

Transportation Advisory Board

of the Metropolitan Council of the Twin Cities

TO: Transportation Advisory Board

FROM: Kevin Roggenbuck, Transportation Coordinator

DATE: December 2, 2010

RE: Discussion at the December 1 TAC meeting regarding the MPCA request for \$500,000 in CMAQ funds for metro area plug-in electric vehicle charging station infrastructure.

The TAB Executive Committee met on November 9 and discussed a request from the Minnesota Pollution Control Agency (MPCA) for \$500,000 in CMAQ funds to construct electric vehicle recharging stations in the Twin Cities. The TAB Executive Committee referred the request to the Technical Advisory Committee for discussion and possible recommendation.

The TAC met on December 1 and received a presentation from Fran Crotty and Kevin McDonald of the MPCA. The TAC discussed a number of issues, such as matching the project implementation schedule to the availability of the CMAQ funds, defining the air quality benefits from electric vehicles and responsibility for ownership and maintenance of the charging stations.

The TAC voted to refer the request to the TAC Funding and Programming Committee for their December 16 meeting. Staff will work with the MPCA projects managers to answer the questions raised at TAC Funding and Programming meeting and bring a recommendation to the TAB in January.

Funding Request: Metro Area Plug-in Electric Vehicle Charging Station Infrastructure

Background

The Minnesota Electric Vehicle Coalition, lead by the Minnesota Pollution Control Agency, includes representatives from the Cities of Saint Paul and Minneapolis, Hennepin, Ramsey, Dakota counties, Xcel Energy, Metropolitan Airports Commission, American Lung Association in Minnesota, Fresh Energy, Minnesota Environmental Initiative, Neighborhood Energy Consortium- Hour Car Sharing Program, Minnesota Electric Auto Association, the Minnesota Office of Energy Security and the Minnesota Department of Transportation.

This coalition is working toward the installation of publically available plug-in charging stations and early procurement of electric vehicles by local government fleets. The result is the planned installation of electric vehicle supply equipment (EVSE) to create approximately 30 on-street, parking ramp and flat lot charging stations. In addition, 4 solar-powered stations are planned for inclusion in the Energy Innovation Corridor adjacent to the light rail corridor, between the Cities of Saint Paul and Minneapolis. Early procurement of Ford Azure Transit Connect electric utility vehicles is in process with anticipated delivery of the first vehicle to the City of Saint Paul in early December, of this year.



Why promote use of electric vehicles (EVs)? EVs emit no toxic air pollutant emissions at the tailpipe and when charged with renewably generated electricity there is also zero emissions during the electric energy generation. Reduced fuel-equivalent costs, typically at 2 to 3 cents per mile, less maintenance including freedom from oil changes is coupled with opportunities to use locally-generated renewable electricity.

Funding Request

This request is for the allocation of \$500,000 from non-competitive, available Congestion Mitigation Air Quality funds. With a 20% match a total of \$600,000 would be available for this project.

Rationale

Plug-in electric and plug-in hybrid vehicles from major manufactures will hit the US consumer vehicle market in model year 2011 for the first time. A limited number of public charging stations are in development in the Twin Cities, but for these low and zero polluting vehicles to gain market traction, we need to demonstrate a minimum level of public support and infrastructure. The \$500,000 would be used, after careful analysis, to fill gaps in the availability of public charging stations in the Metro Area. Approximately 40 to 60 stations at \$10K each would be installed in publicly owned parking ramps, on-street, and in lots. Availability and locations of the charging stations would be promoted via electronic and social media, including smart phone and internet applications.

Jobs Creation

Installation of EVSE allows for further diversification of jobs created as a result of the MPO federal funding. Each plug-in charging station typically requires 8 to 12 hours of technical site review and installation labor depending upon the site conditions.

National Resources

To compete for future national EV funds, Minnesota (and its metropolitan areas) must demonstrate commitment as well as documentable progress, in being "EV Ready." Early support from the Transportation Advisory Board would reinforce the growing list of accomplishments and active projects of the Minnesota Electric Vehicle Coalition.

Completion of Work

A statewide EVSE request for proposal process that resulted in a list of selected vendors has been completed. This combined with the intention of installing 'off-the-shelf' EVSE equipment will optimize the time needed for project completion. The project could be let by September 2011.



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