

North American PHEV Demonstration

Fleet Summary Report: Hymotion Prius (V2Green data logger)

Number of vehicles: 180

Reporting Period: Apr 08 - Dec 09

All Trips Combined

Overall gasoline fuel economy (mpg)	49
Overall AC electrical energy consumption (AC Wh/mi) ¹	59
Overall DC electrical energy consumption (DC Wh/mi) ²	44
Total number of trips	105,249
Total distance traveled (mi)	971,420
Trips in Charge Depleting (CD) mode ³	
Gasoline fuel economy (mpg)	64
DC electrical energy consumption (DC Wh/mi) ⁴	141
Number of trips	48,387
Percent of trips city / highway	86% / 14%
Distance traveled (mi)	220,864
Percent of total distance traveled	23%
Trips in both Charge Depleting and Charge Sustaining (CD/CS) modes ⁵	
Gasoline fuel economy (mpg)	53
DC electrical energy consumption (DC Wh/mi) ⁶	49
Number of trips	9,296
Percent of trips city / highway	48% / 53%
Distance traveled (mi)	236,967
Percent of total distance traveled	24%
Trips in Charge Sustaining (CS) mode ⁷	
Gasoline fuel economy (mpg)	43
Number of trips	47,566
Percent of trips city / highway	74% / 26%
Distance traveled (mi)	517,076
Percent of total distance traveled	53%
Number of trips when the plug-in battery pack was turned off by the vehicle operator ⁸	2415
Distance traveled with plug-in battery pack turned off by the vehicle operator (mi) ⁹	93,839

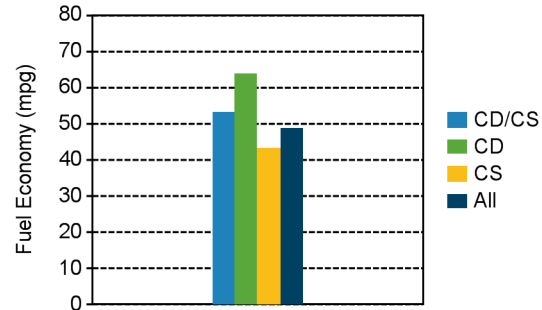
Vehicle Technologies Program

Date range of data received:

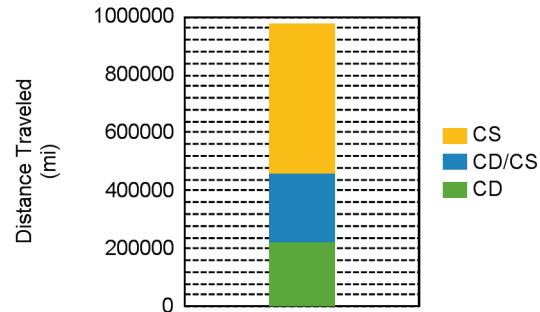
4/18/2008 to 12/31/2009

Number of days the vehicles were driven: 616

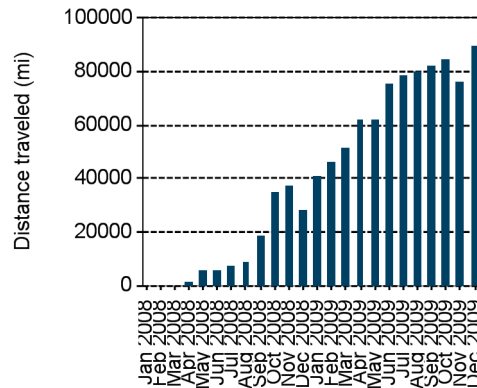
Gasoline Fuel Economy By Trip Type



Distance Traveled By Trip Type



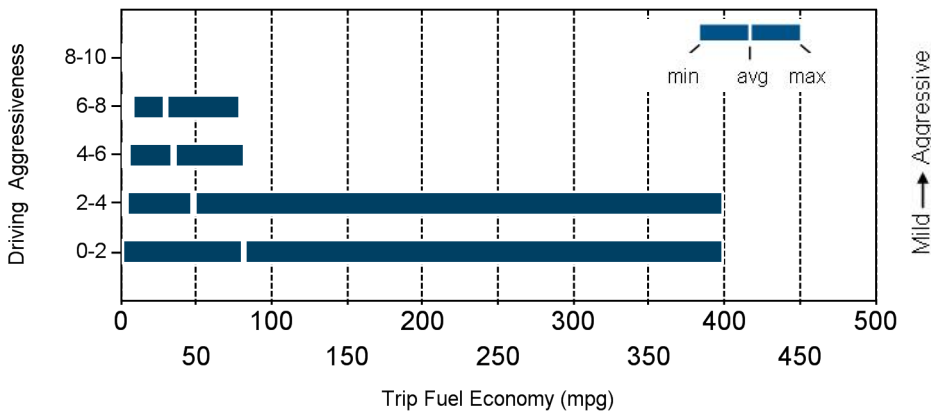
Miles Logged by Month This Year



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

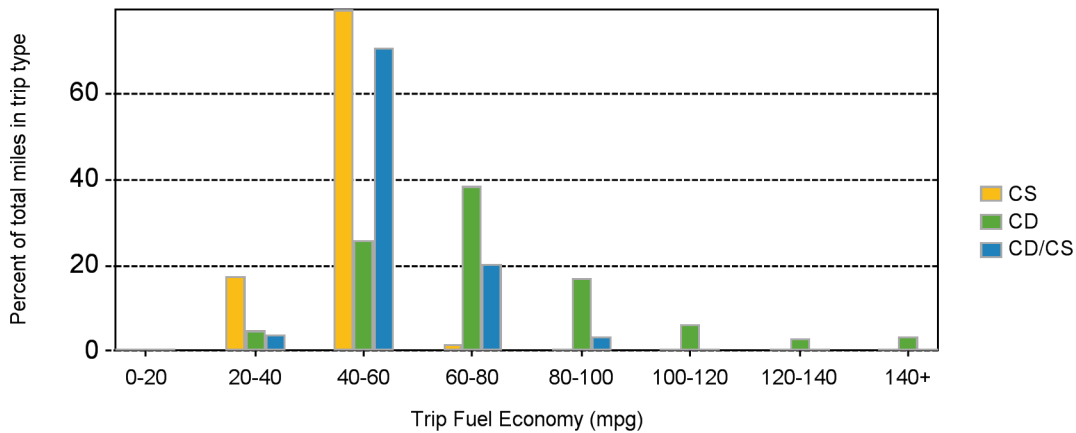
Trips in Charge Depleting (CD) mode		
	City	Highway
Gasoline fuel economy (mpg)	62	67
DC electrical energy consumption (DC Wh/mi)	167	109
Percent of miles with internal combustion engine off	30%	8%
Average trip aggressiveness (on scale 0 - 10)	1.7	1.7
Average trip distance (mi)	2.9	14.4
Trips in both Charge Depleting and Charge Sustaining (CD/CS) modes		
Gasoline fuel economy (mpg)	55	53
DC electrical energy consumption (DC Wh/mi)	81	43
Percent of miles with internal combustion engine off	23%	5%
Average trip aggressiveness (on scale 0 - 10)	1.8	1.6
Average trip distance (mi)	8.6	40.6
Trips in Charge Sustaining (CS) mode		
Gasoline fuel economy (mpg)	37	46
Percent of miles with internal combustion engine off	21%	4%
Average trip aggressiveness (on scale 0 - 10)	1.8	1.7
Average trip distance (mi)	3.7	31.2

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.

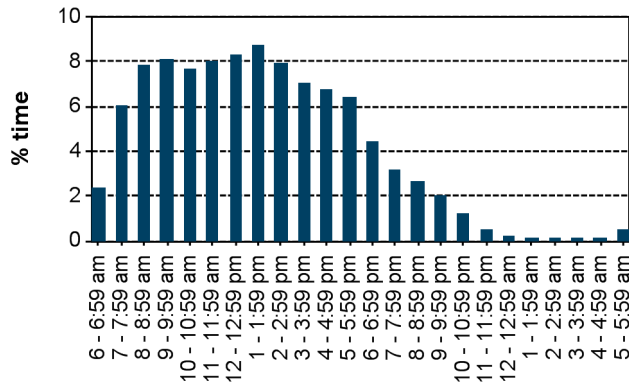
Trip Fuel Economy Distribution By Trip Type



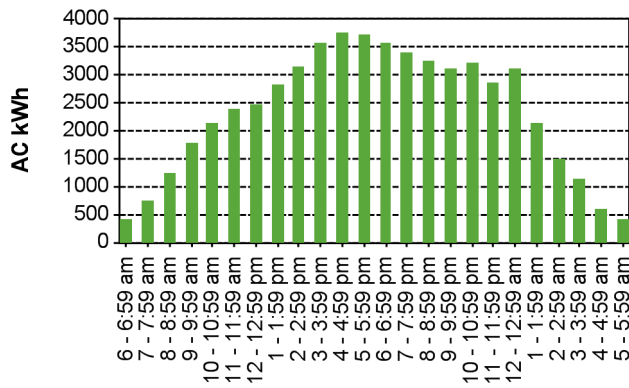
Plug-in charging

Average number of charging events per vehicle per month when driven	15
Average number of charging events per vehicle per day when vehicle driven	1.0
Average distance driven between charging events (mi)	43.8
Average number of trips between charging events	4.7
Average time plugged in per charging event (hr)	20.5
Average time charging per charging event (hr)	2.9
Average energy per charging event (AC kWh)	2.6
Average charging energy per vehicle per month (AC kWh)	38.6
Total number of charging events	22,194
Total charging energy (AC kWh)	57,546

Time of Day When Driving



Time of Day When Charging



Time of Day When Plugging In

