

STAFF REPORT



MEETING DATE:	December 13, 2021
SUBJECT:	Discuss Efforts to Move to A Zero-Emission Vehicle Fleet in California and SRTA's Role Going Forward
AGENDA ITEM:	12
STAFF CONTACT:	Sean Tiedgen, AICP, Senior Transportation Planner

SUMMARY:

At SRTA's October board of directors meeting, staff was asked to provide information regarding zero emission vehicles, the need for charging stations, and the role of SRTA.

STAFF RECOMMENDATION:

It is recommended that the board of directors receive a presentation regarding California's effort to move all vehicles to being zero-emission, its impact on the region, and discuss SRTA's role.

DISCUSSION:

Why is a discussion on electric vehicles needed? – Technological advances in zero-emission vehicles (ZEVs) (e.g., battery-electric and hydrogen fuel-cells) can reduce air pollutants and a reliance on fossil fuels. Attachment A provides a summary of California laws related to the below goals to replace all gas/diesel-powered vehicles with ZEVs by 2100 or sooner:

- Convert all public transportation bus fleets to zero-emission by 2040.
- Set a goal of 100% zero-emission vehicles sales by:
 - 2030 – passenger cars and passenger trucks
 - 2035 – off-road vehicles and equipment
 - 2045 – drayage trucks and medium/heavy-duty trucks
- Require 90% of all vehicle miles traveled by transit network companies (i.e., Uber, Lyft, etc.,) to be zero-emission by 2030.
- Build 250,000 EV charging stations by 2025 and 1.2 million EV charging stations by 2035.

What is the status of electric vehicles statewide and in Shasta County? – A June 2021 California Energy Commission report said 73,000 EV charging stations and 47 hydrogen fueling stations are available for public use in California. Another 123,000 EV charging stations and 33 hydrogen fueling stations are expected to be built by 2025 through state grants, expected utility investments, and settlement agreements. State efforts have focused on the largest urban areas with minor investments made along most major highways.

In Shasta County, there are 19 publicly available EV charging stations (i.e., combination of Level 2 and DC fast chargers). Most are located at retail or public parking lots, restaurants, hotels, gas

stations, or schools in the cities. Stations are also located at Bass Hole Brew in Lakehead, Foothill Highschool in Palo Cedro, and the Kohm Yah-mah-nee Visitor Center in Lassen National Park. The city of Redding is installing four city-owned DC fast chargers in the Sundial Bridge parking lot which should be available for use later this month.

What funding opportunities are there for vehicles or charging stations and infrastructure? –

There are many federal, state, and local grant opportunities for ZEVs and charging equipment. Rebates and tax credits are available ranging from \$500 to \$2,000,000 depending on the type of vehicle or equipment. Attachment B provides a list of online resources and notable public and private funding opportunities.

Over the next five years, \$3 billion in federal and state investment in zero-emission infrastructure is expected in California. Recent announcements related to ZEV infrastructure investments include:

- In April 2021, the California Energy Commission approved \$50 million toward ZEV projects.
- The recently signed Infrastructure Investment and Jobs Act (IIJA) provides \$7.5 billion for a national network of ZEV stations. It's estimated California would receive \$384 million over the next five years to support the expansion of the national ZEV station network. Additionally, \$7.5 billion will be made available for replacing current school buses with zero emission buses.
- On November 15, 2021, the California Energy Commission approved \$1.1 billion for ZEV infrastructure in their 2021-2023 Investment Plan Update for the Clean Transportation Program.
- On November 19, 2021, the California Air Resources Board approved \$1.5 billion in clean vehicle investments for FY 2021-22.

To put the above funding amounts in perspective, SRTA typically receives ½ of 1% of the federal funds California receives. If the region could secure a similar amount from the above programs, the result would be a \$15 million investment in ZEVs over a five-year period.

What has been SRTA's role in planning for electric vehicles? – SRTA's early efforts focused on regional ZEV planning studies and attempts to acquire capital funds for the region. Planning studies estimated the number of stations needed to support personal ZEVs and freight fleets, and potential emission reductions. In 2017, SRTA and RABA acquired federal funds for the region's first zero-emission bus. SRTA tried to acquire funding for ZEV rebates and stations from Electrify America, however, Electrify America focused on "shovel ready" projects in large cities. Attachment C summarizes key activities since 2014.

What should SRTA's role be going forward? – The transition to zero-emission vehicles is consistent with regional transportation plan goals. SRTA can assist interested partners by sharing information on ZEV data and funding resources, coordinating on grant projects, and providing support letters. SRTA can support public and private public transportation fleets in their

transition zero emission. SRTA can also focus on investments that maximize funding and are most advantageous to the region through targeted planning studies and leveraging state and federal funds.

In the near-term, staff recommends that SRTA focus on the following activities:

- Develop a ZEV informational webpage on SRTA's website on planning efforts and resources.
- Work with interested parties on applying for federal/state infrastructure grants for battery-electric and hydrogen stations and provide letters of support.
- Consider developing a regional ZEV transit fleet rollout plan in partnership with RABA and Dignity Health Connected Living by June 2023. Pursue grant funds and use SRTA's LCTOP allocations and SGR funds toward this effort.
- Continue to pursue efforts to start the Salmon Runner service as a zero-emission fleet.
- Other support roles that may arise to keep the region well-positioned to compete for ZEV grants.

FISCAL IMPACT:

SRTA's ZEV efforts are considered annually in the agency's Overall Work Program planning priorities and comprehensive budget.



Daniel S. Little, AICP, Executive Director

Attachment:

- A:** California Regulations Related to Greenhouse Gas Emissions and Zero-Emission Vehicles
- B:** Federal, State, and Local Zero Emission Vehicle Funding Opportunities
- C:** SRTA Zero Emission Vehicle Planning Efforts

Attachment A

California Regulations Related to Greenhouse Gas Emissions and Zero-Emission Vehicles

Law or Executive Order	Description
EO B-30-15 (Brown, 2015)	Reduce GHG emissions below 1990 levels by 2030
EO B-45-18 (Brown, 2018)	Achieve carbon neutrality by 2045
EO N-79-20 (Newsom, 2020)	Sets goal of 100% of vehicle sales be zero-emission as follows: -passenger cars/truck sales be zero-emission by 2030 -medium/heavy-duty vehicle sales be zero-emission by 2045 -drayage trucks by 2045 -off-road vehicles and equipment by 2035
Assembly Bill (AB) 32 (Nunzez, 2006)	Requires California to reduce GHG emissions to 1990 levels by 2020 (estimated as 15% below emissions under "business as usual.") https://ww2.arb.ca.gov/resources/fact-sheets/ab-32-global-warming-solutions-act-2006
Senate Bill (SB) 375 (Steinberg, 2008)	Regional GHG emission reduction targets for MPOs. SRTA's target is -4.0% for 2035. https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets
Innovative Clean Transit (ICT) Rule	Requires all public transit agencies to move to zero-emission fleets by 2040. Zero-Emission bus purchase requirements are: -Small agency bus purchases must be zero-emission with 25% in 2026 and 100% in 2029; -Large agency bus purchases must be zero-emission with 25% in 2023, 50% in 2026, and 100% in 2029. https://ww2.arb.ca.gov/our-work/programs/innovative-clean-transit/ict-regulation
SB 1014 (Skinner, 2018)	Created the 'Clean Miles Standard' which requires Transit Network Companies (TNCs) (i.e. Uber, Lyft, etc.,) must start having more of their services provided by zero-emission vehicles. This is quantified by vehicle miles traveled (VMT). Draft proposed rules would require 13% of all VMT be zero-emission by 2025, and 90% of all VMT by 2030. Potentially forces private drivers to purchase or lease zero-emission vehicles to continue providing services for Uber, Lyft, and similar companies. https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB1014

Attachment B

Federal, State, and Local Zero Emission Vehicle Funding Opportunities

Funding Research Tools:

- DriveClean (<https://driveclean.ca.gov/>) enables searches for vehicle and infrastructure incentives by zip code for an individual, business, non-profit, or government agency; and
- California's Go-BIZ website (<https://business.ca.gov/industries/zero-emission-vehicles/>) lists funding sources by state agency.

Federal Funding Opportunities:

- List of federal ZEV incentives: https://afdc.energy.gov/laws/fed_summary
- Federal Transit Administration Low-No Emission Vehicle Program: <https://www.transit.dot.gov/lowno>

State Funding Opportunities:

- California Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP): <https://californiahvip.org/>
- Electrify America: <https://www.electrifyamerica.com/>
- California Energy Commission Funding Areas: <https://www.energy.ca.gov/programs-and-topics/programs/clean-transportation-program/clean-transportation-funding-areas>

Local Funding Opportunities:

- Cal eVIP Northern California Incentive Project: <https://calevip.org/incentive-project/northern-california>
- Shasta County Air Quality Management District: <https://www.co.shasta.ca.us/index/drm/air-quality>

Utility Rebate/Grant Programs:

- Redding Electric Utility (REU): <https://www.cityofredding.org/departments/redding-electric-utility/reu-pages/electric-vehicles>
- PG&E EV Fleet Program: https://www.pge.com/en_US/large-business/solar-and-vehicles/clean-vehicles/ev-fleet-program/ev-fleet-program.page
- PG&E EV Fast Charge, Charge Schools, and Charge Parks Programs: https://www.pge.com/en_US/small-medium-business/energy-alternatives/clean-vehicles/ev-charge-network/electric-vehicle-charging/electric-vehicle-programs-and-resources.page?ctx=large-business

Attachment C

SRTA Zero Emission Vehicle Planning Efforts

Planning Studies:

- Upstate PEV Readiness Plan for Siskiyou, Shasta, and Tehama Counties (2014):
https://www.srta.ca.gov/DocumentCenter/View/1558/120914_11_UpstatePEV_Plan?bidId=
- Northwest California Alternative Fuels Readiness Plan (2016):
<https://redwoodenergy.org/wp-content/uploads/2019/02/Northwest-California-Alternative-Fuels-Readiness-Plan.pdf>
- North Coast and Upstate Fuel-Cell Electric Vehicle Readiness Plan (2019):
<https://redwoodenergy.org/wp-content/uploads/2021/03/North-Coast-and-Upstate-Fuel-Cell-Vehicle-Readiness-Project.pdf>

Technical Support:

- Letter of support and information for ChargePoint I-5 Corridor DC fast charge network project (2015): https://www.srta.ca.gov/DocumentCenter/View/2710/120815_5-5_Correspondence?bidId=

Capital Projects:

- North State "SuperCharge" Project Proposal:
<https://www.srta.ca.gov/DocumentCenter/View/3375/North-State-SuperCharge-Project-Proposal?bidId=>
- Assisted RABA in acquiring region's first all-electric bus and charging station (2017):
https://www.srta.ca.gov/DocumentCenter/View/3817/SRTA_10-10-17_5-5_Corresp?bidId=
- Salmon Runner intercity bus capital funds (2018): https://ca-srta.civicplus.com/DocumentCenter/View/4163/BOD_12_Intercity_Bus_061918
- Funding to RABA for additional bus charging stations (2021):
https://www.srta.ca.gov/DocumentCenter/View/5677/5-11_FY_21_22_SGR