



# EMPOWER

Equitable Mobility Powering Opportunities for  
Workplace Electrification Readiness

July 18, 2023



**EMPOWER**  
WORKPLACE CHARGING



# About Wisconsin Clean Cities & Drive Clean Indiana



- Wisconsin Clean Cities and Drive Clean Indiana are 501(c)(3) nonprofit organizations managed by Legacy Environmental Services, Inc., an Indiana Certified Women's Business Enterprise.
- Designated U.S. Department of Energy Clean Cities Coalitions - a network of more than 75 coalitions nationwide.
- The organizations support our nation's energy and economic security by building partnerships to advance affordable domestic transportation fuels, energy efficient mobility systems and other fuel-saving technologies and practices.
- Poll question: Where is your company located?



# Introduction to EMPOWER



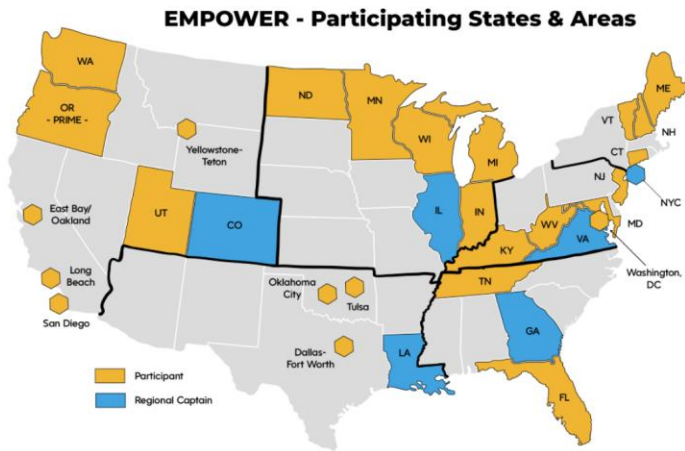
- National workplace charging project funded by US Department of Energy.
- Catalyze workplace charging adoption through outreach, workplace charger install commitments, and actual installations.
- First and only equity-focused, nationwide workplace charging program in the U.S.

## Employer Benefits

- Equity-focused,
- Demonstrates climate leadership, sustainability focus to employees and customers,
- Attract and retain top talent,
- Improve employee satisfaction,
- Local and national sustainability program connections
  - Earn certification points and produce quantifiable metrics for sustainability reporting.

## Importance of project?

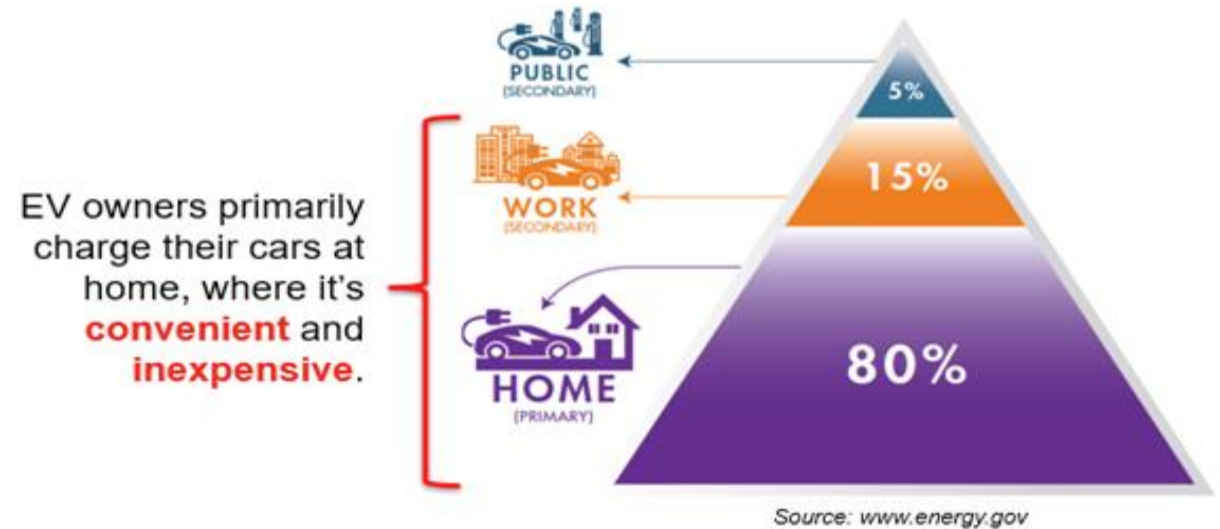
- Equity – disadvantaged, low income, and other traditionally underserved populations may benefit the most from workplace charging and electric vehicles.
- Serves populations where there is no access to at-home charging.
- Promotes health and economic benefits of owning and operating an electric vehicle.





# Why Workplace Charging?

- Enables greater EV adoption
- Supports greater use of Plug In Hybrid Electric Vehicles (PHEVs), new and late model Battery Electric Vehicles (BEVs)
- Helps to shift utility power demand curve
- Maximizes value of infrastructure installed for company fleet vehicles



# We Can Help!

- EMPOWER Workplace Charging Resources:
  - Workplace Charging Survey Tool
    - Engage with existing EV owners and gauge interest among other employees to estimate future expansion needs
  - Power and Energy Calculator Tool
    - Calculate, decide, and plan for workplace charging
  - Metering and Payment Systems Table
    - Identify metering and billing options
    - Helps guide conversations with utilities and contractors
  - Educational Materials
    - Charging system selection, best practices, EV model details
    - Health, environmental, and economic benefits



## CHECKLIST

- ☒ **Contact you local Clean Cities**  
Connect with all the latest in electrifying news. Useful planning and easy to use EV tools and find great ways to tour the state, regionally, and nationally.
- ☒ **Connect with your Work Place**  
Begin the conversation with your valued team at your workplace . Ask if they would use workplace charging if your workplace offered the option
- ☒ **Connect with Power Providers**  
Find your utility provider and ask for a site analysis. Remember! Plan to expand your charging options and consider now the opportunity to do business with electric fleets .
- ☒ **Make A Work Electric Plan**  
Let us help! Our expert staff is here to direct to all our resources to ensure you are on the road to success!



# We Can Help!

## [www.AFDC.energy.gov](http://www.AFDC.energy.gov)

- Emission reduction workplace charging benefits
- Green Building Certification guidance
- Workplace Charging Case studies by industry
- Employer Workplace Charging Toolkit

## Clean Cities Coalitions

- Electric Vehicle resources
- Help guide your program design
- Create partnerships for successful deployment



### Tools

The Alternative Fuels Data Center offers a large collection of helpful tools. These calculators, interactive maps, and data searches can assist fleets, fuel providers, and other transportation decision makers in their efforts to advance alternative fuels and energy-efficient vehicle technologies.

#### Calculators


##### [EVL-Pro Lite](#)

Estimate a city or state's need for vehicle charging and the effect on electric load.

##### [AFLEET Tool](#)

Calculate a fleet's petroleum use, cost of ownership, and emissions.

##### [Vehicle Cost Calculator](#)

Compare cost of ownership and emissions for most vehicle models.  [mobile](#)

##### [VICE Model](#)

Evaluate the financial case for natural gas vehicles and battery electric buses.

##### [JOBS Model](#)

Estimate economic impacts of natural gas, hydrogen, or fuel cell infrastructure.

##### [Heavy-Duty Vehicle Emissions](#)


Calculate the emissions of alternative fuel medium- and heavy-duty vehicles.

##### [EVolution: E-Drive Vehicle Education](#)

Understand the costs and benefits of electric vehicles based on location.

#### Interactive Maps

##### [Alternative Fueling Station Locator](#)

Locate alternative fueling stations and get maps and driving directions.  [mobile](#)

##### [Alternative Fuel Corridors](#)

Find maps and station data to help with nominating alternative fuel corridors.

##### [TransAtlas](#)

Analyze vehicle densities and locations of fueling stations and production facilities.

##### [Biofuels Atlas](#)

Compare feedstocks and analyze biofuel production by location.

##### [Coalition Locations](#)

Find Clean Cities coalitions and contact information for coordinators.

#### Data Searches

##### [Vehicle Search](#)

Compare all classes of alternative fuel vehicles, electric vehicles, and hybrids.


##### [Laws and Incentives Search](#)

Search for laws and incentives related to alternative fuels and advanced vehicles.

##### [Fuel Properties Comparison](#)

Compare alternative fuel properties and characteristics.

##### [Find a Car](#)

Compare fuel efficiency, costs, carbon footprints, and emissions.  [mobile](#)

##### [State Information](#)

Find state information about alternative fuels and advanced vehicles.

# Next Steps

- *Sign letter of commitment*
- *Surveys and workplace assessment*
- *Create action plan*
- *Installation and education*
- *Ribbon cutting and promotion*
- *Celebration of success!*

## Types of technical assistance available:

- Educate decision makers and fellow employees on the basics of electric vehicles and charging
- Connect decision makers with local experts such as the proper utility rep, EVSE equipment providers, installers, and more!
- Host workshops and events to get employees excited about EVs and Workplace Charging
- Work with HR departments to develop workplace charging policies
- Provide recognition for participating workplaces as an “EV Friendly Workplace” and through joint press releases





# Meet our Panelists



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# Ho-Chunk Wisconsin Dells Station Installation

**<https://www.youtube.com/watch?v=8sdyRxbFFT0>**





**Pieper Electric, INC.  
Solutions Powered by  
People Since 1947**

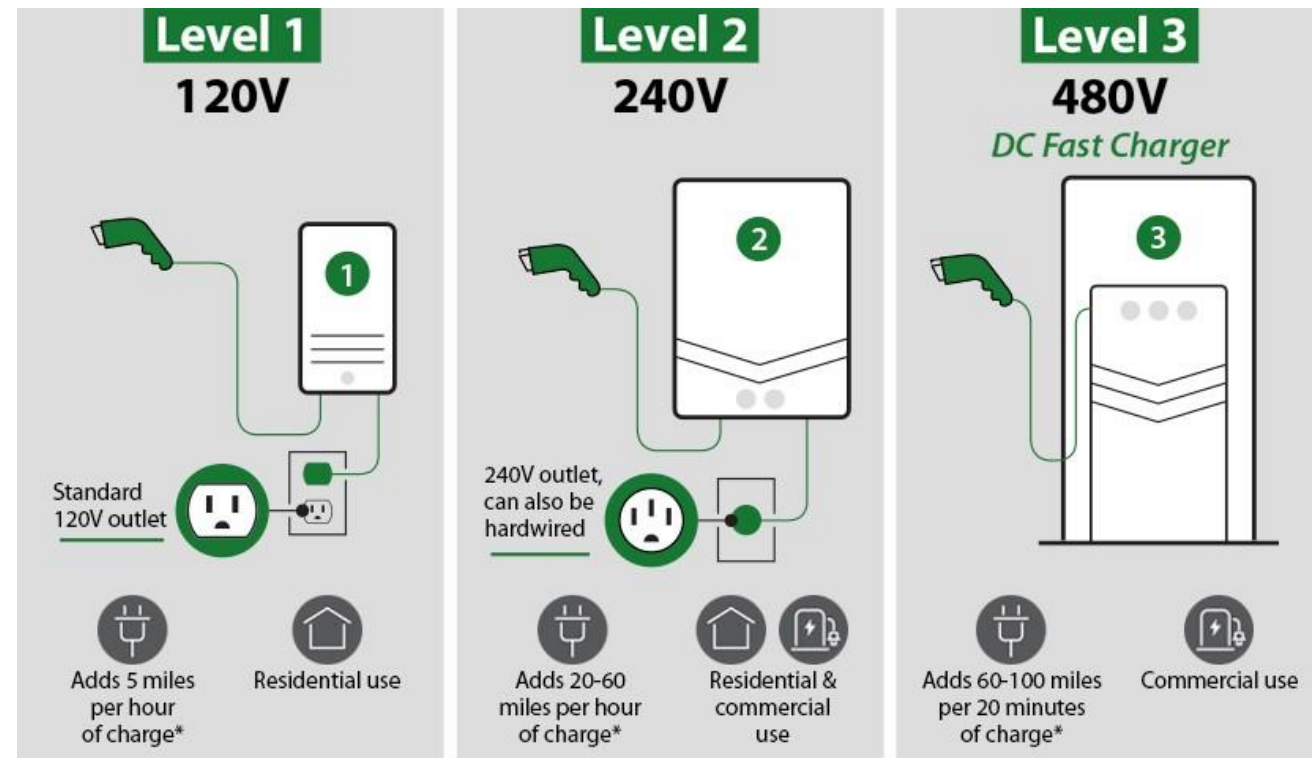


# Workplace Charging

## Basics of EV Charging

1. Level 1 charging 3-5 miles of range per 1 hour of charge
2. Level 2 charging 25-30 miles of charge per 1 hour of charging (7.2KW)
3. DC fast charging (DCFC) commonly known as level 3 systems
4. All EV vehicles have on board chargers ...

- 
- Workplace Charging is primarily Level 2 charging
  - Large majority of consumers will charge at home and workplace
  - DCFC charging primarily used for destination travel



\* Estimated. Actual charge times may vary.

# Workplace Charging

Reports indicate 25 – 33% of all EV Chargers in the US are inoperable

- Vandalism
- Hardware issues
- Software issues





# Workplace EV Charging Guide to Next Steps

**Step 1** – Contact your qualified contractor

**Step 2** – Must perform a site assessment of the facility

- Can your existing electrical main service accept additional loads?
- If so, how much?
- Do you have facility drawings including electrical 1 lines?

**Step 3** – Must perform a site assessment of the property

- ADA rules apply
- ADA for parking
- ADA for products
- ADA parking must be considered for the 1<sup>st</sup> parking space

**Step 4** – Provide a turnkey project cost

- Includes design and stamped drawings
- Includes all new equipment for the project
- Includes underground services
- Includes asphalt/concrete services
- Includes new chargers
- Includes charger commissioning
- Includes parking space line painting & signage

**Step 5** – Signed contract and downpayment to proceed

- Equipment lead times
- Chargers 1-6 months
- Electrical gear – up to 1 year +

**What's not included:**

- Software fees
- Cellular use fees
- Additional warranty options
- Additional service contracts for maintenance and repairs

# Potential Incentives Available

- Alternative Fuel Infrastructure Tax Credit
- IRA Tax credits – 6% rebate based on location
- Up to 30% credit if contractor labor and apprentice requirements are met
- \$100K max credit per location
- Full IRS guidance not completed – expected mid 2023
- **Consult your tax professional**
- Utility incentives – varies by location
- <https://www.afdc.energy.gov/>



# New data from the Biden Administration

## **National Renewable Energy Laboratory The 2030 National Charging Network – June 2023**

### **Estimating the U.S. Light duty demand for Electric Vehicle Charging Infrastructure**

- U.S. - New PEV sales have reached 7%– 10% of the U.S. light-duty market as of early 2023 (Argonne National Laboratory 2023)
- Global - PEV sales accounted for 14% of the light-duty market in 2022, with China and Europe at 29% and 21%
- A 2021 executive order (Executive Office of the President 2021) targets 50% of U.S. passenger car and light truck sales as zero-emission vehicles (ZEVs) by 2030
- These goals were set prior to passage of the landmark U.S. Bipartisan Infrastructure Law and Inflation Reduction Act, which provide substantial policy support through tax credits and investment grants (Electrification Coalition 2023)
- Tesla has been a ZEV-only company since its inception in 2003; Audi, Fiat, Volvo, and Mercedes-Benz are targeting ZEV-only sales by 2030; and General Motors and Honda are targeting ZEV-only sales by 2035 and 2040
- The combination of policy action and industry goal-setting has led analysts to project that by 2030, PEVs could account for 48%–61% of the U.S. light-duty market

# Workplace Charging





# Workplace Charging



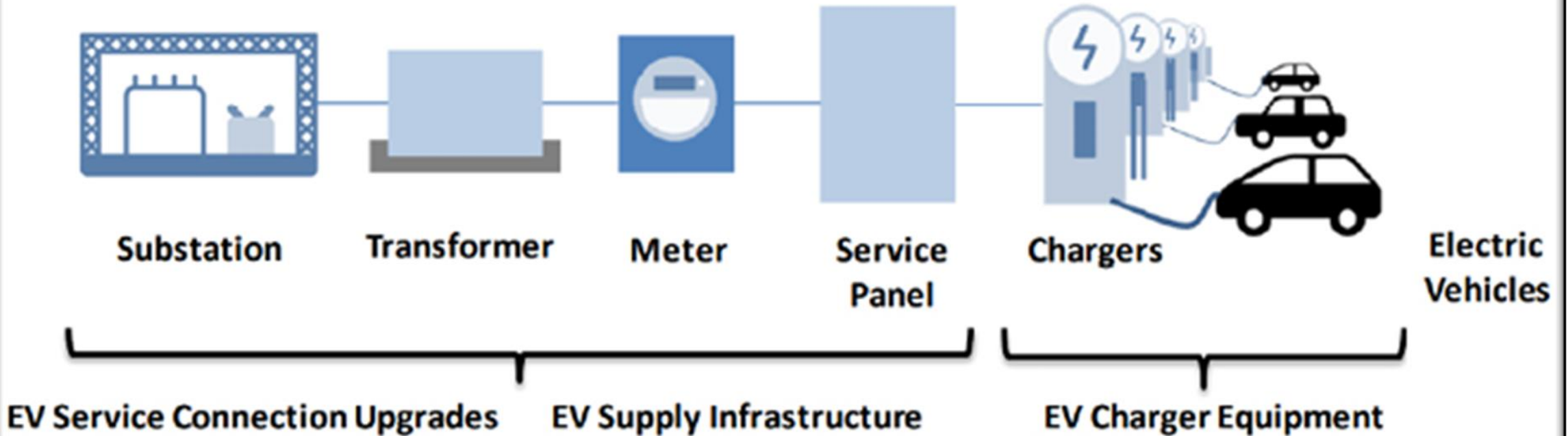


# Workplace Charging



# Electric Vehicles and Equipment

Illustration of EV charging infrastructure



Source: Edison Electric Institute and Institute for Electric Innovation

Are you EMPOWERED?

Are you ready to commit to workplace charging?

**Questions?**





# Register Today!

## Transportation & Innovation Expo

Oct. 11, 2023,  
Madison,  
Wisconsin

### Get in on the early bird special!

Join us for a conference and expo featuring sustainable transportation, infrastructure and technology solutions.

Register now and save **\$25 off** general registration.\* Offer ends Aug. 1, 2023.



Register now.

[wicleancities.com/expo](http://wicleancities.com/expo)



\*We offer special pricing for fleet managers. Visit [wicleancities.com/expo](http://wicleancities.com/expo) for details.



## Join us at

**Drive Clean Indiana's  
Annual Conference & Expo  
August 23, 2023  
Blue Chip Casino  
Michigan City, IN**



219.644.3690

[drivecleanindiana.org](http://drivecleanindiana.org)

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# UPCOMING EVENTS

## **WI EV Sate Policy Bootcamp**

July 26, 2023 @ The Fluno Conference Center  
Madison, WI

## **Navigating the Transformation: The Influence of Electric Vehicles and EVSE on the Wisconsin Manufacturing Supply Chain**

August 15, 2023

## **Transportation & Innovation Expo**

October 11, 2023 @ The Alliant Energy Center  
Madison, WI

Register at [www.WICleanCities.org](http://www.WICleanCities.org)



## UPCOMING EVENTS

### **Indiana Clean School Bus Consortium Webinar**

August 8, 2023

### **Drive Clean Indiana's 11th Annual Clean Air Golf Outing**

September 19, 2023 @ White Hawk Country Club,  
Crown Point, IN

### **Drive Clean Indiana's Annual Conference & Expo**

August 23, 2023 @ Blue Chip Casino,  
Michigan City, IN

### **EV Boot Camp**

October 5, 2023 @ NIRPC, Portage, IN



Register at [www.DriveCleanIndiana.org](http://www.DriveCleanIndiana.org)



# CONTACT US



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