



Building out the Fast Charging Network

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National Renewable Energy Laboratory

EV Roadmap 9

July 21, 2016

National Renewable Energy Laboratory

Only National Laboratory Dedicated Solely to Energy Efficiency and Renewable Energy

- Leading clean-energy innovation for 34 years
- 1740 employees with world-class facilities
- Campus is a living model of sustainable energy
- Owned by the Department of Energy
- Operated by the Alliance for Sustainable Energy



Scope of NREL's Mission



Energy Efficiency

Residential Buildings
Commercial Buildings
Personal and Commercial Vehicles



Renewable Energy

Solar
Wind and Water
Biomass
Hydrogen
Geothermal



Systems Integration

Grid Infrastructure
Distributed Energy
Interconnection
Battery and Thermal Storage
Transportation



Market Focus

Private Industry
Federal Agencies
Defense Dept.
State/Local Govt.
International

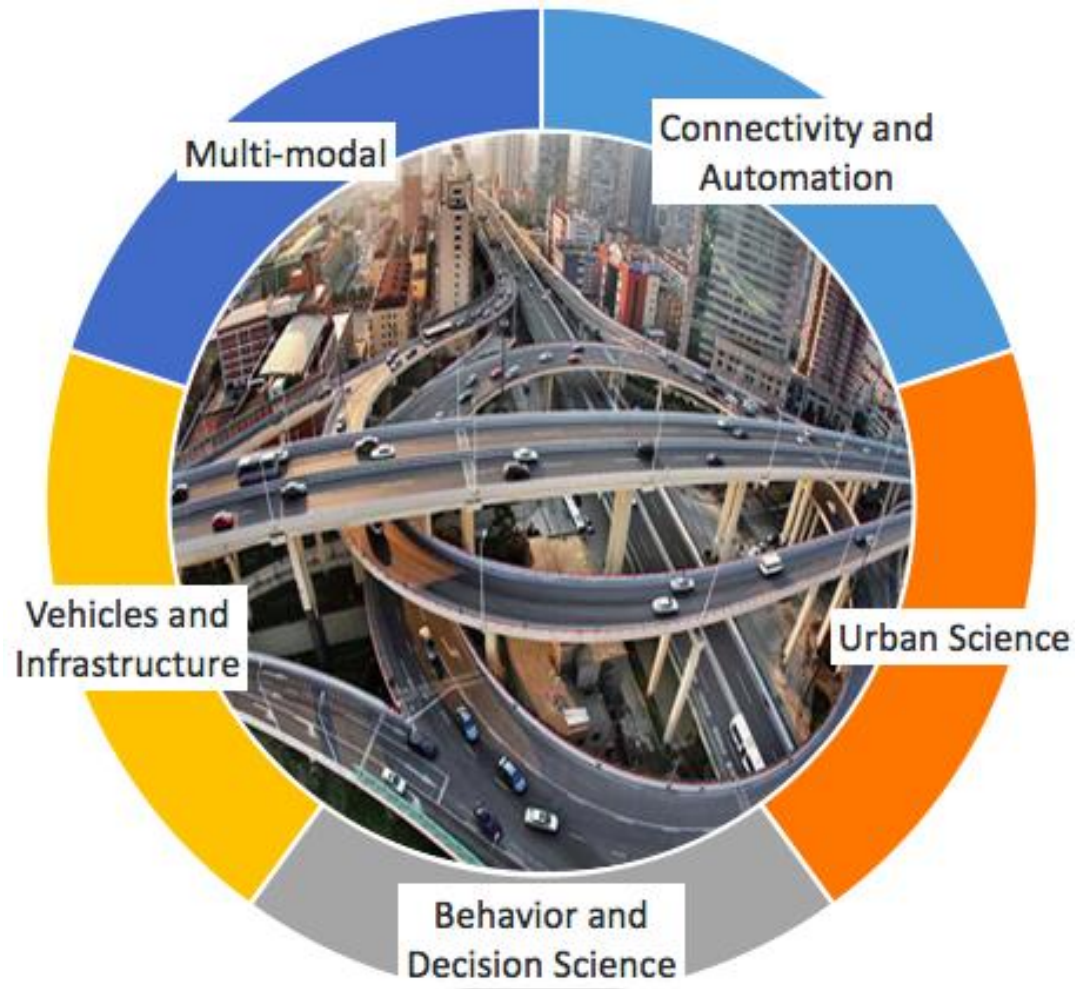
Transportation as a System

Today:

- Vehicle level focus
- Independent
- Unconnected
- Subject to behaviors & decisions

Tomorrow:

- System level focus
- Connected
- Automated
- In concert
- Across modes
- Managed behaviors & decisions



Exploring the untapped transportation system level efficiencies

New SMART Mobility effort aligns with Smart Cities Strategies

SMART Mobility examines the nexus of energy and mobility for future transportation systems

(in collaboration with and support of Smart Cities, where appropriate).

“Smart Cities” harnesses data to continuously improve the collection, aggregation, and use of data to improve the life of their residents



SMART Mobility Consortium

Smart Cities Key Strategies¹

- Combination of existing applications into and development of entirely new systems-based collaborative models
- Focused technology demonstrations
- Collaboration with broader stakeholder network, including state and municipal governments, planners, and data scientists
- Building on and unifying existing foundational efforts exploring transportation as a system
- Planning coordination with the International Energy Agency’s Connected and Automated Vehicles (CAVs) Task

- Test beds for “Internet of Things” applications and developing new multi-sector collaborative models
- Collaborating with the civic tech movement and forging intercity collaborations
- Leveraging existing Federal activity
- Pursuing international collaboration

¹ <https://www.whitehouse.gov/the-press-office/2015/09/14/fact-sheet-administration-announces-new-smart-cities-initiative-help>

DOE's Alternative Fueling Station Locator

Alternative Fueling Station Locator

Find alternative fueling stations near an address or ZIP code or along a route in the United States. Enter a state to see a station count.

Find Stations | **Plan a Route**

Q address, ZIP, or state... **Go**

Electric ▼


[more search options](#)

1,887 electric stations
3,991 charging outlets
in the United States

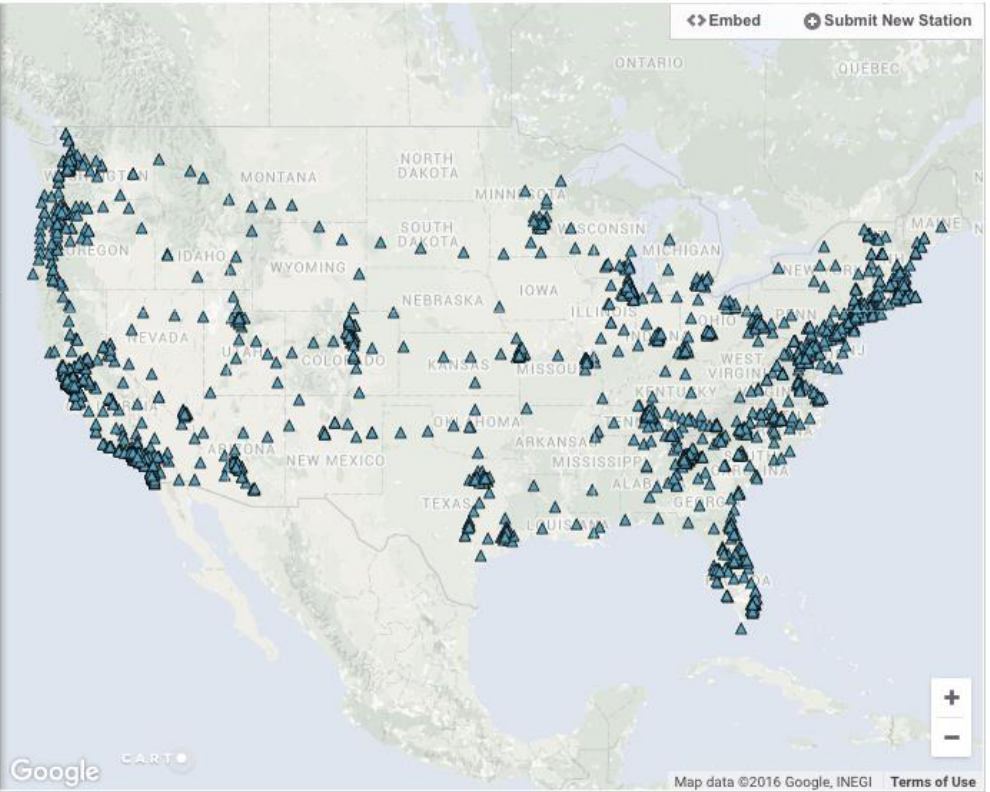
Including private stations
Including planned stations
Charger types: DC Fast

Location details are subject to change. We recommend calling the stations to verify location, hours of operation, and access.

ABOUT THE DATA

 [Go to mobile version](#)
[Download iPhone app](#)

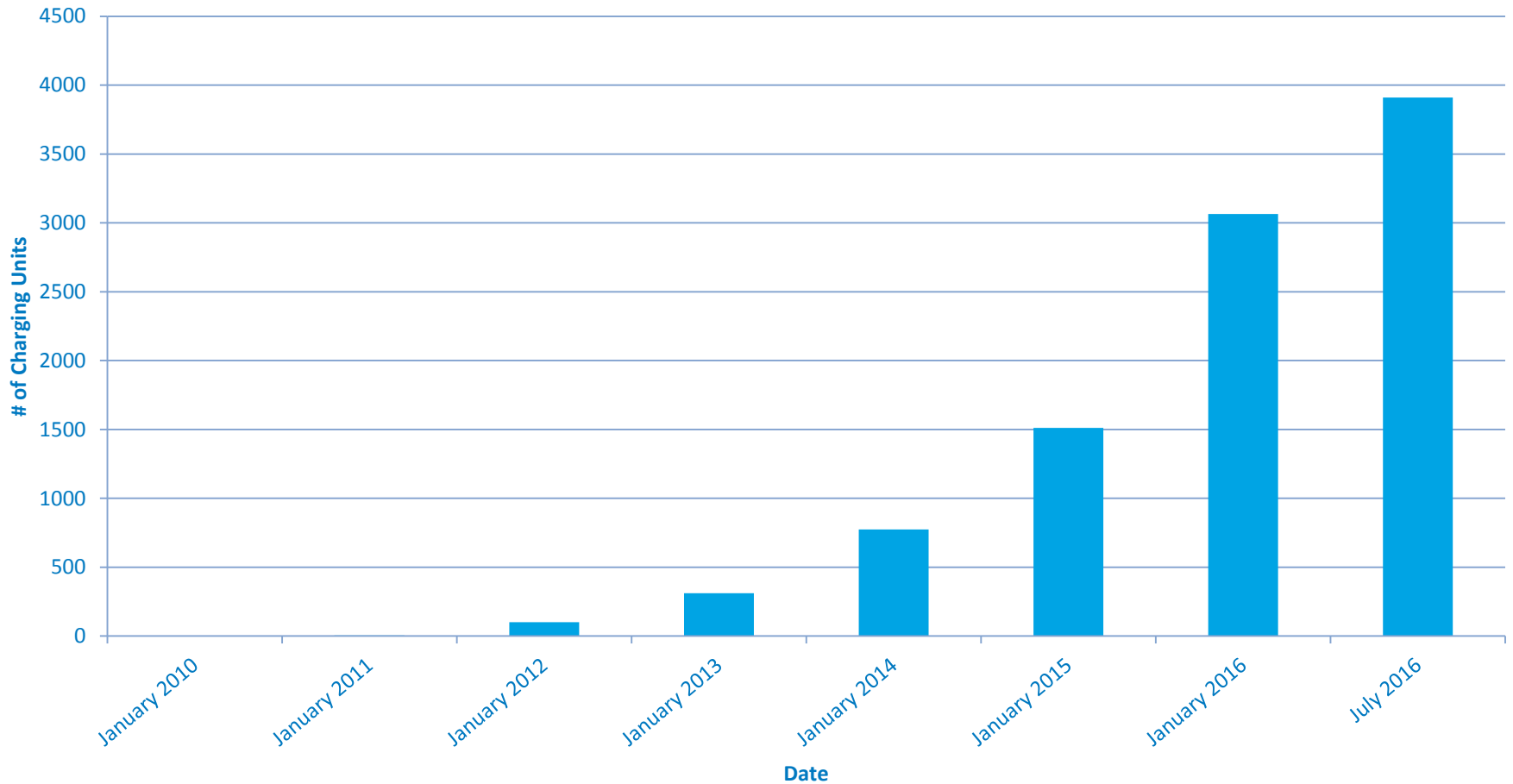
[Download Data](#) [Developer APIs](#)
Data last updated: 07/18/2016



Station growth continues to be driven through collaboration with alternative fuel industry groups, infrastructure and fuel providers, and vehicle manufacturers.

DOE's Alternative Fueling Station Locator

DC Fast EVSE Station Growth



Partnerships are Critical to Successful Deployment

