<table>
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<tr>
<th><strong>Docketed</strong></th>
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<tbody>
<tr>
<td><strong>Docket Number:</strong> 20-TRAN-03</td>
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<tr>
<td><strong>Project Title:</strong> Counting Electric Vehicle Chargers in California</td>
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<td><strong>TN #:</strong> 233394</td>
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<tr>
<td><strong>Document Title:</strong> Presentation - Alternative Fueling Station Locator - NREL</td>
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<tr>
<td><strong>Description:</strong> Powerpoint presentation from NREL</td>
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<tr>
<td><strong>Filer:</strong> Tami Haas</td>
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<td><strong>Organization:</strong> California Energy Commission</td>
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<td><strong>Submitter Role:</strong> Commission Staff</td>
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<td><strong>Submission Date:</strong> 6/9/2020 5:19:51 PM</td>
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<td><strong>Docketed Date:</strong> 6/10/2020</td>
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NREL at a Glance

- **2,307** Employees, plus more than **460** early-career researchers and visiting scientists
- **World-class** facilities, renowned technology experts
- **About 900** Partnerships with industry, academia, and government
- **Campus** operates as a living laboratory
Alternative Fuels Data Center

The premier information resource for alternative fuels and advanced vehicles

afdc.energy.gov
Who uses the AFDC?

- Fleet managers
- Transportation planners
- Fuel providers
- Utilities
- Clean Cities coalitions

- 2 million users annually
- 20 million station searches annually
Station Locator

afdc.energy.gov/stations
Station Locator Fuel Types

- Biodiesel (B20 and above)
- Electric Vehicle (EV) Chargers
- Ethanol (E85)
- Hydrogen
- Natural Gas (CNG & LNG)
- Propane
Station Locator Station Types

**Includes:**
- Public stations
- Private stations
- Fleet fueling sites and EV chargers
- Workplace EV chargers
- Planned stations
- Temporarily out of service stations

**Does Not Include:**
- Off-road vehicle stations
- Residential fueling sites
- Private multi-unit dwelling (MUD, also known as multi-family building) EV chargers

*Note: We do collect private MUD data!*
Private Data Collection

X Do not receive private data from charging networks
✓ Have the capabilities to collect private data under NDA
   – Would allow the Station Locator to house all private data (networked and non-networked)
   – Private data under NDA would not be shared with the public
EV Charging Infrastructure Terminology

- **Station**: a collection of one or more EVSE at an address.

  - **EVSE**: controls the power supply to a single PEV in a single session, also called a port. An EVSE cannot charge more than one PEV at a time.

  - **Connector**: the socket or cable available for a PEV to use. A single EVSE may have multiple connectors and connector types, but only one of them may be in use at a time.
Station Locator Data Fields

### EV Chargers

- Charging network**
- Charging level**
- Number of EVSE**
- Connector number and type**
- Manufacturer
- Power output
- Pricing+
- Workplace charging
- On-site renewable source+

* Available in Station Locator  
+ Available in Data Download
Station Locator Data

afdc.energy.gov/data_download
Alternative Fuel Stations
Query our database of alternative fuel stations.

This includes biodiesel, compressed natural gas, ethanol, electric charging, hydrogen, liquefied natural gas, and propane station locations.

**All Stations** (GET /api/alt-fuel-stations/v1)
Return a full list of alternative fuel stations that match your query.

**Get Station by ID** (GET /api/alt-fuel-stations/v1/id)
Fetch the details of a specific alternative fuel station given the station's ID.

**Last Updated Date** (GET /api/alt-fuel-stations/v1/last-updated)
Retrieve the date when the alternative fuel stations data were last updated.

**Nearest Stations** (GET /api/alt-fuel-stations/v1/nearest)
Return the nearest alternative fuel stations within a distance of a given location.

**Stations Nearby Route** (GET/POST /api/alt-fuel-stations/v1/nearby-route)
Find alternative fuel stations within a distance of a driving route.

Help Improve this Content

developer.nrel.gov/docs/transportation/alt-fuel-stations-v1
afdc.energy.gov/widgets