VEHICLE TECHNOLOGIES PROGRAM

ChargePoint [®]America Vehicle Charging Infrastructure Summary Report

Report through March 2013

Charging Unit - By Region	Residential	Private Commercia I	Public	Not Specified	Charging Units Installed to Date ¹	Number of Charging Events Performed ²	Electricity Consumed (AC MWh)
Boston Area (Massachusetts and Rhode Island)	34	10	161	-	205	20,801	173.3
D.C. Area (District of Colombia, Maryland, Virginia)	59	30	150	1	240	38,322	256.1
Florida	69	14	276	1	360	41,044	251.1
L.A. Area	585	11	263	4	863	290,310	2,091.0
Michigan	341	9	190	-	540	157,316	1,090.9
New York Area(Connecticut,New Jersey,New York)	102	73	176	5	356	74,036	561.5
Sacramento/San Francisco Area	546	82	525	19	1,172	308,070	2,245.8
Texas	74	8	253	-	335	43,029	286.6
Washington	19	-	127	-	146	24,321	163.1
Total	1,829	237	2,121	30	4,217	997,249	7,119.4

ChargePoint America Charging Unit Distribution

Project to Date



¹ Includes all charging units that were in use by the end of the reporting period

² A charging event is defined as the period when a vehicle is connected to a charging unit, during which period some power is transferred





Report period: January 2013 through March 2013 Region: All

Charging Unit Usage - By Type	Residential	Private Commercial	Public	Not Specified	Total
Number of charging units ¹	1,650	160	1,842	16	3,668
Number of charging events ²	135,925	6,390	74,601	472	217,388
Electricity consumed (AC MWh)	1,011.16	55.08	560.20	3.46	1,629.90
Percent of time with a vehicle connected	48%	26%	10%	19%	29%
Percent of time with a vehicle drawing power	9%	5%	4%	4%	7%





Specified Percentage of Time with a vehicle connected

Percentage of Time with a vehicle drawing power

Charging Availability: Range of Charging Units with a Vehicle Connected versus Time of Day Percentage





Max percentage of charging units connected across all days

Public

Not

- Inner-quartile range of charging units connected across all days
- Median percentage of charging units connected across all days

Min percentage of charging units connected across all days





¹ Includes all charging units that were in use during the reporting period and have reported data to the INL

² A charging event is defined as the period when a vehicle is connected to a charging unit, during which period power is transferred





Residential Electric Vehicle Supply Equipment (EVSE)

Report period: January 2013 through March 2013 Region: All

EVSE Usage	Weekday	Weekend	Overall
Number of charging events ²	99,064	36,861	135,925
Charging energy consumed (AC MWh)	771.1	240.1	1,011.2
Percent of time with a vehicle connected to EVSE	45.7%	55.0%	48.3%
Percent of time with a vehicle drawing power from EVSE	9.7%	7.6%	9.2%
Average number of charging events started per EVSE per day	0.94	0.87	0.92

Charging Availability: Range of Charging Units with a Vehicle Connected versus Time of Day Percentage



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day



¹ Includes all charging units that were in use during the reporting period and have reported data to the INL

² A charging event is defined as the period when a vehicle is connected to a charging unit, during which period power is transferred

Note: Weekends start at 6:00am on Saturday and end 6:00am Monday local time





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Residential Electric Vehicle Supply Equipment (EVSE)

Report period: January 2013 through March 2013 Region: All

Individual Charging Event Statistics	Weekday	Weekend	Overall
Average length of time with a vehicle connected per charging event (hr)	12.5	13.0	12.6
Average length of time with a vehicle drawing power per charging event (hr)	2.5	2.1	2.4
Average energy consumed per charging event (AC KWh)	7.78	6.51	7.44



Distribution of Length of Time with a Vehicle Drawing Power per Charging Event



Length of Time With a Vehicle Drawing Power Per Charging Event (Hr)

Distribution of AC Energy Consumed per Charging Event



¹ Includes all charging units that were in use during the reporting period and have reported data to the INL

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Commercial Electric Vehicle Supply Equipment (EVSE)

Report period: January 2013 through March 2013 Region: All

EVSE Usage	Weekday	Weekend	Overall
Number of charging events ²	5,808	582	6,390
Charging energy consumed (AC MWh)	50.4	4.7	55.1
Percent of time with a vehicle connected to EVSE	27.7%	23.4%	26.4%
Percent of time with a vehicle drawing power from EVSE	6.9%	1.5%	5.4%
Average number of charging events started per EVSE per day	0.59	0.15	0.46

Charging Availability: Range of Charging Units with a Vehicle Connected versus Time of Day Percentage



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day



¹ Includes all charging units that were in use during the reporting period and have reported data to the INL

² A charging event is defined as the period when a vehicle is connected to a charging unit, during which period power is transferred

Note: Weekends start at 6:00am on Saturday and end 6:00am Monday local time





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Commercial Electric Vehicle Supply Equipment (EVSE)

Report period: January 2013 through March 2013 Region: All

Individual Charging Event Statistics	Weekday	Weekend	Overall
Average length of time with a vehicle connected per charging event (hr)	13.9	11.7	13.7
Average length of time with a vehicle drawing power per charging event (hr)	2.8	2.5	2.8
Average energy consumed per charging event (AC KWh)	8.68	8.00	8.62



Distribution of Length of Time with a Vehicle Drawing Power per Charging Event



Length of Time With a Vehicle Drawing Power Per Charging Event (Hr)

Distribution of AC Energy Consumed per Charging Event



¹ Includes all charging units that were in use during the reporting period and have reported data to the INL

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Note: Weekends start at 6:00am on Saturday and end 6:00am Monday local time





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Public Electric Vehicle Supply Equipment (EVSE)

Report period: January 2013 through March 2013 Region: All

EVSE Usage	Weekday	Weekend	Overall
Number of charging events ²	61,264	13,337	74,601
Charging energy consumed (AC MWh)	468.3	91.9	560.2
Percent of time with a vehicle connected to EVSE	11.9%	6.6%	10.4%
Percent of time with a vehicle drawing power from EVSE	5.2%	2.4%	4.4%
Average number of charging events started per EVSE per day	0.54	0.29	0.47

Charging Availability: Range of Charging Units with a Vehicle Connected versus Time of Day Percentage



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day



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² A charging event is defined as the period when a vehicle is connected to a charging unit, during which period power is transferred

Note: Weekends start at 6:00am on Saturday and end 6:00am Monday local time





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Public Electric Vehicle Supply Equipment (EVSE)

Distribution of Length of Time with a

Report period: January 2013 through March 2013 Region: All

Individual Charging Event Statistics	Weekday	Weekend	Overall
Average length of time with a vehicle connected per charging event (hr)	5.5	4.5	5.3
Average length of time with a vehicle drawing power per charging event (hr)	2.3	2.0	2.3
Average energy consumed per charging event (AC KWh)	7.65	6.89	7.51



Distribution of Length of Time with a Vehicle Drawing Power per Charging Event



Length of Time With a Vehicle Drawing Power Per Charging Event (Hr)

Distribution of AC Energy Consumed per Charging Event



¹ Includes all charging units that were in use during the reporting period and have reported data to the INL

² A charging event is defined as the period when a vehicle is connected to a charging unit, during which period power is transferred

Note: Weekends start at 6:00am on Saturday and end 6:00am Monday local time



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Report period: January 2013 through March 2013 Region: Boston Area (Massachusetts and Rhode Island)

Private Not Charging Unit Usage - By Type Residential Public Specified Commercial Total Number of charging units¹ 31 7 134 0 172 Number of charging events² 2.372 343 3.901 0 6,616 Electricity consumed (AC MWh) 22.73 2.90 29.81 0.00 55.45 Percent of time with a vehicle connected 14% 48% 23% 0% 21% Percent of time with a vehicle drawing power 10% 6% 4% 0% 5%





Charging Unit Utilization



Charging Availability: Range of Charging Units with a Vehicle Connected versus Time of Day Percentage







Charging Demand: Range of Aggregate Electricity Demand versus Time of Day



¹ Includes all charging units that were in use during the reporting period and have reported data to the INL

² A charging event is defined as the period when a vehicle is connected to a charging unit, during which period power is transferred





Report period: January 2013 through March 2013 Region: D.C. Area (District of Colombia, Maryland, Virginia)

Private Not Charging Unit Usage - By Type Residential Public Specified Commercial Total Number of charging units¹ 53 21 128 1 203 Number of charging events² 4,144 601 3.631 80 8,456 Electricity consumed (AC MWh) 29.88 4.77 24.03 0.58 59.26 Percent of time with a vehicle connected 54% 11% 25% 62% 25% Percent of time with a vehicle drawing power 9% 4% 3% 10% 5%









Percentage of Time with a vehicle drawing power

Charging Availability: Range of Charging Units with a Vehicle Connected versus Time of Day Percentage







Min percentage of charging units connected across all days

Charging Demand: Range of Aggregate Electricity Demand versus Time of Day



¹ Includes all charging units that were in use during the reporting period and have reported data to the INL

² A charging event is defined as the period when a vehicle is connected to a charging unit, during which period power is transferred





Report period: January 2013 through March 2013 Region: Florida

Charging Unit Usage - By Type	Residential	Private Commercial	Public	Not Specified	Total
Number of charging units ¹	60	9	239	1	309
Number of charging events ²	5,107	283	4,751	35	10,176
Electricity consumed (AC MWh)	31.90	2.59	29.77	0.32	64.57
Percent of time with a vehicle connected	48%	11%	3%	7%	12%
Percent of time with a vehicle drawing power	8%	4%	2%	5%	3%









Percentage of Time with a vehicle drawing power

Charging Availability: Range of Charging Units with a Vehicle Connected versus Time of Day Percentage







Charging Demand: Range of Aggregate Electricity Demand versus Time of Day



¹ Includes all charging units that were in use during the reporting period and have reported data to the INL

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Report period: January 2013 through March 2013

Region: L.A. Area

Charging Unit Usage - By Type	Residential	Private Commercial	Public	Not Specified	Total
Number of charging units ¹	529	9	248	3	789
Number of charging events ²	43,243	515	16,297	87	60,142
Electricity consumed (AC MWh)	322.81	4.32	109.21	0.54	436.87
Percent of time with a vehicle connected	45%	11%	10%	22%	34%
Percent of time with a vehicle drawing power	9%	7%	6%	3%	8%

-0 %

74 %

Not Specified





Percentage of Time with a vehicle drawing power

Charging Availability: Range of Charging Units with a Vehicle Connected versus Time of Day Percentage





Max percentage of charging units connected across all days Inner-quartile range of charging units connected across all days

Median percentage of charging units connected across all days

Min percentage of charging units connected across all days

Charging Demand: Range of Aggregate Electricity Demand versus Time of Day



¹ Includes all charging units that were in use during the reporting period and have reported data to the INL

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Report period: January 2013 through March 2013 Region: Michigan

Charging Unit Usage - By Type	Residential	Private Commercial	Public	Not Specified	Total
Number of charging units ¹	314	5	162	0	481
Number of charging events ²	26,415	378	4,697	0	31,490
Electricity consumed (AC MWh)	199.42	2.75	34.33	0.00	236.50
Percent of time with a vehicle connected	54%	22%	7%	0%	38%
Percent of time with a vehicle drawing power	10%	9%	3%	0%	8%







Percentage of Time with a vehicle connected

Charging Availability: Range of Charging Units with a Vehicle Connected versus Time of Day Percentage







Charging Demand: Range of Aggregate Electricity Demand versus Time of Day



¹ Includes all charging units that were in use during the reporting period and have reported data to the INL

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Report period: January 2013 through March 2013

Region: New York Area(Connecticut, New Jersey, New York)

Charging Unit Usage - By Type	Residential	Private Commercial	Public	Not Specified	Total
Number of charging units ¹	94	49	136	1	280
Number of charging events ²	7,688	1,906	3,040	16	12,650
Electricity consumed (AC MWh)	58.95	18.78	30.49	0.14	108.36
Percent of time with a vehicle connected	48%	36%	18%	11%	31%
Percent of time with a vehicle drawing power	9%	6%	3%	2%	6%









Percentage of Time with a vehicle drawing power

Charging Availability: Range of Charging Units with a Vehicle Connected versus Time of Day Percentage





Max percentage of charging units connected across all days Inner-quartile range of charging units connected across all days Median percentage of charging units connected across all days Min percentage of charging units connected across all days

Charging Demand: Range of Aggregate Electricity Demand versus Time of Day



¹ Includes all charging units that were in use during the reporting period and have reported data to the INL

² A charging event is defined as the period when a vehicle is connected to a charging unit, during which period power is transferred





Report period: January 2013 through March 2013

Region: Sacramento/San Francisco Area

Charging Unit Usage - By Type	Residential	Private Commercial	Public	Not Specified	Total
Number of charging units ¹	489	52	483	10	1,034
Number of charging events ²	39,714	2,026	30,807	254	72,801
Electricity consumed (AC MWh)	297.68	16.04	249.25	1.88	564.86
Percent of time with a vehicle connected	46%	24%	16%	14%	31%
Percent of time with a vehicle drawing power	9%	5%	7%	4%	8%





Charging Unit Utilization



Charging Availability: Range of Charging Units with a Vehicle Connected versus Time of Day Percentage





Max percentage of charging units connected across all days Inner-quartile range of charging

units connected across all days

Median percentage of charging units connected across all days

Min percentage of charging units connected across all days

Charging Demand: Range of Aggregate Electricity Demand versus Time of Day



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Report period: January 2013 through March 2013 Region: Texas

Charging Unit Usage - By Type	Residential	Private Commercial	Public	Not Specified	Total
Number of charging units ¹	64	8	201	0	273
Number of charging events ²	5,664	338	3,343	0	9,345
Electricity consumed (AC MWh)	36.64	2.94	22.53	0.00	62.11
Percent of time with a vehicle connected	54%	24%	3%	0%	16%
Percent of time with a vehicle drawing power	9%	6%	2%	0%	3%







Charging Unit Utilization

60%



Percentage of Time with a vehicle drawing power

Charging Availability: Range of Charging Units with a Vehicle Connected versus Time of Day Percentage







Min percentage of charging units connected across all days





¹ Includes all charging units that were in use during the reporting period and have reported data to the INL

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Report period: January 2013 through March 2013 Region: Washington

Charging Unit Usage - By Type	Residential	Private Commercial	Public	Not Specified	Total
Number of charging units ¹	16	0	111	0	127
Number of charging events ²	1,578	0	4,134	0	5,712
Electricity consumed (AC MWh)	11.15	0.00	30.78	0.00	41.93
Percent of time with a vehicle connected	59%	0%	7%	0%	14%
Percent of time with a vehicle drawing power	11%	0%	4%	0%	5%





Percentage of Time with a vehicle drawing power

Charging Availability: Range of Charging Units with a Vehicle Connected versus Time of Day Percentage

Max percentage of charging units connected across all days Inner-quartile range of charging units connected across all days Median percentage of charging units connected across all days

Min percentage of charging units connected across all days

Charging Demand: Range of Aggregate Electricity Demand versus Time of Day

¹ Includes all charging units that were in use during the reporting period and have reported data to the INL

² A charging event is defined as the period when a vehicle is connected to a charging unit, during which period power is transferred

