload fleets
20781 US HWY 50	South Lake Tahoe	El Dorado	Hwy 50	1 acre, only property on 50 that can be developed
I-80/505 Junction	Vacaville	Solano	I-80	Claimed by fuel station developer
Army Depot	Sacramento	Sacramento	Highway 50	Claimed by fuel station developer
Industrial Way	West Sacramento	Yolo	I-80/Hwy 50	Claimed by fuel station developer
Jack Tone Road	Ripon	San Joaquin	Highway 99	Claimed by fuel station developer
Richmond Parkway	Richmond	Contra Costa	I-80	Claimed by fuel station developer
Mariposa Road	Stockton	San Joaquin	Highway 99	Claimed by fuel station developer

The full study and its findings are attached.

Fiscal Impact/Grant Information:

Included in the Overall Work Program/Budget

List of Attachments:

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