VIA Motors Vehicle Demonstration: VTRUX Van

VIA Motors produces full-size extended range electric vans based upon the 2014 Chevrolet Express 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: 55

Number of Vehicle Days Driven: 1047

Data Collection Period: December 2014 - June 2015

Photo Credit: VIA Motors

All Operation[1]

Gasoline Fuel Economy (mpg)	17
DC Energy Consumption (DC Wh/mi)	124
Total Distance Traveled (mile)	57,392
Average Ambient Temperature (deg F)	54

Electric Vehicle Mode (EV)[1]

Gasoline Fuel Economy (mpg)	No Fuel Used
DC Energy Consumption (DC Wh/mi)	636
Total Distance Traveled (mile)	11,585
Percent of Total Distance Traveled	20%

Extended Range Mode (ERM)[1]

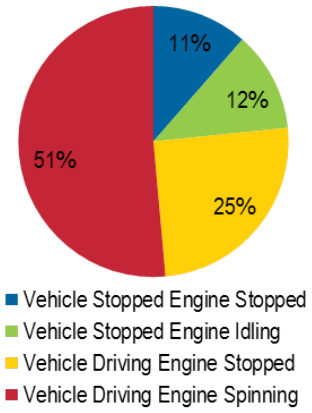
Gasoline Fuel Economy (mpg)	14
DC Energy Consumption (DC Wh/mi)	-3
Total Distance Traveled (mile)	42,974
Percent of Total Distance Traveled	75%

Hold Mode (Hold)[1,2]

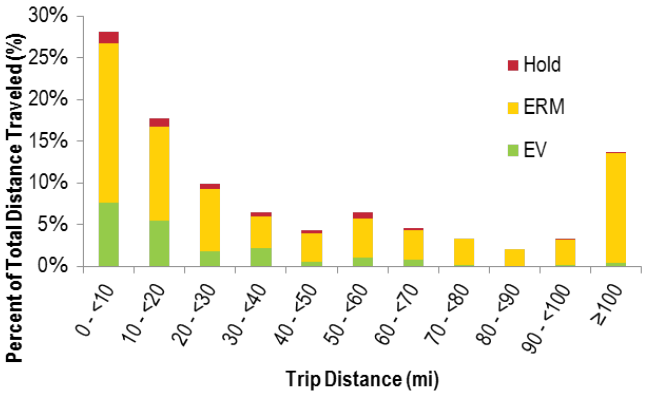
Gasoline Fuel Economy (mpg)	13
DC Energy Consumption (DC Wh/mi)	-38
Total Distance Traveled (mile)	2,834
Percent of Total Distance Traveled	5%

City vs Highway Driving[1]	City[3]	Highway[3]
Percent of Miles in EV Mode	25%	14%
Percent of Trips	93%	7%
Average Trip Distance (mile)	3.9	37.6

Percent of Drive Time By Vehicle State[1]



Percent of Distance Traveled by Operating Mode[1]



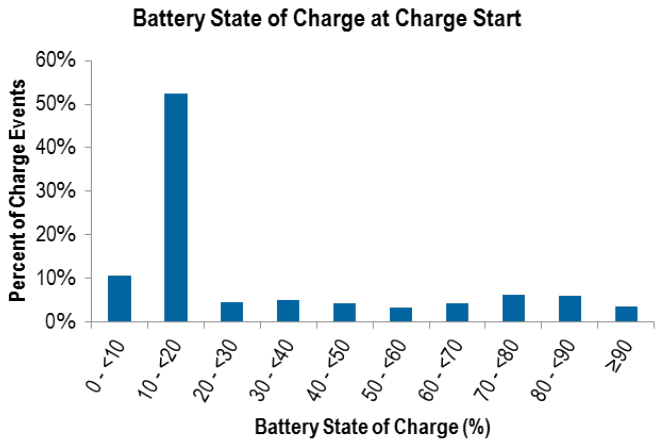
1. Results calculated from vehicle network data logged over 57,392 miles, which is a subset of the total miles driven

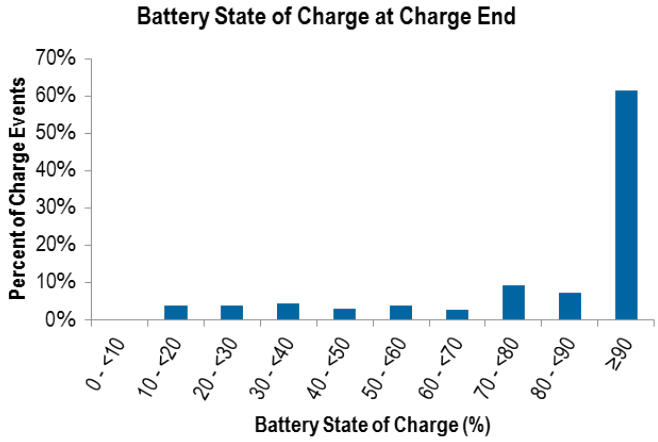
2. Hold mode is a driver selected mode that uses the internal combustion engine to hold and/or increase battery state of charge during driving that would otherwise be in EV mode

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

Charging Information[4]

Number of charging events recorded	802
Average time drawing power per charging event (hr)	8.0
Average energy into battery per charging event (DC kWh)	10.6
Average energy out of charger per charging event (DC kWh)[5]	13.8





Export Power Operation[6]

Number of export power events recorded	51
Average time exporting power per event (min)	30.2

4. Charging results calculated from data received for 802 charging events, which is a subset of the total charging activity.
5. 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.
6. The vehicle has electrical outlets, similar to wall outlets, which can export power from the battery pack to tools or other electronic devices.