

## North American PHEV Demonstration

Fleet Summary Report: Hymotion Prius (V2Green data logger)

Number of vehicles: 161

Reporting Period: Jan 11 - Sept 11

## Vehicle Technologies Program

Date range of data received:

1/1/2011 to 9/30/2011

Number of days the vehicles were driven: 273

### All Trips Combined

Overall gasoline fuel economy (mpg)	46
Overall AC electrical energy consumption (AC Wh/mi) <sup>1</sup>	47
Overall DC electrical energy consumption (DC Wh/mi) <sup>2</sup>	33
Total number of trips	71,108
Total distance traveled (mi)	619,448

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

Gasoline fuel economy (mpg)	61
DC electrical energy consumption (DC Wh/mi) <sup>4</sup>	145
Number of trips	25,646
Percent of trips city / highway	88% / 12%
Distance traveled (mi)	107,847
Percent of total distance traveled	17%

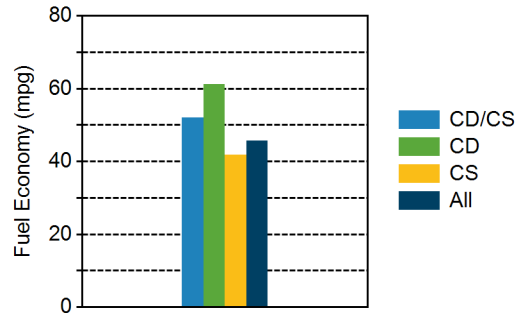
### Trips in both Charge Depleting and Charge Sustaining (CD/CS) modes <sup>5</sup>

Gasoline fuel economy (mpg)	52
DC electrical energy consumption (DC Wh/mi) <sup>6</sup>	49
Number of trips	3,863
Percent of trips city / highway	49% / 51%
Distance traveled (mi)	95,340
Percent of total distance traveled	15%

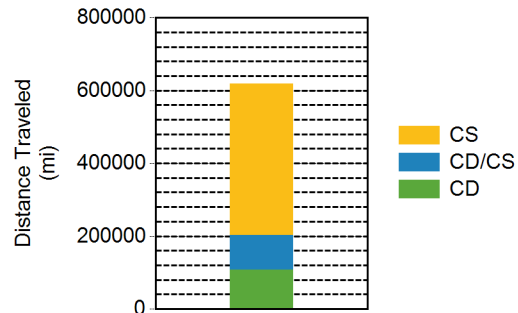
### Trips in Charge Sustaining (CS) mode <sup>7</sup>

Gasoline fuel economy (mpg)	42
Number of trips	41,599
Percent of trips city / highway	79% / 21%
Distance traveled (mi)	416,261
Percent of total distance traveled	67%
Number of trips when the plug-in battery pack was turned off by the vehicle operator <sup>8</sup>	4608
Distance traveled with plug-in battery pack turned off by the vehicle operator (mi) <sup>9</sup>	76,471

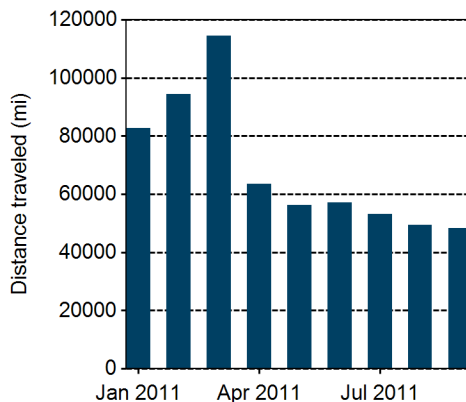
### Gasoline Fuel Economy By Trip Type



### Distance Traveled By Trip Type



### Miles Logged by Month This Year



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)	58	66
DC electrical energy consumption (DC Wh/mi)	167	111
Percent of miles with internal combustion engine off	34%	20%
Average trip aggressiveness (on scale 0 - 10)	1.8	1.8
Average trip distance (mi)	2.9	14.3

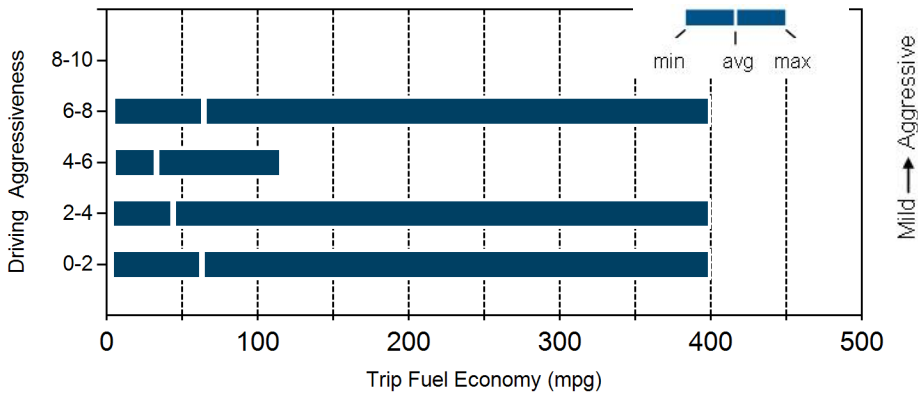
### Trips in both Charge Depleting and Charge Sustaining (CD/CS) modes

Gasoline fuel economy (mpg)	50	52
DC electrical energy consumption (DC Wh/mi)	79	44
Percent of miles with internal combustion engine off	27%	11%
Average trip aggressiveness (on scale 0 - 10)	1.9	1.6
Average trip distance (mi)	7.5	41.2

### Trips in Charge Sustaining (CS) mode

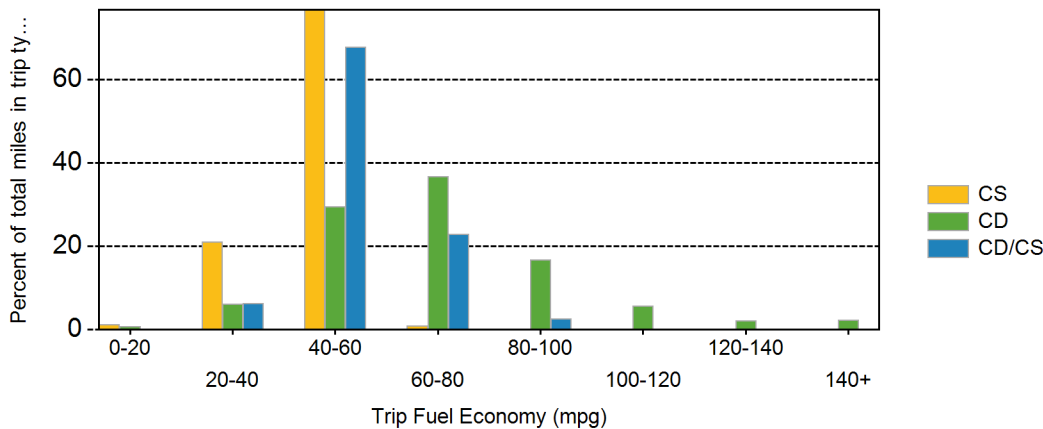
Gasoline fuel economy (mpg)	35	45
Percent of miles with internal combustion engine off	22%	9%
Average trip aggressiveness (on scale 0 - 10)	2.0	1.7
Average trip distance (mi)	3.4	35.6

### 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.

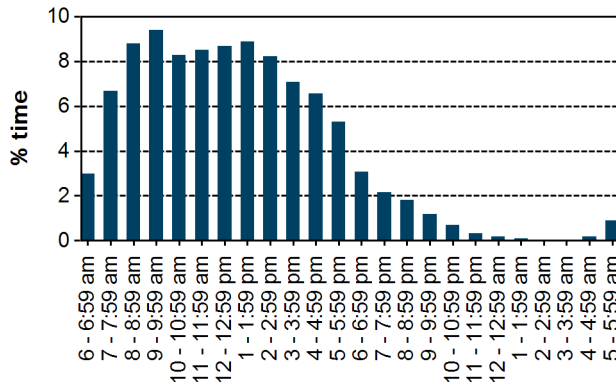
### Trip Fuel Economy Distribution By Trip Type



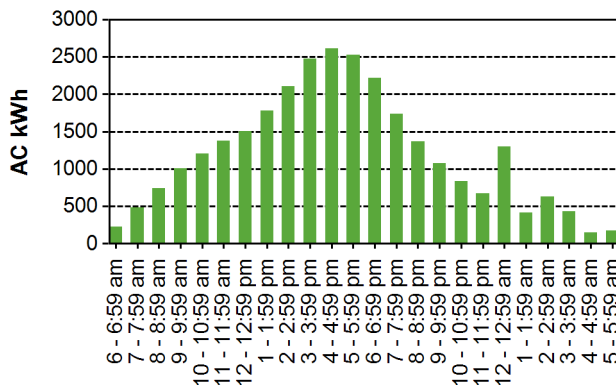
## Plug-in charging

Average number of charging events per vehicle per month when driven	12
Average number of charging events per vehicle per day when vehicle driven	0.8
Average distance driven between charging events (mi)	57.1
Average number of trips between charging events	6.6
Average time plugged in per charging event (hr)	27.5
Average time charging per charging event (hr)	2.7
Average energy per charging event (AC kWh)	2.7
Average charging energy per vehicle per month (AC kWh)	31.0
Total number of charging events	10,852
Total charging energy (AC kWh)	29,055

### Time of Day When Driving



### Time of Day When Charging



### Time of Day When Plugging In

