

## North American PHEV Demonstration

Fleet Summary Report - Hymotion Prius (Kvaser data logger)

Number of vehicles: 30

Reporting Period: 2009

### All Trips Combined

Overall gasoline fuel economy (mpg)	46
Overall DC electrical energy consumption (DC Wh/mi) <sup>2</sup>	57
Total number of trips	17893
Total distance traveled (mi)	146425
<b>Trips in Charge Depleting (CD) mode <sup>3</sup></b>	
Gasoline fuel economy (mpg)	59
DC electrical energy consumption (DC Wh/mi) <sup>4</sup>	135
Number of trips	10419
Percent of trips city / highway	83% / 17%
Distance traveled (mi)	50006
Percent of total distance traveled	34%
<b>Trips in both Charge Depleting and Charge Sustaining (CD/CS) modes <sup>5</sup></b>	
Gasoline fuel economy (mpg)	48
DC electrical energy consumption (DC Wh/mi) <sup>6</sup>	51
Number of trips	1764
Percent of trips city / highway	51% / 49%
Distance traveled (mi)	32354
Percent of total distance traveled	22%
<b>Trips in Charge Sustaining (CS) mode <sup>7</sup></b>	
Gasoline fuel economy (mpg)	39
Number of trips	5710
Percent of trips city / highway	66% / 34%
Distance traveled (mi)	64066
Percent of total distance traveled	44%
Number of trips when the plug-in battery pack was turned off by the vehicle operator <sup>8</sup>	1168
Distance traveled with plug-in battery pack turned off by vehicle operator(mi) <sup>9</sup>	17436

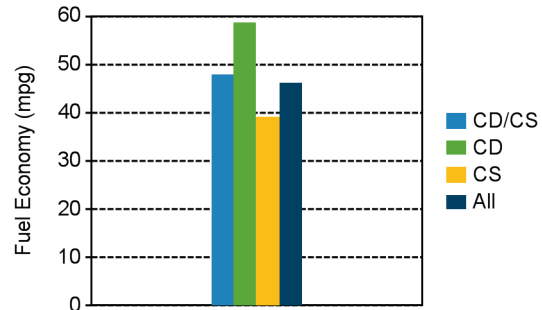
## Vehicle Technologies Program

Date range of data received:

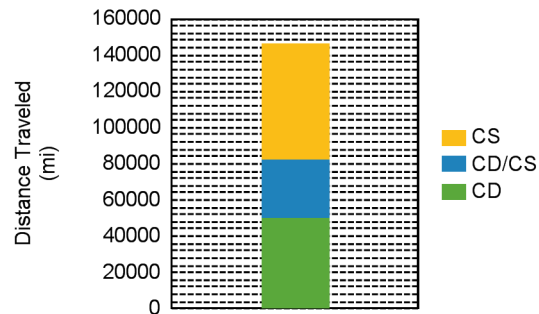
1/1/2009 to 12/31/2009

Number of days the vehicles were driven: 359

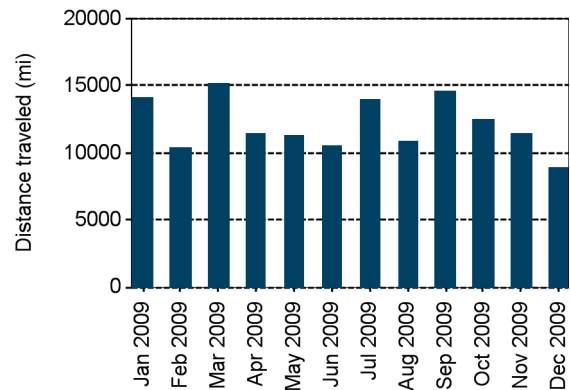
### Gasoline Fuel Economy By Trip Type



### Distance Traveled By Trip Type

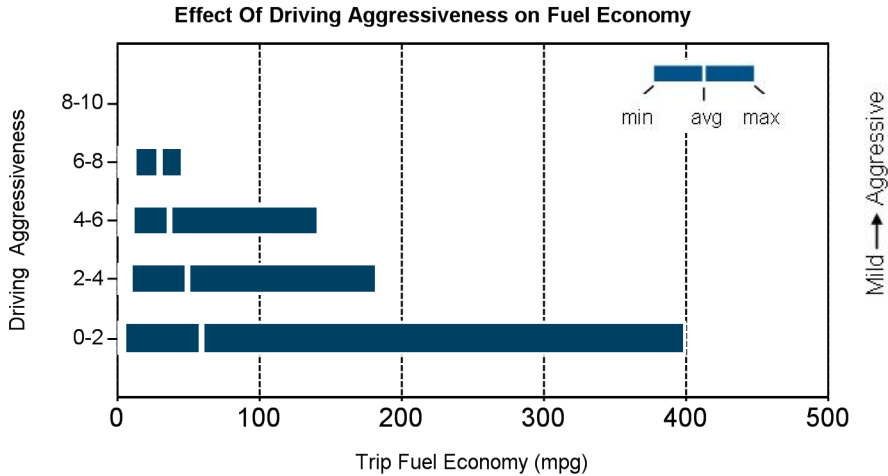


### Miles Logged by Month This Year

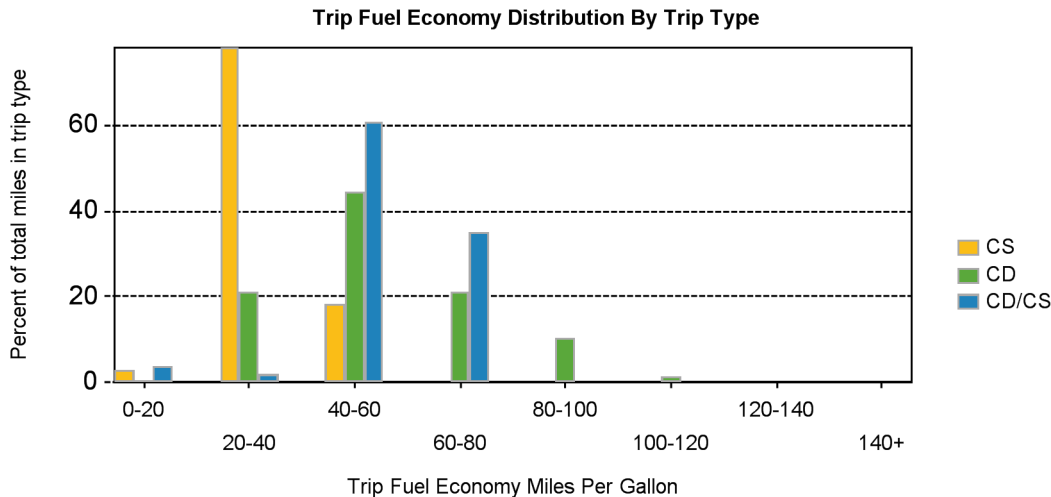


Notes: 1 - 9. Please see <http://avt.inel.gov/phev/reportnotes> for an explanation of all PHEV Fleet Testing Report notes.

Trips in Charge Depleting (CD) mode		City	Highway
Gasoline fuel economy (mpg)		55	63
DC electrical energy consumption (DC Wh/mi)		161	108
Percent of miles with internal combustion engine off		32%	9%
Average trip aggressiveness (on scale 0 - 10)		2.1	1.9
Average trip distance (mi)		2.9	14.0
Trips in combined Charge Depleting and Charge Sustaining (CD/CS) modes			
Gasoline fuel economy (mpg)		46	48
DC electrical energy consumption (DC Kw/mi)		78	47
Percent of miles with internal combustion engine off		26%	5%
Average trip aggressiveness (on scale 0 - 10)		2.1	1.7
Average trip distance (mi)		5.2	31.8
Trips in Charge Sustaining (CS) mode			
Gasoline fuel economy (mpg)		34	41
Percent of miles with internal combustion engine off		22%	4%
Average trip aggressiveness (on scale 0 - 10)		1.7	1.4
Average trip distance (mi)		3.2	26.8



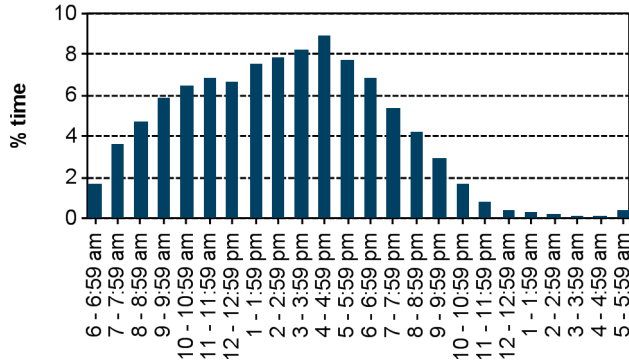
Aggressiveness factor is based on accelerator pedal position. The more time spent during a trip at higher accelerator pedal position, the higher the trip aggressiveness.



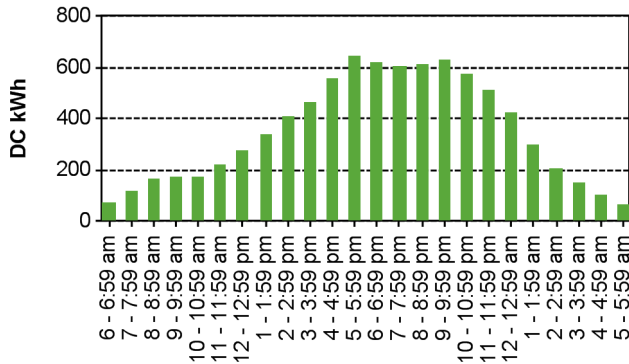
Plug-in charging

Average number of charging events per vehicle per month when driven	25
Average number of charging events per vehicle per day when vehicle driven	1.7
Average distance driven between charging events (mi)	24.7
Average number of trips between charging events	3.0
Average time charging per charging event (hr)*	1.6
Average energy per charging event (DC kWh)	1.3
Average charging energy per vehicle per month (DC kWh)	32.4
Total number of charging events	5920
Total charging energy (DC kWh)	7780

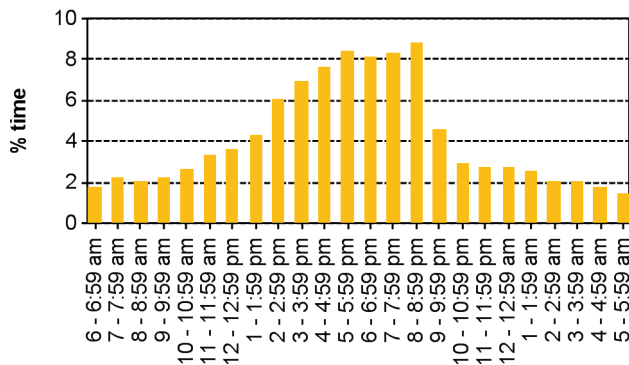
Time of Day When Driving



Time of Day When Charging



Time at the Start of Charging Events



\* Time charging per charging event is the average length of time per charging event when the vehicle was drawing power from the electrical grid. It does not necessarily represent the total duration when the vehicle was plugged in per charging event.