

# F E R G U S

## FEATURES

Member Newsletter ♦ Fergus Electric Cooperative, Inc., Lewistown, MT ♦ [www.ferguselectric.coop](http://www.ferguselectric.coop)



Fergus Electric Cooperative purchased a Tesla Model Y fully electric car in June 2023. | **FERGUS ELECTRIC PHOTO**



## MANAGER'S MESSAGE

From Carson Sweeney

## A look back at the 1st year with the Tesla Model Y electric car

**I**n the last few years, members have asked us several common questions pertaining to electric vehicles.

Where do you charge them and how much does a charge cost? How long does it take to charge the car and how far can they travel? Do they still perform in winter weather conditions? With no prior electric vehicle experience, employees at Fergus Electric Cooperative were unable to accurately answer these relatively simple questions.

With those questions in mind, and

the need for a new company vehicle planned within the budget, in June 2023 we purchased a Tesla Model Y fully electric car. The white Tesla Model Y all-wheel drive extended range four-door sedan is a simple looking car with an advertised range of 330 miles. The up-front cost was \$52,380, with a federal tax credit of \$7,500 for a total all-in cost of \$44,880. We now have one full year of ownership and usage under our belts, and my goal is to answer these questions and share lessons learned in our first 11,463 miles of driv-

ing an electric vehicle.

I chose to purchase a Tesla because of the availability of Tesla supercharging stations (17 locations) throughout Montana. A supercharging station, also known as a “level 3” charger or “DC fast charger” is one that has an available charging capacity greater than 50 kilowatts (kW) or in other words, it can complete a battery charge from 10 percent to 95 percent in approximately 35 minutes. Tesla vehicles can charge

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# TESLA

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at Tesla charging stations as well as third-party charging stations, but as of June 2023, other electric vehicle manufacturers weren't able to charge at Tesla charging stations. In Montana, this single issue severely limits a driver's options to travel throughout the state. While driving a Tesla, I have not had any issues finding charging stations.

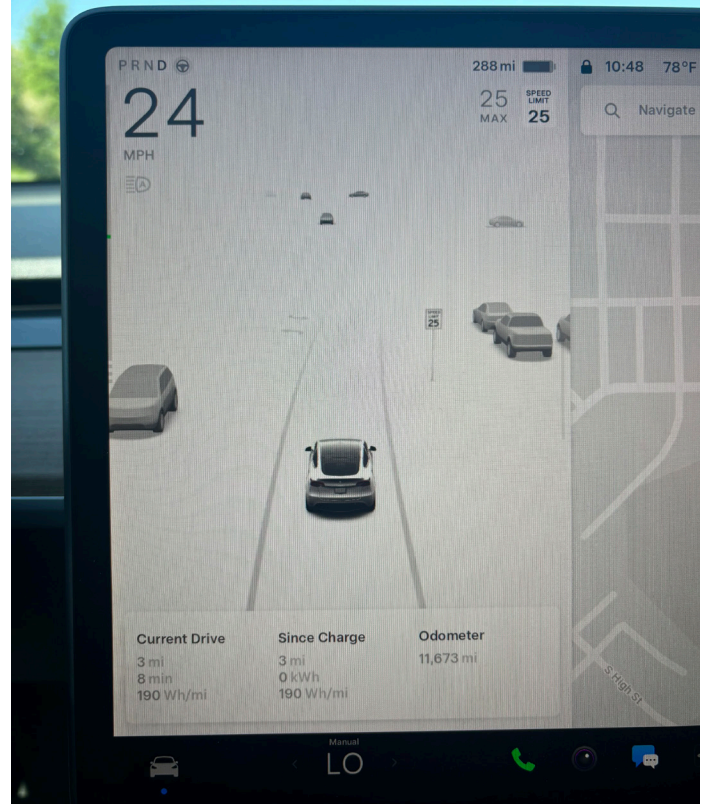
Next, let's cover a few of the requirements in electric vehicle ownership. The Tesla Model Y does not have a spare tire. I did not feel comfortable driving around Montana and the surrounding states without a spare tire, so we purchased one and placed it in the trunk, which limited trunk storage capacity.

We then purchased an at-home (level 2) charger for \$450, and had a local electrician install this within our truck garage on a 60-amp 240V circuit. With this electrical capacity, it takes the Tesla Model Y 6.5 hours to charge from a battery level of 10 percent to 95 percent.

The car's advanced computer user interface allows you to begin charging immediately or schedule the charge sometime in the future. Using Fergus Electric's standard residential energy rates (\$0.10/kilowatt-hours (kWh)), a slow charge such as this will cost approximately \$6.40. We also purchased auxiliary charging adapters and cords to be able to charge at non-Tesla charging stations throughout our travels. This little bundle of assurance cost \$250.

Now I was ready to begin my travels throughout the state, as I attended meetings on behalf of our electric cooperative. The first thing I learned is that the stated range of 330 miles was not attainable. I have comfortably driven 220 miles between charging stations, but that was by myself with minimal luggage. I have certainly noticed that this range is drastically impacted by the weight of additional passengers, strong winds or heavy rain. With four adults and associated luggage I wouldn't plan a trip greater than 160 miles between available charging stations.

With that said, Tesla understood this range limitation when they installed charging stations throughout the state, and I haven't had a concern on whether I could reach that next station when I planned ahead. I have driven the Tesla many times to the following Montana towns on a single charge: Big Timber, Billings, Bozeman and Great Falls. A Tesla supercharging station usually takes around 30 minutes and costs between \$0.31/kWh - \$0.37/kWh for a total charge cost of \$14 - \$17. Level 3 charging stations provide a lot of charge in the first 10-15 minutes, and then slow down as the battery level increases. Some people may choose to only charge up to 80 percent and then take off which would typically only take 15 minutes of charging. I usually wait until the battery level is above 90 percent which adds the additional 15 minutes. At first this wait time seemed incon-



The Tesla info screen shown above includes an actual view of traffic, pedestrians, road signs, speed limit, and the car's current speed. The charging information and odometer reading are shown at the bottom of the screen. | **FERGUS ELECTRIC PHOTO**

venient, but I have learned to appreciate the opportunity to walk around, stretch my legs, grab some lunch, and catch up on emails and phone calls.

I have also driven to the following towns after stopping at least once for a charge: Helena, Miles City, Missoula, Bismarck, ND; Rapid City, SD; Gillette, WY; and Sheridan, WY.

A large portion of our state that has limited availability of level 3 electric vehicle charging stations would be Montana's Hi-Line across Highway 2. Montana's Department of Environmental Quality is working on a solution to this issue with available federal infrastructure funding. I would expect that in the next few years this will no longer be an issue.

In the last year we have driven 11,463 miles, and averaged 3 miles per kWh of charge. For a member who would typically charge at home, this equates to about around \$0.033 per mile. However, approximately half of our battery charges are from utilizing supercharging stations which average about \$0.12 per mile.

We have noticed that extremely cold winter temperatures do impact battery performance. This winter we completed a test where we began a trip with a charge of 77 percent and drove 96 miles and finished the trip with a battery level of 10 percent battery, with an outside temperature of negative 18°F. I was impressed that the car could comfortably drive 100 miles with a full charge at those bitter cold temperatures.

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# FERGUS ELECTRIC HOSTS MECA SUMMER MEETING

A look at the Montana Electric Cooperatives' Association's meeting in Lewistown

**F**ERGUS Electric Cooperative hosted this year's Montana Electric Cooperatives' Association's (MECA) Summer Meeting. In addition to the meetings at the fairgrounds, the group toured Spika Design & Manufacturing and Hi-Heat Industries. About 90 people attended the meetings, and more than 130 people took a ride on the Charlie Russell Chew-Choo as part of the two-day event.



**Above:** board members of the Montana Electric Cooperatives' Association, along with some member co-op employees, toured Hi-Heat Industries as part of the summer meeting.  
**Below:** Board members and co-op employees who attended a tour of Spika Design & Manufacturing pose for a photo outside of the business.  
**Left:** Meeting attendees and co-op employees rode the Charlie Russell Chew-Choo and had dinner on the train.



**Left:** A "train robber" speaks with a young guest aboard the Charlie Russell Chew-Choo.  
**Right:** Montana co-op managers and board members learn more about Hi-Heat Industries.



# TESLA

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This range would meet the need of most daily drivers, but the cold temperatures certainly decreased the range for a planned trip of longer distances.

Many Fergus Electric employees have taken the Tesla on work trips for meetings and trainings. They have driven across the state and charged at multiple locations. There have been mixed reviews from employees, with several experiencing “range anxiety” prior to having any experience with an electric vehicle. After taking several trips with the electric car, it no longer seems novel and slowly transforms into another boring white car driving down the road.

In conclusion, I think that electric cars fit the bill very nicely as a daily driver when you are traveling less than 150 miles in any given day. Charging overnight in your garage is simple and cost effective. If your regular long-distance travels are to larger cities, the Tesla works very well due to the existing charging infrastructure. If you want to leave Lewistown on a whim and head east towards Circle for an afternoon drive, an electric car just won't work because there are no public charging options along the way.


You certainly must plan a long-distance trip around the location of charging stations. When taking an electric car on trips greater than 300 miles you must plan accordingly to add 35 minutes of charging time to your trip for each required stop. If you are

time crunched and in a hurry to travel 500 miles across the state, the current technology of electric vehicles probably isn't for you.

I appreciate that the only planned maintenance on our electric car is tires and the occasional refilling of the windshield wiper fluid. The computer interface, detailed information and control from within the Tesla app is truly amazing. The instant torque and acceleration of the electric motors makes everyone in the car smile and want a turn at piloting this machine. The cameras and sensors all around the vehicle are fascinating to my engineering brain. The technological advancements in vehicle safety and consumer comfort are incredible.

However, I do not think our internal combustion engines will be replaced anytime soon. My daily driver is a diesel truck, and I hope to be driving it for another 100,000 miles.

For individuals who can afford to own and operate more than one vehicle, I believe an electric vehicle is a great second vehicle. If you only have one vehicle but typically only travel to larger cities, I believe you would enjoy owning an electric vehicle. If you want the freedom to drive nearly anywhere whenever you want, the current electric vehicle and battery technology won't meet your needs. If any of our members have additional questions or would like to learn more about our experiences with the Tesla, please stop by or give me a call.

I'd gladly share any of our experiences. 

## IDENTIFY ACCOUNT NUMBER\*

### WIN A \$32.50 CREDIT

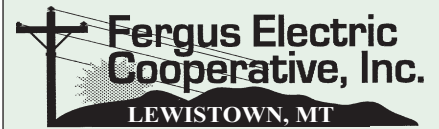
If one of the following account numbers is yours, call Fergus Electric (406-538-3465) and identify yourself and your account number and you will receive a \$32.50 credit on next month's statement.

**Account 394508, Account 395992  
Account 318120, Account 397531  
Account 391859, Account 204359**

### CONGRATULATIONS!

**Wade Stewart** of Lewistown and **Ronald Briggs** of Garneil were last month's winners!

\*NUMBERS ARE DRAWN MONTHLY



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### FOR OUTAGES

**First:** Check the fuses or breakers in the building in which the electricity is off.

**Second:** Check the breaker below the meter.

**Third:** If electricity is still out, call a neighbor to see if they have electricity.

**Fourth:** Call 406-538-3465 day or night or:

Dale Rikala ..... 406-366-3374  
Bret Ophus ..... 406-366-7523  
Bret Nellermeoe (Roundup)..... 406-939-0636  
Carson Sweeney ..... 406-366-0971  
Melanie Foran..... 406-462-5650  
Scott Olson ..... 406-366-5822  
Dan Balster..... 406-366-0975

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*Fergus Features is an award-winning newsletter.*

## Labor Day CLOSURE

Fergus Electric Cooperative's offices in Lewistown and Roundup will be closed Monday, September 2

