



**SOUTH BAY CITIES  
COUNCIL OF GOVERNMENTS**

## **Local Use Vehicle (LUV) Pilot Project: Demonstrating Public and Commercial Applications Funded By AQMD's Technology Advancement Office**

### **LUV Project Description**

The LUV Project will test the effectiveness of using 100% electric, zero emission local use vehicles (LUV) that are small, short range and slow speed for taking 'local' trips around South Bay neighborhoods. Many of the trips taken by South Bay residents and businesses today are less than 3 miles and are typically driven in long range, full size, full speed vehicles powered by the internal combustion engine.

The LUV project will demonstrate the benefits of using vehicle technology appropriate to the characteristics of the trip taken, while maintaining the convenience of door-to-door, on-demand service currently associated with gasoline-fueled one-type-fits-all-trips automobiles. Potential benefits include reductions of criteria pollutants and carbon emissions per mile; fuel costs per mile; total gasoline consumption per household; and overall congestion.



LUVs are limited to 25 MPH and can be legally driven only on streets with a posted speed limit of 35 MPH or less. They may cross streets with higher speed limits at signaled intersections. Maximum distance between charges average around 30 miles.

The SBCCOG partnered with Enterprise Fleet Management to acquire a fleet of five vehicles – 2 Wheego Whips, 1 GEM, a Columbia Summit and 1 Vantage. Up to as many as 3 more vehicles may be loaned to the SBCCOG by manufacturers, potentially increasing the total fleet size to 8 vehicles.

The vehicles will be loaned to participants chosen to test the LUVs in a variety of applications. Insurance will be paid by the SBCCOG so that each participant's only expense will be the electricity needed to charge the batteries. No special charging units are required as the vehicles plug into normal 110 Volt outlets.

Participating drivers will be asked to complete surveys about their usage, satisfaction, and ways to improve the vehicles, the streets and/or the parking situation. On-board GPS units will generate data on the movement of the vehicles, the speeds driven and routes taken.

The loan period will be approximately 6 months, with the vehicles being rotated to another set of participants after that time. The total demonstration period is 18 months so that there will be at least 3 sets of participants. The demonstration period began May 1, 2010.

The initial round of participants and their applications includes the following:

Beach Cities Health District – received a Wheego and a Columbia for case workers to conduct home visits to seniors living in Hermosa Beach, Manhattan Beach and Redondo Beach. Currently the case workers drive their own gasoline fueled automobiles for these trips.

Pike Properties – received a Vantage (4-door pick-up truck). Pike Properties is a firm that manages commercial and residential buildings in the Riviera Village neighborhood of south Redondo Beach. The vehicle will be shared by the various employees for tasks such as mak-

#### LOCAL GOVERNMENTS IN ACTION

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ing bank deposits, picking up materials for building repair, and showing prospective tenants the available properties.

Employees of the City of Hermosa Beach – received a Wheego for driving to work from Torrance and then made available for city employees such as the building inspector while at work. Primary driver's spouse is a home-based telecommuter who will use the vehicle for errands around the Torrance residential neighborhood when not driven to Hermosa Beach.

Resident of the Riviera Village neighborhood of south Redondo Beach – received a GEM for driving to work in north Redondo Beach and for household errands when the vehicle is at home.

The project is being funded by the Technology Advancement Office of the South Coast Air Quality Management District.

## LUVs Should:

**Provide Mobility Options** — There are few mobility options available

for travel in the South Bay. Those groups most affected include low income residents who are transit dependent, adolescents just starting to drive, and the growing population of seniors who have been life-long drivers but may feel uncomfortable continuing to drive at higher speeds. Slow speed vehicles can provide options for members of those groups and others interested in green, low cost alternatives.

**Help Reduce Congestion** — Even 4-door LUVs are smaller than comparable gasoline-fueled models so they take-up less room on streets and in parking lots. They remove automobile trips from major arterials. Driving at 25MPH is also safer.

**Help Reduce Driving Costs** — Although gasoline prices have declined during the global financial crisis, the problems of limited and possibly declining fuel supply in the face of growing demand are expected to cause prices of \$4 per gallon and higher to return sometime in the not distant future.

**Help the South Bay Comply with SB 375 VMT (vehicle miles traveled) Reduction Mandate** — About 525,000 motor vehicles were owned by South Bay residents in 2000. This is about 1.6 vehicles per household, or about 195,000 second and third vehicles. They will be the primary targets for substituting with LUVs in a mobility strategy for complying with SB375 VMT/carbon reduction targets.

## Long Run Implications of LUVs for Transportation in the South Bay

Countywide major transit investments are already planned for the next 20 years and they do not include projects which are expected to significantly improve transit service within the South Bay. Even with some improvements, the impact on automobile mode share is speculative with no guarantee of success.

Alternatively, zero emission, slow speed electric vehicles provide the on-demand door to door service of gasoline fueled autos and are well suited to the many short trips taken daily throughout the South Bay. Because these vehicles are purchased by individual drivers, no large public investments are required.

The improvements needed to accommodate a LUV strategy range from nothing to retrofitting existing arterials to handle mixed-mode traffic (which could include bicycles, electric cycles, Segways and so forth), re-striping certain parking lots (thereby increasing their capacity without construction) and eventually adding charging stations at convenient locations.

Educational materials about complete streets, local use vehicles, and alternative land use patterns are being developed and should be ready by July 1, 2010 for online tutorials, briefings of planning commissions, and study sessions for city councils.

**For additional information, regularly visit [www.southbaycities.org](http://www.southbaycities.org).**

**Leave comments, suggestions or fill out an application to participate at [info@southbaycities.org](mailto:info@southbaycities.org)  
Or contact the project coordinator, David Magarian at [david.margarian@sbesc.com](mailto:david.margarian@sbesc.com).**

**For more information on the role of LUVs in the South Bay's Sustainable Communities Strategy, contact Wally Siembab at [ws@siembab.com](mailto:ws@siembab.com).**