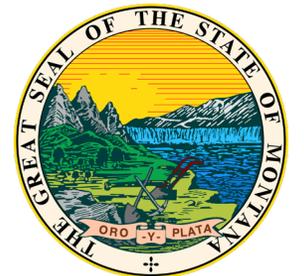


# DEQ Electric Vehicle Programs

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# DEQ Role – Transportation and Fuels

- Programs that encourage the use of alternative fuels that:
  - Have in-state benefits
  - Are coordinated among the affected agencies
- Federal funding and grant programs
  - Volkswagen Environmental Mitigation Settlement
  - Diesel Emission Reduction Act funding
- Updating the legislature on alternative fuels programs

# Electric Vehicle Terms

## **Battery-Electric Vehicles (BEV's)**

- Runs only on electricity
- Battery sizes vary- Most available models have 150-300 miles of range
- Examples: Tesla, Chevy Bolt, Nissan Leaf

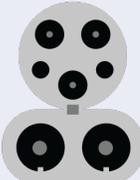
## **Plug-in Hybrid Electric Vehicles (PHEV's)**

- Runs on either electricity or gasoline
- Battery sizes and range vary between 20-50 miles
- Examples: Chevy Volt, Ford C-max Energi, Toyota Prius Prime

## **Hybrid Vehicles**

- Only runs on gasoline
- Battery used to improve fuel economy; reduce idling
- Battery cannot be charged from external source

# Electric Vehicle Charging Station Types

	Level 1	Level 2	Level 3- DC Fast
Electric Current Type	AC	AC	DC
Voltage/Power	120V/1.4kW	240V/6.2kW-7.6kW	480V/50kW-350kW
Charging Time	4-5 miles/hr of charging	15-25 miles/hr of charging	50-170 miles/hr of charging
Primary Use	Residential	Residential/Commercial	Commercial
Cost per unit	\$300-\$1500	\$4,000-\$20,000	\$20,000-\$120,000
Connector Types			  

J1772

J1772

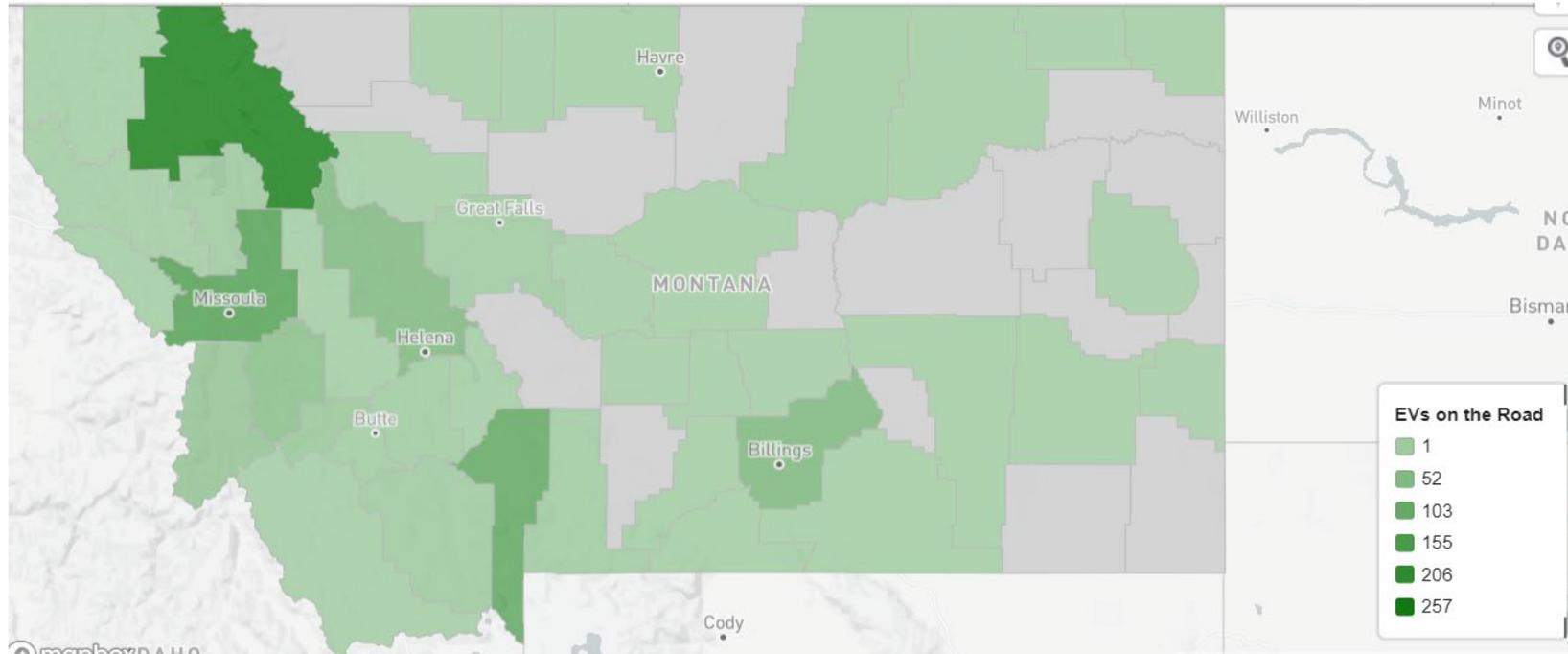
CCS Combo

CHAdemo

Tesla

# Electric Vehicle Registrations in Montana

(as of February 2020)



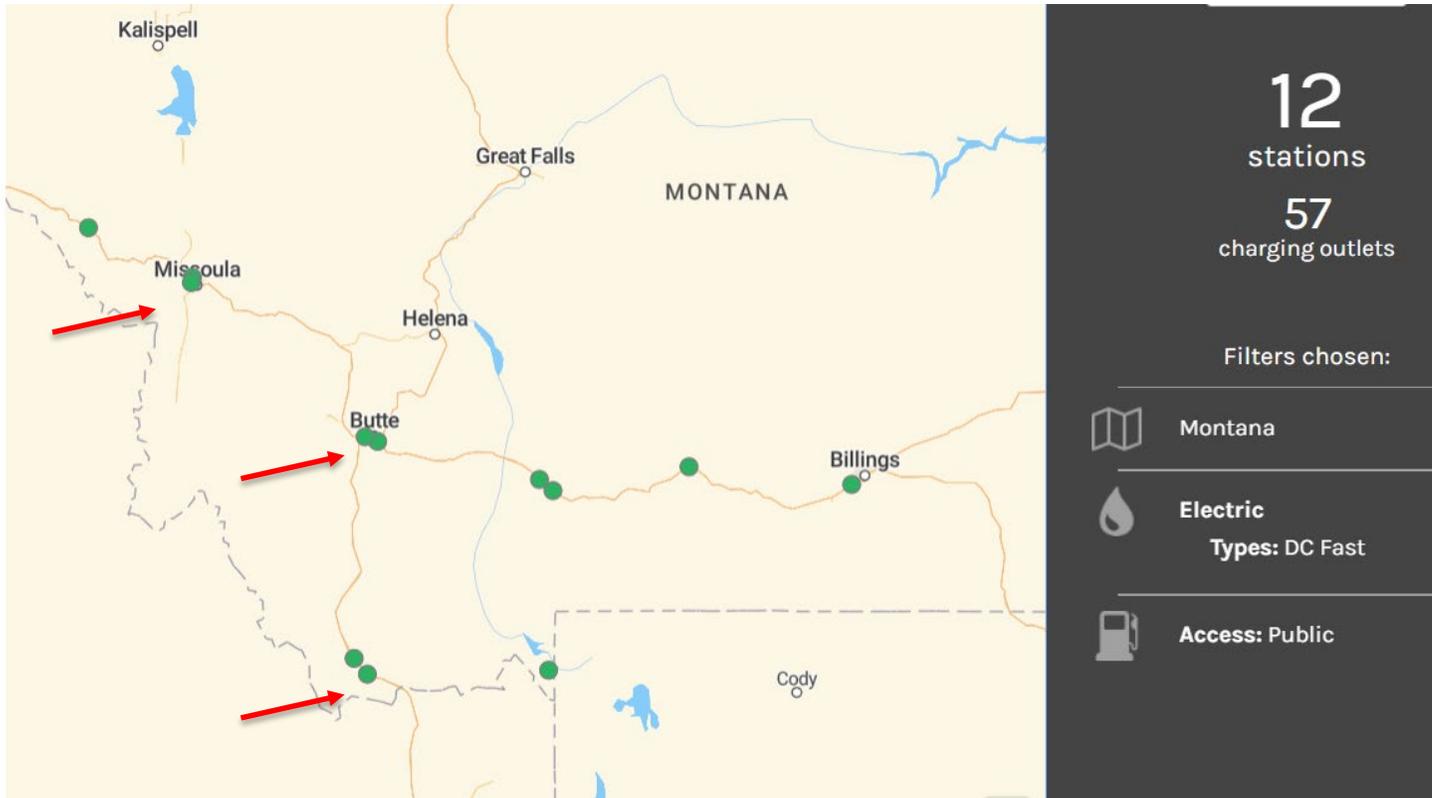
<https://www.atlasevhub.com/materials/state-ev-registration-data/>

- 943 total (battery electric, plug-in hybrid)
- 517 battery electric
- 426 plug-in hybrid

Top 3 counties:

- Flathead County- 257
- Missoula County- 150
- Gallatin County- 126

# Electric Vehicle Fast Charging Stations in Montana

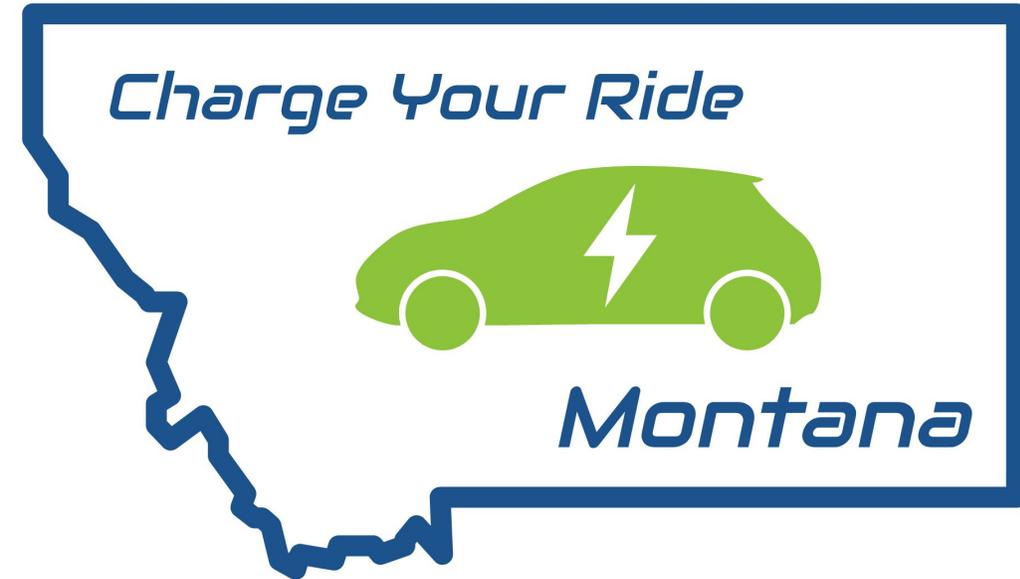


- 3 public DC fast charging stations in Montana (non-Tesla)
- Missoula, Butte, Dell
- Developed by Electrify America

Source: U.S. Department of Energy, Alternative Fuels Data Center:  
<https://afdc.energy.gov/fuels/electricity.html>

# DEQ Charge Your Ride Program

- Volkswagen Environmental Settlement Funding
- Montana allocation = \$12.6 million
- 15% can be spent on charging stations for light duty vehicles
  - \$1.89 million in Montana
- Current Request for Applications – Level 2 station funding
- \$300,000 total funds – available through August 2020
- Maximum \$8,500 grant for dual port Level 2 stations



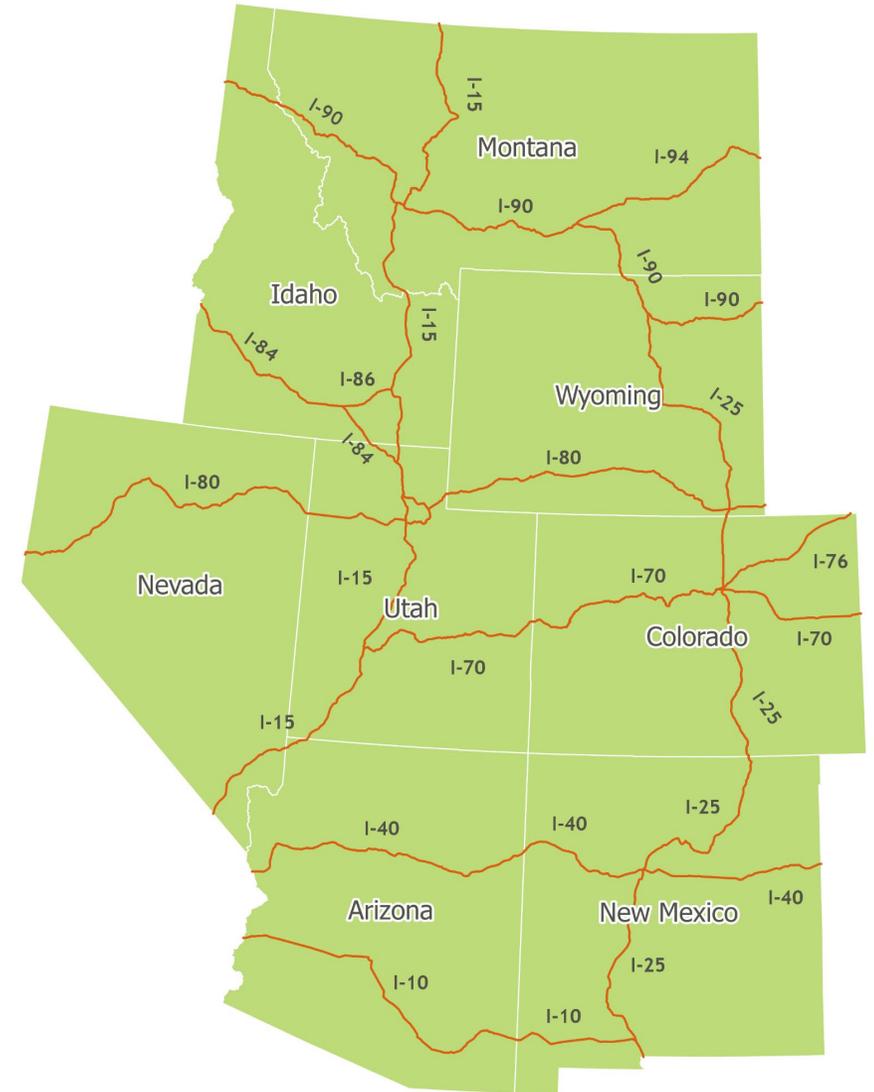
# Future Planned Funding Opportunities

- Level 3 – DC fast charging network in Montana
- Focus on I-90, I-15, US-93
- Partnering with utilities, private businesses, local governments
- Filling in gaps
- Tracking private investment; e.g. Electrify America



# Regional Coordination on Electric Vehicles

- Regional Electric Vehicle West “REV West” MOU
  - 8 signatory states: MT, WY, ID, UT, NV, CO, NM, AZ
- Goals:
  - Facilitate electric vehicle travel across key corridors in the intermountain west
  - Support economic development, tourism, and in-state travel
  - Share information and collaborate on funding opportunities to support electric vehicle infrastructure



# REV West Accomplishments

- Published EV policy baseline analysis report in 2018
- Developed voluntary minimum standards for DC fast charging stations
- Identified key infrastructure gaps and existing barriers
- Obtained federal funding to enhance accessibility of electric vehicles in remote, rural areas

