

## North American PHEV Demonstration

Fleet Summary Report: Hymotion Prius (V2Green data logger)

Number of vehicles: 81

Reporting Period: May 2011

## Vehicle Technologies Program

Date range of data received:

5/1/2011 to 5/31/2011

Number of days the vehicles were driven: 31

### All Trips Combined

Overall gasoline fuel economy (mpg)	49
Overall AC electrical energy consumption (AC Wh/mi) <sup>1</sup>	56
Overall DC electrical energy consumption (DC Wh/mi) <sup>2</sup>	40
Total number of trips	6,242
Total distance traveled (mi)	56,360

### Trips in Charge Depleting (CD) mode <sup>3</sup>

Gasoline fuel economy (mpg)	67
DC electrical energy consumption (DC Wh/mi) <sup>4</sup>	142
Number of trips	2,718
Percent of trips city / highway	87% / 13%
Distance traveled (mi)	12,522
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>	50
Number of trips	390
Percent of trips city / highway	42% / 58%
Distance traveled (mi)	9,940
Percent of total distance traveled	18%

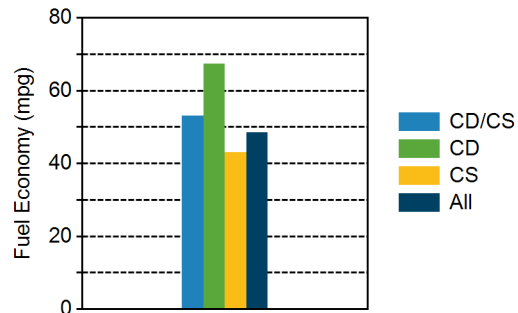
### Trips in Charge Sustaining (CS) mode <sup>7</sup>

Gasoline fuel economy (mpg)	43
Number of trips	3,134
Percent of trips city / highway	76% / 24%
Distance traveled (mi)	33,899
Percent of total distance traveled	60%

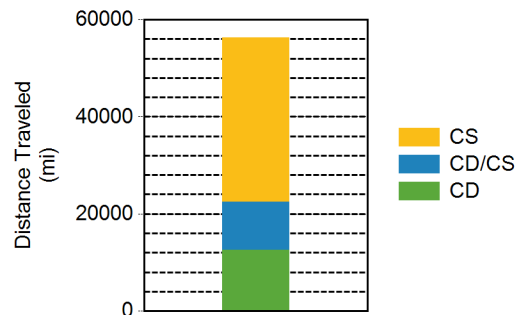
Number of trips when the plug-in battery pack was turned off by the vehicle operator <sup>8</sup> 329

Distance traveled with plug-in battery pack turned off by the vehicle operator (mi) <sup>9</sup> 4,704

### Gasoline Fuel Economy By Trip Type



### Distance Traveled By Trip Type



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

### Trips in Charge Depleting (CD) mode

	City	Highway
Gasoline fuel economy (mpg)	65	71
DC electrical energy consumption (DC Wh/mi)	164	112
Percent of miles with internal combustion engine off	37%	22%
Average trip aggressiveness (on scale 0 - 10)	1.8	1.7
Average trip distance (mi)	3.0	15.2

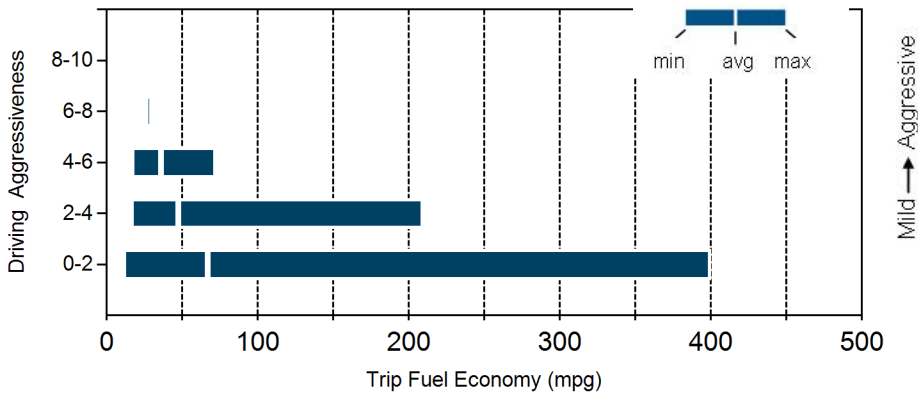
### Trips in both Charge Depleting and Charge Sustaining (CD/CS) modes

Gasoline fuel economy (mpg)	55	53
DC electrical energy consumption (DC Wh/mi)	77	46
Percent of miles with internal combustion engine off	29%	13%
Average trip aggressiveness (on scale 0 - 10)	1.8	1.7
Average trip distance (mi)	7.9	38.4

### Trips in Charge Sustaining (CS) mode

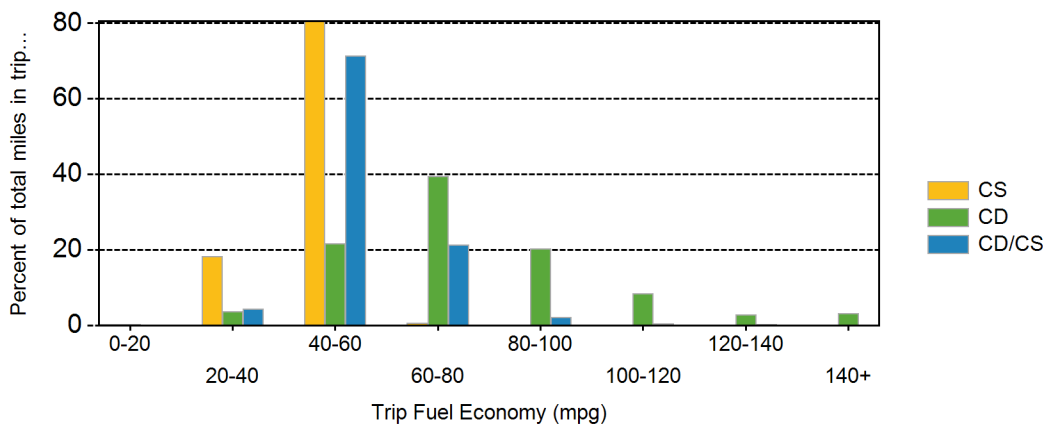
Gasoline fuel economy (mpg)	37	45
Percent of miles with internal combustion engine off	25%	10%
Average trip aggressiveness (on scale 0 - 10)	1.9	1.7
Average trip distance (mi)	3.1	35.1

### 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.

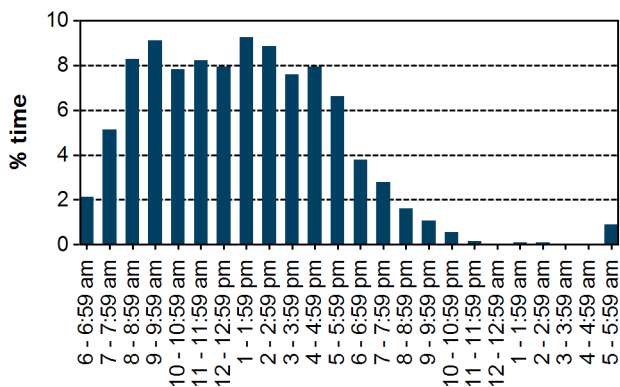
### Trip Fuel Economy Distribution By Trip Type



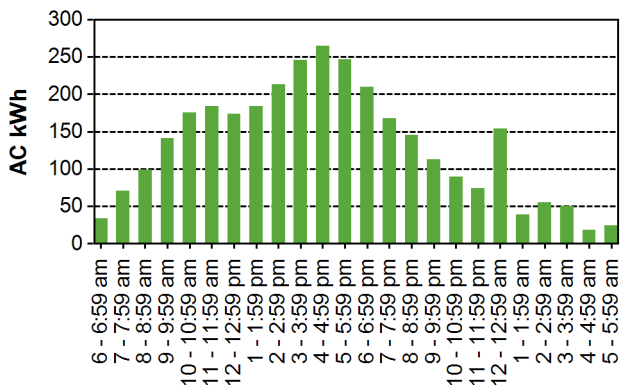
## Plug-in charging

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)	46.6
Average number of trips between charging events	5.2
Average time plugged in per charging event (hr)	24.5
Average time charging per charging event (hr)	2.8
Average energy per charging event (AC kWh)	2.6
Average charging energy per vehicle per month (AC kWh)	39.3
Total number of charging events	1,209
Total charging energy (AC kWh)	3,183

**Time of Day When Driving**



**Time of Day When Charging**



**Time of Day When Plugging In**

