

# **LES EV Study**

*Preparing for a plug-in future*

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# LES Electric Vehicle Study



1 LES customer with an EV or PHEV applies via FleetCarma-hosted website.



2 LES and FleetCarma review applicants; targeting 50 that cover a wide range of vehicle types.



3 Once approved, FleetCarma ships hardware device directly to participant.



4 Participant plugs in device and FleetCarma receives cellular signal to ensure operations.



5 LES downloads anonymized data each month, including:

- » Charging session duration, energy use and location.
- » Trip duration, energy use, and distance.

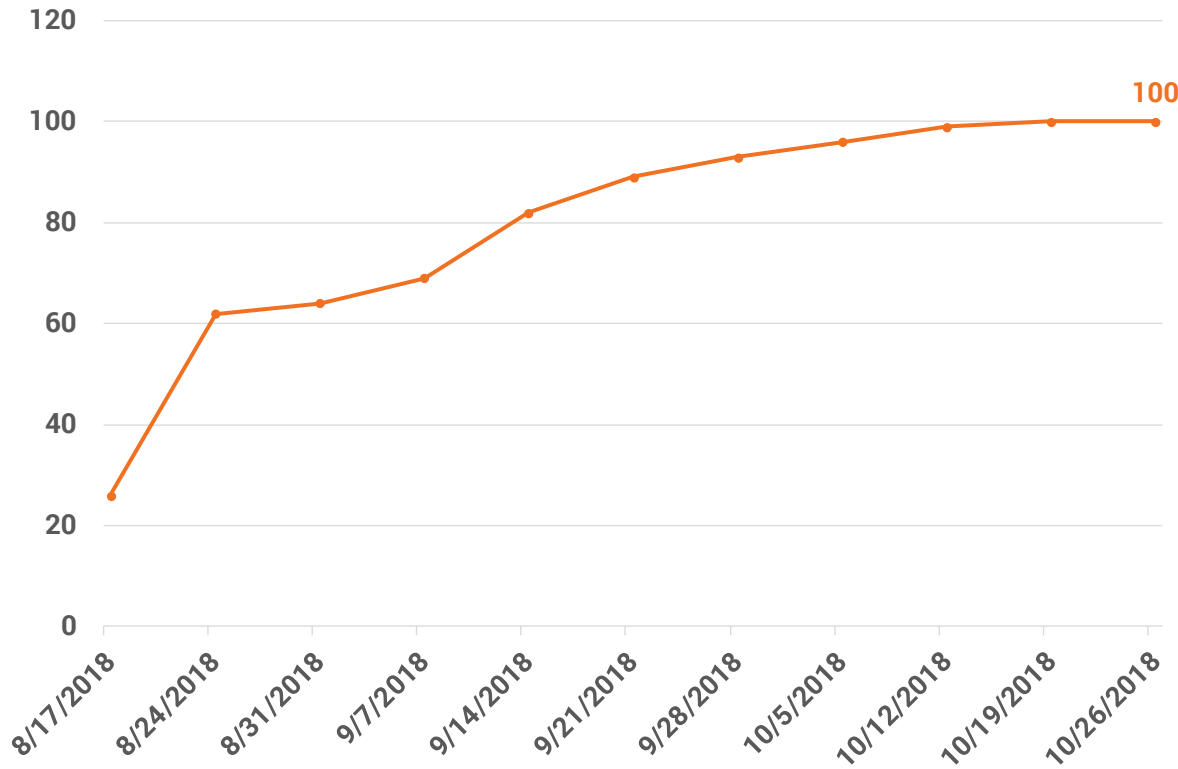


6 Participant receives:

- » \$25 upon data collection.
- » \$25 upon returning device following 2-year study.
- » Easy access to personal charging/trip data via web.

# Final Enrollment

LES EV Study - Customer Applications



Vehicle Make/Model	Participants
BMW i3	3
Chevrolet Bolt	3
Chevrolet Volt	22
Chrysler Pacifica PHEV	3
Fiat 500e	1
Ford C-Max Energi	3
Ford Fusion Energi	3
Mitsubishi i-MiEV	2
Nissan Leaf	22
Smart Fortwo ED	1
Tesla Model 3	8
Tesla Model S	9
Tesla Model X	3
Toyota Prius Prime	6
Volkswagen e-Golf	1
<b>Total</b>	<b>90</b>

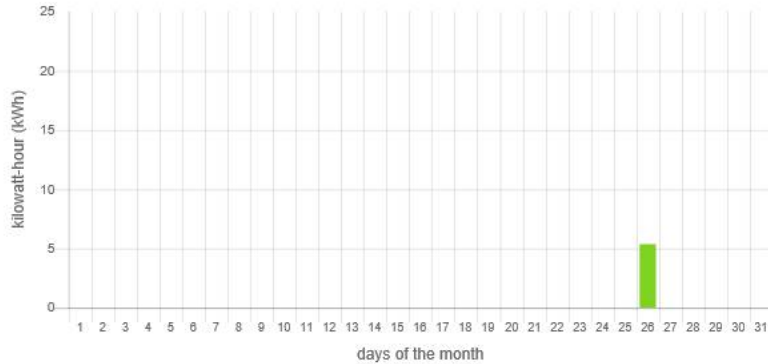
# Customer Dashboard

## My Dashboard

October 2018

### Daily Charging Energy

This graph below pertains to charging done within the utility service territory



**283.3** g/mi  
Vehicle GHG Rate

**10.8** lb  
Vehicle GHG Savings



**5.4** kWh  
Total energy consumed

**5.4** kWh  
Energy consumed in utility service territory



**36.0** MPGeq  
Fuel efficiency equivalent

**195.5** Wh/mi  
Electric driving efficiency

### Trip Logs

Click or tap the button below to download your trip details for this month in ".csv" format. Open in a spreadsheet application such as Microsoft Excel to view and manipulate your data!

Download

Trip Log								
Vehicle Model	Start Date	End Date	Duration	Distance (mi)	Gasoline Consumed (gal)	Electricity Consumed (kWh)	Fuel Efficiency Equivalent (MPGeq)	Electric Dr
2013 Ford C-Max Energi	10/26/2018 9:08	10/26/2018 10:06	0:58:06	38.43	0.95	4.04	36.03	

# Project Partners



*Electrical & Computer Engineering*

Data Analytics

*Not necessarily synchronized to project timeline.*



American Public Power Association

Project Grant: \$46,075

*50% of FleetCarma contract based on 50 vehicles.*



Data Analytics & Reporting

*Directly synchronized to project timeline.*

# Upcoming Press Release

Project press release to be issued 11/19/18, highlighting:

- 90 customers representing 15 vehicle models.
- Data collection commenced 11/01/18.
- APPA DEED grant.
- UNL & NREL partnerships.

Chris Gearhart, Director of NREL's Transportation and Hydrogen Systems Center

“While limited plug-in electric vehicle evaluations have been conducted across the country, few if any have focused on an area like Lincoln. Nebraska’s capital city and the surrounding area are a snapshot of the Midwest – a midsized area that experiences the extremes of all four weather seasons. The high-quality charging and driving data collected through LES’ study will be greatly beneficial to the industry going forward.”