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EV Pool Party: Elk River's New Outlander

By Joe Cella, 2018-19 Minnesota GreenCorps Member



CITY

Elk River, Minnesota

TIMELINE

Vehicle leased for three years starting in 2018

WHO WAS INVOLVED

City of Elk River

COST AND RETURN ON INVESTMENT

A Mitsubishi Outlander plug-in hybrid electric vehicle (PHEV) cost \$34,770 on the state contract in 2019. The average cost of ownership savings is \$11,767 for the eight vehicles FleetCarma recommended to be replaced with Outlanders in Elk River.

GREENSTEP CITY BEST PRACTICE RELATED TO THE PROJECT

13.2 – Right-size/down-size the city fleet with the most fuel-efficient vehicles that are of an optimal size and capacity for their intended functions.

ELECTRIC VEHICLE DETAILS

2018 Mitsubishi Outlander PHEV, three-year lease through the Minnesota Department of Administration state contract.

Project Description

Elk River leased a Mitsubishi Outlander in 2018 for use as a pool vehicle. City employees have learned a lot about electric vehicles (EVs) and value having one as part of their fleet.

Project Highlights

- Elk River completed a fleet study in 2017. Based on the study data, the city leased a Mitsubishi Outlander in 2018 that currently serves as a pool vehicle in the city.
- By leasing, Elk River has been able to try out an EV in the municipal fleet without committing to a purchase.
- City staff driving the electric vehicle (EV) frequently draw questions and engagement from community members. The staff enjoy sharing the benefits of driving electric with the city.



Background

In 2017, Elk River Municipal Utilities (ERMU) commissioned FleetCarma to conduct an electric vehicle (EV) suitability assessment for both the city and utility fleet. Such an assessment, sometimes referred to as a fleet study, helps a city identify which vehicles would be the best candidates for switching from gas-powered to electric.

Elk River's study allowed the city to track usage data for 20 vehicles between the two fleets. After a year of data collection, FleetCarma presented the city with a report detailing potential options for electric and plug-in hybrid vehicles (PHEVs) to replace existing fleet vehicles. Based on the lifetime cost of ownership savings, emission reductions, and fuel savings calculated through the FleetCarma report, the City of Elk River sold two shared/pool vehicles and used the money to lease a Mitsubishi Outlander PHEV in early 2018. The city's lease lasts for three years, after which the city will evaluate the performance of the vehicle and decide what's next for city staff.

Thanks to the Outlander being a PHEV (it gets 33 miles of all-electric range before the gas engine kicks in), the city started charging overnight with a Level 1 charger but now can charge more quickly on the Level 2 station that ERMU installed for the city. Now, any city employee can use the Outlander during their day, saving the city money on fuel costs!

Lessons Learned

1. It was easier than expected to add a PHEV into the city fleet. PHEVs require nothing more than an outlet (Level 1 charging) to get a full charge overnight, so it was not necessary for the city to install any special charging equipment to operate the EV.

2. As an added benefit, the Outlander is an all-wheel drive SUV, which provides more confidence to city employees driving it.
3. Leasing was the right way to go for the City of Elk River. At first, the city council was hesitant to purchase an EV outright, so a lease provides Elk River with an opportunity to try an EV and evaluate after a few years if they are unsatisfied. So far, things are going well for Elk River, and Amanda Bednar, the environmental coordinator, is hopeful that the city will purchase an EV after three years on the lease.

Challenges

Charging an EV is something new and different for city employees. Elk River's biggest challenge with the EV is making sure that it gets charged in a timely manner. City staff sometimes aren't aware that they need to plug in the vehicle if they haven't driven it before, or they forget sometimes to take the additional step after a day of work. Because it's a shared vehicle among all city staff, there is no one person accountable for ensuring it is charged, but things are getting better as employees learn and get used to the new technology.

"It's fun to see how excited city staff members are about driving it... we often get looks from the public, which is again fun and different for us."

- Amanda Bednar, City of Elk River

An additional challenge has been servicing the EV. The city's mechanics have not yet been trained to work with an EV, so they have had to go to the dealership for service. Mitsubishi has been very easy to work with,

so servicing the Outlander has only been a slight hiccup for the city.

Surprises Along the Way

The city staff has responded positively to the Outlander. Bednar hears all the time about how exciting it is to drive and how much fun staff has watching the Outlander use battery power rather than gas. The public has been very enthusiastic as well. Elk River wrapped the Outlander with city branding, and city staff are constantly engaging with community members who are curious about the PHEV while out doing work.

Advice for Other Cities

Adding an EV, especially a PHEV to the city fleet, is much simpler than you expect.

Leasing allows a fleet to try an EV without committing to a purchase, and PHEVs can be recharged overnight without needing to install a charging station if there is an outlet available. It's very important to engage city employees and educate them about what to expect from an EV. Bednar has found that once an employee has been shown how to charge and operate the Outlander, they become very enthusiastic and want to take it for a spin. Finally, wrapping the EV with city branding can enable employees driving the EV to catch the eye of the public, providing leadership and a way for the community to come together and learn about the benefits of EVs.

RESOURCES FOR ADDITIONAL INFORMATION

Clean Energy Resource Teams, www.cleanenergyresourceteams.org

Drive Electric Minnesota, www.driveelectricmn.org

Great Plains Institute, www.betterenergy.org

CONTACT INFORMATION

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