

Date: August 17, 2007

Committee Meeting Date: NA

Board Meeting Date: August 30, 2007

**BOARD MEMORANDUM**

ACTION X DISCUSSION        INFO       

**TO:** Santa Clara Valley Transportation Authority  
Board of Directors

**THROUGH:** Michael T. Burns  
General Manager

**FROM:** Kurt Evans  
Government Affairs Manager

**SUBJECT:** Legislative Positions

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**Policy-Related Action: Yes      Government Code Section 84308 Applies: No**

**RECOMMENDATION:**

Adopt a support position for AB 1077 (Lieber).

**BACKGROUND:**

AB 1077 enacts the California Plug-In Hybrid Electric Vehicle Leadership Act of 2007 to support the development and commercialization of plug-in hybrid electric vehicles (PHEVs). Specifically, the measure establishes the California Plug-In Hybrid Electric Vehicle Coordinating Council to do all of the following:

- Identify existing and potential barriers to the successful development and commercialization of plug-in hybrids.
- Facilitate the research, development and demonstration of plug-in hybrid electric vehicle technologies.
- Assess factors that will affect consumer demand for plug-in hybrids.
- Examine regulations, incentives and programs to facilitate the market introduction of plug-in hybrids.
- Facilitate interstate coordination for the development and commercialization of plug-in hybrids.
- Consider and recommend, as appropriate, research programs, demonstration programs and incentives to encourage the fueling of plug-in hybrids through

sustainable and renewable energy sources, including distributed solar generation and wind power.

- By October 1, 2008, identify the percentage or number of plug-in hybrids that could reasonably be added to the state vehicle fleet in the future.

The Coordinating Council would consist of representation from both the public and private sectors, including the following:

- ✓ California Energy Commission.
- ✓ California Air Resources Board (CARB).
- ✓ California Public Utilities Commission (CPUC).
- ✓ University of California.
- ✓ California State Legislature.
- ✓ Key stakeholder groups, such as automobile and automobile component manufacturers; research organizations; federal agencies and laboratories; air districts; local governments; municipal and investor-owned utilities; and environmental and other public interest organizations.

In addition, AB 1077 requires CARB, by January 1, 2009, to develop certification testing protocols for emissions, including both criteria pollutants and greenhouse gases, for the different types of plug-in hybrid electric vehicles.

### **DISCUSSION:**

Similar to many of today's hybrids, a plug-in hybrid electric vehicle is powered by both an engine using a conventional fuel such as gasoline and an electric motor powered by a battery. But a plug-in hybrid differs from other hybrids in that it has a bigger battery and can plug into a typical home outlet to charge, at an equivalent cost of under \$1 per gallon. This ability to charge from the electricity grid is what makes plug-in hybrids so promising. They can dramatically reduce greenhouse gas and other emissions, increase energy diversity and independence in the transportation sector, and reduce the cost of vehicle ownership.

A few plug-in hybrid demonstration vehicles are operating on California's roadways today. Most are "conversions"—traditional hybrids that have been converted to plug-in hybrids. Two plug-in hybrid Sprinter vans made by Daimler Chrysler are being tested in Southern California. Moreover, manufacturers such as General Motors, Toyota, Nissan, and Honda have either developed plug-in hybrid prototypes or have expressed an interest in pursuing this technology in the future.

A plug-in hybrid electric vehicle can be designed to operate in different ways. For example, it could be designed to operate using just battery power for short distances of around 20 miles. This all-electric or zero-emission mode is very appealing for use in California's congested smoggy inner cities, and offers the best of both worlds—it is an electric vehicle for everyday short trips and a gasoline car for longer trips. A plug-in hybrid can also be designed to operate in a way that optimizes the vehicle's performance,

fuel economy or other attributes. In this “blended mode,” a plug-in hybrid has less all-electric range, but can achieve excellent fuel economy, as much as 100 miles per gallon.

According to the California Energy Commission, a plug-in hybrid would reduce gasoline use by 50 percent to 70 percent compared with a gasoline vehicle, depending on its electric range. CARB notes that a plug-in hybrid with 20 miles of “all-electric range” that is charged from the California electricity grid would emit 62 percent less greenhouse gas pollution than a conventional car. Finally, research shows that approximately 89 percent of personal vehicle trips nationwide cover 20 miles or less, which is within the all-electric range of a plug-in hybrid.

In its 2005 Integrated Energy Policy Report, the California Energy Commission recommended that the state establish a public/private “working group to examine the markets for development and commercialization of [PHEVs]” and “develop partnerships with equipment manufacturers to demonstrate [PHEVs], assess consumer demand for these options, and support early incentives to reduce initial consumer costs.” AB 1077 is intended to implement the commission’s recommendation. This legislation would provide focus and leadership in state government, in partnership with public- and private-sector stakeholders, to overcome barriers and spur the commercialization of plug-in hybrid electric vehicle technology.

The author of AB 1077, Assembly Member Sally Lieber (D-Mountain View), has asked the VTA Board of Directors to consider supporting this bill. Because the legislation is intended to address the goal of developing alternative-fuel technologies to reduce greenhouse gas emissions and other air pollutants from the transportation sector, and to cut the consumption of fossil fuels, VTA staff recommends that the Board of Directors honor Assembly Member Lieber’s request and adopt a support position for AB 1077.

**ALTERNATIVES:**

The Board of Directors could decide to adopt an oppose position for AB 1077, or could opt to take no position on this bill at this time.

**FISCAL IMPACT:**

There is no immediate fiscal impact associated with this recommendation.

Prepared by: Kurt Evans  
Federal/State Government Affairs Manager