EV CHARGING AND AVAILABLE INCENTIVES
EV CHARGING OVERVIEW AND PLAN OF ACTION

- Levels of Charging
- Cost and Considerations of Charging
- Benefits of Workplace Charging
- Available Incentives
- Plan of Action
CHARGING HABITS

• MAJORITY OF CONSUMER CHARGING OCCURS AT HOME, WORKPLACE OFTEN NEXT MOST POPULAR
• RARELY CHARGING FROM EMPTY TO FULL
**ELECTRIC VEHICLE CHARGING**

**ACRONYMS**

V: Volt

**Level 1** chargers use standard 120V electrical outlets. 120V circuits are also used by most home electronics.

2-5 Miles Per Hour of Charge

**Level 2** chargers use 240V electrical circuits. 240V circuits are also used by electric dryers & electric stovetops.

25 Miles Per Hour of Charge

**Level 3** direct current fast chargers use ultra high-power 480V circuits at public charging stations.

40 Miles per Every 10 Minutes of Charge
“SMART” CHARGERS

EVSE ELECTRIC VEHICLE SERVICE EQUIPMENT

NETWORKED
WIFI or cellular connection required.

PAYMENT
Capable of accepting credit card or RFID card payment.

DATA COLLECTION
Track information on usage, meter, driver, etc.
ELECTRIC VEHICLE CHARGING

**J1772 Port**
- Nissan LEAF
- Chevrolet Volt
- Toyota Prius Prime
- Smart Electric
- Ford Fusion Energi

**CHAdeMO Port**
- Nissan LEAF

**J1772 Combo Port**
- Chevrolet Bolt
- BMW i3

**Tesla Combo Port**
- Tesla Model S
- Tesla Model X
- Tesla Model 3
BENEFITS OF OFFERING

EV CHARGING

SUSTAINABILITY GOALS
  • GHG reduction for residents
  • LEED points

GREEN IMAGE

EMPLOYEE ATTRACTION & RETENTION

PUBLICITY
  • EV Cincy Ride and Drive Roadshow
## BALLPARK EVSE INSTALLATION COSTS

<table>
<thead>
<tr>
<th>EVSE Type</th>
<th>Installation Cost Range (per unit)</th>
<th>EVSE Unit Cost Range (single port)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>$0-$3,000* Source: Industry Interviews</td>
<td>$300-$1,500</td>
</tr>
<tr>
<td>Level 2</td>
<td>$600-$12,700 ($3,000 average) EV Project (INL 2015b)</td>
<td>$400-$6,500</td>
</tr>
<tr>
<td>DCFC</td>
<td>$4,000-$51,000 ($21,000 average) EV Project (INL 2015d) And (OUC 2014)</td>
<td>$10,000-$40,000</td>
</tr>
</tbody>
</table>

- EVSE unit cost ranges based on units available in 2015
- The $0 installation cost assumes the site host is offering an outlet for PEV users to plug in their Level 1 EVSE cordsets and that the outlet already has a dedicated circuit
PLAN OF ACTION

Survey

Use template employee survey to learn:
- EV ownership interest
- Impact of charging
- Employee driving behavior

Sample Employee Survey for Workplace Charging Planning

Plug-in electric vehicles (PEVs) use electricity as either their primary fuel or to improve fuel efficiency. Today, over 25 PEV models are available, expanding driver options. We are considering the installation of charging infrastructure to assist employees who drive PEVs to work. Your responses to this survey will be used to determine employee interest in this benefit. Participation in this survey is voluntary and you do not need to respond to any of the questions that you do not wish to answer.

Visit the Department of Energy’s website to learn more about Plug-In Vehicle Electric Vehicles and the nationwide initiative to increase employer provided charging opportunities, the Workplace Charging Challenge.

1. If you drive to work, approximately how far is your trip (one-way)?
   a. Less than 10 miles
   b. 10-25 miles
   c. 26-50 miles
   d. More than 50 miles

2. Throughout the workday, what is your usual travel pattern?
   a. I stay at the worksite and do not move my vehicle
   b. I leave the worksite and move my vehicle once per day
   c. I leave the worksite and move my vehicle more than once per day

3. Do you own or are you considering purchasing or leasing an electric or plug-in hybrid electric vehicle?
   a. Yes, I already own one
   b. Yes, I’m considering purchasing in the next 6 months
   c. Yes, I’m considering purchasing in 12-24 months
   d. Yes, I’m considering purchasing but I’m not sure when
   e. No

4. If yes, what type of vehicle are you most interested in?
   a. Plug-in hybrid electric vehicle (ex. Chevy Volt, Ford C-MAX energi, etc.)
   b. Electric vehicle (ex. Nissan Leaf, BMW i3, etc.)

5. Do you or would you have the ability to install a charging station at your residence?
   a. Yes
   b. No
   c. I don’t know

6. Should [Employer Name] install electric vehicle charging stations at your employee parking garage/lot?
   a. Yes
   b. No

7. If [Employer Name] installs electric vehicle charging stations at your facility, would you use them?
   a. Yes
   b. No
PLAN OF ACTION

Site Plan

Look at site for best charger installation:
- Consider available electric access
- Popular parking spaces
- Ideal utilization and placement
PLAN OF ACTION

Rebates and Incentives

Consider eligibility for:

- **Ohio EPA VW Settlement Fund**
  - $10.4M in funding for EV charging
  - Funding release TBD, first round very soon
  - Two rounds of funding: Level 2 and DC Fast Charging
  - Will prioritize sites along highway corridors

- **Duke Energy EV Charging Program**
  - $16.4M currently pending in funding for EV charging (Ohio specific, separate Kentucky filing also underway)
  - Timing remains unknown for funding release.
  
  Typically upon approval, it can take 6-10 months for programming to be created and funding released.
PLAN OF ACTION

Rebates and Incentives

Recommended Best Practice:

- **Get Started Now!**
  - While incentive funding is helpful, many sitehosts will find the need to install multiple rounds of charging.
  - Installing a smaller charging station project now can prepare your organization to be ready for a larger charging station once grant funding is available, maximizing cost saving potential.

- **Stay in the Loop**
  - City of Cincinnati and Electrification Coalition staff will remain vigilant of EV charging incentives, and have resources ready to support your organization in deploying EV charging.
PLAN OF ACTION

Policy

Create user policy for best use, considering:
- Frequency and timing of access
- Public availability
- Fee vs. free
- EV charging etiquette

Use Sample Policy

Usage Procedure and Etiquette

The Company supports your decision to drive electric and asks that you follow the following rules to make the most of this initiative:

1. **Safety first**: Practice safe charging. This means properly managing the cord during and after charging. Avoid overstretched the cord, and do not place it such that it comes in contact with another vehicle.

2. **Parking**: Internal combustion cars – including hybrid vehicles – are prohibited from parking in charge spots designated for plug-in cars. Contact security if such a situation occurs.

3. **Signage**: Electric vehicle drivers must adhere to posted signs. Fleet vehicles and employee vehicles share most charging stations – however at certain locations, charging is designated as fleet use or electric pool car use only. Never park your personal vehicle in a charging space designated for company-owned vehicles only, or use non-ChargePoint stations.

4. **Usage**: Don’t charge if you don’t need a charge. Leave the spot free for another electric vehicle driver who might need the charge to complete his or her daily travels without gasoline. To make the most of the company’s investment, please utilize your home as your primary charging location, if possible, and use workplace charging as needed to augment your home charge. Over time, we expect the number of electric vehicles to exceed the number of available charging stations – and therefore you should only use them when necessary.

5. **Workplace charging is a privilege, not a right**: Remember, charging your vehicle in a company-provided charge-spot is a privilege and is available on a first-come-first served basis. The company does not guarantee that a charging station will be available for participants’ use. While charging is offered at no charge to authorized participants today, the policy may change in the future.
PLAN OF ACTION

Announce and Launch

Formal announcement to employees for maximum activation and celebration.

EV Cincy Team Can Support:
- Talk points
- Recommendations for spreading word
- Share information with internal and external community
- Host Ride and Drive
THANK YOU

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