Barriers To EV Deployment

Allen Mitchell, DES Equipment Bureau Chief

Funding Barriers

- Availability of funds in a tight economy
  - Dedicated fleet fund (e.g. revolving fund)
  - Grants
- Initial cost of an EV versus and comparably sized vehicle
  - Can be double the cost of a fossil fuel unit
- Cost of charging infrastructure - EVSE
  - Ranges from under $1k to ~ $60k per unit
- ROI depends on the amount of usage and the life of the vehicle in your fleet

Policy Barriers

- Do your local development regulations/permits support EV infrastructure?
- Does your agency management support EVs?

Availability of Suitable Vehicles

- To gain acceptance, the EV must match the business requirement of the end-user
- To date the main OEM offerings have been small sedan BEVs, hybrids and PHEVs
- A few larger vehicles (e.g. buses, aerial bucket trucks and utility vans)

Research and Development

- We are entering an agreement with the Electrical Power Research Institute (EPRI) of California to test two (2) VIA Motors modified PHEV GMC pickups
- We buy the pickups and EVSE; DOE provides the PHEV conversions so they can operate on fossil fuel and electricity
- Goals include evaluating the real world feasibility of these vehicles, collection of operational data and getting user feedback

User Concurrence

- To avoid pushback, the users must be consulted before the vehicles are deployed – this includes management
- EVs operate differently – initial training is required for drivers as well as emergency responders
- Check in with users periodically to gauge level of acceptance

Deployment Considerations

- Plan to locate chargers strategically within your area of operation
- Consider range anxiety, way finding and interoperability with neighbors
- Determine the level of charger needed for your operations
- Standardize on one EVSE for interoperability

Contact Information:

Allen Mitchell

2701 South Taylor St.

Arlington, VA 22206

Telephone: 703-228-6462

Email: amitchell@arlingtonva.us