

North American PHEV Demonstration

Fleet Summary Report: Hymotion Prius (V2Green data logger)

Number of vehicles: 167

Reporting Period: December 2009

All Trips Combined

Overall gasoline fuel economy (mpg)	44
Overall AC electrical energy consumption (AC Wh/mi) ¹	52
Overall DC electrical energy consumption (DC Wh/mi) ²	38
Total number of trips	9,485
Total distance traveled (mi)	89,378
Trips in Charge Depleting (CD) mode ³	
Gasoline fuel economy (mpg)	53
DC electrical energy consumption (DC Wh/mi) ⁴	137
Number of trips	3,787
Percent of trips city / highway	87% / 13%
Distance traveled (mi)	17,828
Percent of total distance traveled	20%
Trips in both Charge Depleting and Charge Sustaining (CD/CS) modes ⁵	
Gasoline fuel economy (mpg)	50
DC electrical energy consumption (DC Wh/mi) ⁶	48
Number of trips	711
Percent of trips city / highway	44% / 56%
Distance traveled (mi)	20,255
Percent of total distance traveled	23%
Trips in Charge Sustaining (CS) mode ⁷	
Gasoline fuel economy (mpg)	41
Number of trips	4,987
Percent of trips city / highway	77% / 23%
Distance traveled (mi)	51,295
Percent of total distance traveled	57%
Number of trips when the plug-in battery pack was turned off by the vehicle operator ⁸	616
Distance traveled with plug-in battery pack turned off by the vehicle operator (mi) ⁹	7,583

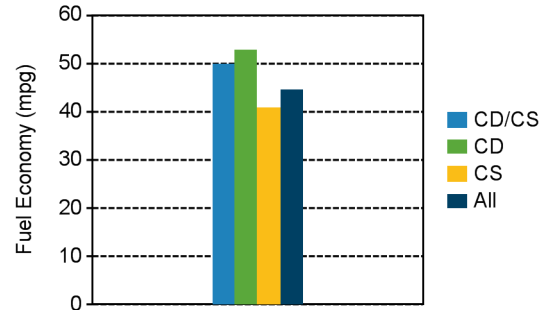
Vehicle Technologies Program

Date range of data received:

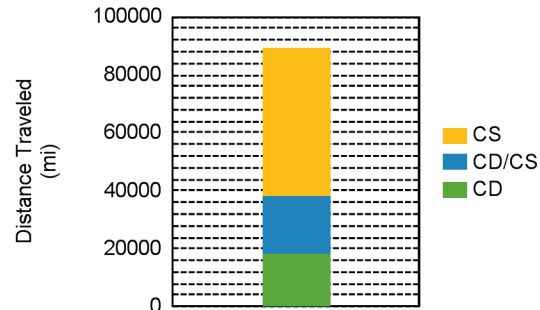
12/1/2009 to 12/31/2009

Number of days the vehicles were driven: 31

Gasoline Fuel Economy By Trip Type



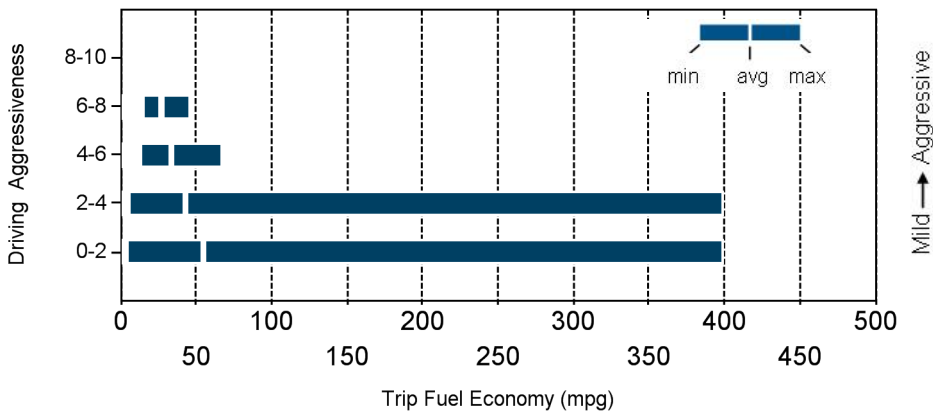
Distance Traveled By Trip Type



Notes: 1 - 9. Please see <http://avt.inel.gov/phev/reportnotes> for an explanation of all PHEV Fleet Testing Report notes.

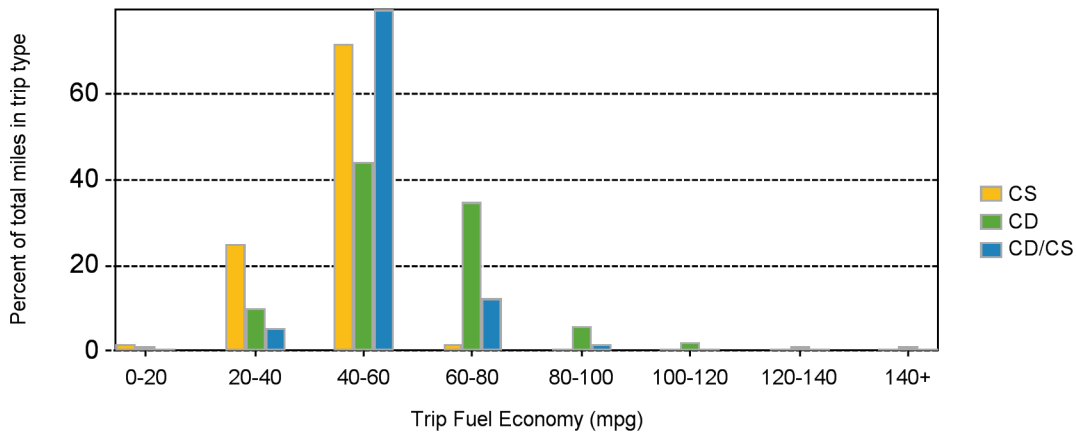
Trips in Charge Depleting (CD) mode		
	City	Highway
Gasoline fuel economy (mpg)	48	60
DC electrical energy consumption (DC Wh/mi)	158	109
Percent of miles with internal combustion engine off	17%	5%
Average trip aggressiveness (on scale 0 - 10)	2.0	2.1
Average trip distance (mi)	3.1	15.4
Trips in both Charge Depleting and Charge Sustaining (CD/CS) modes		
Gasoline fuel economy (mpg)	47	50
DC electrical energy consumption (DC Wh/mi)	66	45
Percent of miles with internal combustion engine off	16%	3%
Average trip aggressiveness (on scale 0 - 10)	2.0	1.8
Average trip distance (mi)	9.3	43.6
Trips in Charge Sustaining (CS) mode		
Gasoline fuel economy (mpg)	33	44
Percent of miles with internal combustion engine off	16%	4%
Average trip aggressiveness (on scale 0 - 10)	1.9	1.9
Average trip distance (mi)	3.4	32.7

Effect Of Driving Aggressiveness on Fuel Economy This Year



Aggressiveness factor is based on accelerator pedal position. The more time spent during a trip at higher accelerator pedal position, the higher the trip aggressiveness.

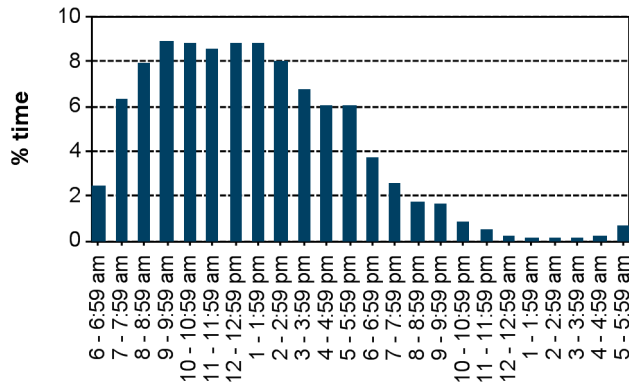
Trip Fuel Economy Distribution By Trip Type



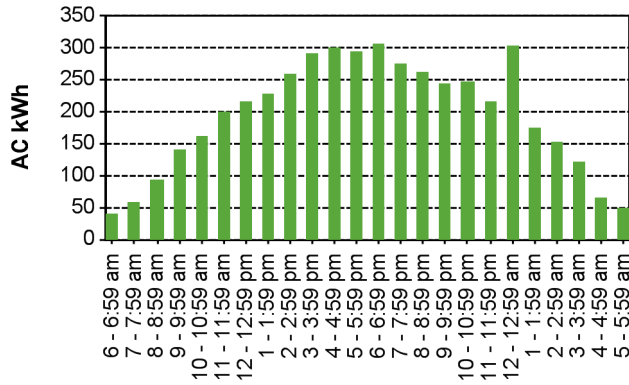
Plug-in charging

Average number of charging events per vehicle per month when driven	11
Average number of charging events per vehicle per day when vehicle driven	0.9
Average distance driven between charging events (mi)	50.4
Average number of trips between charging events	5.4
Average time plugged in per charging event (hr)	25.0
Average time charging per charging event (hr)	2.6
Average energy per charging event (AC kWh)	2.6
Average charging energy per vehicle per month (AC kWh)	28.2
Total number of charging events	1,773
Total charging energy (AC kWh)	4,682

Time of Day When Driving



Time of Day When Charging



Time of Day When Plugging In

