

## Electric Vehicles: Making Good Business Sense

Council of Governments - Washington, DC February 1<sup>st</sup>, 2013



## Why EV?

- Eaton is a diversified industrial with LOO+ years experience. As a Tier I Automotive Supplier and a legacy in Electrical Distribution products = EVSE/ETI is a natural fit.
- Strong year-over-year performance in EVSE/ETI market makes for an attractive organic growth segment.
- Green transportation aligns with Firm Corporate and Market of Doing

### Sustainable?

Whatever the model, we will achieve business sustainability by helping our customers achieve theirs. Eaton chairman, Sandy Cutler, says, "Companies that master sustainability, and leverage it as a competitive advantage, will emerge as the leaders in the coming decade."

### Four Plays

- Free Access Charging Solution
- Controlled Access Charging Solution
- Revenue/Fleet Charging Solution (DC)



### Free Access

#### HIGHLIGHTS

- Simple: hands-off approach
- Customer convenience
- L2 Charging from 16A to 30A
- Great employee benefit
- Higher EV range confidence
- Great for a small business that would encourage customers to stay (coffee shops, stores, salons, etc.)
- Great for employers to promote
  Electric Vehicles to employees

#### ESTIMATED COSTS

Hardware

\$2,250

Installation

\$1,000





### Controlled Access



#### HIGHLIGHTS

- Higher degree of control
- Effective charging solution
- L2 Charging from 30A to 70A
- Higher EV range confidence
- Credit Card and Keyfob solutions available, including ChargePoint network solution
- Advertising solutions available
- Scalable architecture (buy the base model today, add features tomorrow)
- Great for a business considering L2

#### ESTIMATED COSTS

• Hardware \$3,500

• Installation \$3₁000



### Revenue/Fleet (DC)

#### HIGHLIGHTS

- Fast charge time of 30 minutes
- 20kW to 50kW units to maximize existing infrastructure
- CHAdeMO and SAE
- Touch-screen display
- Network-enabled controls including
  ChargePoint
- Great for businesses pursuing additional revenue streams, as well as increased customer loyalty
- Great for businesses looking to

#### ESTIMATED COSTS

• Hardware \$35,000

Installation \$20,000





# Integrated Solutions

Residential Solar/EV and Canopies Commercial Solar/EV Canopies





Web-Based Monitoring





## Challenges / Opportunities?

- Commodity price increasing disproportionately to oil-based fuel costs
- High cost of battery technology
- Market shifts between PHEV<sub>1</sub> BEV<sub>1</sub>
  and HEV (not a bad thing!)
- Government and Private Sector investment and support
- Significant growth beyond niche-



## EV Future?

- Exciting new vehicles entering the market - better portfolio offering
- Diminishing price difference between PHEVs and HEVs
- Increased adoption of BEVs by fleets
- Vehicle-to-Home and Vehicle-to-Grid technology
- Solar canopies to offset grid



