For Immediate Release: November 4, 2010
Media Contact: Susanne Garfield - 916-654-4989

Energy Commission Awards $9.6 million for Electric Vehicles, Biofuel, and more

Hundreds of Jobs Created in California's Alterative Vehicle and Transportation Fuel Sector

SACRAMENTO - The California Energy Commission has approved eight grants that leverage more than $9.6 million in state funding with $11,969,855 in private funds. The projects will reduce petroleum use, cut pollution and provide jobs by advancing the manufacture of electric vehicles and vehicle batteries, adding vehicle charging stations, and encouraging the use of biofuels. The $9,612,515 is funded from the Energy Commission's Alternative and Renewable Fuel and Vehicle Transportation program.

"Three years ago California crafted innovative legislation that is paying dividends in ground-breaking advances in transportation," said Energy Commissioner Anthony Eggert. "Partnerships between government and the private sector are encouraging new industries that can rebuild California's manufacturing base. The projects the Commission approved will improve California's economy and its environment by fostering green, clean advancements in transportation."

Here is a summary of the eight projects, their costs and benefits:

- Electric Vehicle manufacturing - $1 million to TransPower, a clean energy company headquartered in Escondido to study the feasibility of manufacturing large electric-drive trucks in or near San Pedro by 2013. By combining several processes and companies under one roof, the Vertically-Integrated Facility for Electric Truck Manufacturing would combine the building of components like advanced converters or battery modules with their assembly into electric drive systems. These would then be installed on-site into mass-produced truck bodies made elsewhere. Project partners will provide $1,000,000 to match the state grant. The goal is to ramp up production to 2,500 trucks by 2020, creating 1,500 high-paying jobs. Each electric truck that replaces a diesel model can save an estimated 75 tons of CO2 a year.

- Electric vehicles components - $505,381 to San Francisco-based Mission Motor Company to help it bring its prototype electric vehicle components to commercial production. In 2007 the company developed Mission One, a high performance electric motorcycle. The company used that technology to create battery modules and motor control systems that will work in other electric motorcycles, scooters, cars, buses and even outdoor power equipment. Along with the Energy Commission grant, Mission Motor Company will provide match funding of $623,581 to create an assembly facility in downtown San Francisco that should be capable of producing 30,000 battery packs and motor control systems each year by 2015, creating as many as 100 jobs. If used in a motorcycle, the resulting powertrain will reduce greenhouse gas emissions by an estimated 72 percent and save 70 gallons of petroleum each year. If used in a light duty passenger vehicle, the powertrain will cut emissions by the same percent as it displaces 575 gallons of petroleum yearly.

- Electric vehicles components - $2,962,743 to Leyden Energy, Inc., to help it create a production line capable assembling its Lithium ion cells into 10 battery packs per month for its partner in the project, electric vehicle manufacturer Green Vehicles of Salinas. Leyden Energy, Inc. is a battery developer and manufacturer based in Alameda County. The two companies will provide $2,963,000 to match the Energy Commission funding. The project will create 11 technical and production jobs immediately, with another 500 anticipated to be added at Leyden Energy's Fremont headquarters and at a future commercial-scale production facility planned for Salinas. Each battery pack that goes into a light-duty electric vehicle is expected to reduce petroleum use by 575 gallons per year and reduce the resulting greenhouse gas emissions by 72 percent. Large battery systems with thousands of cells are the single most expensive component in an electric vehicle, accounting for up to 50 percent of the purchase price.

the refueling of its growing fleet of compressed natural gas-powered buses. The grant will allow the transit system to install larger, higher capacity fueling compressors that will cut in half the time needed to refuel a CNG bus at its South Bay Maintenance Facility. San Diego is in a non-attainment air basin for oxides of nitrogen and particulates, and the new fueling equipment will allow Metropolitan Transit to incorporate 40 CNG new buses into its system and improve its ability to meet federal and state air quality standards. Because CNG has 21 percent fewer emissions than diesel, San Diego's nearly 200 CNG buses will reduce greenhouse gases by an estimated 3,800 metric tons of CO2 a year, compared to similar diesel-powered vehicles. Natural gas will displace 1.5 million gallons of diesel fuel each year. The Federal Transit Administration will also provide $1,176,000 for the San Diego project.

- Biofuel production - $1,989,101 to Great Valley Energy LLC to test the feasibility creating biofuel from a crop new to the Central Valley - sweet sorghum. A salt-tolerant crop that needs one-third less water than California-grown cotton or corn, sweet sorghum can yield as much ethanol per bushel as corn, and can be used for food, forage and fiber as well as fuel. Team partners will provide match funding of $2,000,270 to install a pilot sorghum separation and testing facility in Hanford. If the testing is successful, the team will consider building smaller-scale ethanol plants distributed across the Valley to be close to the sorghum fields to lower transportation costs. Each of the commercial refineries could create an additional 20 jobs. By 2020, Great Valley Energy estimates it could have 15 small dispersed plants, each capable of producing 3.15 million gallons of ethanol a year. The total annual production of more than 47 million gallons would, over an eight-year period, displace more than 7 million barrels of petroleum and reduce greenhouse gases by the equivalent of 1.6 million tons of CO2.

- Biofuel production -$1,900,000 to the City of San Jose to build and demonstrate a new system that turns trash into natural gas that can be used as a transportation fuel. The project team, which includes international biomass gasification specialists, will provide $4,214,624 in match funding to create a facility to produce methane at the San Jose/Santa Clara Water Pollution Control Plant. The resulting transportation fuel could save the City $450,000 a year by using natural gas in its vehicles, and the urban wood waste, yard waste and other biosolids used to make the fuel will no longer have to be landfilled, generating additional savings. San Jose may also be able to sell excess heat and electricity created by the project. The project is expected to reduce the City's greenhouse gas emissions by more than 1,600 tons of CO2 annually. Approximately 15 construction jobs will be created by the demonstration project, and the City is still determining how many full time workers will be needed to operate the plant.

- Biodiesel production - $1,000,000 to East Bay Municipal Utility District (EBMUD) to make an estimated 300,000 gallons of biodiesel each year at its existing wastewater treatment plant in Oakland. The process will utilize waste fats, oils and grease, a feedstock that reduces greenhouse gas emissions by 88 percent compared to regular diesel - providing an important air quality improvement. If successful, the project also could provide an important revenue stream for wastewater treatment plants across the nation. California wastewater treatment facilities alone could produce as much as 60 million gallons of biodiesel a year, creating 150 to 300 permanent jobs in the process. For the research project EBMUD and its project team will provide $1,575,000 in match funding to construct a facility to receive waste fats, oils and grease and install two 30,000 gallon storage tanks. While lighter fats and oils are well suited to become biofuels, heavy greases such as brown grease are challenging to convert. East Bay MUD will test improved ways to harvest the heavy greases and to reduce the sulfur content of biodiesel.

- Biodiesel distribution - $69,233 to the Western States Oil Company to convert an existing, 8,000-gallon retail tank used for premium gasoline into one that can dispense wholesale biodiesel. Because the tank is immediately adjacent to the Kinder Morgan Pipeline Terminal in San Jose, delivery trucks leaving the terminal will be able to easily access the biofuel. The wholesale tank will hold 99 percent biodiesel, which will be mixed in the truck or trailer truck to make blends of 5 percent, 20 percent and up to 99 percent biodiesel. The project lowers the price of biodiesel by reducing the cost of distribution in the southern part of the San Francisco Bay area. By displacing petroleum-based diesel, the 5.25 million gallons of biodiesel the new facility can blend and distribute each year will reduce greenhouse gas emissions by an estimated 32,000 tons of CO2. Western States Oil will provide funding of at least $217,380 to match the Energy Commission grant. Biodiesel reduces greenhouse gas emissions by 15 percent if made from soybeans or up to 88 percent if made from waste grease. A lack of biodiesel terminals, bulk storage and blending facilities, however, limits California's ability to use the renewable fuel.

About the California Energy Commission

The California Energy Commission is the state's primary energy policy and planning agency. It was created by the Legislature in 1974; its responsibilities include forecasting future energy needs, licensing thermal power plants, promoting energy efficiency, supporting the renewable energy market, administering the American Reinvestment and Recovery Act funding through the state energy program, and more. For more information, visit www.energy.ca.gov

Assembly Bill 118 (Núñez, Chapter 750, Statutes of 2007) created the California Energy Commission's Alternative and Renewable Fuel and Vehicle Technology Program. The statute, amended by Assembly Bill 109 (Núñez, Chapter 313, Statutes of 2008), authorizes the Energy Commission to develop and deploy alternative and renewable fuels and advanced transportation technologies to help achieve the state's climate change policies.

# # #

Last Modified: 11/04/10