



ADVANCING FEDERAL  
INFRASTRUCTURE  
THROUGH INNOVATION

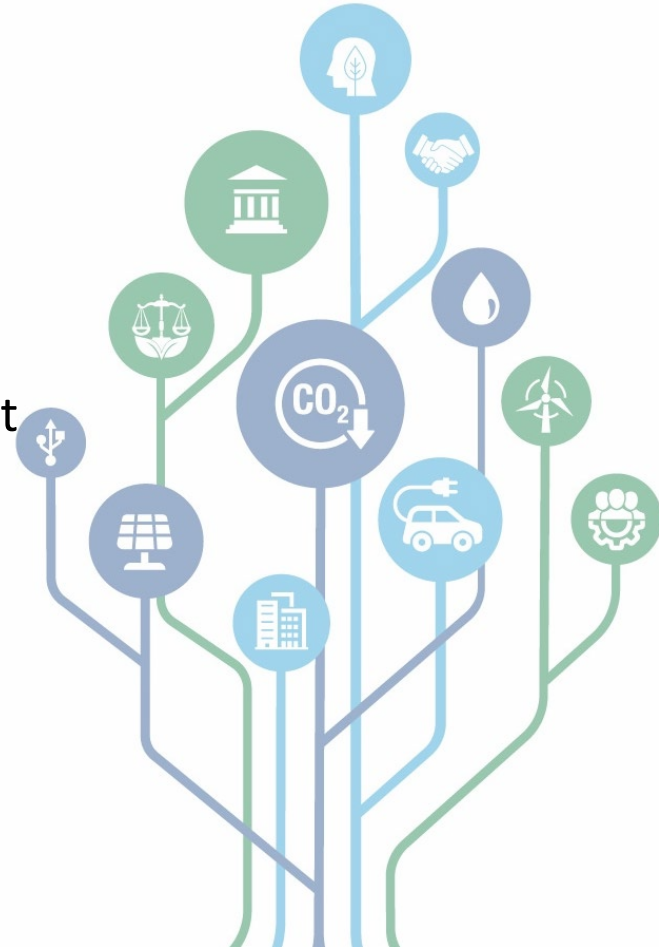


CINCINNATI, OHIO  
OCTOBER 25-27, 2022



# Mark Singer

Sr Transportation Analyst  
NREL



# Connecting to Utilities with EV U-Finder

Utility Coordination for Fleet Electrification

# Executive Order 14057

**Sec. 02(a)(ii):** “[T]he Federal Government shall use its scale and procurement power to achieve . . . **100 percent zero-emission vehicle acquisitions by 2035**, including **100 percent zero-emission light-duty vehicle acquisitions by 2027 . . .**”

## Implementing Instructions:

“...agencies also **must ensure availability of sufficient EVSE** to support a fully ZEV fleet, including planning, financing, and deploying EVSE **in advance of vehicle acquisitions.**”

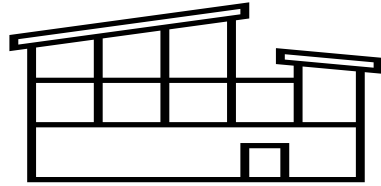
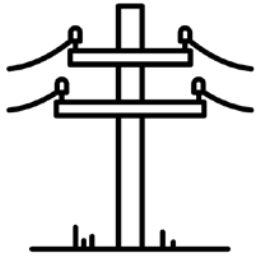
“Agencies should **ensure that facilities coordinate with electric utility providers** in EVSE planning and identify resources and support that can accelerate EVSE planning, financing, and installation.”

Find utility support for installing EVSE to enable ZEV growth

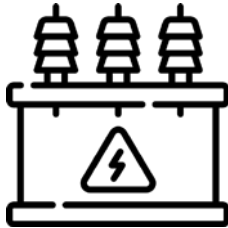
[https://www.sustainability.gov/pdfs/EO\\_14057\\_Implementing\\_Instructions.pdf](https://www.sustainability.gov/pdfs/EO_14057_Implementing_Instructions.pdf)

# Requirements for EVSE Installation?

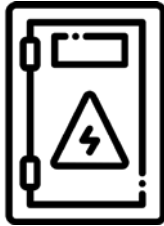
It all depends...



Existing electric load?



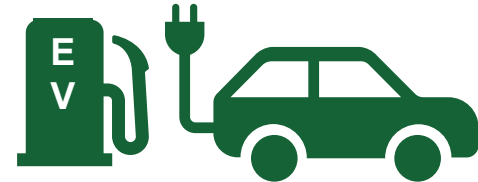
Transformer capacity?



Breaker positions?



Conduit length?



How many EVSE?  
At what power level?  
Concurrent charging?



# EVSE Planning and Execution Team

## Site Team



**Fleet**

**Manager:**

How many vehicles?  
Where?



**Facilities**

**Manager:**

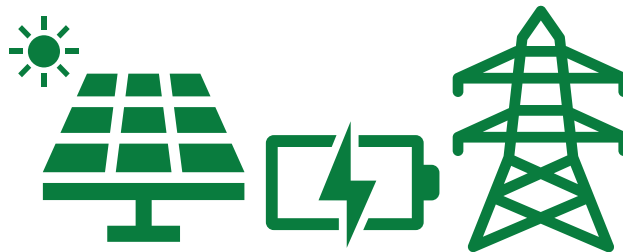
Real property locations?  
Parking capacity?



**Energy**

**Manager:**

Existing load?  
Capacity?



**Utility**



[gsa.gov/electrifythefleet](https://gsa.gov/electrifythefleet)



[www.energy.gov/eere/femp/electric-vehicles-federal-fleets](https://www.energy.gov/eere/femp/electric-vehicles-federal-fleets)

# When to work with utilities?



## Planning & Design:

- Planning support?
- Existing load impacts?



## Procure & Install:

- EVSE Incentives?
- Make-ready?



## Manage Charging:

- Rate structure?
- Optimal charging policy?

Throughout EVSE implementation and ZEV expansion

# EV U-Finder Overview

What are the  
**local utilities** and  
the available  
**EVSE incentives?**

*Who can you call?*

## Electric Vehicles for Federal Fleets

Federal Energy Management Program

<https://www.energy.gov/eere/femp/electric-vehicles-federal->

### EV Toolkit

Resources including a  
fleet electrification  
checklist, utility finder,  
and more.



### EV Utility Finder (EV U-Finder)

Database helps federal agencies connect to  
EVSE utility partners and incentives active in  
an agency ZIP Code.

<https://www.energy.gov/eere/femp/articles/ev-utility-finder-ev-u-finder>



# EV U-Finder Data Sources

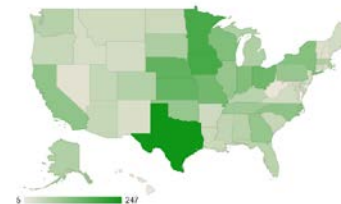
ZIP Code to utility mapping:

- The Utility Rate Database

[https://openei.org/wiki/Utility\\_Rate\\_Database](https://openei.org/wiki/Utility_Rate_Database)

- ***What utilities are active in the area?***

*Based on utilities reporting to the Energy Information Administration*



**Incentives** and **Contact** listings of utility associations

- American Public Power Association (APPA) – publicly owned
- Edison Electric Institute (EEI) – investor owned
- National Rural Electric Cooperative Association (NRECA) – cooperative owned
- ***What incentives are available, and who are the federal contacts?***

# EV U-Finder Interface

## EV U-Finder: Electric Vehicle Utility Finder

Enter ZIP Code to identify local utilities, electric vehicle support programs, and Clean Cities Coalitions.

**92313** Powered by the U.S. Utility Rate Database (<https://openei.org/apps/USURDB/>)  
 Utility territories last updated February 2021.  
 See Introduction worksheet for notes on using EV U-Finder.



### Identified active utilities in 92313

\*Customer Types:  
 G: Government or Public; C: Commercial; R: Residential

| Utility | Utility Name                                 | Utility Ownership | Known EVSE Funding Eligibility?* | Known Advisory Services Eligibility?* | Known Federal EVSE Incentives? | GSA Areawide Contract? | Identified Utility Contact or Phone Number (as available) | Identified Utility Contact Email | Known UESC Contact? | Known UESC Email? |
|---------|--|-------------------|----------------------------------|---------------------------------------|--------------------------------|------------------------|---|----------------------------------|---------------------|-------------------|
| 1       | Southern California Edison Co                | INVESTOR          | GC                               | GC                                    | Y                              | Y                      | C 92313   |                                  |                     |                   |
| 2       | City of Colton, California (Utility Company) | PUBLIC            | CR                               | CR                                    |                                |                        | 5 92313   |                                  |                     |                   |
| 3       | NA   | NA                |                                  |                                       |                                |                        |   |                                  |                     |                   |
| 4       | NA   | NA                |                                  |                                       |                                |                        |   |                                  |                     |                   |
| 5       | NA   | NA                |                                  |                                       |                                |                        |   |                                  |                     |                   |
| 6       | NA   | NA                |                                  |                                       |                                |                        |   |                                  |                     |                   |
| 7       | NA   | NA                |                                  |                                       |                                |                        |   |                                  |                     |                   |
| 8       | NA   | NA                |                                  |                                       |                                |                        |   |                                  |                     |                   |
| 9       | NA   | NA                |                                  |                                       |                                |                        |   |                                  |                     |                   |

### Utility Associations

| Utility Ownership | Directory or Contact                                   |
|-------------------|--|
| INVESTOR          | <a href="#">EEI Utility Federal Contacts</a>           |
| PUBLIC            | <a href="#">APPA Utility Directory</a>                 |
| COOPERATIVE       | <a href="#">NRECA Utility Directory</a>                |
| Cooperative       | NRECA Federal Coordinator                              |
| Contact           | <a href="#">https://www.nreca.org/Member-Directory</a> |

<https://www.eei.org/about/affiliates/national-keys/accounts/IPage/Federal-Utility-Directory.aspx>  
<https://www.publicpower.org/where-public-power>  
<https://www.electric.coop/our-organization/nreca-member-directory>

### State Level Incentives

|                                  |     |
|----------------------------------|-----|
| State:                           | CA  |
| Known EVSE Funding Eligibility?* | GCR |

\*Customer Types: G: Government or Public; C: Commercial; R: Residential

### Clean Cities Coalition

|              |   |
|--------------|---|
| Coalition:   | Southern California Clean Cities Coalition  |
| Coordinator: | <a href="#">https://www.scclean.org/</a>  |
| email:       | <a href="mailto:info@scagclean.org">info@scagclean.org</a>                            |
| website:     | <a href="http://www.scag.ca.gov/cleancities/">http://www.scag.ca.gov/cleancities/</a> |

### Additional Incentive Search Tools

|   |
|---|
| <a href="#">Alternative Fuels Data Center (AFDC) Laws and Incentives</a><br><a href="https://afdc.energy.gov/laws/state">https://afdc.energy.gov/laws/state</a>   |
| <a href="#">Database of State Incentives for Renewables &amp; Efficiency (DSIRE)</a><br><a href="https://www.dsireusa.org/">https://www.dsireusa.org/</a>   |
| <a href="#">Demand Response and Time-VARIABLE Pricing Programs</a><br><a href="https://www.energy.gov/eere/femp/demand-response-and-time-variable-pricing-programs">https://www.energy.gov/eere/femp/demand-response-and-time-variable-pricing-programs</a> |

# Utility Listing and Incentive Flags

## EV U-Finder: Electric Vehicle Utility Finder

Enter ZIP Code to identify local utilities, electric vehicle support programs, and Clean Cities Coalitions.

72863

Powered by the U.S. Utility Rate Database (<https://openei.org/apps/USURDB/>)  
Utility territories last updated February 2021.

See Introduction worksheet for notes on using EV U-Finder.

### \*Customer Types:

G: Government or Public; C: Commercial; R: Residential

### Identified active utilities in 72863

| Utility | Utility Name                                    | Utility Ownership | Known EVSE Funding Eligibility?* | Known Advisory Services Eligibility?* | Known Federal EVSE Incentives? | GS |
|---------|---|-------------------|----------------------------------|---------------------------------------|--------------------------------|----|
| 1       | Entergy Arkansas Inc                            | INVESTOR          | GCR                              |                                       | Y                              |    |
| 2       | Arkansas Valley Elec Coop Corp                  | COOPERATIVE       |                                  |                                       |                                |    |
| 3       | Village of Brainard, Nebraska (Utility Company) | PUBLIC            |                                  |                                       |                                |    |
| 4       | Oklahoma Gas & Electric Co                      | INVESTOR          |                                  |                                       |                                |    |

Utility territory boundaries have diverse geographies and can overlap by ZIP Code.

**HINT: Try multiple ZIP Codes.**

Utility incentives are continuously evolving. Program eligibility definitions are not rigid.

**HINT: Utilities may have unlisted programs.**

# Utility Contact Listing

| GSA Areawide Contract? | Identified Utility Contact or Phone Number (as available) | Identified Utility Contact Email    | Known UESC Contact? | Known UESC Email? |
|------------------------|---|-------------------------------------|---------------------|-------------------|
| Y                      | [REDACTED]  | [REDACTED]                          | [REDACTED]          | [REDACTED]        |
|                        |   | <a href="#">Cooperative Contact</a> |                     |                   |
|                        | [REDACTED]  | [REDACTED]                          |                     |                   |
| Y                      | [REDACTED]  | [REDACTED]                          | [REDACTED]          | [REDACTED]        |

## GSA Areawide Contract:

Does the utility have an areawide contract in place with GSA?

## Utility Contacts:

Utility contacts focused on federal agency support provided by APPA, EEI, and NRECA

## Utility Energy Service Contract (UESC):

Contacts for utilities already contracted with federal agencies for energy management and/or incentive programs

# Partners Beyond Utilities

## Utility Associations

| Utility Ownership   | Directory or Contact  |
|---------------------|---|
| INVESTOR            | <a href="#">EEI Utility Federal Contacts</a>  |
| PUBLIC              | <a href="#">APPA Utility Directory</a>  |
| COOPERATIVE         | <a href="#">NRECA Utility Directory</a>   |
| Cooperative Contact | NRECA Federal Coordinator<br><a href="#">https://www.electric.coop/four-organization/nreca-member-directory</a> |

<https://www.eei.org/about/affiliates/nationalkeyaccounts/Pages/Federal-Utility-Directory.aspx>

<https://www.publicpower.org/where-public-power>

<https://www.electric.coop/four-organization/nreca-member-directory>

## State Level Incentives

|                                  |           |
|----------------------------------|-----------|
| State:                           | LA        |
| Known EVSE Funding Eligibility?* | <b>GC</b> |

\***Customer Types:** G: Government or Public; C: Commercial; R: Residential

## Clean Cities Coalition

|              |   |
|--------------|---|
| Coalition:   | Louisiana Clean Fuels   |
| Coordinator: | <a href="#">www.louisianacleanfuels.org</a>   |
| email:       | <a href="mailto:info@louisianacleanfuels.org">info@louisianacleanfuels.org</a>      |
| website:     | <a href="http://www.louisianacleanfuels.org">http://www.louisianacleanfuels.org</a> |

## Additional Incentive Search Tools

|   |
|---|
| <b>Alternative Fuels Data Center (AFDC) Laws and Incentives</b>   |
| <a href="https://afdc.energy.gov/laws/state">https://afdc.energy.gov/laws/state</a>   |
| <b>Database of State Incentives for Renewables &amp; Efficiency (DSIRE)</b>   |
| <a href="https://www.dsireusa.org/">https://www.dsireusa.org/</a>   |
| <b>Demand Response and Time-Variable Pricing Programs</b>   |
| <a href="https://www.energy.gov/eere/femp/demand-response-and-time-variable-pricing-programs">https://www.energy.gov/eere/femp/demand-response-and-time-variable-pricing-programs</a> |

EVSE incentives are available beyond utilities.

# ZIP Code Incentive Listings

Identified incentive details are listed below.

## Edison Electric Institute Investor Owned Utility Incentives

For more details see "EEI Database" worksheet

Increase row heights to view complete details.

| Incentive | EEI Electric Company | EEI Holding Company | Program Name                 | Description  | Website (if available)  |
|-----------|----------------------|---------------------|------------------------------|--|---|
| 1         | Entergy Mississippi  | Entergy             | Utility Owned Direct Current | EML filed an application in Docket No. EC-123-0082-00 for a pilot to construct, own, | <a href="https://www.psc.state.ms.us/InSiteConnect/InSiteView.aspx?model=...">https://www.psc.state.ms.us/InSiteConnect/InSiteView.aspx?model=...</a> |
| 2         | Entergy Louisiana    | Entergy             | eTech Program                | The eTech program provides customer support by dedicated field representatives       | <a href="https://entergyetech.com/electric-vehicles/">https://entergyetech.com/electric-vehicles/</a>   |
| 3         | Entergy Mississippi  | Entergy             | eTech Program                | The eTech program  | <a href="https://entergyetech.com/electric-vehicles/">ch.com/electric-vehicles/</a>   |

Incentive details and links to utility websites

## American Public Power Association Public Utility Incentives

For more details see "APPA Database" worksheet

Increase row heights to view complete details.

| Incentive | Utility             | EVSE Incentives                               | Program Website (if available)  | Utility Website (if available)  |
|-----------|---------------------|---|---|---|
| 1         | City of Colton (CA) | Residential: Up to \$500 for Level 2 charger. | <a href="https://www.ci.colton.ca.us/895/Used-">https://www.ci.colton.ca.us/895/Used-</a> | <a href="http://www.coltononline.com/index.aspx?nid=...">http://www.coltononline.com/index.aspx?nid=...</a> |
| 2         | -                   | -   |   |   |

## Alternative Fuels Data Center (AFDC) Laws and Incentives

<https://afdc.energy.gov/laws/state>

Increase row heights to view complete details.

| Incentive | State or Utility? | Title  | Incentive Description  | Program AFDC Website (if available)   |
|-----------|-------------------|--|--|---|
| 1         | STATE             | AFV Incentives - San Joaquin Valley          | The San Joaquin Valley Air Pollution Control District administers the  | <a href="https://afdc.energy.gov/laws/9573">https://afdc.energy.gov/laws/9573</a>   |
| 2         | STATE             | Technology Advancement Funding - South Coast | The South Coast Air Quality Management District's (SCAQMD) Clean Fuels | <a href="https://afdc.energy.gov/laws/6135">https://afdc.energy.gov/laws/6135</a>   |
| 3         | STATE             | Alternative Fuel and Vehicle Incentives      | The California Energy Commission (CEC) administers the                 | <a href="https://afdc.energy.gov/laws/6307">https://afdc.energy.gov/laws/6307</a>   |
| 4         | STATE             | EVSE Incentive Program Support               | The California Electric Vehicle Infrastructure Program                 | <a href="https://afdc.energy.gov/laws/11999">https://afdc.energy.gov/laws/11999</a> |

State incentives are linked to the AFDC Laws and Incentives website.

# National Incentive Listings

Introduction

EV U-Finder

EEl Database

APPA Database

APPA Organizations & Utilities

AFDC Database

Tabular listings of all available utility and state incentives.

| Title  | Incentive Description                            |
|--|--|
| Alternative Fuel School Bus and Fueling Infrastructure Loans | The Virginia Board of Education may use...       |
| AFV Incentives - San Joaquin Valley                          | Public Benefit Grant Program, which provi...     |
| Employer Invested Emissions Reduction Funding - South Coast  | Air Quality Investment Program (AQIP). A...      |
| EVSE Incentives - San Joaquin Valley                         | Charge Up! Program, which provides fund...       |
| PEV and Fuel Cell Electric Vehicle (FCEV) Grant - Bay Area   | All program offers grants up to \$9,500 to in... |
| Technology Advancement Funding - South Coast                 | Program provides funding for research, de...     |
| Alternative Fuel Vehicle Incentives                          | Transportation Department...                     |

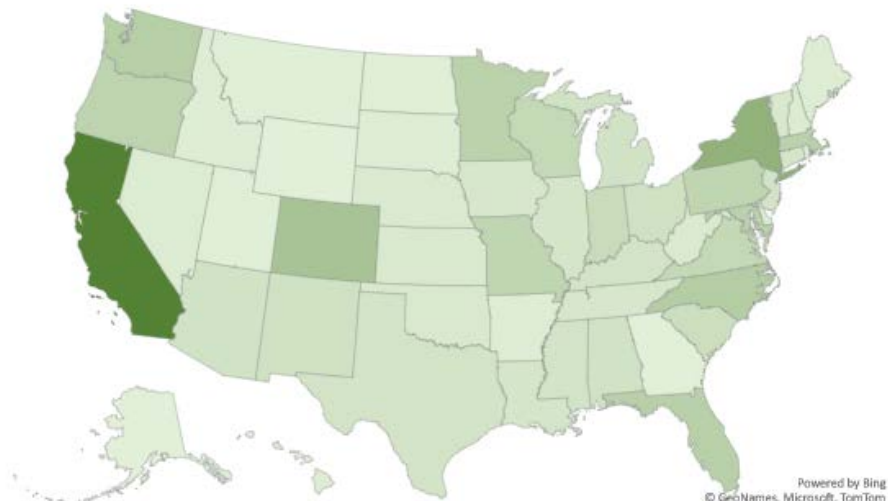
Public utility association listings for contacts and incentives managed across utilities.

| Account Name                               | Company Type        | City       | State      |
|--|---------------------|------------|------------|
| Alabama Municipal Electric Authority       | Joint Action Agency | Montgomery | Alabama    |
| Alaska Railbelt Energy Authority           | Joint Action Agency | Anchorage  | Alaska     |
| American Municipal Power, Inc.             | Joint Action Agency | Columbus   | Ohio       |
| Arizona Power Pooling Association          | Joint Action Agency | Mesa       | Arizona    |
| Arkansas River Power Authority             | Joint Action Agency | Lamar      | Colorado   |
| Badger Power Marketing Authority           | Joint Action Agency | Shawano    | Wisconsin  |
| Balancing Authority of Northern California | Joint Action Agency | Sacramento | California |

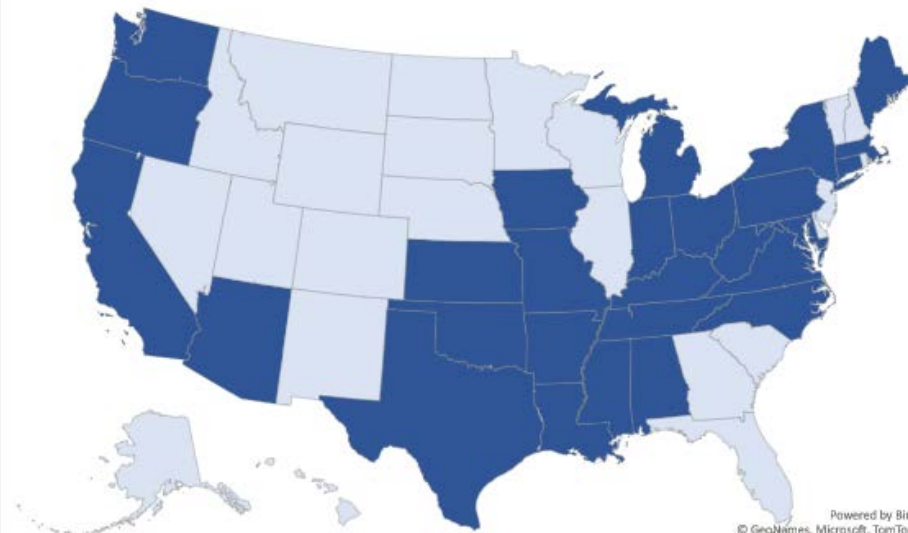
Included programs cover all 50 states.

# National Incentive Listings

## States with Any ZEV Utility EVSE Programs



## Federal Funding Explicitly Available from Utility Programs





# EV U-Finder context and next steps

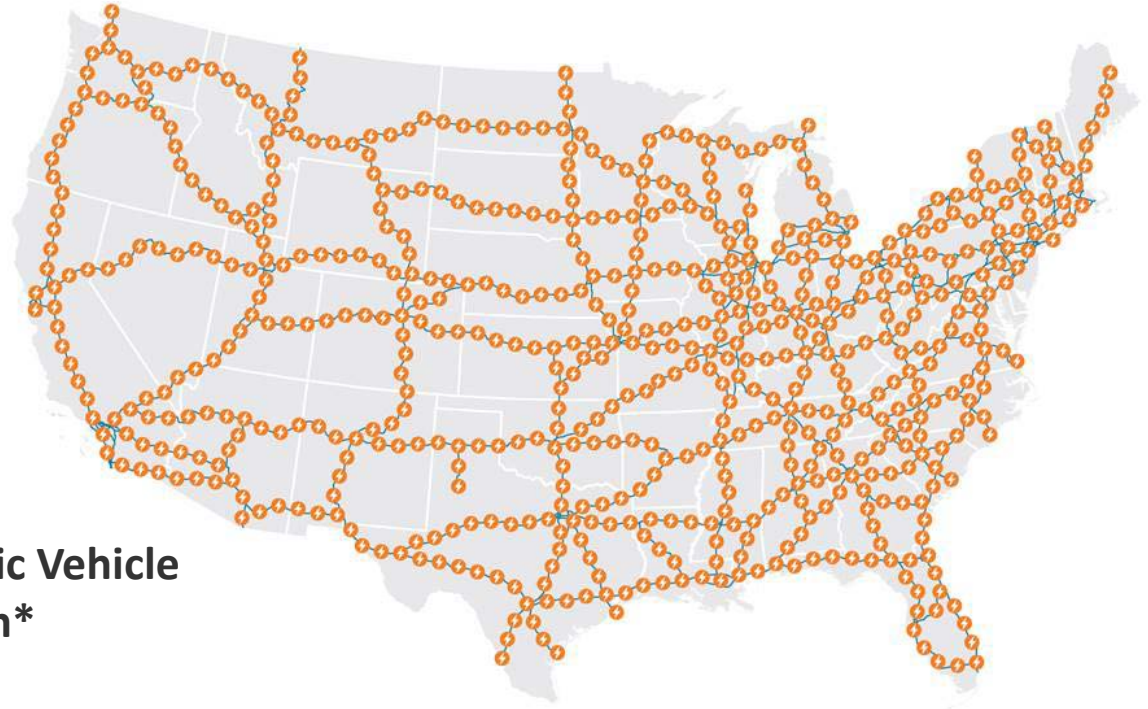
## Current Excel Tool

- Zip level look-up
- Manual periodic updates

## FY 2023 Development

- Online interface
- Update federal Zip level view
- State view for **National Electric Vehicle Infrastructure (NEVI) Program\***

<https://driveelectric.gov/>



\*Expect EVSE availability to evolve beyond fleet boundaries

# Thank you!

**EV U-Finder:** <https://www.energy.gov/eere/femp/articles/ev-utility-finder-ev-u-finder>

**FEMP Electric Vehicles:** <https://www.energy.gov/eere/femp/electric-vehicles-federal-fleets>

Mark Singer

FEMP Federal Fleet Program support

National Renewable Energy Laboratory

[mark.singer@nrel.gov](mailto:mark.singer@nrel.gov)

NREL/PR-5400-84269

This work was authored by the National Renewable Energy Laboratory, operated by Alliance for Sustainable Energy, LLC, for the U.S. Department of Energy (DOE) under Contract No. DE-AC36-08GO28308. Funding provided by the U.S. Department of Energy Office of Energy Efficiency and Renewable Energy Federal Energy Management Program Office. The views expressed in the article do not necessarily represent the views of the DOE or the U.S. Government. The U.S. Government retains and the publisher, by accepting the article for publication, acknowledges that the U.S. Government retains a nonexclusive, paid-up, irrevocable, worldwide license to publish or reproduce the published form of this work, or allow others to do so, for U.S. Government purposes.