

Vehicle Technologies Program

North American PHEV Demonstration

Annual Report for EnergyCS Prius (Valence Pack)

Number of vehicles: 5

Reporting period: Jan - Dec 2009

Number of days when the vehicle was driven: 166

All trips combined

Overall gasoline fuel economy (mpg)	51
Overall DC electrical energy consumption (DC Wh/mi) ²	33
Total number of trips	834
Total distance traveled (mi)	10897

Trips in Charge Depleting mode (CD)³

Gasoline fuel economy (mpg)	64
DC electrical energy consumption (DC Wh/mi) ⁴	89
Number of trips	428
Percent of trips city / highway	70% / 30%
Distance traveled (mi)	2529
Percent of total distance traveled	23%

Trips in both Charge Depleting and Charge Sustaining modes (CD/CS)⁵

Gasoline fuel economy (mpg)	52
DC electrical energy consumption (DC Wh/mi) ⁶	41
Number of trips	99
Percent of trips city / highway	11% / 89%
Distance traveled (mi)	3607
Percent of total distance traveled	33%

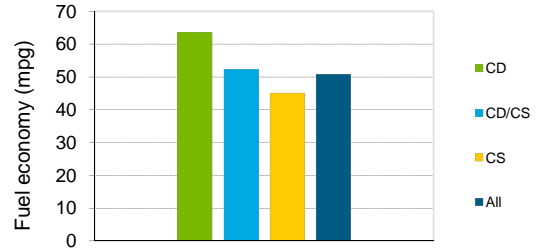
Trips in Charge Sustaining mode (CS)⁷

Gasoline fuel economy (mpg)	45
Number of trips	307
Percent of trips city / highway	60% / 40%
Distance traveled (mi)	4761
Percent of total distance traveled	44%

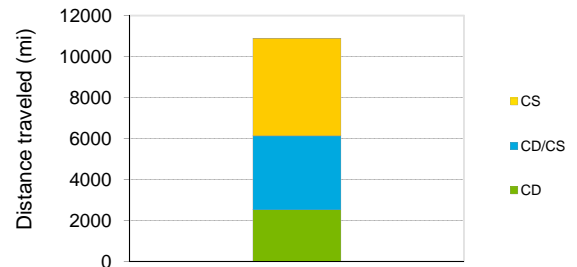
Plug-in charging

Number of charging events	173
Average number of charging events per day when vehicle driven	0.8
Average distance between charging events (mi)	63.0
Average number of trips between charging events	4.8
Average time charging per charging event (hr)	43.9
Average charging energy per charging event (DC kWh)	3.0
Total charging energy (DC kWh)	511.0

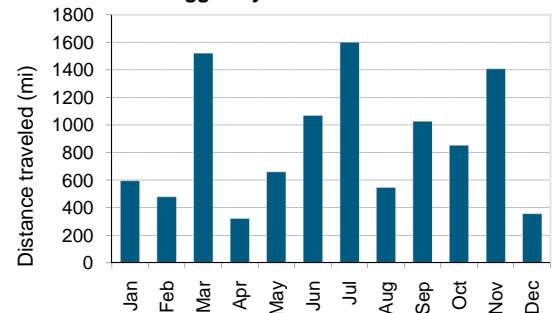
Gasoline Fuel Economy by Trip Type



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 mode (CD)

	City	Highway
Gasoline fuel economy (mpg)	51	69
DC electrical energy consumption (DC Wh/mi)	94	87
Percent of miles with internal combustion engine off	23%	8%
Average trip aggressiveness (on scale 0 - 10)	1.8	1.3
Average trip distance (mi)	2.1	14.6

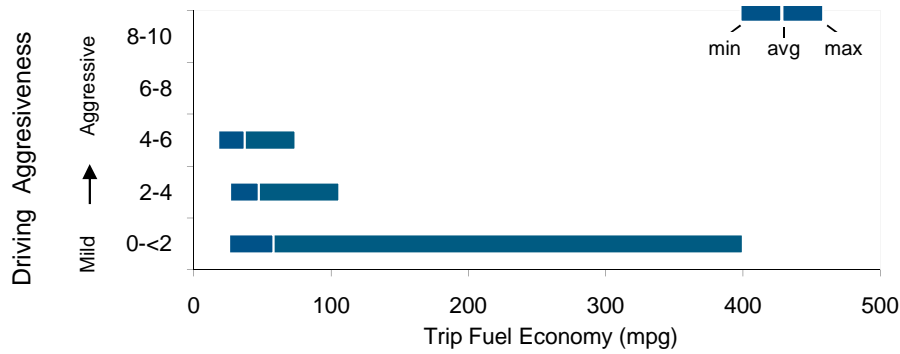
Trips in both Charge Depleting and Charge Sustaining (CD/CS) modes

Gasoline fuel economy (mpg)	55	52
DC electrical energy consumption (DC Wh/mi)	66	40
Percent of miles with internal combustion engine off	22%	4%
Average trip aggressiveness (on scale 0 - 10)	2.3	1.7
Average trip distance (mi)	8.7	39.9

Trips in Charge Sustaining (CS) mode

Gasoline fuel economy (mpg)	38	46
Percent of miles with internal combustion engine off	22%	4%
Average trip aggressiveness (on scale 0 - 10)	1.9	1.4
Average trip distance (mi)	2.4	35.2

Effect of Driving Aggressiveness on Fuel Economy This Month



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

