



## Managing Ongoing EVSE Costs

Cabell Hodge  
National Renewable Energy Laboratory  
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# Cost Considerations

- EVSE Unit
  - Speed, mounting, advanced features

- Installation

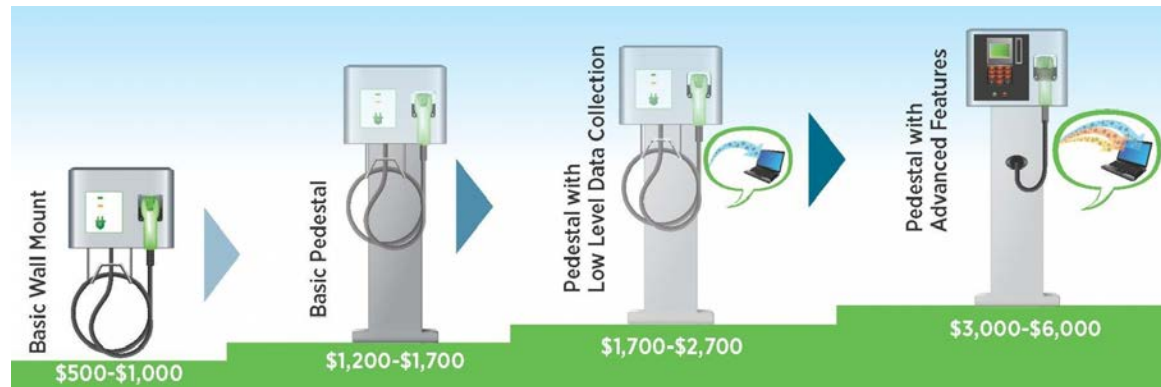
- Major installation expenses can include concrete trenching, transformer upgrades, new electrical panels and meters

- Electricity Fuel Costs

- Commercial and federal installations may have expensive demand costs

- Network

- Networked or smart EVSE have recurring costs
- But may enable better management of charging costs



# Charging Management and Data Collection

| Charging Control Mechanism | PEV Interface              | EVSE Network  | Integrated Energy Management                         | Transactive Control  |
|----------------------------|----------------------------|---|--|--|
| Administrator              | Consumer, fleet manager    | Consumer, fleet manager, facility manager, utility                  | Facility manager                                     | Utility, facility manager                                  |
| Application                | Control individual vehicle | Control individual or multiple vehicles                             | Control building and vehicles                        | Aggregate control of market through price setting          |
| Benefits                   | No cost, simple            | Programmable for multiple vehicles, simple, flexible                | Centralized facility load control                    | Aggregated at utility level, relies on downstream controls |
| Drawbacks                  | No centralized aggregation | No facility integration, not standardized across brands, added cost | Distance of control from users, administrative costs | Price signal imprecision versus complexity                 |

# EVSE Acquisition Decision

- Fleet manager
  - Most experience with vehicles and often fueling infrastructure
  - Determines which GOVs use chargers
- Facility manager
  - Also energy manager or utility manager
  - Understands electricity costs and local rates
- Headquarters fleet manager
  - Orders/approves vehicles
  - Overall charging strategy for agency (data collection)

# EVSE Planning Questionnaire



## Federal Fleet EVSE Tiger Team Questionnaire for Federal Fleet EVSE Planning

| Step | Description                             | Number of Vehicles Planned                 | Preferred Make                                | Preferred Model          | Normal Trip Type    | Alternative Trip Type         | Average Miles Per Trip       | Average Trips Per Day                    | Maximum Mileage Per Day                         | Annual VMT Estimate (auto calc)                 |
|------|---|--|---|--------------------------|---------------------|-------------------------------|------------------------------|--|---|---|
| 1    | Anticipated PEV Acquisitions            |  |   |                          |                     |                               |                              |  |   | -   |
|      |   |  |   |                          |                     |                               |                              |  |   | -   |
| Step | Description                             | Vehicle Parking Options                    | Preferred/Alt Site?                           | Recurring Destinations   | Site Plan Attached? | Available Electrical Amperage | Available Electrical Voltage | Distance from EVSE to Electrical Service | Total Planned Number of Level 1 EVSE Connectors | Total Planned Number of Level 2 EVSE Connectors |
| 2    | EVSE Location Plan and Electrical Input |  |   |                          |                     |                               |                              |  |   |   |
|      |   |  |   |                          |                     |                               |                              |  |   |   |
| Step | Description                             | Number of Employees Driving BEVs and PHEVs | Number of Employees Considering BEVs or PHEVs | Employee Parking Options | Preferred/Alt Site? | Available Electrical Amps     | Available Electrical Voltage | Distance from EVSE to Electrical Service | Total Planned Number of Level 1 EVSE Connectors | Total Planned Number of Level 2 EVSE Connectors |
| 3    | Workplace Charging                      |  |   |                          |                     |                               |                              |  |   |   |
|      |   |  |   |                          |                     |                               |                              |  |   |   |

# Contact Information



## Questions?

**Cabell Hodge, NREL**  
cabell.hodge@nrel.gov  
202-302-6344