

Item #3
November 3, 2010
Energy Commission Business Meeting

MISSION MOTOR COMPANY

Grant Agreement ARV-10-021
for

Electric Vehicle Component Commercialization Through
Product Validation and Process Improvements

Summary

Mission Motor Company, a high performance electric motorcycle and electric powertrain technology company based in San Francisco, will use this grant to advance its battery module and motor control systems from the working prototype phase to a final product ready for commercial production. The manufacturing assembly lines that will be designed and validated during the course of the project will be capable of producing 30,000 battery packs and motor control systems per year by 2015.

Mission Motor's electric powertrain is modular and scalable due to the design constraints imposed by use in a motorcycle platform. This scalability allows the powertrain to be applied broadly; in cars, motorcycles, scooters, buses, and outdoor power equipment. Mission Motor has signed contracts or is developing strategic partnerships with large vehicle manufacturers or fleet owners in each of those areas.

AB 118 grant funding will help Mission bridge the gap between current prototypes and final tested products. This project will quickly put Mission Motor in a position to fill production orders that are already coming in, and it will allow the small company to gain market share at a time when the electric vehicle component marketplace is rapidly developing and increasing in size.

The Energy Commission is providing \$505,381 in Alternative and Renewable Fuel and Vehicle Transportation Program funds and the project team will provide match funding of \$623,581.

Benefits

Completion of this project will result in a new electric vehicle component manufacturing facility in San Francisco in addition to the creation of four permanent manufacturing jobs. As the business grows, Mission Motor's analysis predicts that they could add as

many as 100 green-collar manufacturing and assembly jobs to California by 2015, and will have 58,000 powertrains operating in California and 500,000 world-wide by 2020.

As a company, Mission Motor maintains a commitment to sustainability in operations, full-cycle sustainability in product design and manufacturing, and social sustainability in the relationships between the company, employees, and the local community. Examples of this commitment include designing products so that they can be returned and reused at the end of their useful life, and locating the research, engineering, and assembly facility in downtown San Francisco so that employees can walk or bike to work.

If used in a motorcycle, each powertrain sold will be responsible for GHG emissions reductions of 72 percent and petroleum use reductions of 70 gallons per year. If used in a light duty passenger vehicle, GHG emissions reductions stay at 72 percent, but petroleum use reductions climb to 575 gallons.

Participants

Mission Motor Company was founded in 2007 as a high performance electric motorcycle and electric powertrain technology company. Mission Motor developed the Mission One, an electric motorcycle with a top speed of 150 miles per hour and a range of 150 miles per charge. Mission Motor employs fifteen people and is based in San Francisco, California.

Mission Motor will begin product validation in November 2010; the pilot production line will be operational by November 2011.