

## North American PHEV Demonstration

Fleet Summary Report: Hymotion Prius (V2Green data logger)

Number of vehicles: 180

Reporting Period: Jan 09 - Dec 09

### All Trips Combined

Overall gasoline fuel economy (mpg)	49
Overall AC electrical energy consumption (AC Wh/mi) <sup>1</sup>	57
Overall DC electrical energy consumption (DC Wh/mi) <sup>2</sup>	42
Total number of trips	89,494
Total distance traveled (mi)	825,358
Trips in Charge Depleting (CD) mode <sup>3</sup>	
Gasoline fuel economy (mpg)	63
DC electrical energy consumption (DC Wh/mi) <sup>4</sup>	140
Number of trips	39,691
Percent of trips city / highway	86% / 14%
Distance traveled (mi)	181,906
Percent of total distance traveled	22%
Trips in both Charge Depleting and Charge Sustaining (CD/CS) modes <sup>5</sup>	
Gasoline fuel economy (mpg)	53
DC electrical energy consumption (DC Wh/mi) <sup>6</sup>	49
Number of trips	7,634
Percent of trips city / highway	47% / 53%
Distance traveled (mi)	194,793
Percent of total distance traveled	24%
Trips in Charge Sustaining (CS) mode <sup>7</sup>	
Gasoline fuel economy (mpg)	43
Number of trips	42,169
Percent of trips city / highway	75% / 25%
Distance traveled (mi)	452,145
Percent of total distance traveled	55%
Number of trips when the plug-in battery pack was turned off by the vehicle operator <sup>8</sup>	2414
Distance traveled with plug-in battery pack turned off by the vehicle operator (mi) <sup>9</sup>	86,112

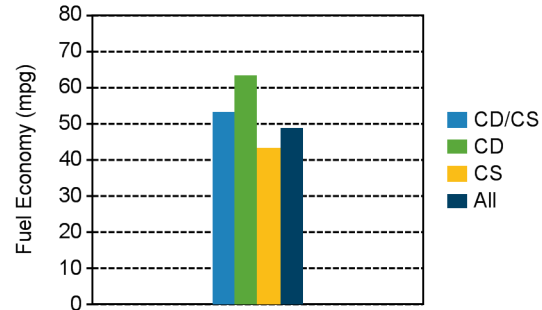
## Vehicle Technologies Program

Date range of data received:

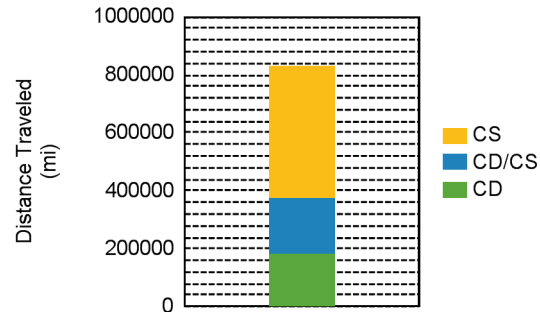
1/1/2009 to 12/31/2009

Number of days the vehicles were driven: 365

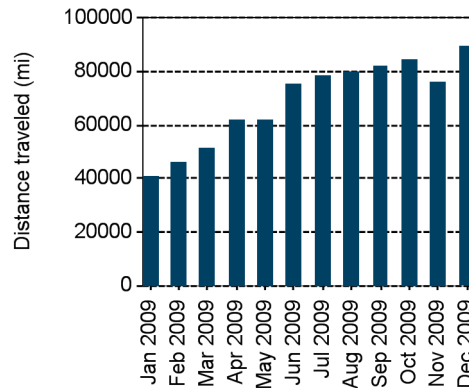
### Gasoline Fuel Economy By Trip Type



### Distance Traveled By Trip Type



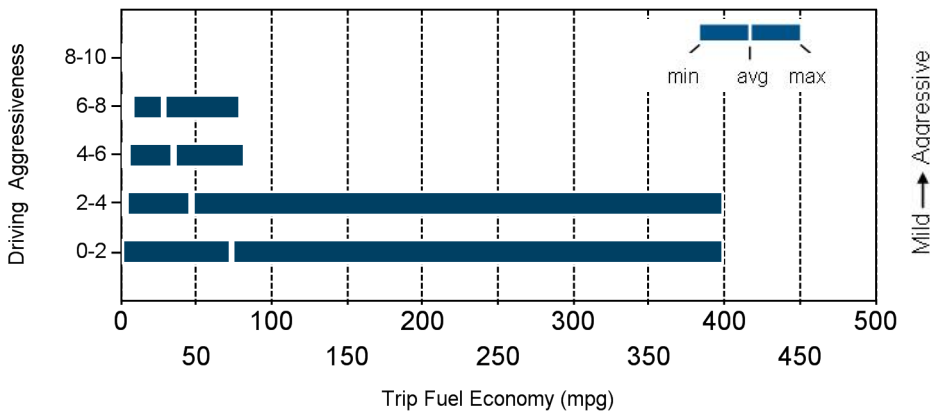
### Miles Logged by Month This Year



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

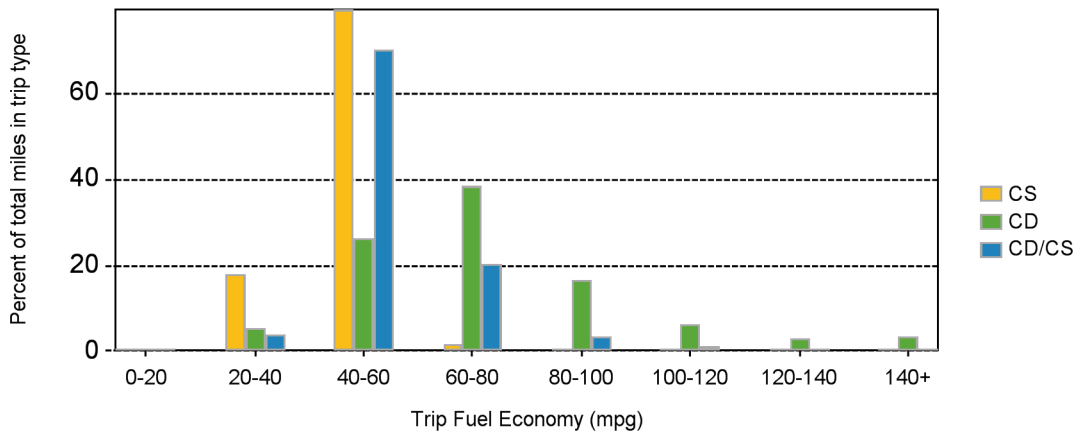
Trips in Charge Depleting (CD) mode		
	City	Highway
Gasoline fuel economy (mpg)	61	66
DC electrical energy consumption (DC Wh/mi)	166	108
Percent of miles with internal combustion engine off	30%	8%
Average trip aggressiveness (on scale 0 - 10)	1.7	1.7
Average trip distance (mi)	3.0	14.7
Trips in both Charge Depleting and Charge Sustaining (CD/CS) modes		
Gasoline fuel economy (mpg)	55	53
DC electrical energy consumption (DC Wh/mi)	79	43
Percent of miles with internal combustion engine off	23%	4%
Average trip aggressiveness (on scale 0 - 10)	1.8	1.6
Average trip distance (mi)	8.7	40.3
Trips in Charge Sustaining (CS) mode		
Gasoline fuel economy (mpg)	37	46
Percent of miles with internal combustion engine off	22%	4%
Average trip aggressiveness (on scale 0 - 10)	1.8	1.7
Average trip distance (mi)	3.7	31.3

### 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.

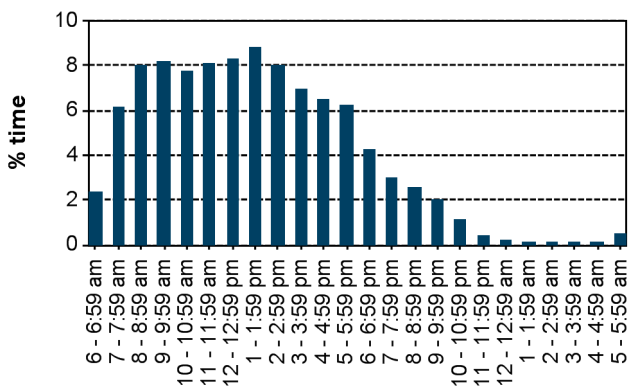
### Trip Fuel Economy Distribution By Trip Type



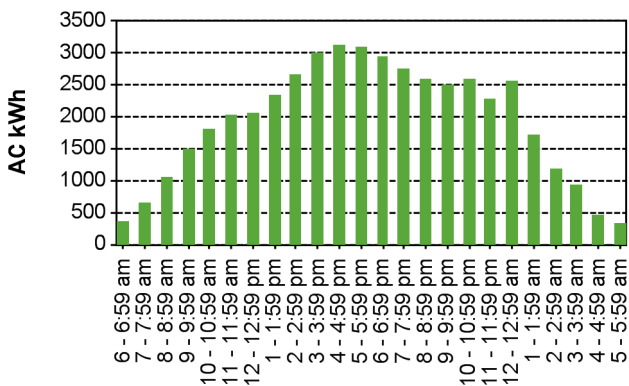
Plug-in charging

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)	45.0
Average number of trips between charging events	4.9
Average time plugged in per charging event (hr)	21.1
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)	38.1
Total number of charging events	18,335
Total charging energy (AC kWh)	47,419

Time of Day When Driving



Time of Day When Charging



Time of Day When Plugging In

