

VIA Motors Vehicle Demonstration: VTRUX Pickup Truck

VIA Motors produces full-size extended range electric pickup trucks based upon the 2014 Chevrolet Silverado that are fully capable of all-electric driving for a limited range and have a gasoline engine to extend the battery range. The vehicles in this demonstration were purchased and driven by fleets throughout the United States, including government agencies, utility companies, universities, and others.

Vehicles Providing Data: 101

Number of Vehicle Days Driven: 891

Data Collection Period: March - June 2015



Photo Credit: VIA Motors

All Operation¹

Gasoline Fuel Economy (mpg)	21
DC Energy Consumption (DC Wh/mi)	79
Total Distance Traveled (mile)	16,357
Average Ambient Temperature (deg F)	73

Electric Vehicle Mode (EV)¹

Gasoline Fuel Economy (mpg)	No Fuel Used
DC Energy Consumption (DC Wh/mi)	506
Total Distance Traveled (mile)	2,727
Percent of Total Distance Traveled	17%

Extended Range Mode (ERM)¹

Gasoline Fuel Economy (mpg)	18
DC Energy Consumption (DC Wh/mi)	-7
Total Distance Traveled (mile)	12,428
Percent of Total Distance Traveled	76%

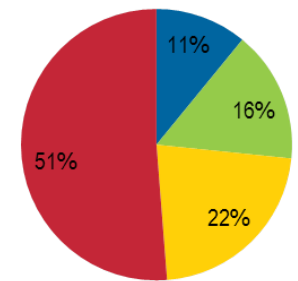
Hold Mode (Hold)^{1,2}

Gasoline Fuel Economy (mpg)	15
DC Energy Consumption (DC Wh/mi)	-1
Total Distance Traveled (mile)	1,203
Percent of Total Distance Traveled	7%

City vs Highway Driving¹

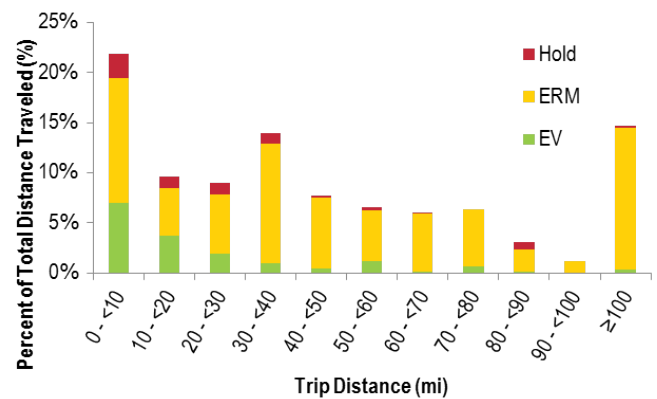
	City ³	Highway ³
Percent of Miles in EV Mode	28%	9%
Percent of Trips	93%	7%
Average Trip Distance (mile)	2.5	43.6

Percent of Drive Time By Vehicle State¹



- Vehicle Stopped Engine Stopped
- Vehicle Stopped Engine Idling
- Vehicle Driving Engine Stopped
- Vehicle Driving Engine Spinning

Percent of Distance Traveled by Operating Mode¹



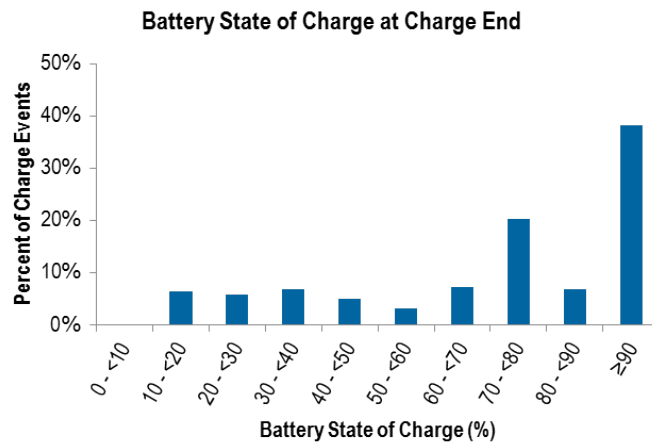
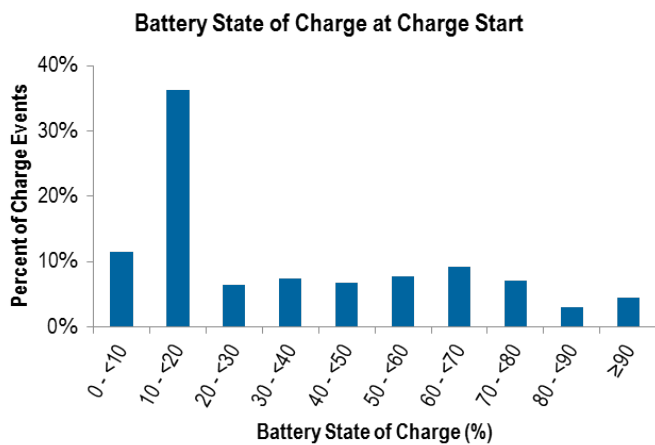
1. Results calculated from vehicle network data logged over 16,357 miles, which is a subset of the total miles driven

2. Hold mode is a driver selected mode that uses the internal combustion engine to hold and/or increase battery state of charge during driving that would otherwise be in EV mode

3. City/highway determined by trip average driving speed per SAE J2841

Charging Information⁴

Number of charging events recorded	297
Average time drawing power per charging event (hr)	9.2
Average energy into battery per charging event (DC kWh)	7.4
Average energy out of charger per charging event (DC kWh) ⁵	12.6



Export Power Operation⁶

Number of export power events recorded	51
Average time exporting power per event (min)	3.3

- Charging results calculated from data received for 297 charging events, which is a subset of the total charging activity.
- Many charging events include long periods, after the battery has reached its maximum state of charge, during which the on-board charger is delivering power for auxiliary loads, resulting in the total energy consumed being greater than the energy into the battery.
- The vehicle has electrical outlets, similar to wall outlets, which can export power from the battery pack to tools or other electronic devices.