

LPEEA

La Plata Electric Association, Inc.

A Touchstone Energy[®] Cooperative 

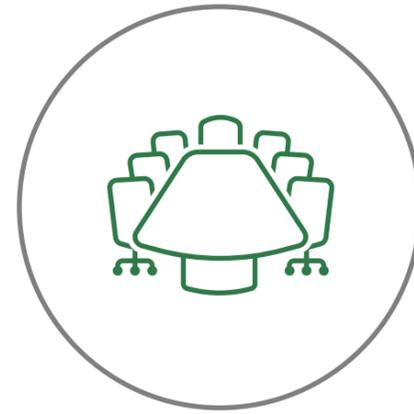
Electrify Your Ride: The Latest on EVs in Our Area

About LPEA



Cooperative

A rural electric co-op founded in 1939. We deliver power at cost to our members – who are also our owners.



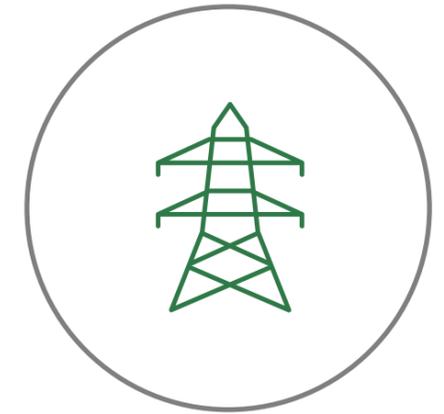
Board of Directors

Governed by a locally elected 12-person board of directors.



Top Five

Fifth largest of 22 cooperatives in Colorado.



Power Supply

We sell close to a billion kWh's a year - 95% from Tri-State and 5% sourced locally.

Strategic Goal

LPEA will strive to reduce its carbon footprint by 50% from 2018 levels by year 2030 while keeping members' cost of electricity lower than 70% of its Colorado cooperative peers.



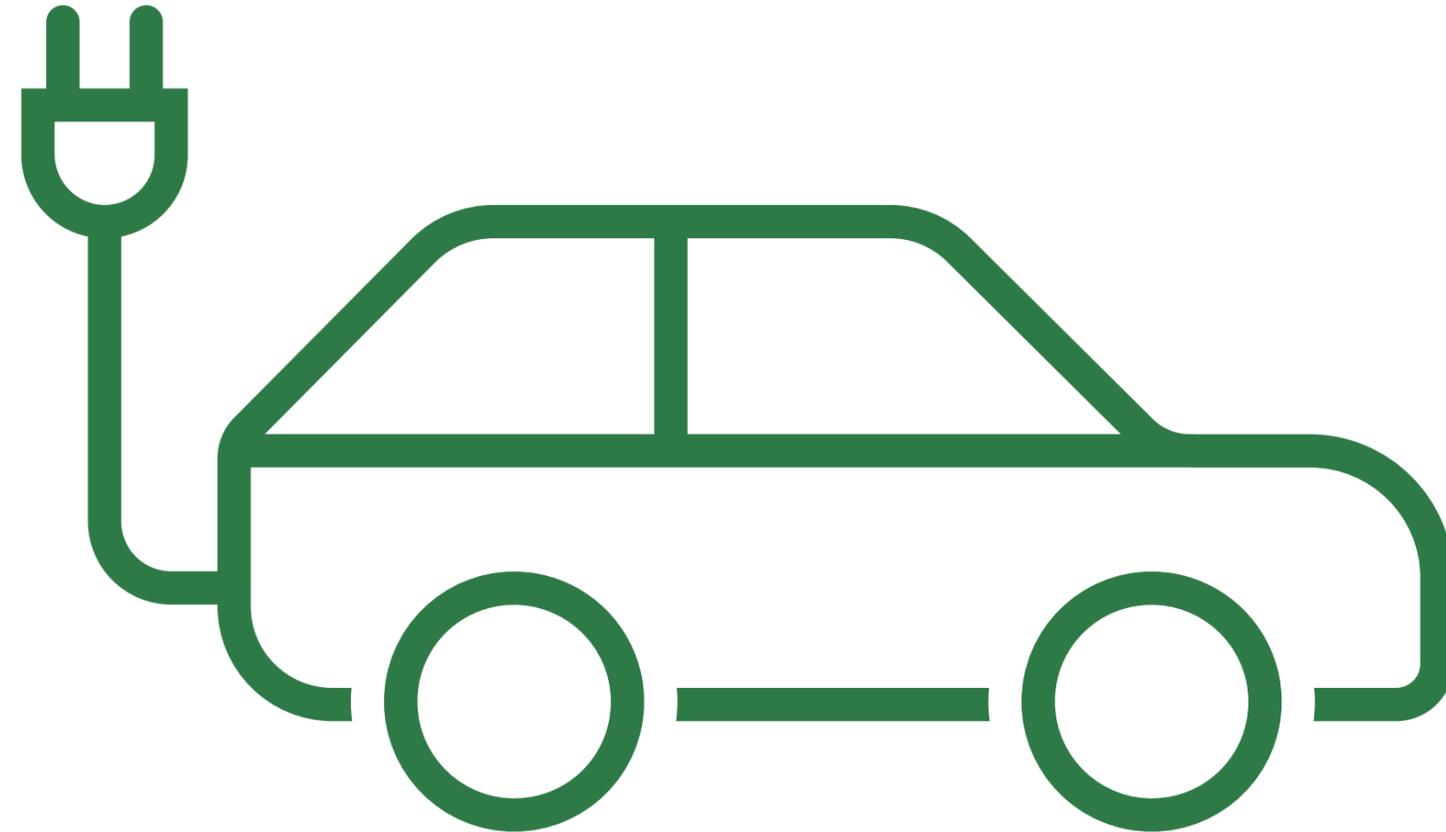


Beneficial Electrification (BE)

Beneficial Electrification means using electricity as a power source (over propane or gas) when doing so satisfies at least one of the following conditions, without adversely affecting the others:

- Saves members money.
- Benefits the environment and reduces GHG emissions.
- Fosters a more robust and resilient power grid.

Beneficial Electrification: Electric Vehicles (EV)



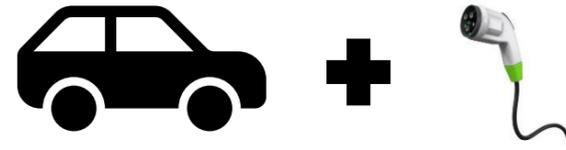
How do EVs fit into BE?

POLL QUESTION:

When are you expecting to purchase your first EV?

- A: I already drive an EV
- B: I already drive a PHEV
- C: I plan to buy an EV for my next vehicle
- D: When Electric Trucks or SUVs become widely available
- E: When it costs less than buying a gas car
- F: When I can drive to Denver on one charge
- G: When pigs fly

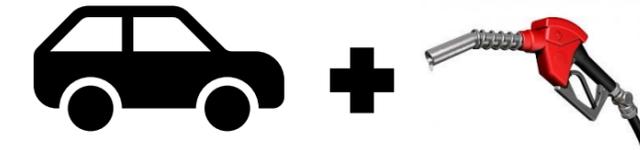
BEV – Battery Electric Vehicle



PHEV - Plug-in Hybrid Electric Vehicle



Hybrid Vehicle



What Electric Vehicles Are Available Today?

BEV Small Cars

Model	Range	MSRP
Nissan LEAF S	150	\$29,990.00
Mini Cooper SE Hardtop 2 door	110	\$30,750.00
Hyundai IONIQ Electric	170	\$33,045.00
Nissan LEAF S PLUS	226	\$36,550.00
Chevrolet Bolt EV	259	\$36,620.00
Tesla Model 3 Standard Range Plus	263	\$39,490.00
BMW i3	153	\$44,450.00
Tesla Model 3 Long Range	353	\$46,990.00
Polestar 2	233	\$61,200.00
Tesla Model S Long Range	405	\$79,990.00
Tesla Model X Long Range	371	\$79,990.00
Tesla Model X Performance	341	\$99,990.00
Porsche Taycan	201	\$103,800.00
Tesla Model S Plaid	390	\$129,990.00

BEV SUVs

Model	Range	MSRP
Hyundai Kona Electric	258	\$36,450.00
Kia Niro Electric	239	\$39,990.00
Volkswagen ID.4	260	\$39,995.00
Ford Mustang Mach-E Select	230	\$42,895.00
Ford Mustang Mach-E California Route 1	305	\$49,800.00
Tesla Model Y Long Range	326	\$49,990.00
Volvo XC40 AWD BEV	208	\$53,990.00
Tesla Model Y Performance	303	\$60,990.00
Audi e-tron	222	\$65,900.00
Jaguar I-PACE	234	\$69,500.00

PHEVs

Make/Model	Range	MSRP
Hyundai IONIQ PHEV	29	\$24,950.00
Honda Clarity PHEV	47	\$33,400.00
Mitsubishi Outlander PHEV	22	\$34,595.00
Kia Optima Plug-In Hybrid	29	\$35,210.00
Subaru Crosstrek Hybrid (PHEV)	17	\$35,970.00
Mini Cooper S E Countryman All4	12	\$36,800.00
Toyota RAV4 Prime	42	\$38,100.00
Chrysler Pacifica Hybrid	33	\$41,995.00
Jeep Wrangler 4xe	21	\$47,995.00
Mercedes GLC 350e	15	\$49,990.00
BMW 530e	30	\$52,395.00
Audi Q5	20	\$52,900.00
BMW X5 xDrive 40e	31	\$65,400.00
Volvo XC90 PHEV	17	\$67,800.00
Lincoln Aviator Grand Touring	21	\$69,895.00
Land Rover Range Rover Sport PHEV	19	\$79,000.00
Porsche Cayenne S E-Hybrid	14	\$79,900.00
Polestar 1	65	\$165,500.00

Notable Vehicles Coming Soon

- Ford F-150 Lightning - 2022
- Chevy Silverado BEV -2024
- Jeep Wrangler Magneto – 2022
- Subaru Solterra - 2022
- Rivian R1T/R1S – 2021
- Tesla Cybertruck - 2022

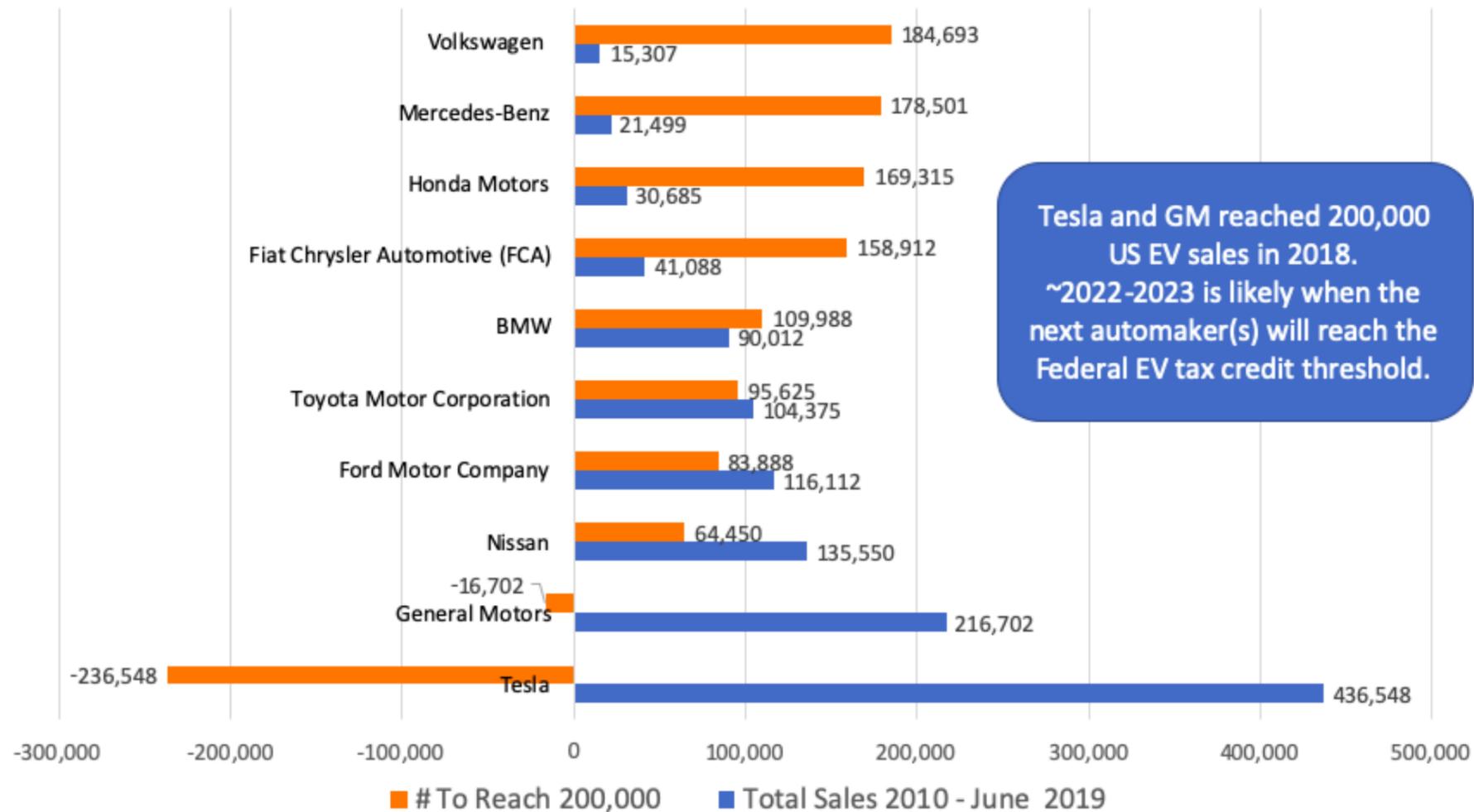
Financial Incentives for EVs

Federal EV Tax Credit: up to \$7,500

The credit begins to phase out after the manufacturer has sold 200,000 eligible plug-in electric vehicles in the US. IRS will announce phase out schedule when a manufacturer hits the mark

Top 10 EV Automakers By Sales: 2010-June 2019 | # to Reach 200,000

Sales Estimates: InsideEVs | Chart: Loren McDonald/EVAdoption.com



State of Colorado

Plug-In Electric Vehicle (PEV) Tax Credit

Qualified PEVs titled and registered in Colorado are eligible for a tax credit. Light-duty PEVs purchased, leased, or converted before January 1, 2026, are eligible for a tax credit equal to the amounts below, per calendar year:

Category	2021-2022	2023-2025
Light-duty PEV	\$2,500 for purchase or conversion; \$1,500 for lease	\$2,000 for purchase; \$1,500 for lease
Light-duty electric truck	3,500 for purchase or conversion; \$1,750 for lease	\$2,800 for purchase; \$1,750 for lease
Medium-duty electric truck	\$5,000 for purchase or conversion; \$2,500 for lease	\$4,000 for purchase; \$2,500 for lease
Heavy-duty electric truck	\$10,000 for purchase or conversion; \$5,000 for lease	\$8,000 for purchase; \$5,000 for lease

Charging At Home: LPEA Rebates Available

LPEA EV REBATES INCLUDE

Free Level 2 plug-in charger for home use (\$700 value).

Up to \$500 (not to exceed 50%) of electric parts and labor for plug installation.

Up to \$250 for the independent purchase of a Level 2 charger and up to \$250 for its installation.



50 Amp Circuit Breaker



NEMA 14-50 or NEMA 6-50



Cost of EV vs. Gas Vehicle

Hyundai Ioniq BEV



MSRP: \$33,245
- Incentives: \$7,500 federal tax credit
\$2,500 CO state tax credit

Total Purchase Price: \$23,245

10,000mi Off-Peak Electricity (\$0.062/kWh): \$140
Avg Annual Maintenance (\$0.066/mi): \$660

Yearly Cost of Ownership: \$800

Hyundai Sonata



MSRP: \$27,750.00
- Incentives: \$0.00

Total Purchase Price: \$27,750

10,000mi Gas Fuel Cost (\$3.35/gal): \$1,047
Avg Annual Maintenance (\$0.085/mi): \$850

Yearly Cost of Ownership: \$1,897

Understanding Battery Size

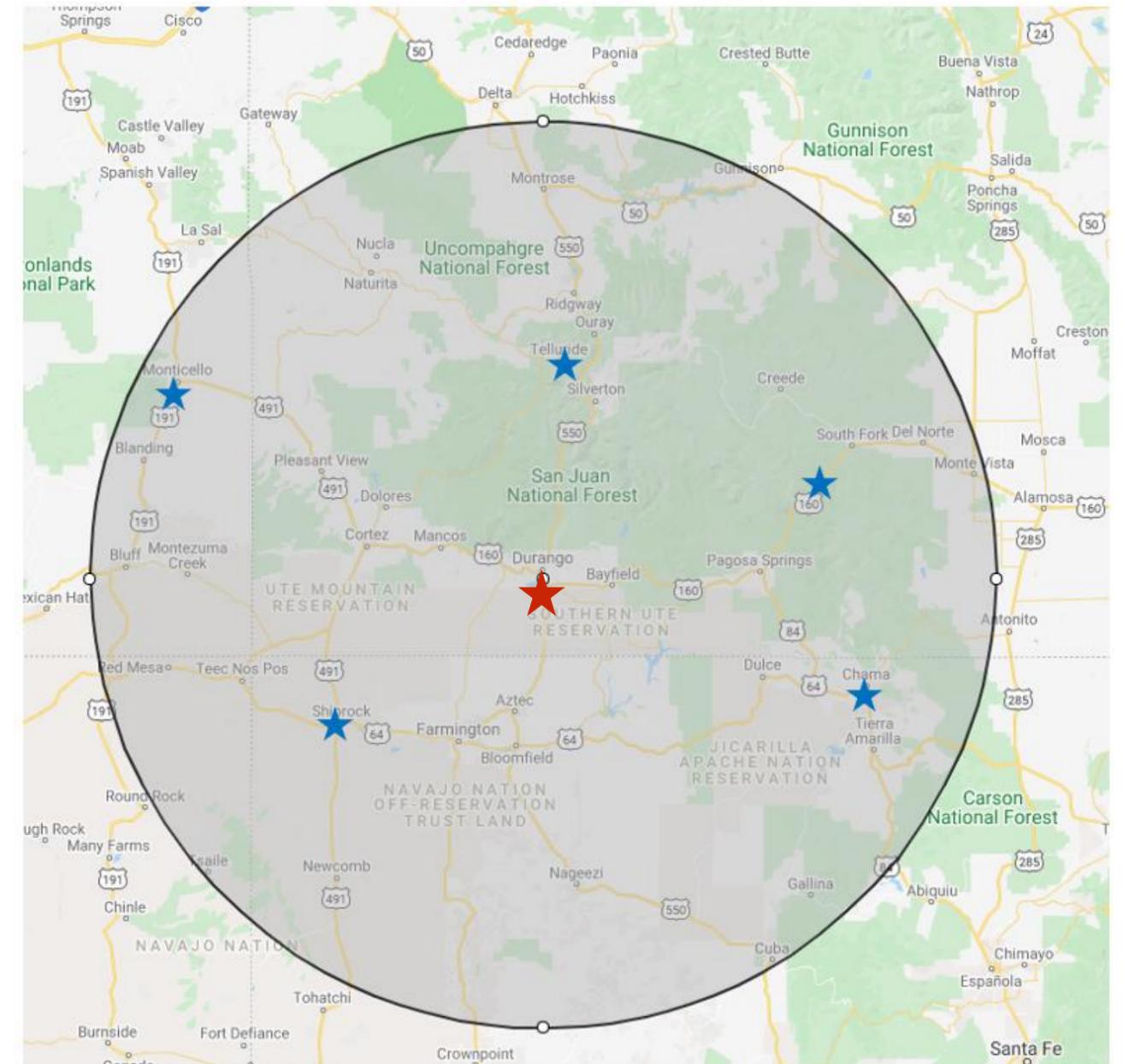
Batteries are rated in kilowatt-hours (kWh)

Industry Average Stats

Avg. Battery Capacity: 71 kWh
Avg. Miles per kWh: 3.48 miles
Avg. Total Range: 244 miles

Make/Model	Range	Battery (kWh)	Miles/kWh
Tesla Model 3 Long Range	353	78	4.53
Tesla Model Y Long Range	326	75	4.35
Chevrolet Bolt EV	259	60	4.32
Hyundai Kona Electric	258	64	4.03
Tesla Model S Plaid	390	100	3.9
Nissan LEAF S	150	40	3.75
Kia Niro Electric	239	64	3.73
Tesla Model X Long Range	371	100	3.71
BMW i3	153	42	3.64
Ford Mustang Mach-E Premium	230	68	3.38
Polestar 2	233	78	2.99
Volvo XC40 AWD BEV	208	78	2.67
Jaguar I-PACE	234	90	2.6
Porsche Taycan	201	79	2.54
Audi e-tron	222	95	2.34

Round trip from Durango on an average EV battery...



Cost of EV vs Gas Vehicle

How Much Does It Cost To Run An EV?

LPEA General Service Rate

LPEA General Service cost per kWh: \$0.1256

Cost to fully charge avg. 71 kWh battery: \$8.92

Cost per mile: \$0.036

Cost of 10,000mi per year: \$360

LPEA Time-of-Use Rate

LPEA TOU off-peak cost per kWh: \$0.062

Cost to fully charge avg. 71 kWh battery: \$4.40

Cost per mile: \$0.018

Cost of 10,000mi per year: \$180

VS. Internal Combustion Engine

Gasoline per mile cost at 30mpg

\$2.00 per gallon: \$0.06/mile

\$4.00 per gallon: \$0.13/mile

Cost of 10,000mi per year: \$600-\$1,300

Types of Chargers

What kind of charger should I use?



AC LEVEL ONE	AC LEVEL TWO	DC FAST CHARGE
		
VOLTAGE: 120V 1-Phase AC	VOLTAGE: 208V or 240V 1-Phase AC	VOLTAGE: 208V or 480V 3-Phase AC
AMPS: 12-16 Amps	AMPS: <80 Amps (Typ. 30 Amps)	AMPS: <200 Amps (Typ. 60 Amps)
CHARGING LOADS: 1.4 to 1.9 kW	CHARGING LOADS: 2.5 to 19.2 kW (Typ. 7 kW)	CHARGING LOADS: <150 kW (Typ. 50 kW)
CHARGE TIME FOR VEHICLE: 3-5 Miles of Range Per Hour	CHARGE TIME FOR VEHICLE: 10-20 Miles of Range Per Hour	CHARGE TIME FOR VEHICLE: 80% Charge in 20-30 Minutes

Paradigm shift: where, how and when we fuel our vehicles



Use Case for Each

What kind of charger should I use?

AC LEVEL ONE	AC LEVEL TWO	DC FAST CHARGE
		
VOLTAGE: 120V 1-Phase AC	VOLTAGE: 208V or 240V 1-Phase AC	VOLTAGE: 208V or 480V 3-Phase AC
AMPS: 12-16 Amps	AMPS: <80 Amps (Typ. 30 Amps)	AMPS: <200 Amps (Typ. 60 Amps)
CHARGING LOADS: 1.4 to 1.9 kW	CHARGING LOADS: 2.5 to 19.2 kW (Typ. 7 kW)	CHARGING LOADS: <150 kW (Typ. 50 kW)
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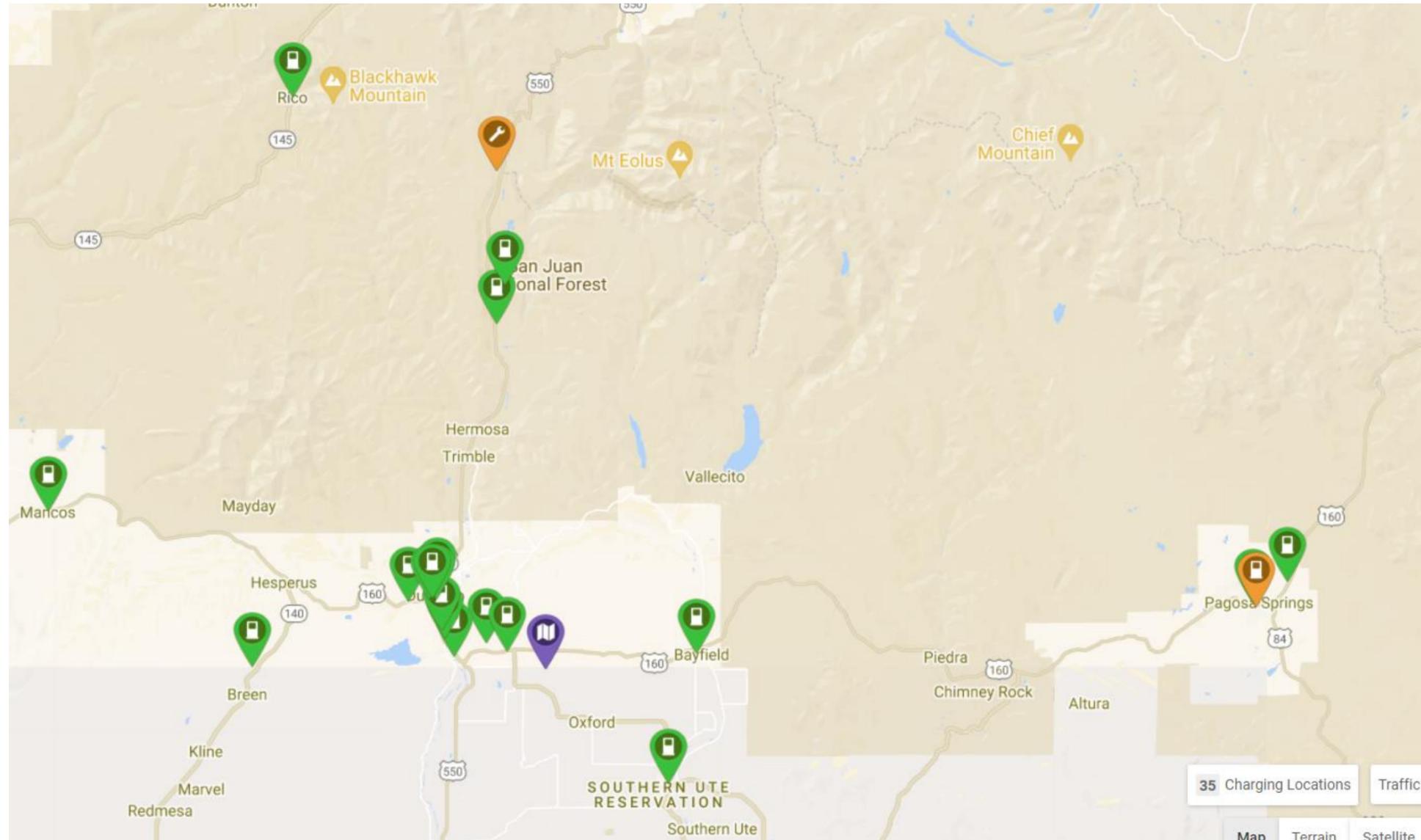
Level 2: Home, work, hotel, shopping center, 4-10 hours to full charge

- ❖ Minimal or no infrastructure upgrades needed

Level 3: Along major roadways, road trips, restaurants, shopping, 20-30 mins from 0 to 80% charge

- ❖ Large & potentially costly infrastructure needs

Public Charging in our Area

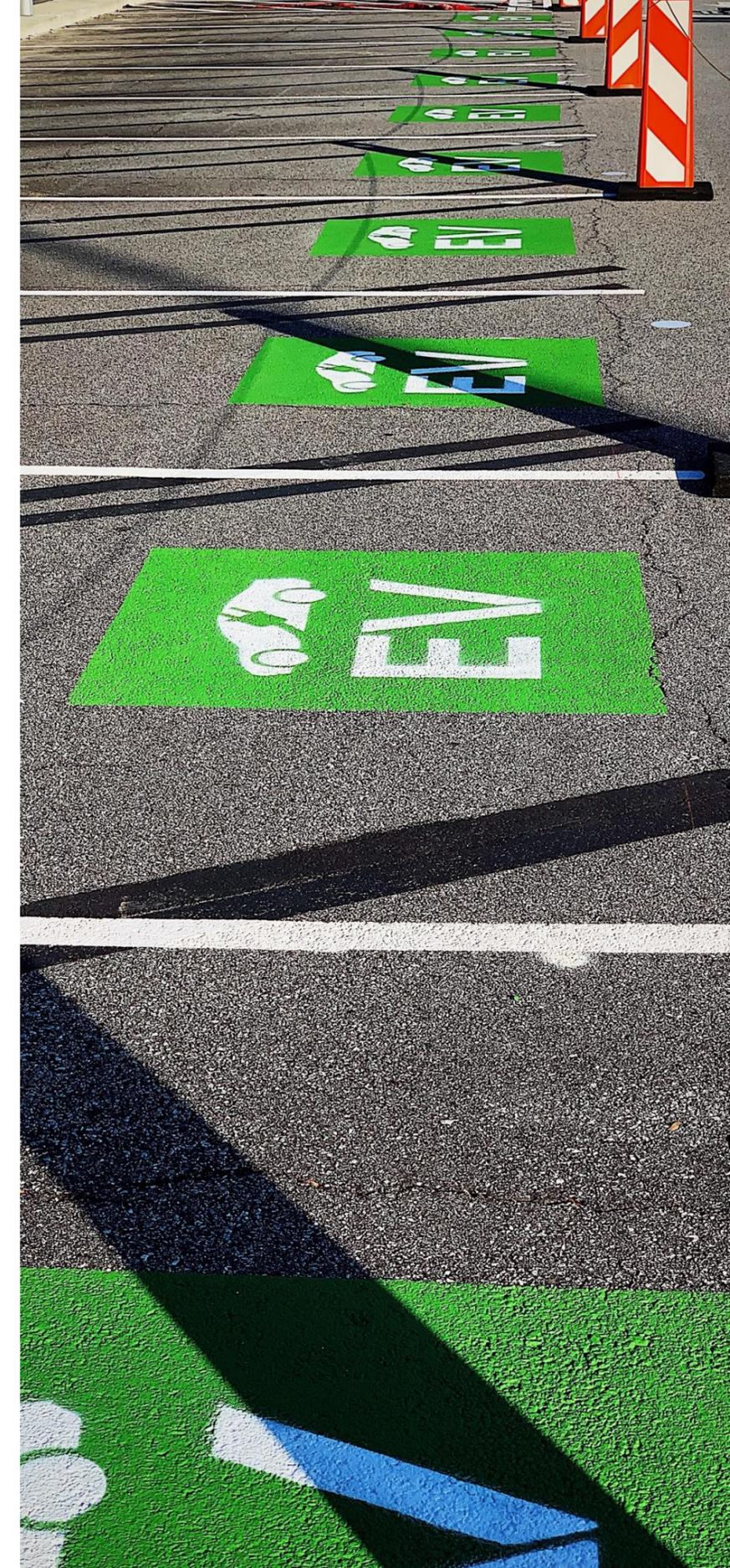


EV Readiness Plan

Available to read now online or reach out to LPEA

Our Updates by Focus Area:

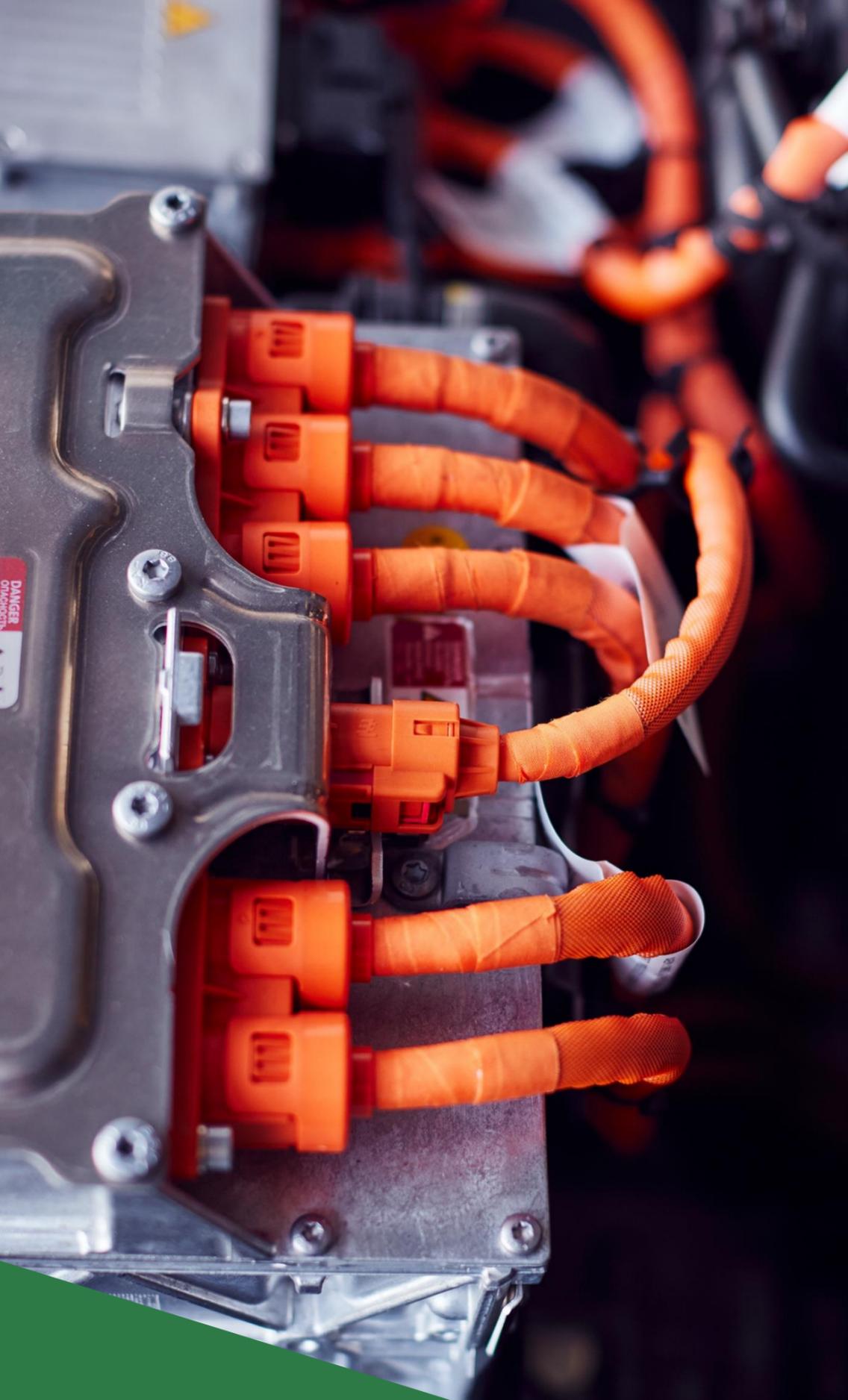
- Lead By Example
 - Existing LPEA Fleet PHEVs
 - 2 x F-150s on order!
- Infrastructure
 - DC Fast Charging at Transit Center & Purgatory
 - Support & Rebates for Public Charging
 - Promoting existing EV Chargers available
- Public Adoption
 - EV Education
 - School Bus Electrification – update on eBus



POLL QUESTION:

What would you like to see LPEA do to support EV drivers & adoption in our area?

- A: Rebates for home chargers
- B: Rebates for EVs
- C: Help build more public charging in town
- D: Help build more public charging in rural/rec areas
- E: Other (in comments)



A day in the life of an EV driver of Durango...

- Where & when do you charge?
- Planning your day, any different?
- Lifestyle
- What's missing?
 - Stopping at the gas station, oil changes, maintenance
- Benefits you didn't realize before buying an EV
- Considerations to keep in mind
- Will you go back to a gas-powered car?

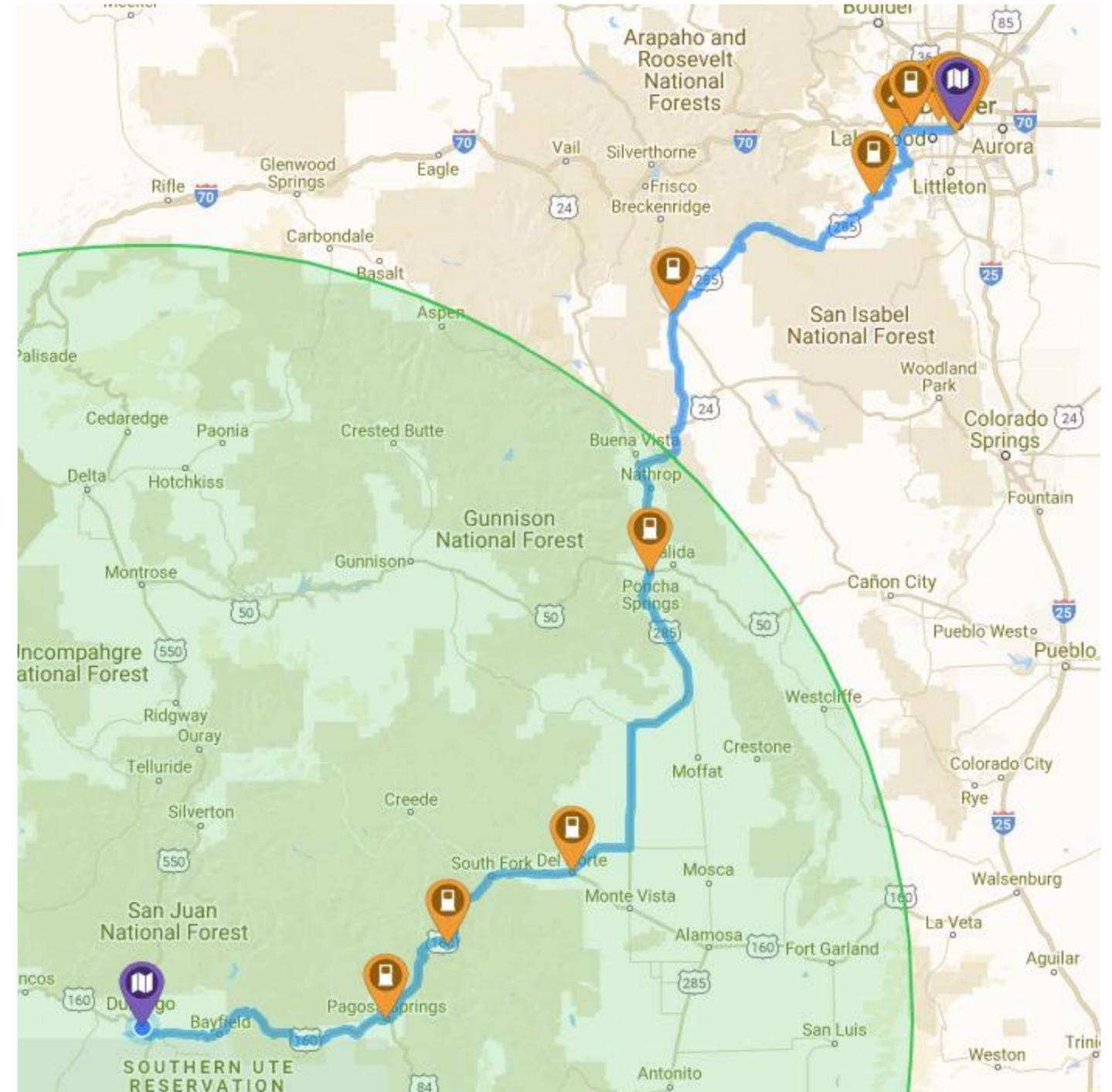
Road Trips in an EV

Durango to Denver: 334 miles, 6 hours with no stops

- Fast Charging Stations:
 - Pagosa Springs (60mi)
 - Wolf Creek (85mi)
 - Del Norte (118mi)
 - Poncha Springs & Salida (195mi)
 - Fairplay (252mi)
 - Conifer (305mi)
- Average EV to Denver: 6½ -7 hours with 1 DCFC stop

North & West has decent charging infrastructure, South & Southeast to NM is more difficult currently

Pro tip: PlugShare Trip Planner Feature



**POLL
QUESTION:**

Would you prefer Zoom
or in person for our next
BE Webinar/Event?

A: Zoom

B: In person

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Q & A

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