Why should I buy an electric vehicle?

Electric vehicles have much lower fuel costs and maintenance costs than traditional cars, making them cheaper to operate over the long term. They’re also quiet to drive, can conveniently be charged at home, and are quite a bit better for the environment.

How far can I drive?

A plug-in hybrid can drive up to ~50 miles on the battery before switching to the gasoline engine, while fully electric vehicles average ~250 miles on a full charge.

Is it even realistic to own an electric car in Montana?

While cold weather and steep grades do impact range, plug-in hybrids and fully electric vehicles are still feasible for typical Montanan drivers. Increases in charging infrastructure development and improvements in range make electric vehicles a reasonable, cheap, and sustainable choice for Montanans.

Operating costs

While plug-in and fully electric vehicles often have a slightly higher initial price, their lifetime price is much lower. Electricity prices are lower and more stable than oil prices, and because there is no combustion engine, maintenance prices are also significantly lower.

CHARGING OPTIONS

AC Level 1 Charging

Ideal for at home charging; requires a standard 120 volt outlet. Adds 2 to 5 miles of range per hour of charging.

AC Level 2 Charging

Requires a 240 volt plug and adds 10 to 60 miles of range per hour of charging time.

DC Fast Charging

Requires a 480 volt plug and is primarily used in public charging stations. Provides 60–80 miles of range in 20 minutes.

ENVIRONMENTAL BENEFITS

Approximately 26% of Montana’s carbon dioxide emissions come from the transportation sector. The switch to electric vehicles is a huge step towards lowering those emissions, improving our environment for generations to come. Electric vehicles produce no tailpipe emissions. Even including the greenhouse gas emitted through electricity production, electric vehicles are significantly cleaner than their gas powered counterparts. Because approximately half of Montana’s energy comes from renewable sources, a gasoline powered vehicle would need to get 96 miles per gallon to be as efficient as an electric vehicle.

ENVIRONMENTAL BENEFITS

- **Renewable Sources** 47.32%
- **Coal** 48.23%

Electricity Generation in Montana

- **Ford Fusion FWD**
  - Operating costs: $6,000
  - Fuel: $0
- **Ford Fusion Hybrid**
  - Operating costs: $4,000
  - Fuel: $2,000
- **Ford Fusion Energi Plug-in Hybrid**
  - Operating costs: $2,000
  - Fuel: $0
- **Ford Focus Electric EV**
  - Operating costs: $0
  - Fuel: $0

Annual cost comparison

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**TYPES OF PERSONAL ELECTRIC VEHICLES**

Battery electric vehicles run solely on lithium-ion batteries and have no combustion engine.

- **CHEVY BOLT 2018**
  - Starts at $36,620 new
  - 238 miles of range

- **NISSAN LEAF 2019**
  - Starts at $29,990 new
  - 226 miles of range

- **FORD FOCUS 2018**
  - Starts at $29,120 new
  - 118 miles of range

- **TESLA MODEL S**
  - Starts at $72,615 new
  - 373 miles of range

**PLUG-IN HYBRID ELECTRIC**

Plug-In Hybrid Electric Vehicles (PHEV) have an electric battery and a typical gasoline combustion engine. Typically, a PHEV can travel ~20–50 miles on battery power before switching to the gas engine.

- **TOYOTA PRIUS PRIME 2018**
  - Starts at $27,300 new
  - 25 miles battery range

- **CHEVROLET VOLT 2018**
  - Starts at $33,220 new
  - 53 miles battery range

- **SUBARU CROSSTREK 2019**
  - Starts at $34,995 new
  - 17 miles battery range

- **CHRYSLER PACIFICA HYBRID 2019**
  - Starts at $39,995 new
  - 32 miles battery range

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The Department of Environmental Quality currently offers funding for publicly available level 2 and 3 charging stations. For those interested in applying for funding, refer to: [deq.mt.gov/Energy/transportation/VW-Settlement-Page](deq.mt.gov/Energy/transportation/VW-Settlement-Page) or email KMaki@mt.gov.