

Electric Vehicle Infrastructure Readiness

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Overview

- McCall Area Comprehensive Plan References
- Why? – Greenhouse Gas Emissions Inventory
- Recommended EV Goals & Standards
- EV Demographics
- Existing Conditions & Projected Needs
- Public Parking Lot Locations
- Funding Opportunities & Barriers

MCCALL

IN MOTION

2018 MCCALL AREA COMPREHENSIVE PLAN



McCall Area Comprehensive Plan

Our Vision:

“McCall is a diverse, small town united to maintain a safe, clean, healthy, and attractive environment. It is a friendly, progressive community that is affordable and sustainable.”

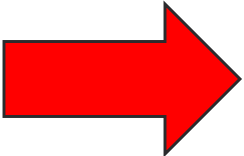
Comp Plan Goals & Policies:

- **Env. Goal 3:** “Promote, encourage, and maintain the highest standards for air quality.”
- **Env. Policy 3.4** - “Promote reductions in air pollution to minimize impact to human health, sustain or improve the local economy, improve air quality, and reduce the impact of greenhouse gases.”
- **Environment Project 19:** “Install electric vehicle chargers as public facilities”

REFLECTING THE FUTURE

Why? - GHG Emissions Sources

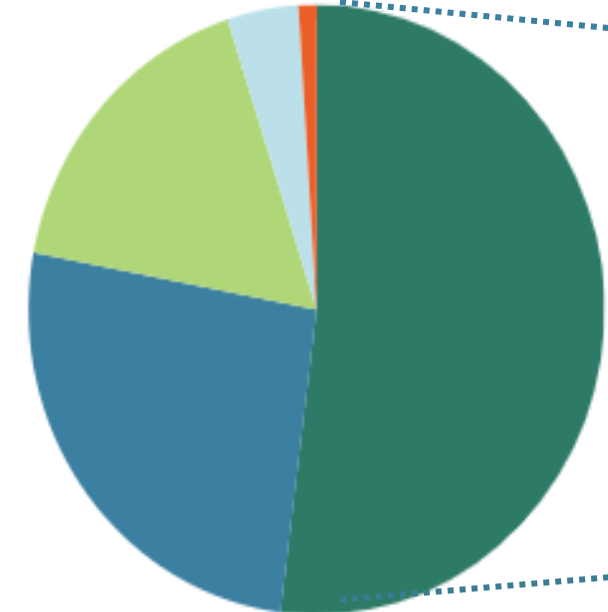
COMMUNITY EMISSIONS AT A GLANCE



1 Transportation
52%

2 Residential Energy
26%

3 Commercial Energy
17%



- Transportation & Mobile Sources (52%)
- Residential Energy (26%)
- Commercial Energy (17%)
- Solid Waste (4%)
- Water & Wastewater (1%)



EV Adoption & Infrastructure Trends

Inflation Reduction Act – Sets Climate Policy Goals and Provides Funding

- For: State & Local Governments, Households, Manufacturers, Non-Profits

- **50% of new Vehicle Sales to be Electric Vehicles by 2030**

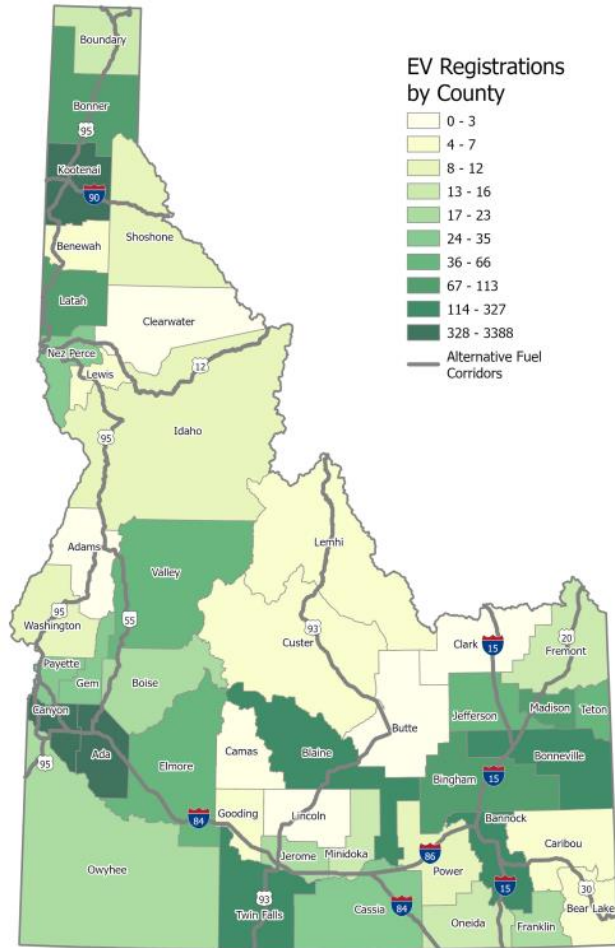
- Recommended standard:

- **10% of all parking spaces (Public and Private) should be equipped with Level 2 or 3 by 2030**

CHARGING PORTS (PLUGS) in the Town of Vail

CHARGER TYPE	CURRENT	NEEDED BY 2030
Public Level 2 Ports	26	260
Public DCFC Ports	4	16
Private Level 2 Ports	38	380
Private DCFC Ports	1	4
Total	71	670

EV Adoption Trends



National Trend

2020 – 1 million EVs

2022 – 2.2 million EVs

Number of EVs doubling every 2 years

Idaho Trend

2023 – 6,213 EVs

2021 – 3,500 EVs

Number of EVs nearly doubling every 2 years

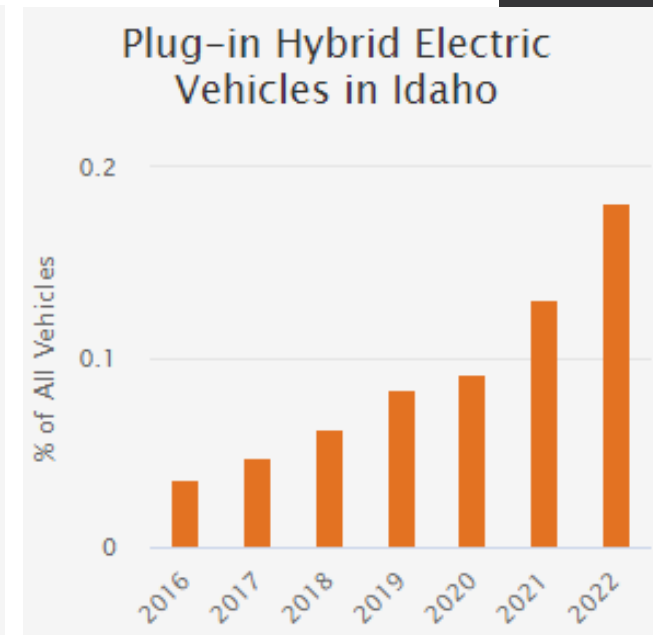
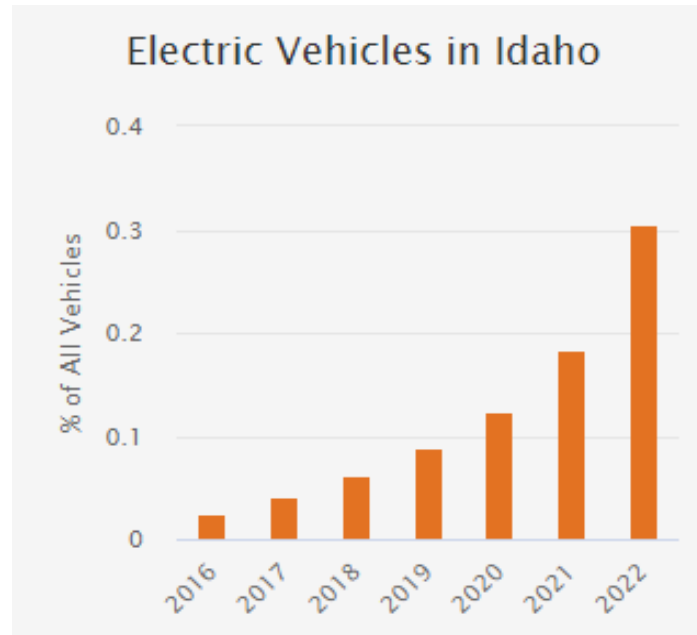
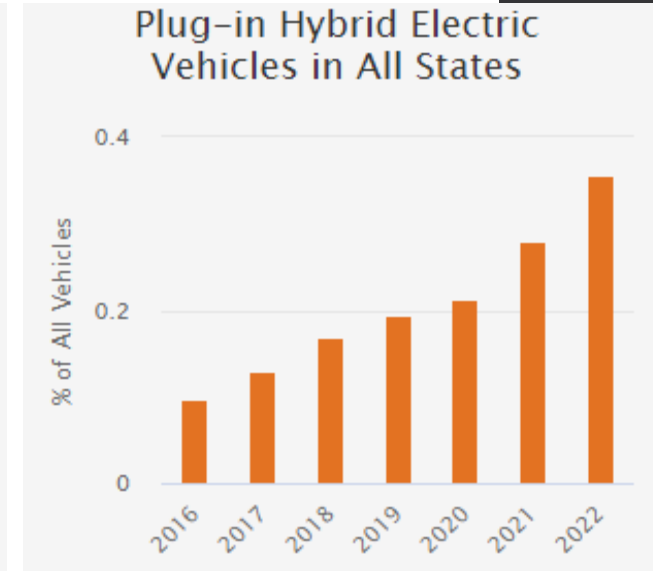
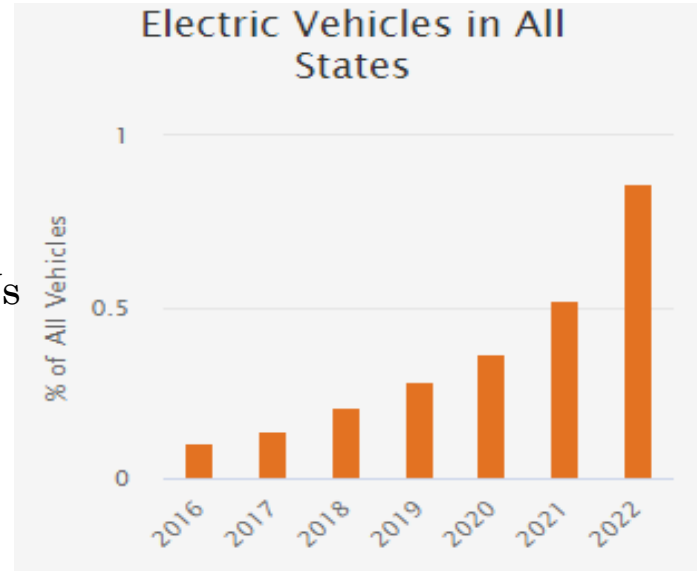
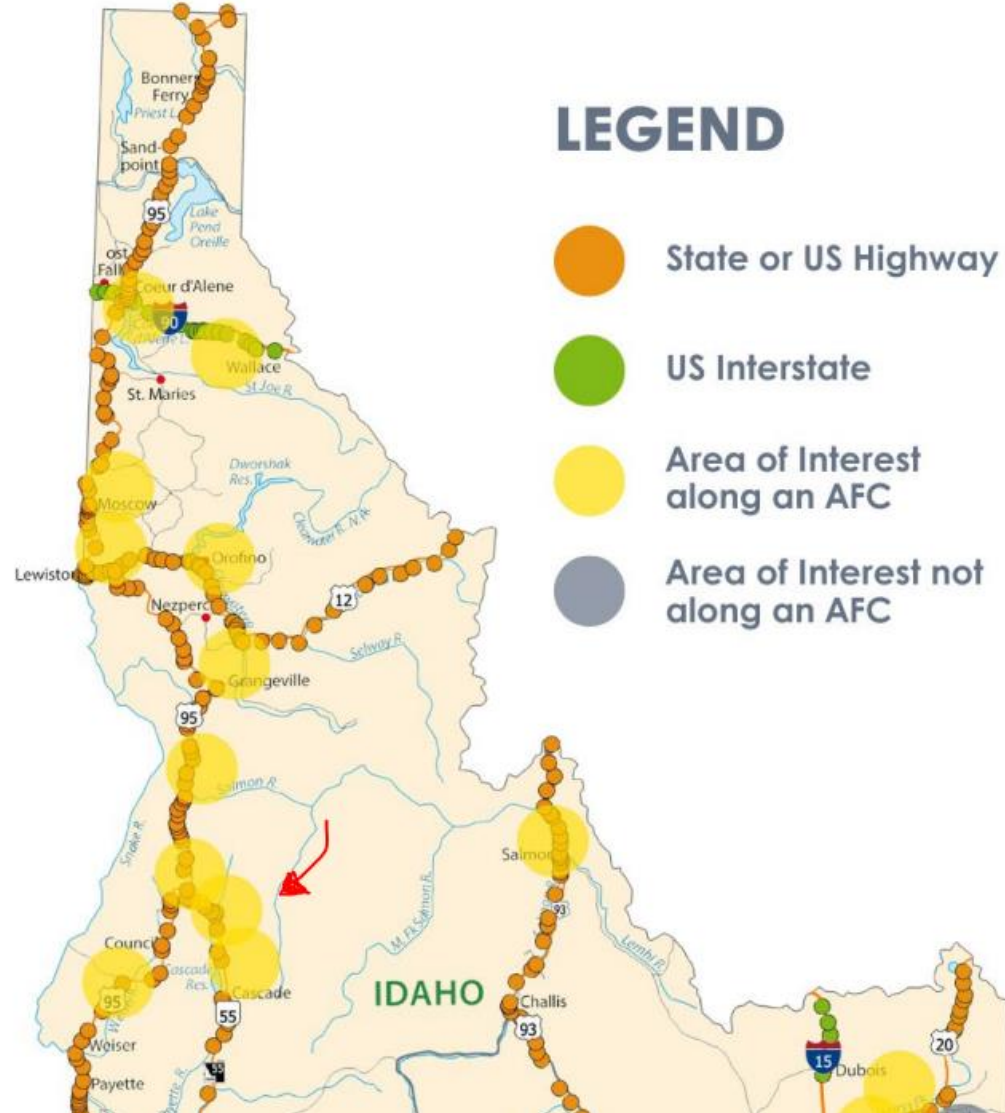


Figure 9. EV Registration Count by County

EV Infrastructure Trends

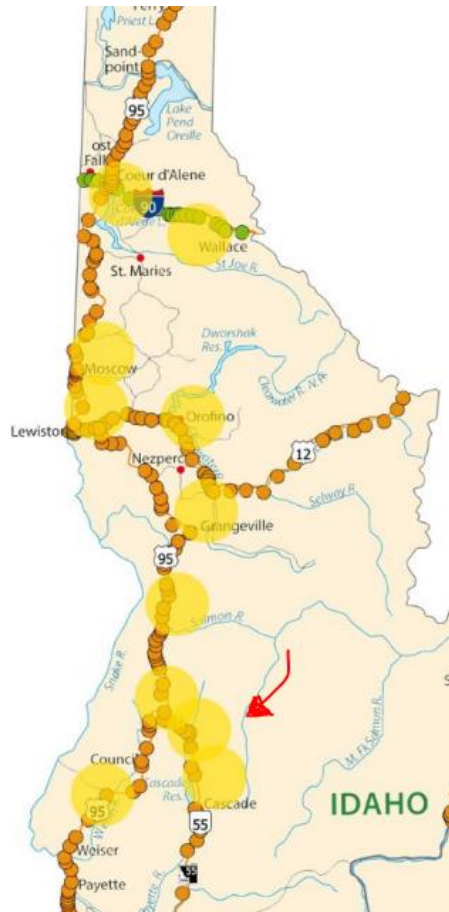


State EV Charging Infrastructure Plan

- McCall is located along a priority “corridor” identifying a lack of EV Infrastructure
- State Goal: Install DCFC every 50 miles
- Funding is limited and competitive

Who are the users of EV Charging?

Thru-Travelers on Highway 55
McCall is a Regional Hub



Community Residents without
Charging Access
(Apartments/Renters, Homeowners w/o
Upgraded Electric Infrastructure)



10-20
Units



Townhome/
Duplex



3-9
Units

Day Visitors,
Regional Work
Fleet Vehicles



Likely Parking Density of **Public** EV Spaces based
on
Recommended Practice (10% of spaces)

	Total Spaces	Current EV	Needed by 2030
Public – Off-Street	340	0	34
Public – On Street	325	0	0
Public – All Spaces	665	0	66

City Owned Public Parking Lots

<u>Lot Name/Location</u>	<u># of spaces</u>	<u># of EV Spaces for 10%</u>
Railroad Ave	10	1
1 st Street	56	6
Civic Campus	115	11
Mill Street	80	8
New Library Lots	31	3
Centennial Plaza Lot	36	3
<u>Lenora Surface Lot</u>	<u>22</u>	<u>2</u>
	340	34
Public - All Spaces	665	66

Funding Barriers & Opportunities

Costs of DCFC Project (Per Dylan Martin, ID Power)

Level 3 – \$175-\$250,000 Req. Infrastructure Upgrades, location dependent

- \$3,000 average total service cost (\$0.06/kW) – 380kW per month
 - Demand (peak-rate) based charging subject to extreme fluctuation
- 10-Year Cost (low-end)- \$500,000
 - Does not include Billing Platform/Subscription Costs/Maintenance Costs

Costs of Level 2 Charging Infrastructure

- Level 2 Charging - average cost of \$10,000-\$20,000 per 2-4 ports depending on infrastructure upgrade needs.
 - Maintenance/Subscription Costs sit closer to \$150-\$500/month/unit - System Dependent
 - Workforce Development – Local Certified EV Electrician
- Not a Funding Priority at the State or Federal Level in programs we have pursued thus far.

DCFC or Level 3 Fast-Charging is not accessible or attainable without outside Funding

- Grant Funding tends not to cover code compliance/many infrastructure upgrades involved (pavement upgrades, trenching, etc.)
- Most municipalities limit pursuit of Level 3 charging they choose to let Private Business figure it out, and defer the investment that will still be needed somewhere.

Mountain Town/Snow Country Considerations:

- Snow Removal Conflicts
 - (Wall Mounting, Cord Control, Covered Spaces)
- Pay Structures
 - (Workforce Rate, Visitor Rate, Time of Use)
- Enforcement
 - Conflict Mitigation, ADA Standards, Land Use

Resources

- Alternative Fuels Data Center (DOE) - <https://afdc.energy.gov/transatlas/#/?state=US&view=percent&fuel=PHEV>
- International Code Council - https://www.iccsafe.org/wp-content/uploads/21-20604_COMM_EV_Strategy_RPT_v5.pdf
- Town of Vail EV Readiness Plan – Mountain Towns 2030
- Town of Steamboat Springs EV Readiness Plan – Mountain Towns 2030
- Idaho – National Electric Vehicle Infrastructure (NEVI) Plan - https://static1.squarespace.com/static/646663757d1a463dc663547d/t/65270d5cf0812c09b98e59d4/1697058145903/IdahoNEVI-FY2024_Plan_Update_9-26-23_FINAL+REVISED.pdf
- McCall Inventory of Community Greenhouse Gas Emissions for 2021
- McCall Area Comprehensive Plan 2018

Questions?