

## **Origen One Program Nears Design Completion On Zero-emission H2 Transit Vehicles**

For immediate release

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Washington, D.C. February 6, 2006 The Origen One Program IPD Team and sponsors are pleased to announce that it is completing design work on a reliable and economic zero-emission hydrogen fuel cell hybrid-electric transit vehicle. The vehicle is scheduled to be constructed, tested and delivered to the Greater New Haven Transit District (GNHTD) for training and demonstration in 2007. The program is part of the national hydrogen development program at the Federal Transit Administration.

The Origen One program team is supplying zero-emission transit vehicles and hydrogen fuel production, storage and delivery infrastructure as well as reconfiguring routes for GNHTD to expand transportation alternatives to reduce traffic congestion and emissions in the crowded downtown New Haven district. The more maneuverable transit vehicle will be able to negotiate smaller avenues, thereby enabling transit operators to expand their services.

As part of the SmartGrowth principles, this new transit vehicle combined with the necessary fueling infrastructure can contribute significantly in providing clean energy transportation without typical emissions while allowing mobility on narrower inner city streets and quiet operation in local neighborhoods. The elimination of diesel emission decreases threats to the environment and public health, especially the elimination of carcinogenic and asthma-inducing particulates. As cities across the country move toward implementing SmartGrowth principles into future planning, transit vehicles such as the one currently being designed can assist by allowing more transportation services in congested areas with narrow streets without negative contributions to the environment.

“The design approach maintains passenger capacity while shortening the vehicle’s overall length and augmenting the wheel base, making it significantly more maneuverable,” said Dale Hill, the chief engineer and CEO of Mobile Energy Solutions who is designing the new vehicle. “The vehicle can navigate narrower city streets, permitting greater route coverage and enhancing convenience to transit patrons. We are augmenting coverage without reducing performance or overall capacity.”

In addition, the transit vehicle incorporates an advanced communications system that informs riders of estimated times of arrival and educates them on the vehicle’s technology and environmental benefits through LCD screens.

Other benefits include advanced technical communications that increases preventive maintenance, thereby significantly reducing maintenance costs, and enhanced features for persons with disabilities.

The transit vehicle may operate as many as 20 hours a day, 7 days a week, for periods of two weeks without a “rest” period. Since it is powered by batteries and a fuel cell, the

only emission is water, which presents no threat to humans or animals in surrounding habitats.

The new transit vehicle will have two different fueling systems to supply hydrogen; first a reformer system using natural gas and a mobile electrolytic compressor-less system that can also utilize renewable energy for its power source. When all systems are completed, the electrolytic system could possibly use energy from solar and wind to power the system, making it completely independent of grid power.