



MEMORANDUM

June 30, 2011

TO: Board of Mayor and Aldermen

FROM: Eric Stuckey, City Administrator
Vernon Gerth, Assistant City Administrator
Catherine Powers, Director of Planning & Sustainability
Andrew Orr, Sustainability/Grants Coordinator

SUBJECT: Franklin and the Electric Vehicle Project

Purpose

The purpose of this memo is to provide information to the Board of Mayor and Aldermen (BOMA) regarding the installation of electric vehicle charging stations on municipal property.

Background

The Electric Vehicle (EV) Project is a monumental effort to deploy nearly 15,000 charging stations to support the early adoption of electric cars in strategic markets. Tennessee was selected as a test market, including the Knoxville, Chattanooga, Memphis, and Nashville areas. Franklin is well within the project boundary and possesses the demographics to support early EV adoption.

The ultimate goal of the EV Project is to take the lessons learned from this first deployment of electric vehicles (EVs) and the charging infrastructure supporting them, to enable the streamlined rollout of the next 5,000,000 EVs. Managed by ECotality, the EV Project seeks to install charging stations to provide a much needed service to support the users of these vehicles while also collecting and analyzing data related to vehicle use in diverse topographic and climatic conditions and the effectiveness of charging infrastructure.

ECotality is currently seeking agreements with commercial, institutional, and municipal entities to serve as host sites for Level II chargers. Each charging station requires a 240 volt outlet and will take the current electric vehicles on the road 4-8 hours to reach a 100% state of charge. However, it is expected most EV drivers will use the publicly available chargers to "top off".

Chargers will be installed throughout the Nashville area at large shopping centers, restaurants, parking structures, institutions, tourist destinations, park and rides, parks, and other places with high volumes of pedestrian and vehicular traffic where people will likely want to charge.

Charging Stations on Municipal Property

The City has an opportunity to place Level II chargers on municipal property. City staff used the following factors to identify ideal municipal locations for charging:

- Cost of installation;
- Likelihood of the charger being used;
- Safety/Security/Flooding issues

- Level of disruption to current parking

The 2nd and 4th Ave Parking Garages and Jim Warren Park fit the criteria.

Financial Impact

ECotality conducted site assessments at both the 2nd and 4th Avenue Parking Garages and the estimates came in below the project budget, meaning no capital outlay will be required for the installation of charging stations. All installations in the EV Project Boundary will be financed by ARRA funds (up to \$2250 per charger). ECotality will own, operate, and maintain all chargers until December 31, 2012. After this date, all ownership, operation, and maintenance will be the responsibility of the City of Franklin.

ECotality will allow up to four charging stations in each garage with no cost to the City. However, staff recommends two charging stations in each garage at this time and the City should investigate the possibility of two chargers at Jim Warren Park. These locations would provide a service for the early adopters of EVs and allow the City to generate revenue.

Installation of Two Charging Stations on Each City Property Listed

Location	Installation Cost (Paid by ECotality)	Estimated User Fee	Estimated Revenue to the City	Cost of Electricity Paid by City	Total Revenue Earned by City
2 nd Ave Garage	\$4,170	\$1.50/hr	\$.75/hr	\$.33/hour	\$.42/hr
4 th Ave Garage	\$3,624	\$1.50/hr	\$.75/hr	\$.33/hour	\$.42/hr
Jim Warren Park	\$4,100 (est)	\$1.50/hr	\$.75/hr	\$.33/hour	\$.42/hr
TOTAL:	\$11,894				

There will be a fee for using the charging stations. The minimum fee will be set by ECotality and revenue will be shared fifty-fifty between the City of Franklin and ECotality. The fee has not been established, but it's estimated to be approximately \$1.50 per hour in the TVA region. The City can increase the fee as desired so long as it is above the minimum price set by ECotality. The City of Franklin will be responsible for paying the increase in the utility bill, but this will be minimal and covered by the revenue generated (Currently, the annual combined electric utility bill for the two parking garages is approximately \$20,000).

Recommendation

Execute a host agreement with ECotality for the installation of two charging stations in the 4th Ave Garage and two in the 2nd Ave parking garages. City staff believes two chargers could be installed at Jim Warren Park at no expense to the City and seeks to submit a request for a site assessment to move the process forward. If the City has the opportunity to install 2 chargers at Jim Warren Park, a separate agreement would be considered by BOMA.