

North American PHEV Demonstration

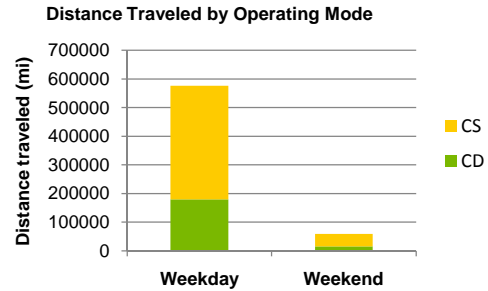
Vehicle Technologies Program

Charging and Driving Behavior Report for Hymotion Prius (Gridpoint data logger)

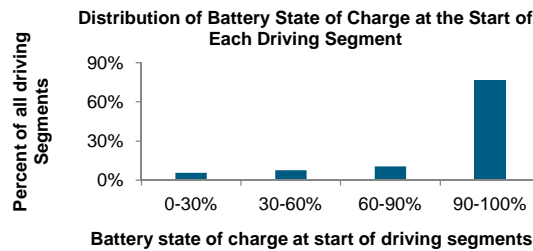
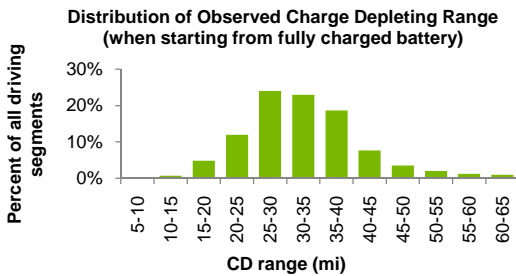
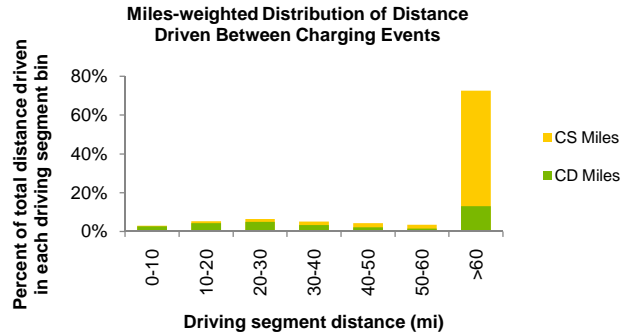
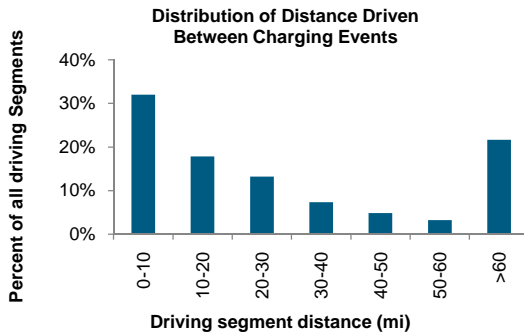
Fleet Type: Commercial-use
Number of vehicles: 153
Date range: Jan - Dec 2009

Charging rate: Level 1
Charge control: Uncontrolled
Battery Capacity: 5 kWh

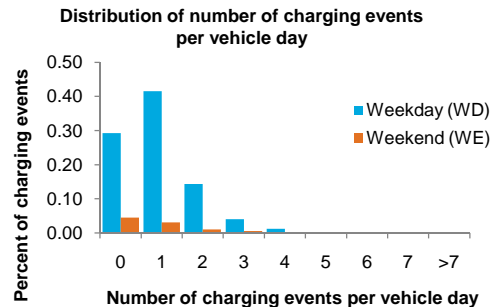
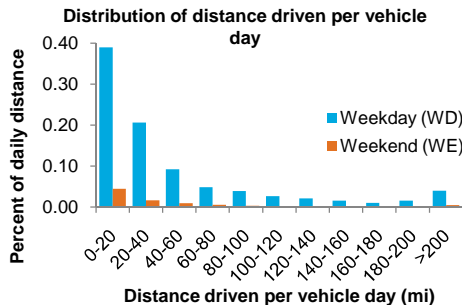
	Weekday	Weekend	Overall
Number of trips	61,134	5,309	66,443
Total distance driven (mi)	575,891	58,893	634,784
Number of charging events	12,902	1,461	14,363
Charging energy consumed (AC kWh)	32,253	3,478	35,731
Charge depleting (CD) distance driven (mi)	179,351	15,767	195,118
Percent of total distance	31%	27%	31%
Charge sustaining (CS) distance driven (mi)	396,540	43,127	439,667
Percent of total distance	69%	73%	69%



Driving segments between charging events ¹



Driving and charging per vehicle day	Weekday	Weekend	Overall
Average number of charging events per vehicle day ²	1.0	0.8	1.0
Average distance driven per vehicle day (mi) ²	48.2	47.8	48.2

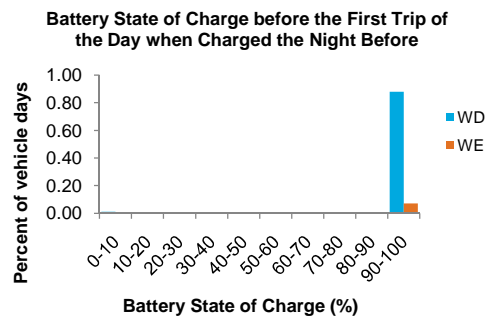
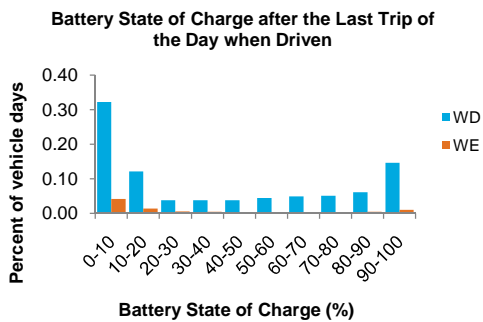
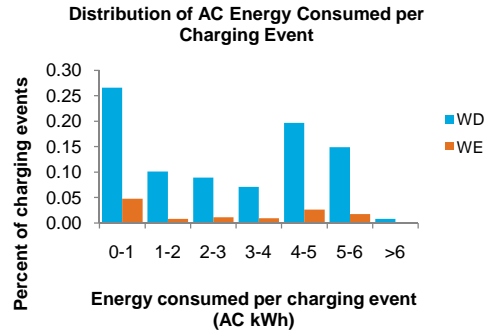
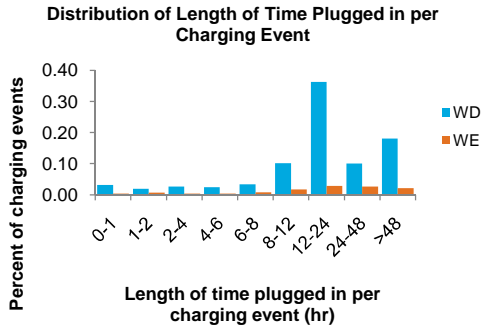


¹ A driving segment is defined as the combination of all trips between two consecutive charging events

² Considers only days when the vehicle was driven, not all calendar days

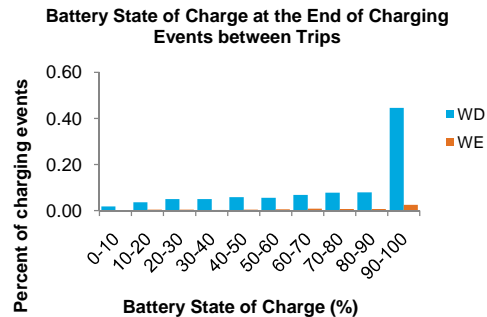
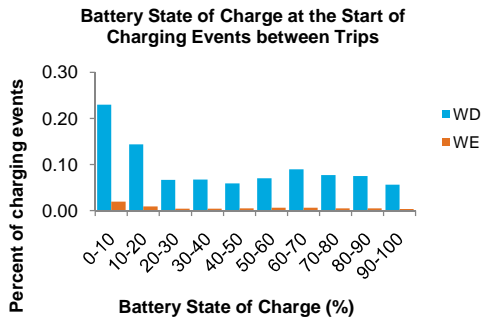
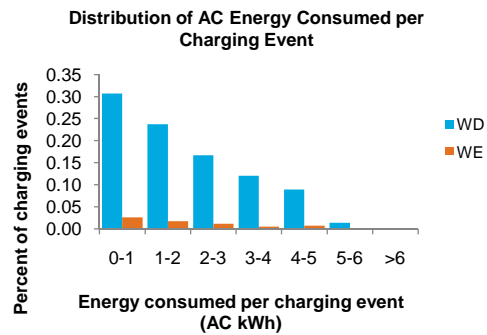
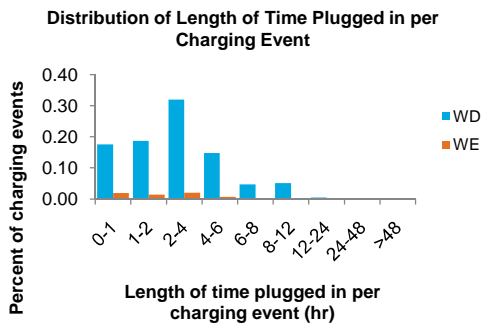
Charging events started after all trips in a day

	Weekday	Weekend	Overall
Number of charging events	8397	1140	9537
Percent of all charging events	58%	8%	66%
Charging energy consumed (AC kWh)	23564	2915	26479
Percent of all energy consumed	66%	8%	74%

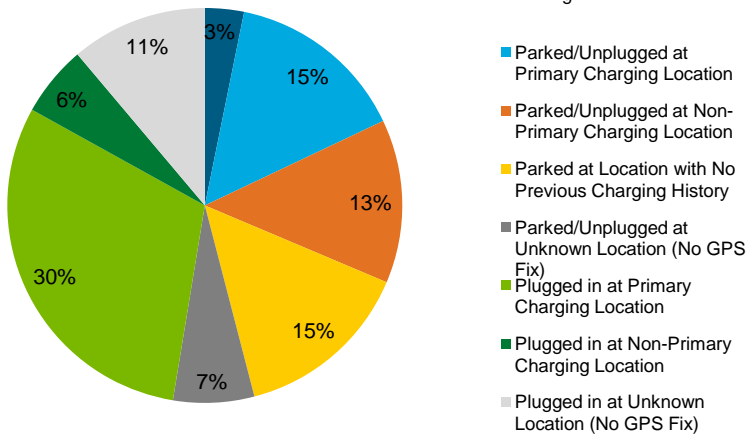


Charging events started between trips in a day

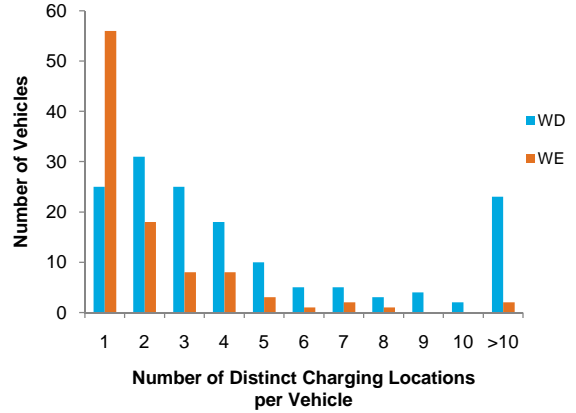
	Weekday	Weekend	Overall
Number of charging events	4505	321	4826
Percent of all charging events	32%	2%	34%
Charging energy consumed (AC kWh)	8689	563	9252
Percent of all energy consumed	24%	2%	26%



Percent of Time Driving, Plugged in, and Parked while Unplugged by Location



Distribution of Distinct Charging Locations per Vehicle



PHEV Charging Impact on the Electrical Grid

Grid impact was assessed by randomly sampling weeks during the reporting period. Data was sampled each week from a fixed number of vehicles which were driven during the week. Data was not necessarily sampled from the same vehicles each week.

Number of weeks randomly sampled from the reporting period:

6

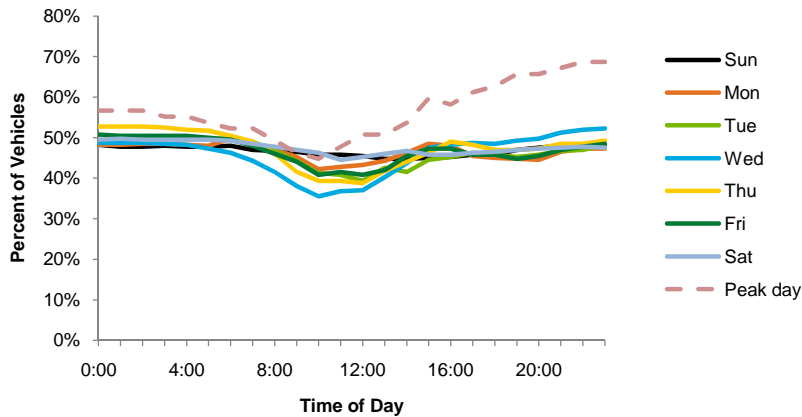
Number of vehicles sampled each week:

67

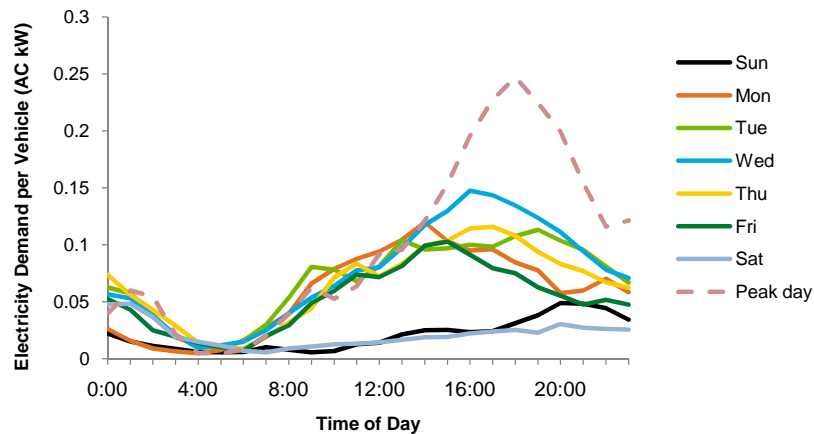
Total number of distinct vehicles included in the sample:

103

Average Percent of Vehicles Plugged-In ¹



Average Electricity Demand per Vehicle ²



¹ The peak day curve in this plot represents the percent of vehicles plugged-in on the calendar day with peak demand.

² The peak day demand curve represents the single calendar day which experienced the absolute peak power demand.