

## North American PHEV Demonstration

Fleet Summary Report: Hymotion Prius (V2Green data logger)

Number of vehicles: 166

Reporting Period: March 2010

### All Trips Combined

|   |           |
|---|-----------|
| Overall gasoline fuel economy (mpg)   | 48        |
| Overall AC electrical energy consumption (AC Wh/mi) <sup>1</sup>                                  | 53        |
| Overall DC electrical energy consumption (DC Wh/mi) <sup>2</sup>                                  | 39        |
| Total number of trips   | 11,690    |
| Total distance traveled (mi)  | 113,476   |
| Trips in Charge Depleting (CD) mode <sup>3</sup>  |           |
| Gasoline fuel economy (mpg)   | 61        |
| DC electrical energy consumption (DC Wh/mi) <sup>4</sup>  | 136       |
| Number of trips   | 4,716     |
| Percent of trips city / highway   | 86% / 14% |
| Distance traveled (mi)  | 23,332    |
| Percent of total distance traveled  | 21%       |
| 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>  | 47        |
| Number of trips   | 876       |
| Percent of trips city / highway   | 41% / 59% |
| Distance traveled (mi)  | 27,626    |
| Percent of total distance traveled  | 24%       |
| Trips in Charge Sustaining (CS) mode <sup>7</sup>   |           |
| Gasoline fuel economy (mpg)   | 42        |
| Number of trips   | 6,098     |
| Percent of trips city / highway   | 80% / 20% |
| Distance traveled (mi)  | 62,518    |
| 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> | 392       |
| Distance traveled with plug-in battery pack turned off by the vehicle operator (mi) <sup>9</sup>  | 4,224     |

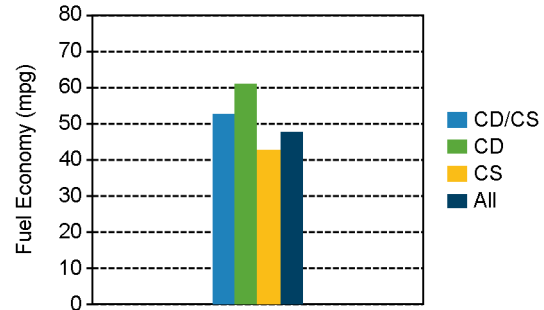
## Vehicle Technologies Program

Date range of data received:

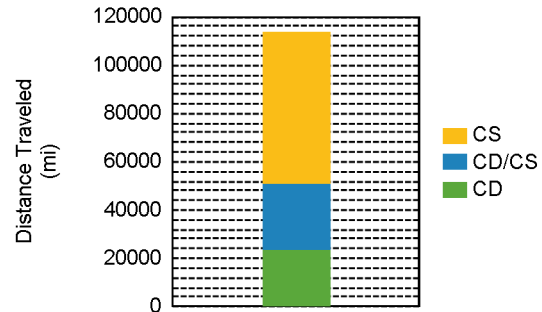
3/1/2010 to 3/31/2010

Number of days the vehicles were driven: 31

### Gasoline Fuel Economy By Trip Type



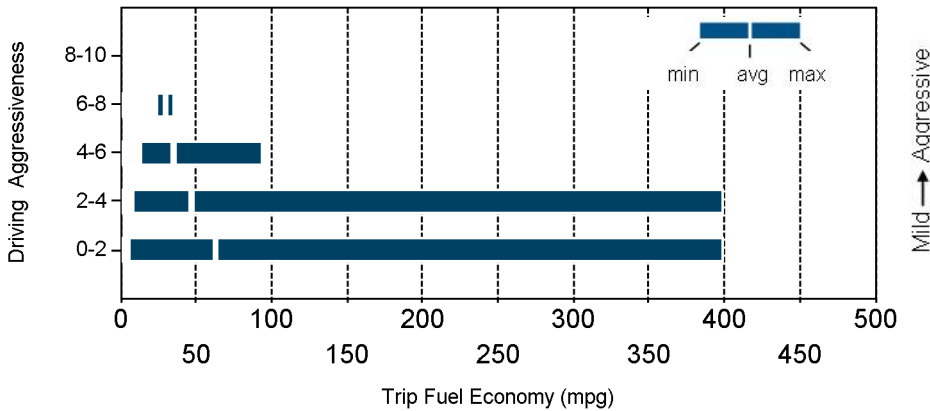
### Distance Traveled By Trip Type



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

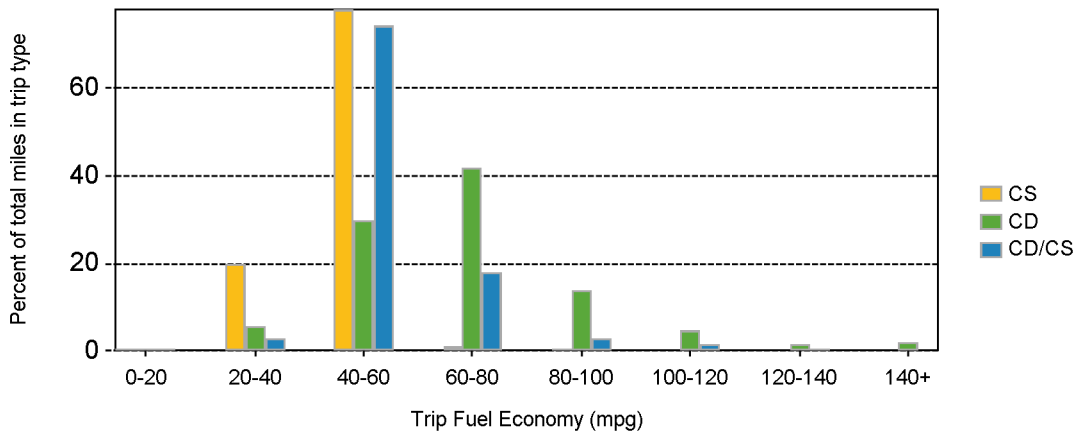
| Trips in Charge Depleting (CD) mode                                |      |         |
|--|------|---------|
|  | City | Highway |
| Gasoline fuel economy (mpg)  | 59   | 64      |
| DC electrical energy consumption (DC Wh/mi)                        | 156  | 108     |
| Percent of miles with internal combustion engine off               | 30%  | 18%     |
| Average trip aggressiveness (on scale 0 - 10)                      | 1.9  | 1.9     |
| Average trip distance (mi)   | 3.3  | 15.5    |
| Trips in both Charge Depleting and Charge Sustaining (CD/CS) modes |      |         |
| Gasoline fuel economy (mpg)  | 55   | 52      |
| DC electrical energy consumption (DC Wh/mi)                        | 74   | 43      |
| Percent of miles with internal combustion engine off               | 26%  | 10%     |
| Average trip aggressiveness (on scale 0 - 10)                      | 1.9  | 1.7     |
| Average trip distance (mi)   | 9.7  | 46.6    |
| Trips in Charge Sustaining (CS) mode                               |      |         |
| Gasoline fuel economy (mpg)  | 36   | 45      |
| Percent of miles with internal combustion engine off               | 24%  | 9%      |
| Average trip aggressiveness (on scale 0 - 10)                      | 2.2  | 1.9     |
| Average trip distance (mi)   | 3.1  | 39.1    |

### 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.

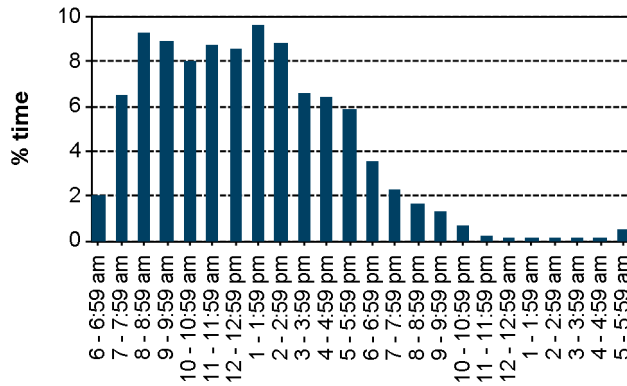
### Trip Fuel Economy Distribution By Trip Type



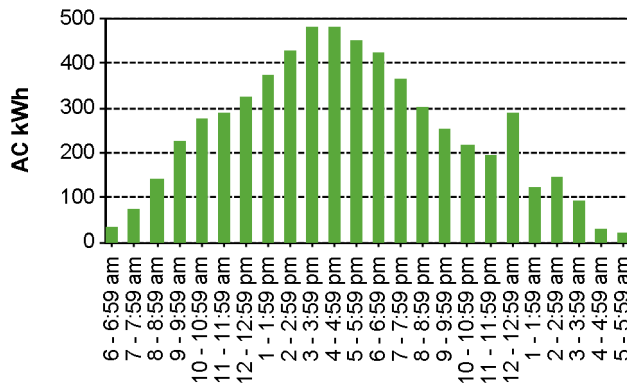
Plug-in charging

|   |       |
|---|-------|
| Average number of charging events per vehicle per month when driven       | 13    |
| Average number of charging events per vehicle per day when vehicle driven | 0.9   |
| Average distance driven between charging events (mi)                      | 54.2  |
| Average number of trips between charging events                           | 5.6   |
| Average time plugged in per charging event (hr)                           | 25.5  |
| Average time charging per charging event (hr)                             | 2.6   |
| Average energy per charging event (AC kWh)                                | 2.9   |
| Average charging energy per vehicle per month (AC kWh)                    | 36.7  |
| Total number of charging events   | 2,095 |
| Total charging energy (AC kWh)  | 6,048 |

Time of Day When Driving



Time of Day When Charging



Time of Day When Plugging In

