



James Johnson
City of Long Beach
Councilmember, Seventh District

Date: June 19, 2012

To: Honorable Mayor and Members of the City Council

From: Councilmember James Johnson, Seventh District
Councilmember Steven Neal, Ninth District *J.J.*

Subject: Demonstration and Deployment of Zero Emissions Goods Movement

RECOMMENDATION:

Receive and file a presentation from the Southern California Association of Governments (SCAG) and the Air Quality Management District (AQMD) about the planned demonstration and deployment of zero emissions goods movement in the Regional Transportation Plan.

DISCUSSION

On April 4th, SCAG approved the Regional Transportation Plan, which is a comprehensive planning document for the six county region including Los Angeles County. A key part of this plan affecting Long Beach is the demonstration and implementation of a zero emissions goods movement system in Long Beach along the Terminal Island freeway or an alternate route (such as Alameda Street). The plan calls for the system to be demonstrated in 2013, and fully implemented by 2015. (See the attached document for further discussion of the plan.)

If implemented as planned, wayside electric power (such as currently used by the Blue Line in Long Beach and buses in San Francisco) would be installed from the ports of Long Beach and Los Angeles to the near-dock Union Pacific rail facility on Sepulveda next to West Long Beach. Freight would be moved from the ports to the rail facility on retrofitted trucks able to use electric power, resulting in zero emissions to the surrounding community. This would finally allow economic growth at our ports to come without hurting the health or quality of life of our residents.

Given the importance of zero emissions goods movement to the economy and well being of our region, it is requested that AQMD and SCAG make a short presentation to Council discussing how this project will be realized in the upcoming years.

FISCAL IMPACT

This item has no significant fiscal impact.

Near-Term Zero-Emission Technology Demonstration and Initial Deployment

Description: This project is for near-term demonstration and, if successful, initial operational deployment of zero-emission trucks receiving wayside power.

Location: The project will be located in Los Angeles County along the Terminal Island Freeway and connecting routes to the Ports, (or alternative routes serving the same locations).

Schedule:

- **By 2013 – Demonstration:** Develop and build trucks and wayside power infrastructure sufficient for demonstration within the transport corridor consisting of the Terminal Island Freeway and connecting routes to the Ports (or alternative routes serving the same locations); commence demonstration upon completion of trucks and infrastructure.
- **By 2015 – Initial Operational Deployment:** Build wayside power infrastructure sufficient for operation on the Terminal Island Freeway and connecting routes to the Ports (or alternative routes serving the same locations), and build maximum number of trucks for initial operational deployment allowed by available funding (with all feasible leveraging of private resources), unless a zero-emission technology not utilizing wayside power is determined to be superior and can be implemented in a similar or earlier time frame. In the latter case, remaining funds allocated to this project will be applied to demonstration and deployment of zero-emission trucks not utilizing wayside power.

Cost: Project cost is \$35 million, for both demonstration and initial operational deployment phases. This includes construction of infrastructure, design and build of demonstration trucks, and acquisition of a small fleet for initial operational deployment.

Funding: AQMD will actively partner in supporting this effort by providing available funding for vehicle technology or infrastructure (staff will make a proposal to the AQMD Board in 2012), seeking funding partners, and developing other support. Additionally, SCAG will work with local transportation agencies, the Ports,

and other private and public stakeholders in 2012 to identify funding for this project. Other potential co-funding sources include:

- California Energy Commission AB 118 program
- California Air Resources Board
- California greenhouse gas cap and trade auction revenues
- Federal grants
- In-kind contributions and public private partnerships with technology developers, drayage companies, etc.
- Funds available for project mitigation

Project Rationale: The Ports, vehicle manufacturers, and other entities are currently demonstrating new zero-emission truck technologies, including battery-electric, fuel-cell, and hybrid-electric trucks with all electric range (AER). The purpose of this project is to demonstrate and initially deploy wayside power technology to provide power to these and other types of vehicles along certain high-volume corridors, thus allowing extended zero-emission range. Wayside technology has been used for many decades to power electric buses, mining trucks, and rail systems. It is thus a particularly proven and promising technological approach to achieving zero-emission transport. If coupled with hybrid AER technologies currently in use for passenger cars and now being demonstrated for heavy trucks, wayside power could provide flexibility, range, and compatibility with current port, railyard, and warehouse operations. Hybrid AER trucks could produce zero-emissions along key high-volume corridors (e.g. Terminal Island Freeway, I-710, east-west freight corridor), but could operate off the electrified corridor powered by conventional natural gas or diesel fuels, by fuel cells, or—within certain range—by batteries. Such vehicles thus could provide zero emissions where most needed, and would have range to travel long distances in other modes. The Terminal Island Freeway corridor, as a short, high-volume transport corridor with substantial air pollution impacts to local communities, is an important and ideal venue to initially deploy such technology. Deployment of wayside power technology is compatible with, and builds upon, the current Port efforts to develop and demonstrate electric and hybrid-electric trucks.