

Transforming Transportation



California's transportation sector accounts for about 50 percent of the state's greenhouse gas emissions, nearly 80 percent of nitrogen oxide pollution, and 90 percent of diesel particulate matter pollution. Transitioning the transportation sector to low-carbon fuels and zero and near-zero emission technologies is critical to achieving climate change goals and clean air standards.

The California Energy Commission invests about \$100 million each year to make California's transportation sector cleaner and conducts world class analyses on transportation trends.

Investing in Projects That Can Be Transformative

Through the Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP), the Energy Commission provides about \$100 million each year to develop and deploy low carbon fuels, infrastructure for zero and near-zero emission vehicles, and advanced vehicle technologies. The ARFVTP is in its 10th year and has invested more than \$750 million in more than 600 projects. The program is:

- **Directing Investments in California's Disadvantaged Communities.** Approximately 35 percent of ARFVTP investments benefit underserved, low income, or disadvantaged communities that are disproportionately affected by air pollution and other consequences of petroleum-powered transportation.

- **Deploying Charging Infrastructure for Plug-in Electric Vehicles.** The Commission has funded more than 8,800 electric vehicle charging stations across the state, including the largest rural deployment of solar powered chargers in Fresno County, and has created an innovative new program called CALeVIP to accelerate buildout of California's charging network.
- **Building a Foundation for Hydrogen Refueling Stations.** Before the program debuted in 2008, there were no hydrogen refueling stations available to the public in California. Today there are 38 operational retail fueling stations, with another 28 slated for construction—all of them funded through the Energy Commission.
- **Advancing Low Carbon Fuels.** ARFVTP grants have expanded in-state production of low-carbon fuels that assist in achieving the goals of the state's low carbon fuel standard, delivering more than 130 million diesel gallon equivalents of low carbon fuels into the California market.
- **Incubating Innovation in Medium and Heavy Duty Advanced Technology Vehicles.** Working closely with partners like California's seaports, the Energy Commission is demonstrating zero and near-zero medium and heavy duty vehicles.



- **Aligning Clean Technology Investment with Economic Development.** The Energy Commission is helping to infuse California's workforce with individuals who have skills and knowledge in cleaner transportation technologies and has invested nearly \$35 million into more than 17,400 trainees. These awards enable development of curriculum, accessibility to essential equipment, and training the trainer instructional programs.
- **Strategically Supporting Key California Policy Goals and Objectives.** California has multiple policies in place to reduce greenhouse gas emissions, criteria air pollutants, and petroleum fuel use, to increase jobs and continue the state's cutting edge leadership, and to ensure that the transition to zero emission transportation is equitable. The ARFVTP is nimble and flexible as it directs investments to the most critical needs.

Each year, the Energy Commission develops an ARFVTP investment plan update that establishes funding priorities that align with state transportation policies, reflect program goals, and provide opportunities to complement and leverage existing public and private investments. The program also has an advisory committee—consisting of representatives from private industry, government, nonprofit groups, and the public—that provides valuable expertise and input in developing the investment plan.

Replacing High-Polluting School Buses with Newer, Cleaner School Buses

The Energy Commission has received a one-time allocation of \$75 million to replace the oldest and most polluting school buses throughout California, with a priority on disadvantaged communities. The School Bus Replacement Program aims to reduce the exposure of California's students to toxic diesel exhaust and air pollution by getting them out of polluting diesel school buses and into state of the art, zero-emission school buses. Energy Commission staff has actively engaged with school districts and other stakeholders on program design and have received requests from 215 applicants for more than 1,700 new school buses. The Energy Commission will also help support the installation of the necessary fueling infrastructure for these school buses through ARFVTP.

Monitoring and Tracking California's Petroleum Industry

Under the Petroleum Industry Information Reporting Act, the Energy Commission collects data from refiners, producers, petroleum product transporters and marketers, and petroleum pipeline and terminal operators. Each entity must submit weekly, monthly, and annual reports on receipts, inventory levels, imports, exports, prices, and transportation sources.

The Energy Commission uses this information to develop a biennial assessment of California's transportation fuel markets and provides policy makers and the public with key insights on oil supply and demand.



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