EV Project Electric Vehicle Charging Infrastructure Summary Report

Region: ALL

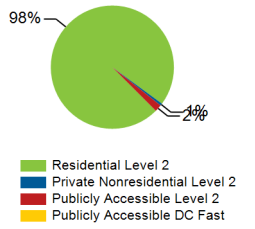
Report period: January 2011 through December 2011

Number of EV Project vehicles in region: 3126

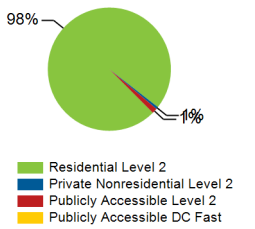
Charging Unit Usage

	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	3,113	52	453	0	3,618
Number of charging events[2]	277,539	1,704	5,185	0	284,428
Electricity consumed (AC MWh)	2,367.09	14.73	32.43	0.00	2,414.25
Percent of time with a vehicle connected to charging unit	28%	10%	4%	0%	26%
Percent of time with a vehicle drawing power from charging unit	6%	3%	1%	0%	5%

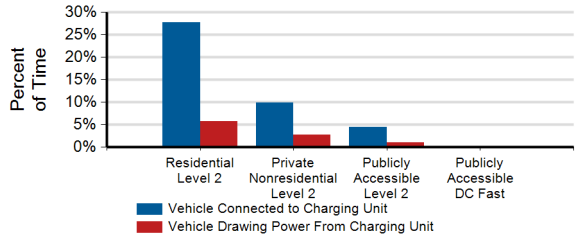
Number of Charge Events



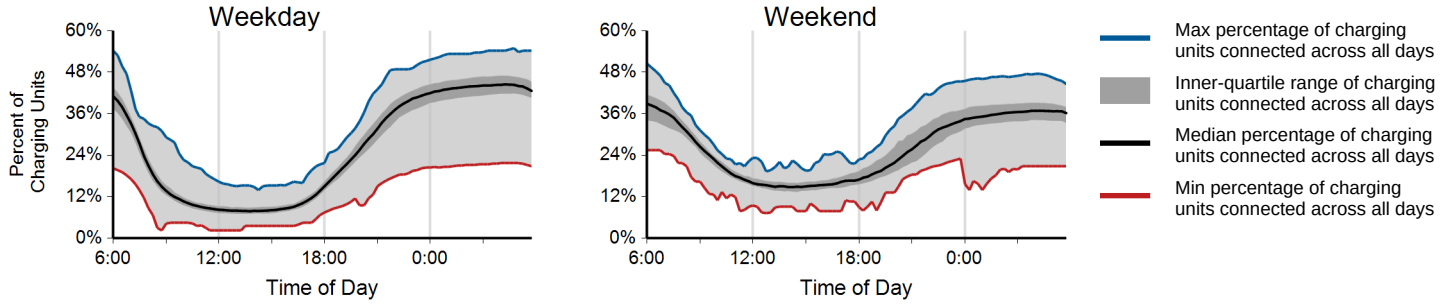
Electricity Consumed



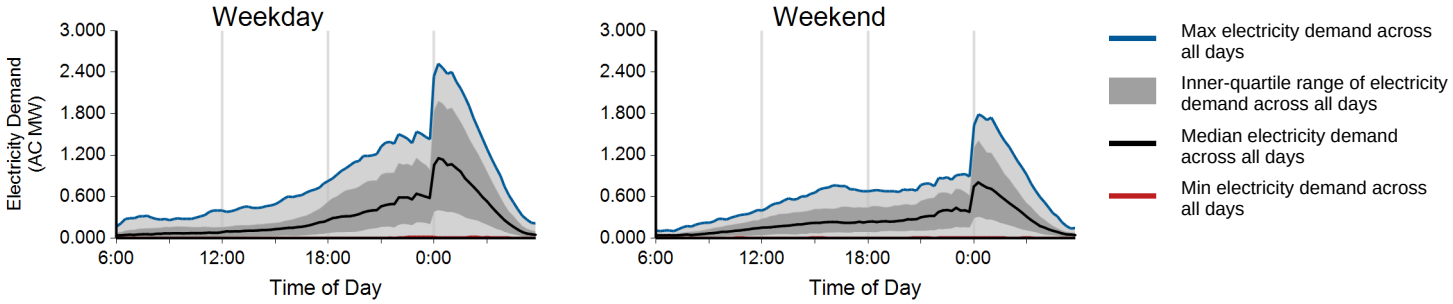
Charging Unit Utilization



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



[1] Includes charging units that reported at least one use during the reporting period. Some residential charging units are excluded due to incomplete data.

[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

[3] Considers the connection status of all charging units every minute

[4] Based on 15 minute rolling average power output from all charging units

Note: throughout this report, weekdays are defined as the period from Monday 6:00 AM until Saturday 6:00 AM. The weekend is defined as the period from Saturday 6:00 AM until Monday 6:00 AM.

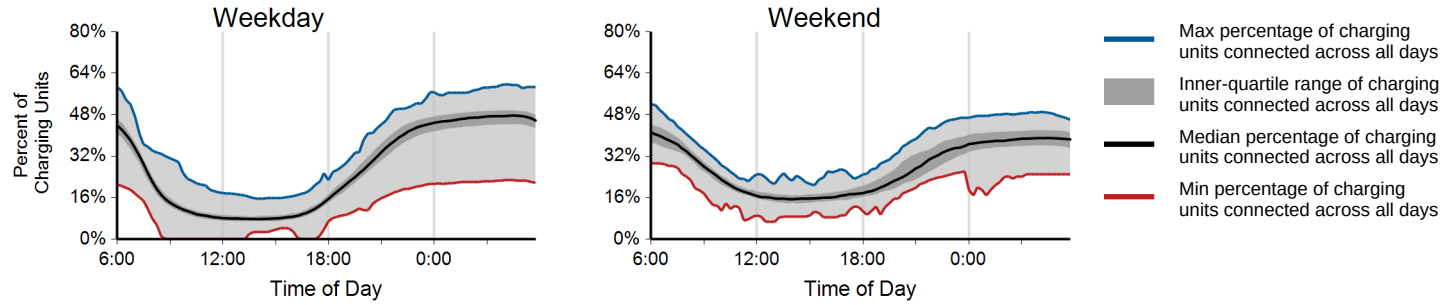
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: ALL

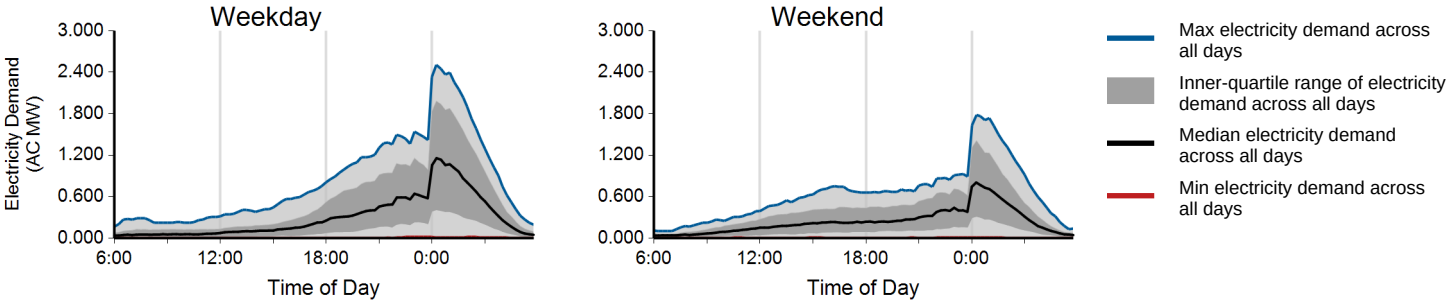
Report period: January 2011 through December 2011

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	203,511	74,028	277,539
Electricity consumed (AC MWh)	1,802.51	564.58	2,367.09
Percent of time with a vehicle connected to EVSE	27%	28%	28%
Percent of time with a vehicle drawing power from EVSE	6%	5%	6%
Average number of charging events started per EVSE per day	0.61	0.56	0.60

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

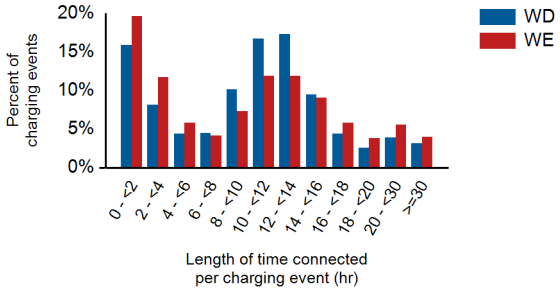
Region: ALL

Report period: January 2011 through December 2011

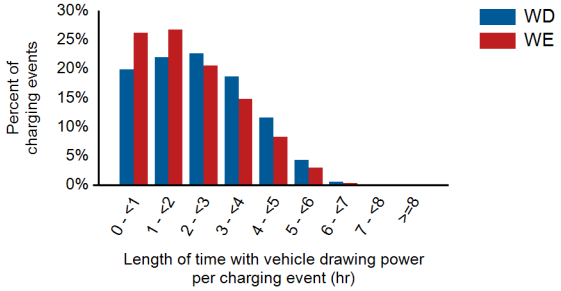
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	99%	1%	0%
Percent of electricity consumed	99%	1%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	11.3	10.9	11.2
Average length of time with vehicle drawing power per charging event (hr)	2.5	2.1	2.4
Average electricity consumed per charging event (AC kWh)	8.9	7.6	8.5

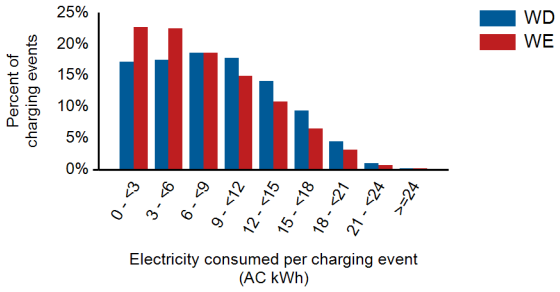
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



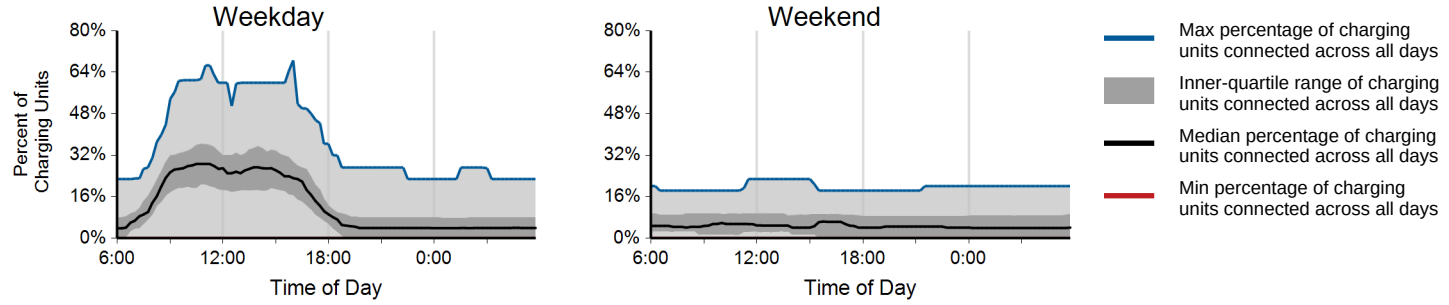
Private Nonresidential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: ALL

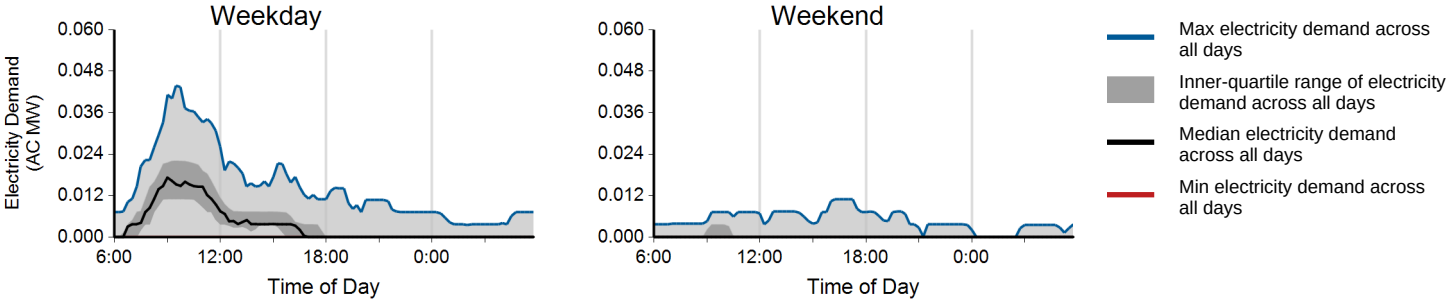
Report period: January 2011 through December 2011

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	1,609	95	1,704
Electricity consumed (AC MWh)	13.91	0.82	14.73
Percent of time with a vehicle connected to EVSE	12%	5%	10%
Percent of time with a vehicle drawing power from EVSE	4%	1%	3%
Average number of charging events started per EVSE per day	0.37	0.05	0.28

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Private Nonresidential Level 2 Electric Vehicle Supply Equipment (EVSE)

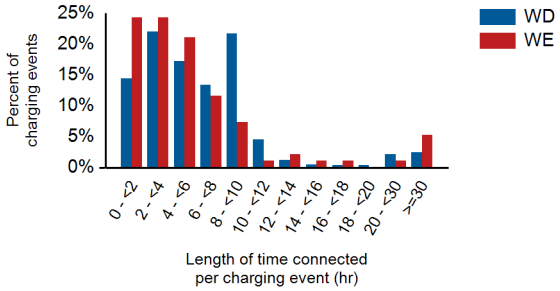
Region: ALL

Report period: January 2011 through December 2011

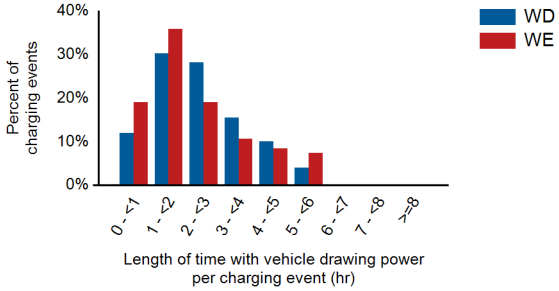
Vehicles Charged	Car sharing fleet [1]	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	3%	30%	0%	66%
Percent of electricity consumed	4%	32%	0%	64%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	8.5	9.9	8.5
Average length of time with vehicle drawing power per charging event (hr)	2.4	2.3	2.4
Average electricity consumed per charging event (AC kWh)	8.7	8.0	8.6

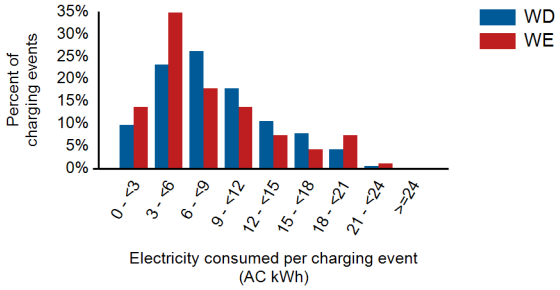
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



[1] Car sharing fleets in the Oregon, Philadelphia, San Diego, and San Francisco regions use private nonresidential EV Project charging units to charge their grid-connected electric drive vehicles. The use of these charging units by car sharing fleet vehicles is included in this report.

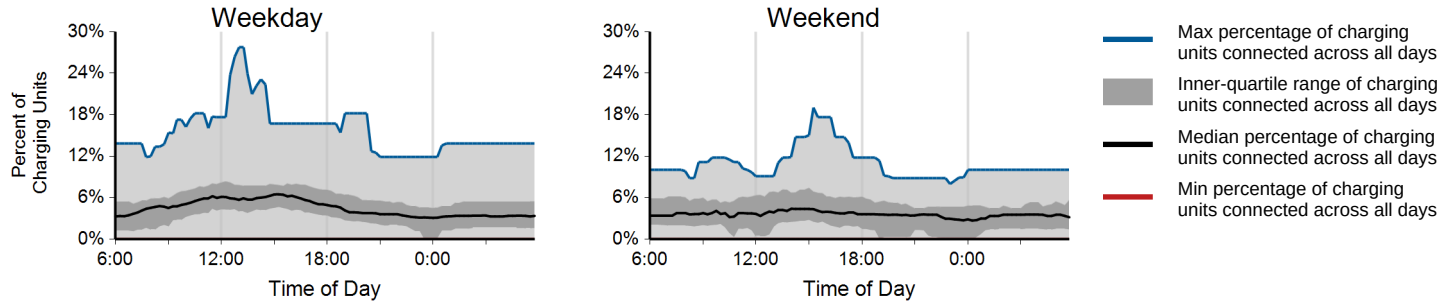
Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: ALL

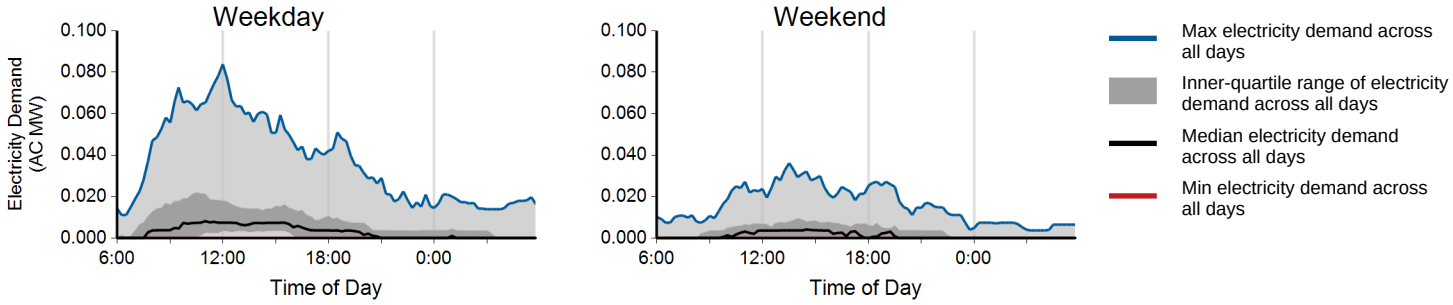
Report period: January 2011 through December 2011

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	4,241	944	5,185
Electricity consumed (AC MWh)	27.48	4.95	32.42
Percent of time with a vehicle connected to EVSE	5%	4%	4%
Percent of time with a vehicle drawing power from EVSE	1%	1%	1%
Average number of charging events started per EVSE per day	0.16	0.09	0.14

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

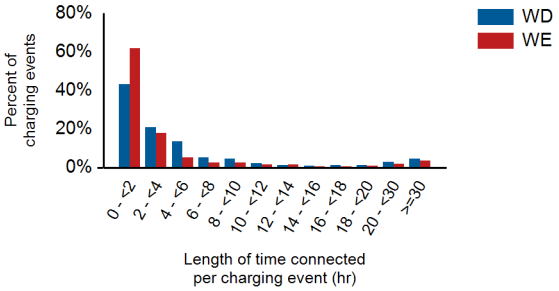
Region: ALL

Report period: January 2011 through December 2011

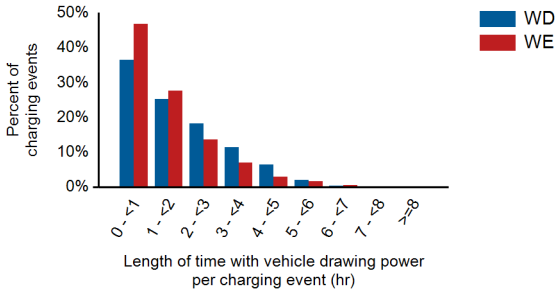
Vehicles Charged	Car sharing fleet [1]	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	4%	52%	1%	43%
Percent of electricity consumed	6%	50%	1%	43%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	8.4	5.5	7.9
Average length of time with vehicle drawing power per charging event (hr)	1.8	1.5	1.8
Average electricity consumed per charging event (AC kWh)	6.5	5.2	6.3

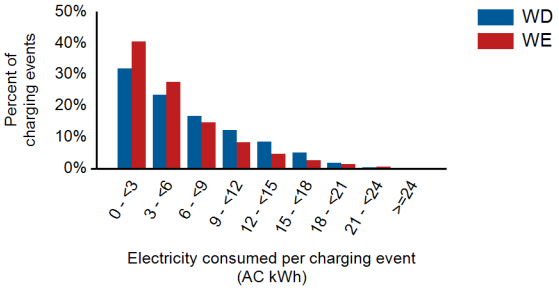
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



[1] Car sharing fleets in the Oregon, Philadelphia, San Diego, and San Francisco regions use publicly accessible EV Project charging units to charge their grid-connected electric drive vehicles. The use of these charging units by car sharing fleet vehicles is included in this report.

EV Project Electric Vehicle Charging Infrastructure Summary Report

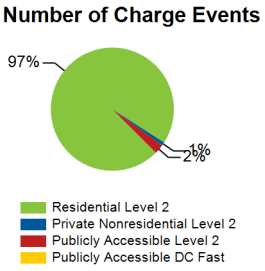
Region: Phoenix, AZ Metropolitan Area

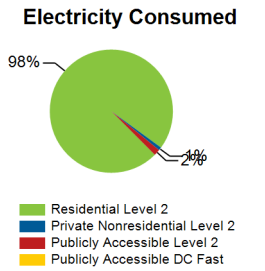
Report period: January 2011 through December 2011

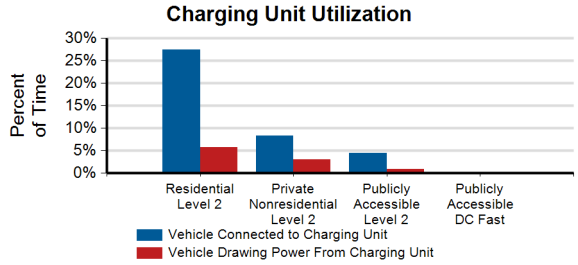
Number of EV Project vehicles in region: 169

Charging Unit Usage

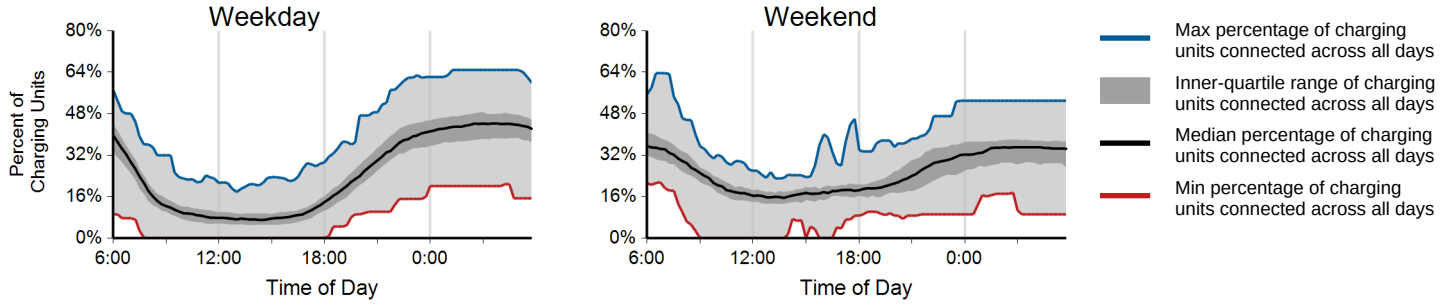
	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	171	4	40	0	215
Number of charging events[2]	18,584	177	477	0	19,238
Electricity consumed (AC MWh)	144.42	1.20	2.41	0.00	148.03
Percent of time with a vehicle connected to charging unit	27%	8%	4%	0%	25%
Percent of time with a vehicle drawing power from charging unit	6%	3%	1%	0%	5%



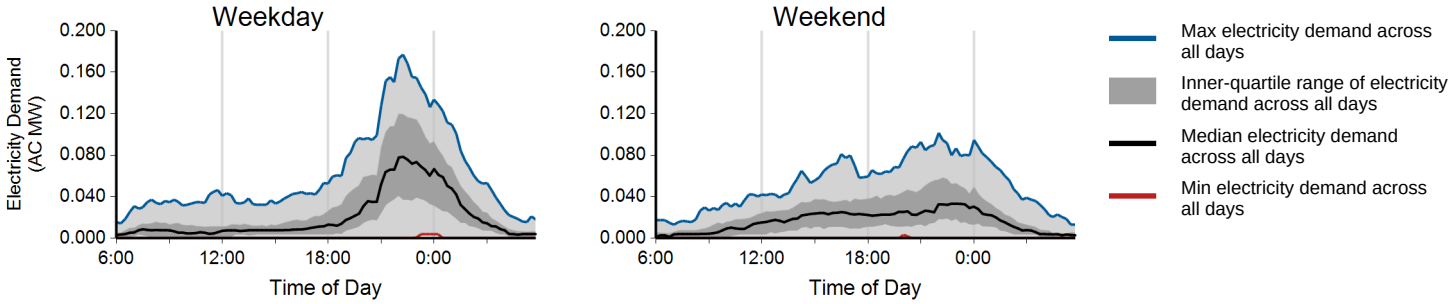




Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



[1] Includes charging units that reported at least one use during the reporting period. Some residential charging units are excluded due to incomplete data.

[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

[3] Considers the connection status of all charging units every minute

[4] Based on 15 minute rolling average power output from all charging units

Note: throughout this report, weekdays are defined as the period from Monday 6:00 AM until Saturday 6:00 AM. The weekend is defined as the period from Saturday 6:00 AM until Monday 6:00 AM.

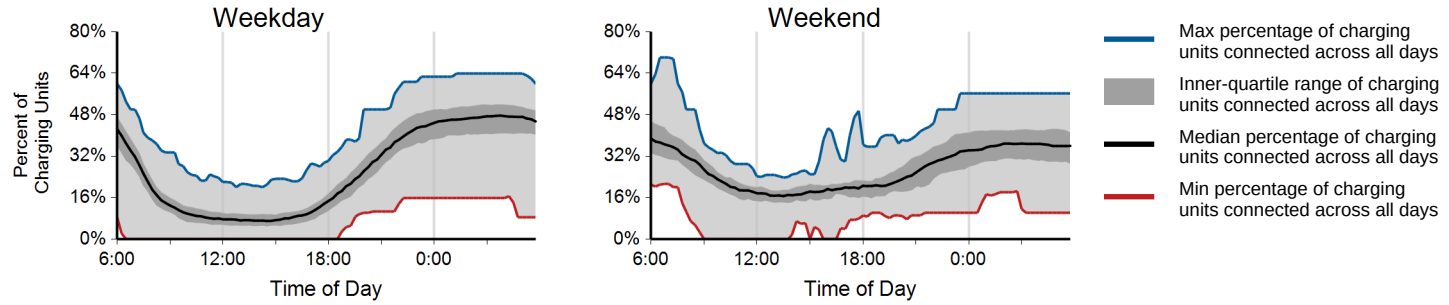
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Phoenix, AZ Metropolitan Area

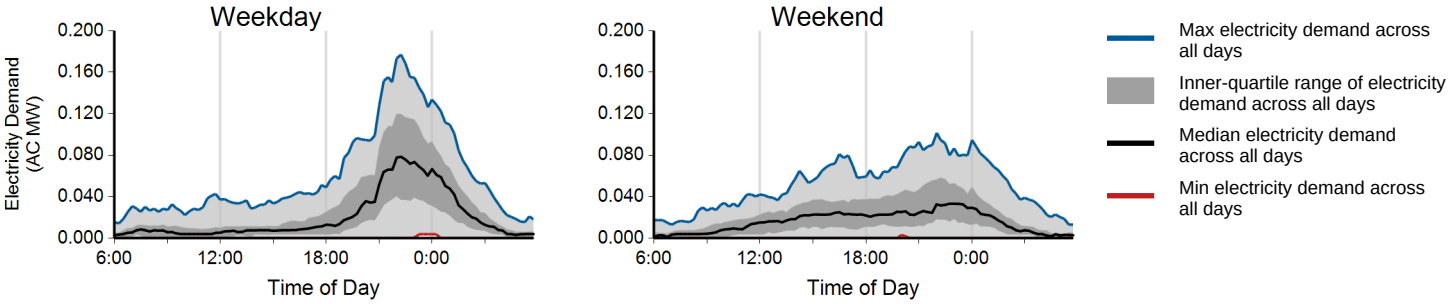
Report period: January 2011 through December 2011

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	13,327	5,257	18,584
Electricity consumed (AC MWh)	107.76	36.65	144.42
Percent of time with a vehicle connected to EVSE	27%	28%	27%
Percent of time with a vehicle drawing power from EVSE	6%	5%	6%
Average number of charging events started per EVSE per day	0.65	0.65	0.65

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

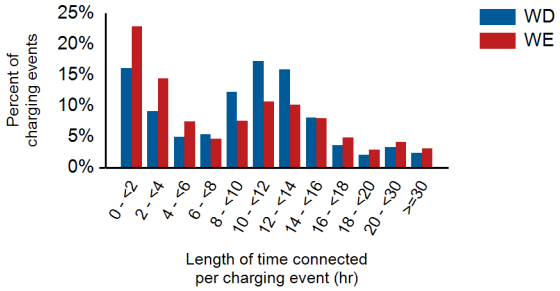
Region: Phoenix, AZ Metropolitan Area

Report period: January 2011 through December 2011

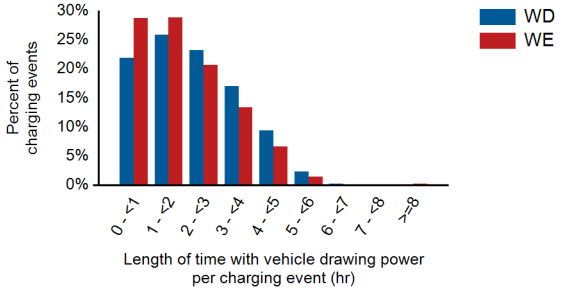
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	100%	0%	0%
Percent of electricity consumed	100%	0%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	10.4	9.5	10.1
Average length of time with vehicle drawing power per charging event (hr)	2.2	1.9	2.2
Average electricity consumed per charging event (AC kWh)	8.1	6.9	7.8

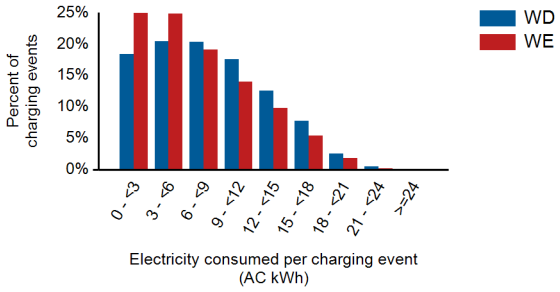
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

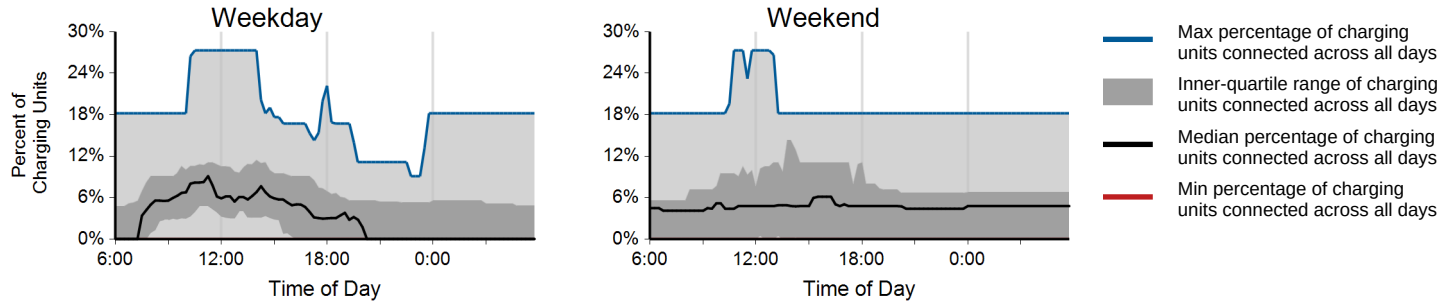
Region: Phoenix, AZ Metropolitan Area

Report period: January 2011 through December 2011

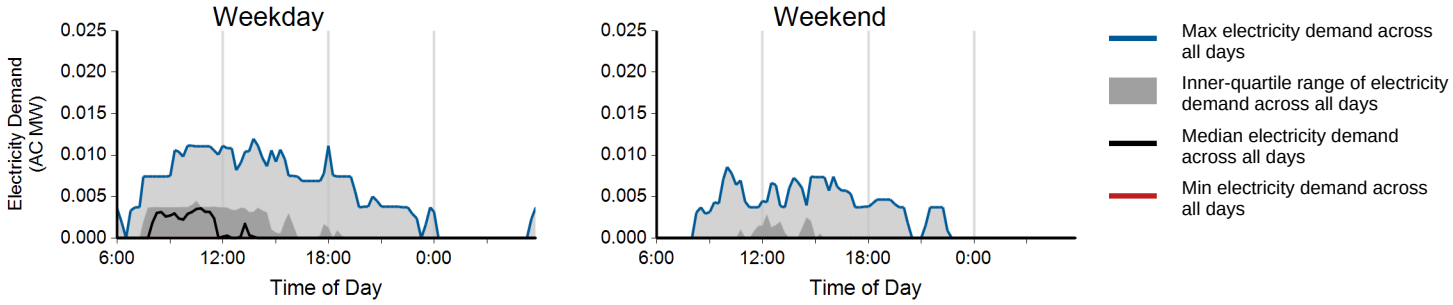
EVSE Usage

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	402	75	477
Electricity consumed (AC MWh)	2.07	0.34	2.41
Percent of time with a vehicle connected to EVSE	4%	4%	4%
Percent of time with a vehicle drawing power from EVSE	1%	0%	1%
Average number of charging events started per EVSE per day	0.19	0.09	0.16

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

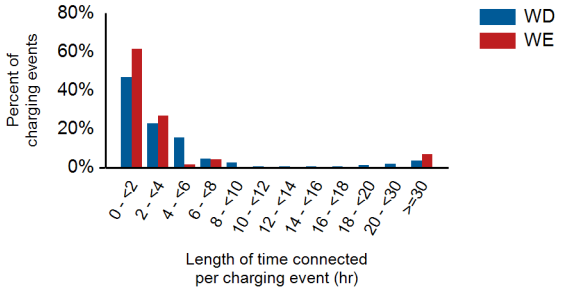
Region: Phoenix, AZ Metropolitan Area

Report period: January 2011 through December 2011

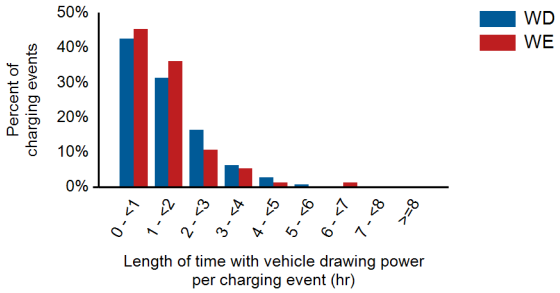
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	42%	0%	58%
Percent of electricity consumed	43%	0%	57%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	6.8	6.4	6.8
Average length of time with vehicle drawing power per charging event (hr)	1.5	1.3	1.5
Average electricity consumed per charging event (AC kWh)	5.1	4.6	5.1

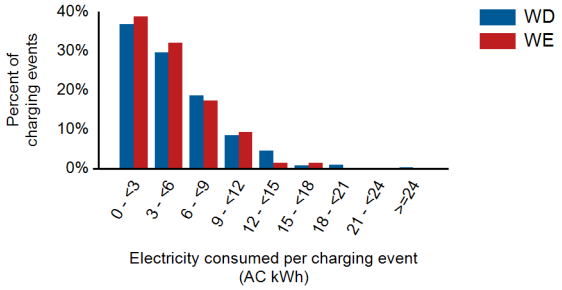
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



EV Project Electric Vehicle Charging Infrastructure Summary Report

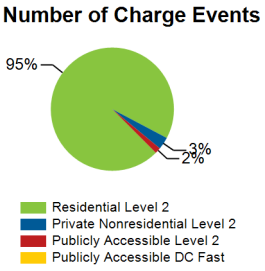
Region: Tucson, AZ Metropolitan Area

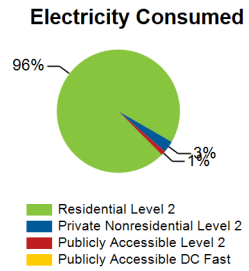
Report period: January 2011 through December 2011

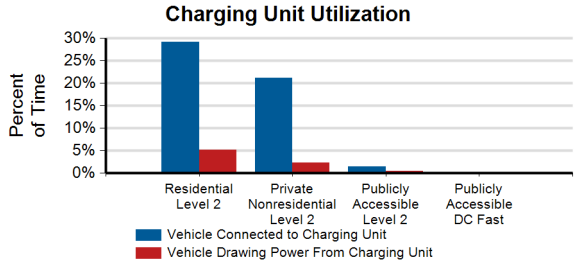
Number of EV Project vehicles in region: 60

Charging Unit Usage

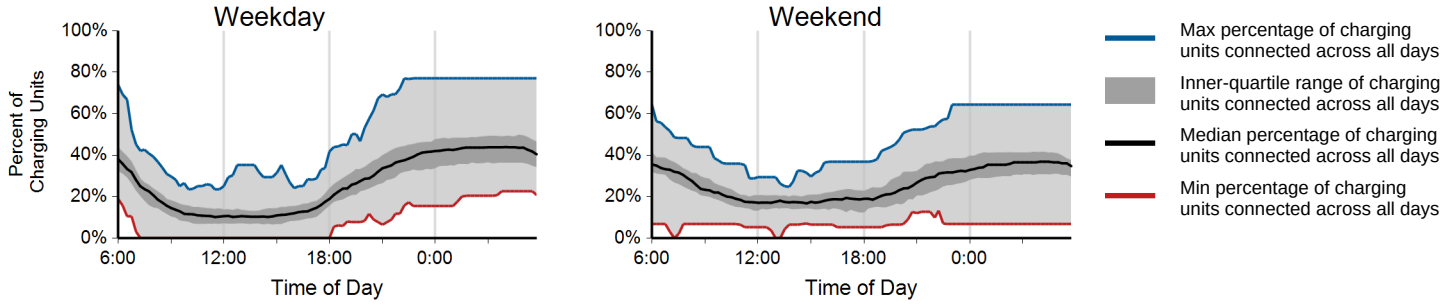
	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	59	4	15	0	78
Number of charging events[2]	6,465	220	104	0	6,789
Electricity consumed (AC MWh)	47.30	1.49	0.58	0.00	49.37
Percent of time with a vehicle connected to charging unit	29%	21%	1%	0%	26%
Percent of time with a vehicle drawing power from charging unit	5%	2%	0%	0%	5%



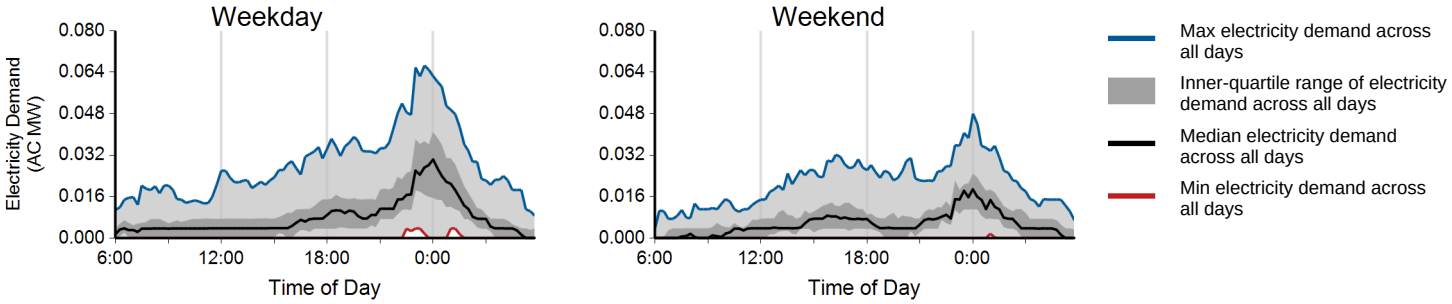




Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



[1] Includes charging units that reported at least one use during the reporting period. Some residential charging units are excluded due to incomplete data.

[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

[3] Considers the connection status of all charging units every minute

[4] Based on 15 minute rolling average power output from all charging units

Note: throughout this report, weekdays are defined as the period from Monday 6:00 AM until Saturday 6:00 AM. The weekend is defined as the period from Saturday 6:00 AM until Monday 6:00 AM.

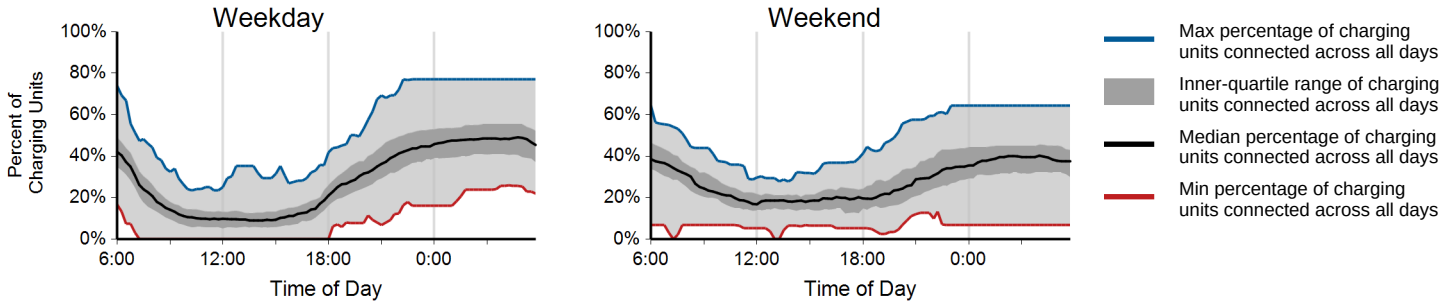
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Tucson, AZ Metropolitan Area

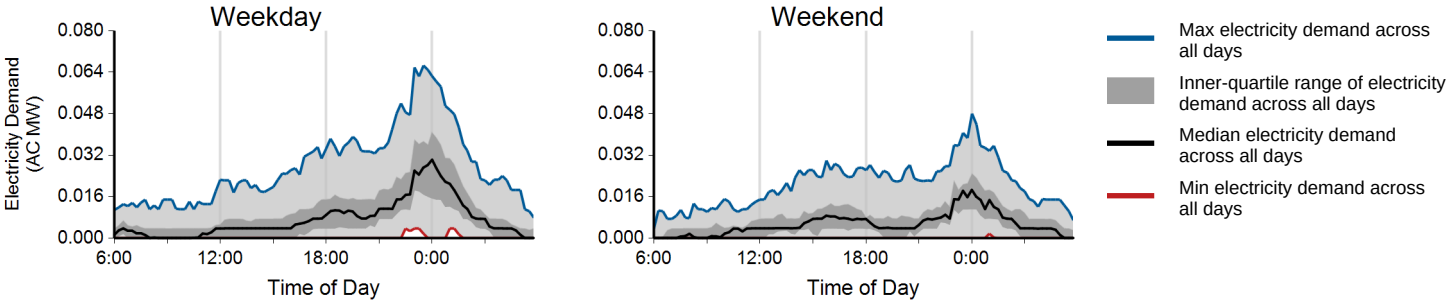
Report period: January 2011 through December 2011

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	4,804	1,661	6,465
Electricity consumed (AC MWh)	36.55	10.75	47.30
Percent of time with a vehicle connected to EVSE	29%	30%	29%
Percent of time with a vehicle drawing power from EVSE	6%	4%	5%
Average number of charging events started per EVSE per day	0.66	0.57	0.63

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

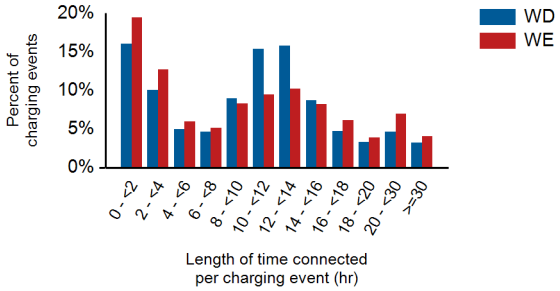
Region: Tucson, AZ Metropolitan Area

Report period: January 2011 through December 2011

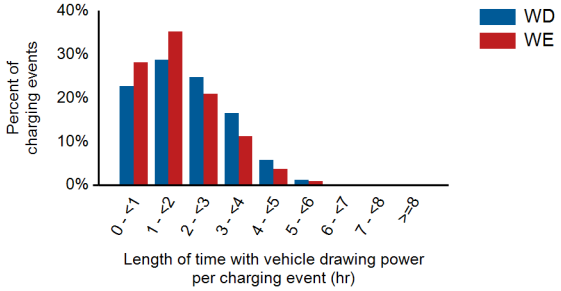
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	100%	0%	0%
Percent of electricity consumed	100%	0%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	11.2	11.1	11.2
Average length of time with vehicle drawing power per charging event (hr)	2.1	1.8	2.0
Average electricity consumed per charging event (AC kWh)	7.6	6.4	7.3

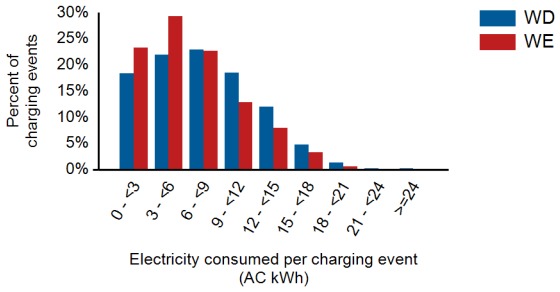
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

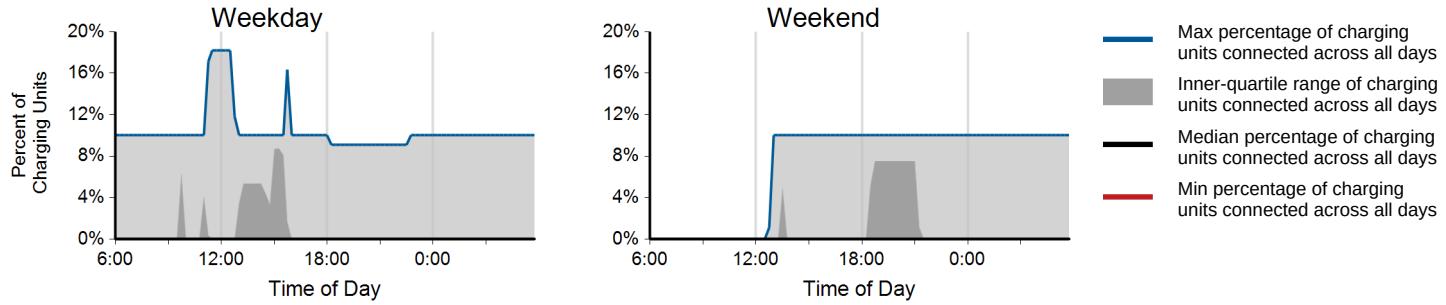
Region: Tucson, AZ Metropolitan Area

Report period: January 2011 through December 2011

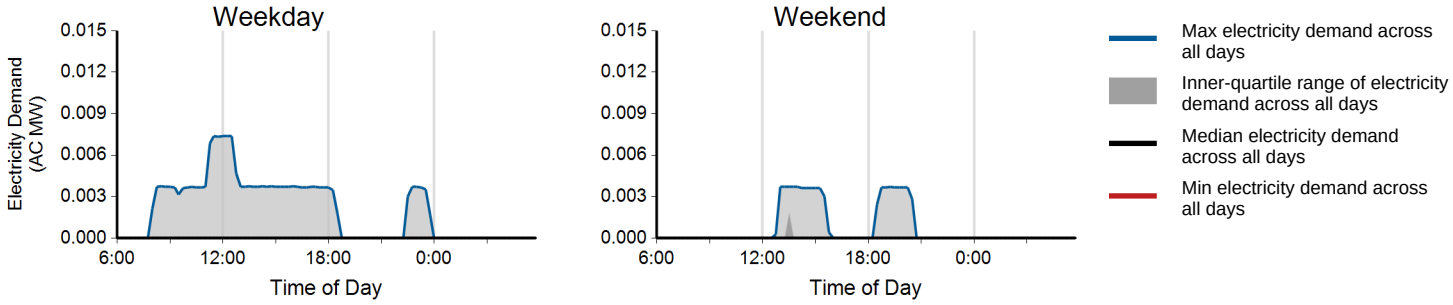
EVSE Usage

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	80	24	104
Electricity consumed (AC MWh)	0.46	0.12	0.58
Percent of time with a vehicle connected to EVSE	2%	1%	1%
Percent of time with a vehicle drawing power from EVSE	1%	0%	0%
Average number of charging events started per EVSE per day	0.08	0.06	0.08

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

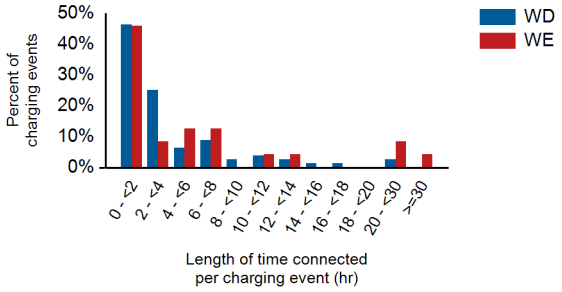
Region: Tucson, AZ Metropolitan Area

Report period: January 2011 through December 2011

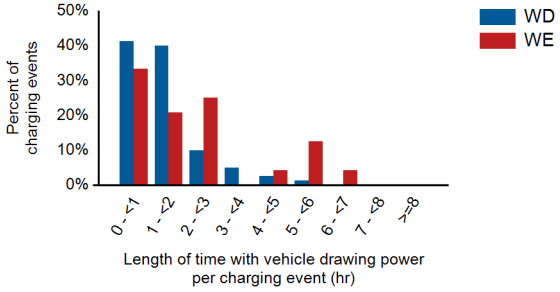
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	28%	0%	72%
Percent of electricity consumed	23%	0%	77%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	3.9	6.8	4.6
Average length of time with vehicle drawing power per charging event (hr)	1.4	2.2	1.6
Average electricity consumed per charging event (AC kWh)	4.8	8.1	5.6

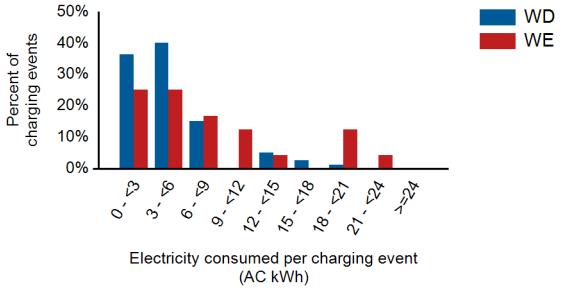
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



EV Project Electric Vehicle Charging Infrastructure Summary Report

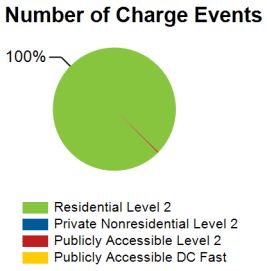
Region: Los Angeles, CA Metropolitan Area

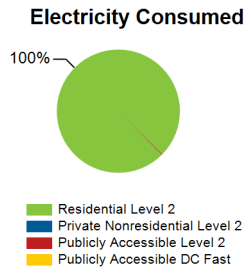
Report period: January 2011 through December 2011

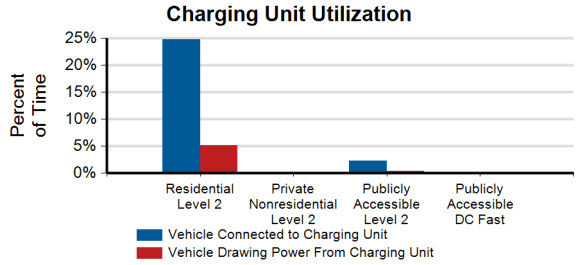
Number of EV Project vehicles in region: 283

Charging Unit Usage

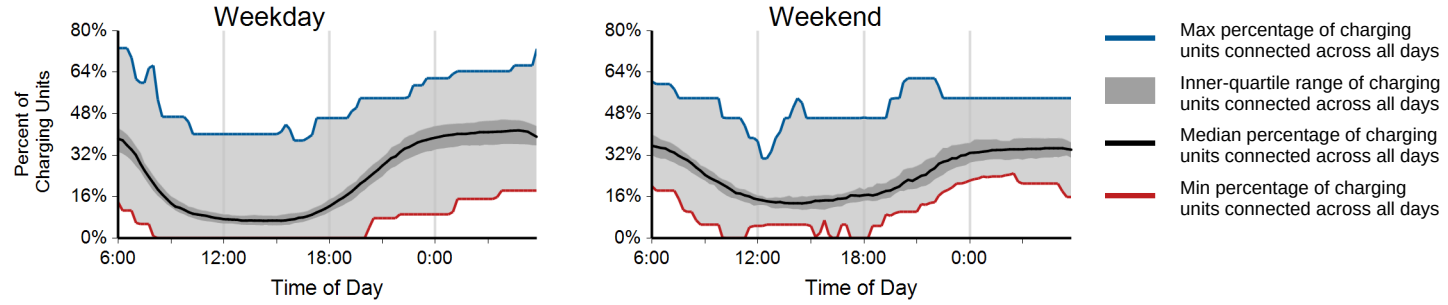
	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	280	0	15	0	295
Number of charging events[2]	23,248	0	57	0	23,305
Electricity consumed (AC MWh)	203.58	0.00	0.37	0.00	203.95
Percent of time with a vehicle connected to charging unit	25%	0%	2%	0%	24%
Percent of time with a vehicle drawing power from charging unit	5%	0%	0%	0%	5%



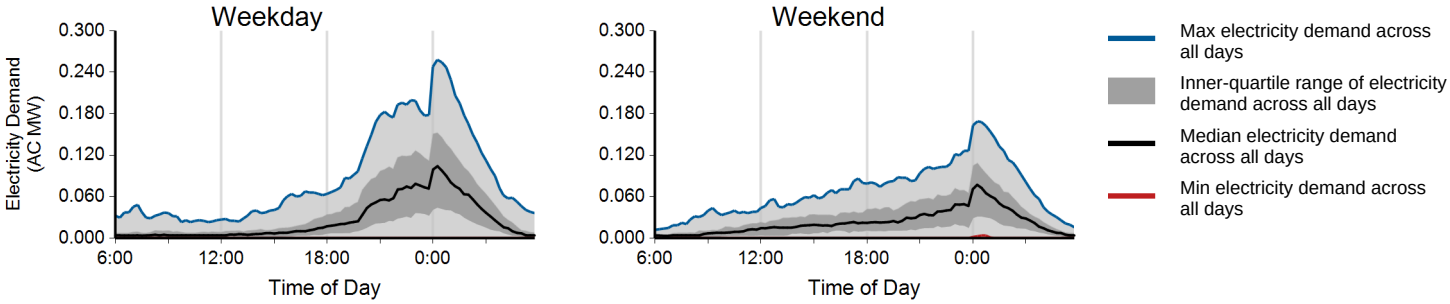




Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



[1] Includes charging units that reported at least one use during the reporting period. Some residential charging units are excluded due to incomplete data.

[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

[3] Considers the connection status of all charging units every minute

[4] Based on 15 minute rolling average power output from all charging units

Note: throughout this report, weekdays are defined as the period from Monday 6:00 AM until Saturday 6:00 AM. The weekend is defined as the period from Saturday 6:00 AM until Monday 6:00 AM.

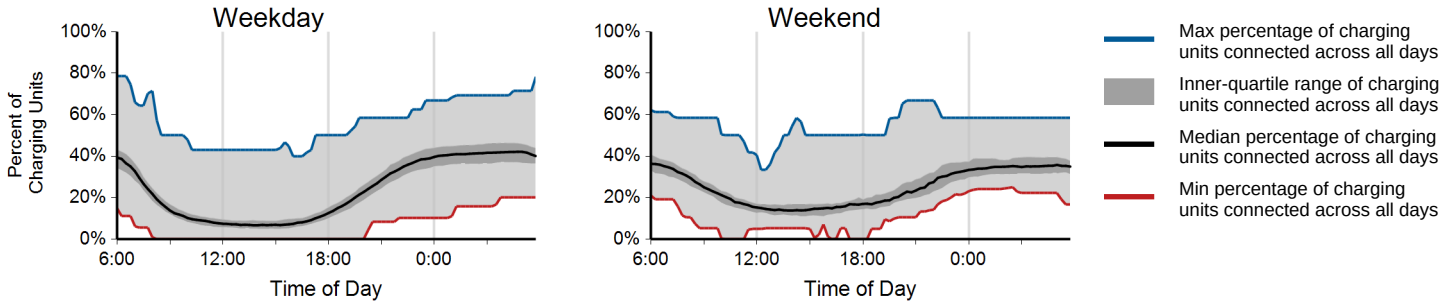
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Los Angeles, CA Metropolitan Area

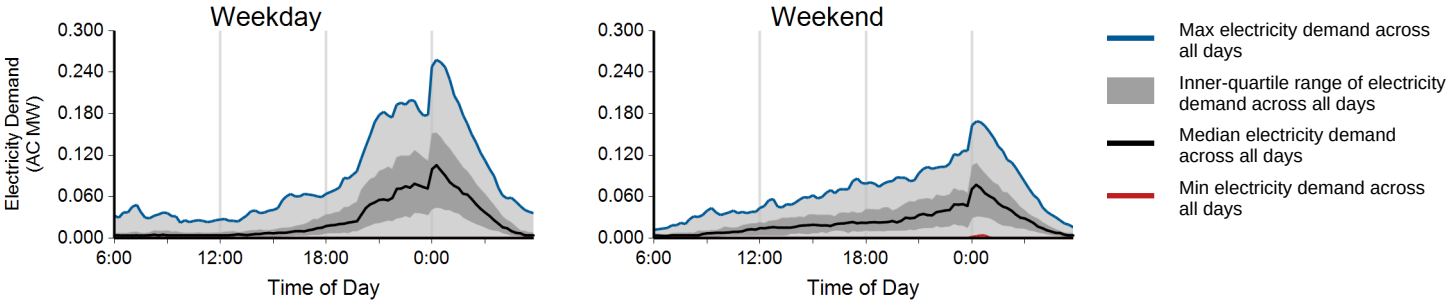
Report period: January 2011 through December 2011

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	16,823	6,425	23,248
Electricity consumed (AC MWh)	151.11	52.47	203.58
Percent of time with a vehicle connected to EVSE	24%	25%	25%
Percent of time with a vehicle drawing power from EVSE	5%	5%	5%
Average number of charging events started per EVSE per day	0.52	0.50	0.51

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

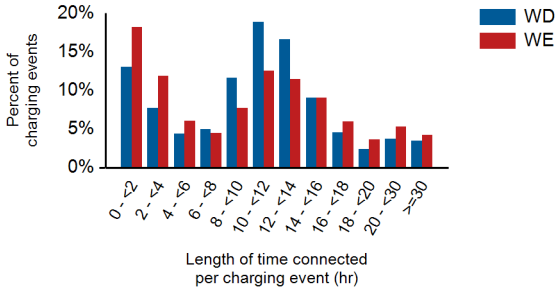
Region: Los Angeles, CA Metropolitan Area

Report period: January 2011 through December 2011

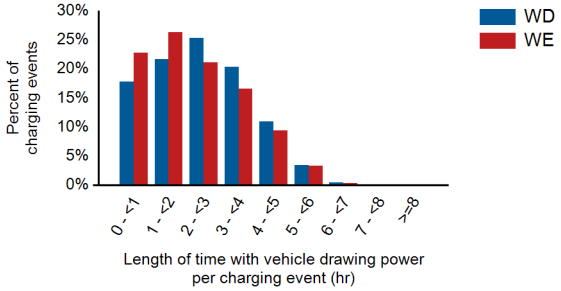
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	100%	0%	0%
Percent of electricity consumed	100%	0%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	11.7	11.2	11.6
Average length of time with vehicle drawing power per charging event (hr)	2.5	2.2	2.4
Average electricity consumed per charging event (AC kWh)	9.0	8.1	8.8

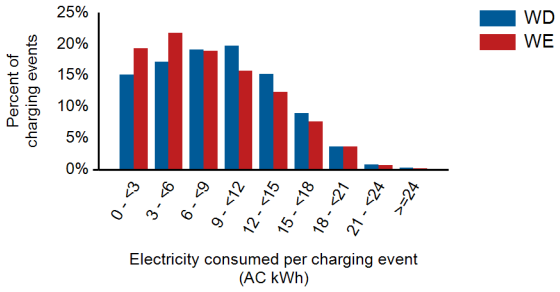
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

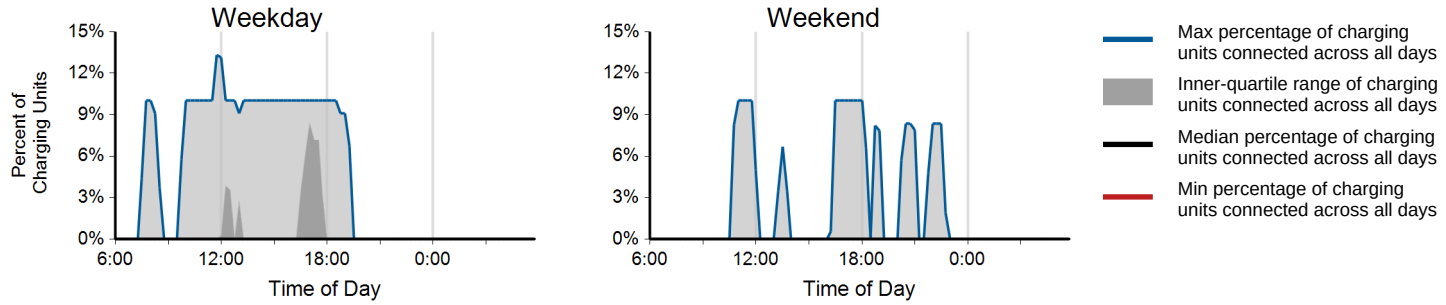
Region: Los Angeles, CA Metropolitan Area

Report period: January 2011 through December 2011

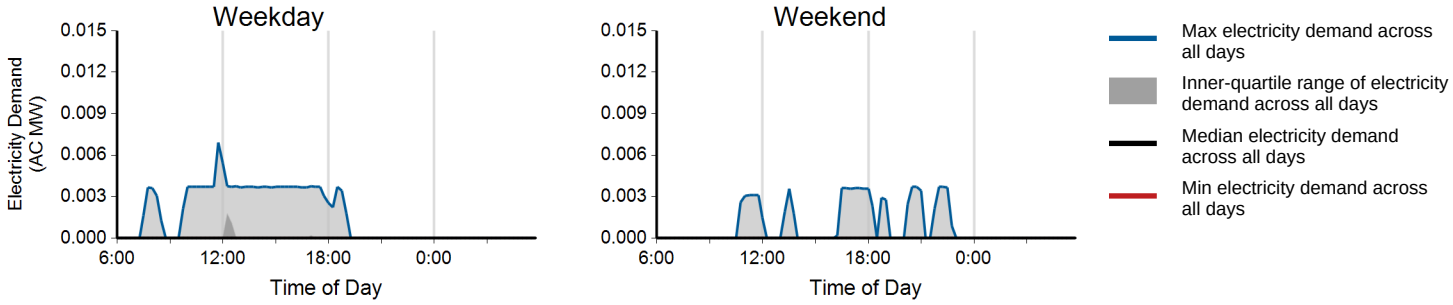
EVSE Usage

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	43	14	57
Electricity consumed (AC MWh)	0.30	0.07	0.37
Percent of time with a vehicle connected to EVSE	2%	2%	2%
Percent of time with a vehicle drawing power from EVSE	0%	0%	0%
Average number of charging events started per EVSE per day	0.05	0.04	0.05

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

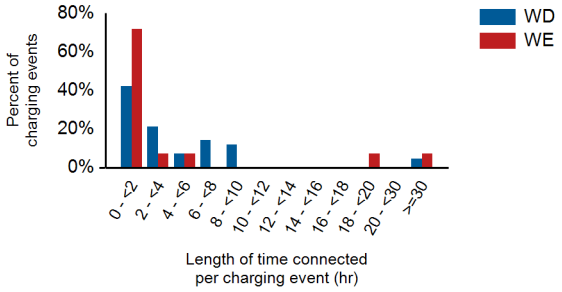
Region: Los Angeles, CA Metropolitan Area

Report period: January 2011 through December 2011

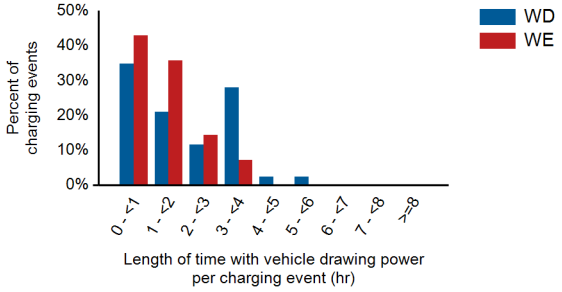
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	32%	0%	68%
Percent of electricity consumed	24%	0%	76%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	9.3	14.3	10.5
Average length of time with vehicle drawing power per charging event (hr)	2.0	1.4	1.8
Average electricity consumed per charging event (AC kWh)	7.0	5.0	6.5

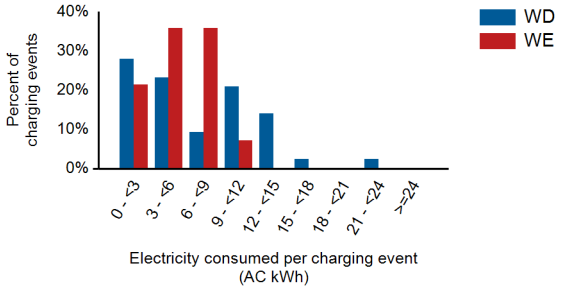
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



EV Project Electric Vehicle Charging Infrastructure Summary Report

Region: San Diego, CA Metropolitan Area

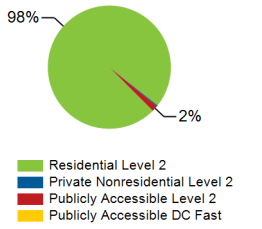
Report period: January 2011 through December 2011

Number of EV Project vehicles in region: 511

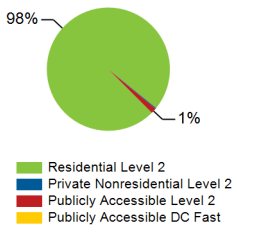
Charging Unit Usage

	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	511	11	30	0	552
Number of charging events[2]	55,903	168	865	0	56,936
Electricity consumed (AC MWh)	497.91	1.34	6.88	0.00	506.13
Percent of time with a vehicle connected to charging unit	29%	5%	8%	0%	29%
Percent of time with a vehicle drawing power from charging unit	6%	3%	4%	0%	6%

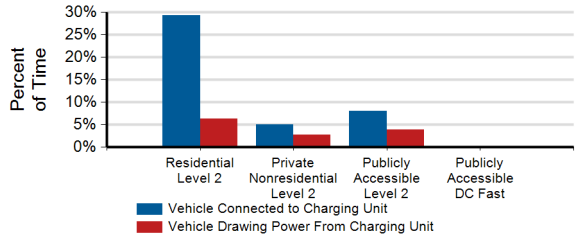
Number of Charge Events



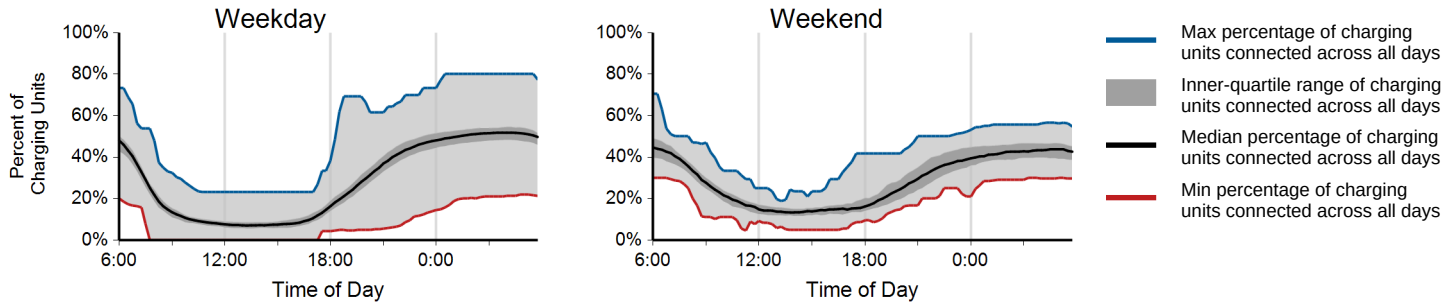
Electricity Consumed



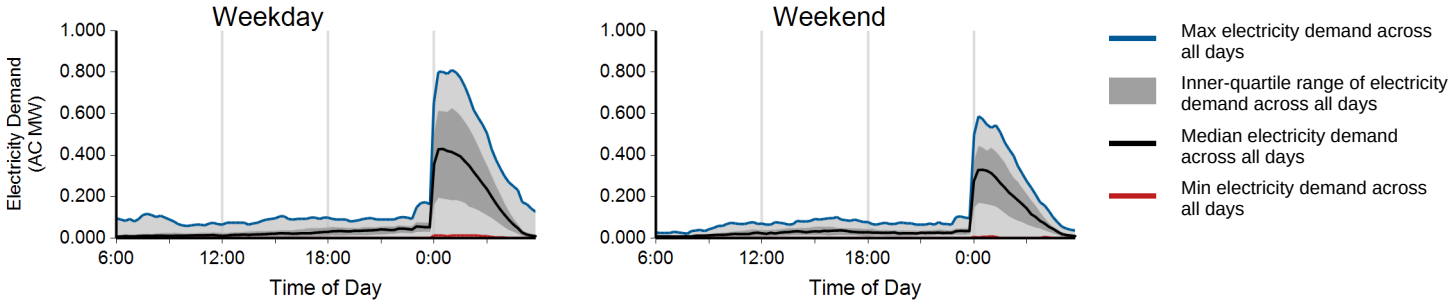
Charging Unit Utilization



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



[1] Includes charging units that reported at least one use during the reporting period. Some residential charging units are excluded due to incomplete data.

[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

[3] Considers the connection status of all charging units every minute

[4] Based on 15 minute rolling average power output from all charging units

Note: throughout this report, weekdays are defined as the period from Monday 6:00 AM until Saturday 6:00 AM. The weekend is defined as the period from Saturday 6:00 AM until Monday 6:00 AM.

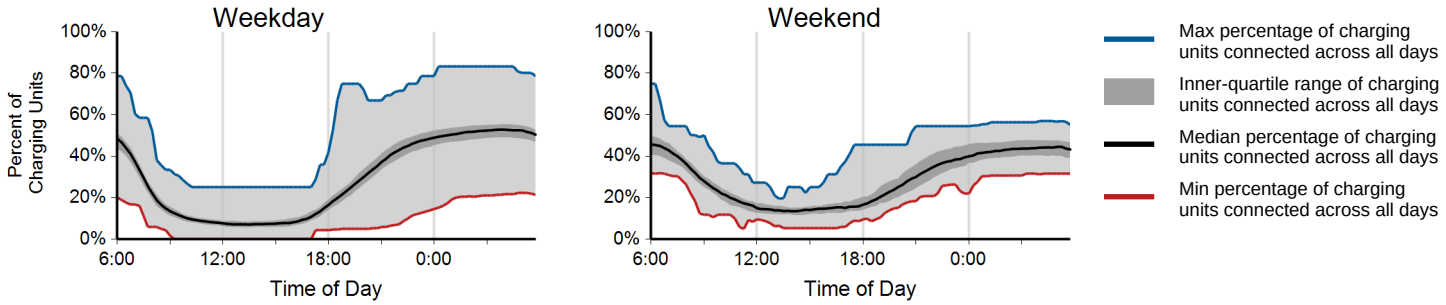
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: San Diego, CA Metropolitan Area

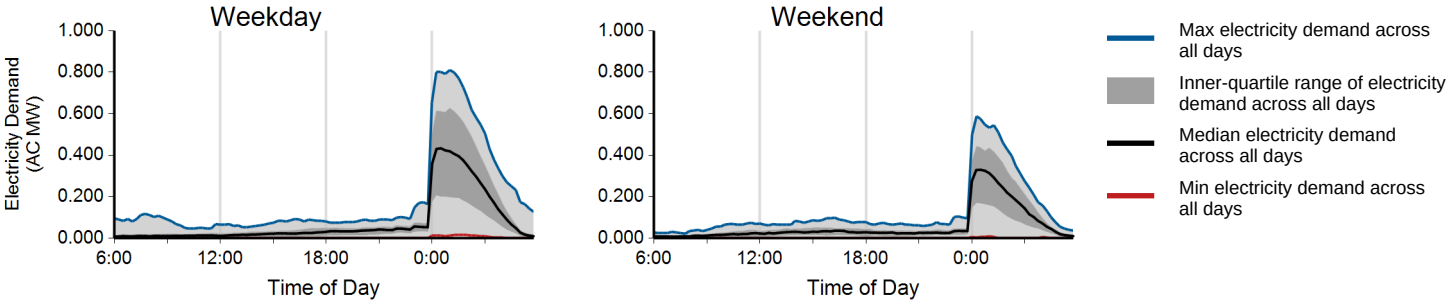
Report period: January 2011 through December 2011

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	41,541	14,362	55,903
Electricity consumed (AC MWh)	381.91	116.00	497.91
Percent of time with a vehicle connected to EVSE	29%	30%	29%
Percent of time with a vehicle drawing power from EVSE	7%	5%	6%
Average number of charging events started per EVSE per day	0.65	0.56	0.62

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

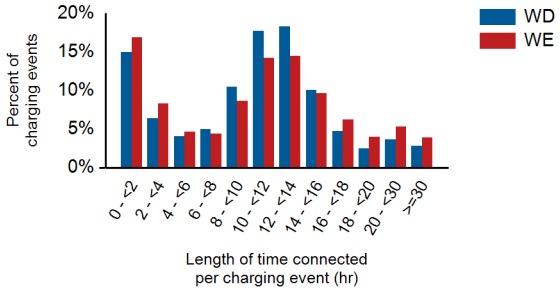
Region: San Diego, CA Metropolitan Area

Report period: January 2011 through December 2011

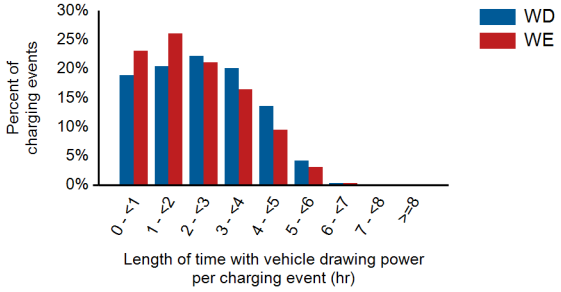
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	96%	4%	0%
Percent of electricity consumed	98%	2%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	11.3	11.5	11.4
Average length of time with vehicle drawing power per charging event (hr)	2.5	2.2	2.5
Average electricity consumed per charging event (AC kWh)	9.2	8.1	8.9

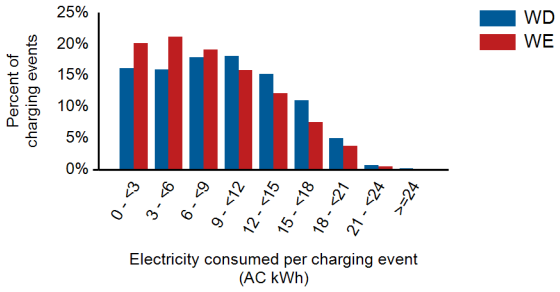
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



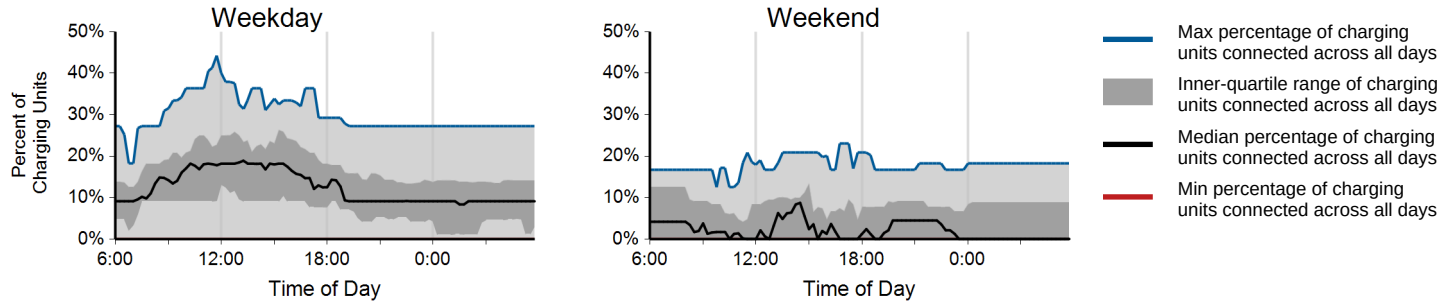
Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: San Diego, CA Metropolitan Area

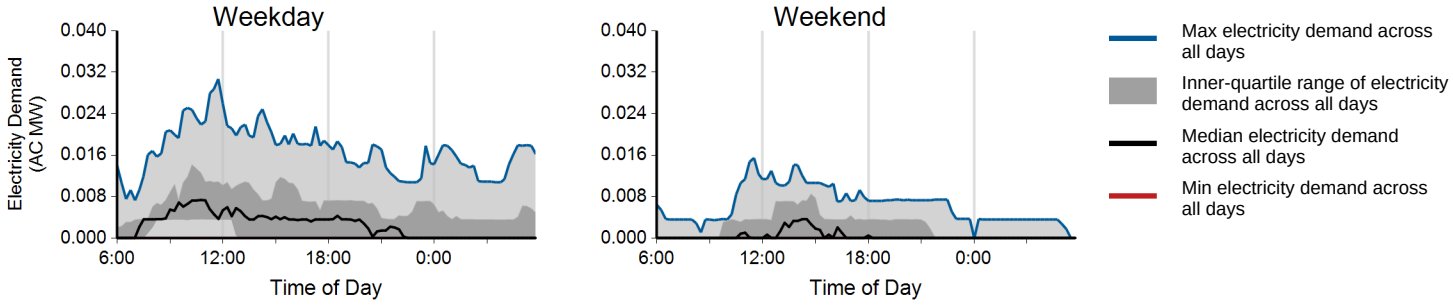
Report period: January 2011 through December 2011

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	684	181	865
Electricity consumed (AC MWh)	5.66	1.22	6.88
Percent of time with a vehicle connected to EVSE	9%	5%	8%
Percent of time with a vehicle drawing power from EVSE	4%	2%	4%
Average number of charging events started per EVSE per day	0.45	0.30	0.41

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

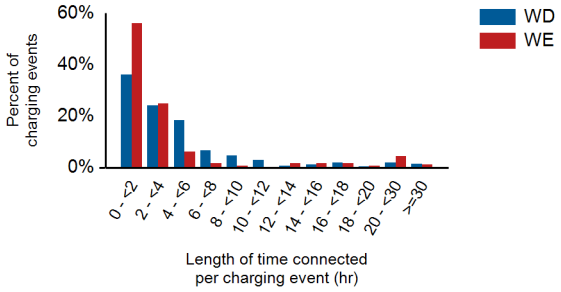
Region: San Diego, CA Metropolitan Area

Report period: January 2011 through December 2011

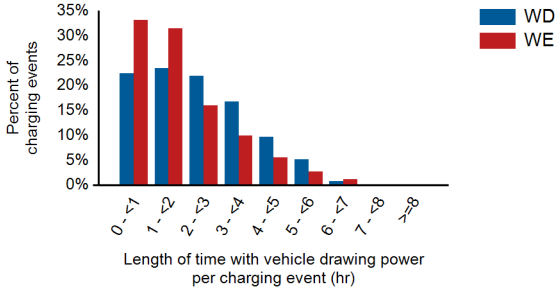
Vehicles Charged	Car2Go fleet [1]	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	24%	46%	0%	30%
Percent of electricity consumed	30%	42%	0%	28%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	4.9	4.5	4.8
Average length of time with vehicle drawing power per charging event (hr)	2.4	1.8	2.3
Average electricity consumed per charging event (AC kWh)	8.3	6.5	8.0

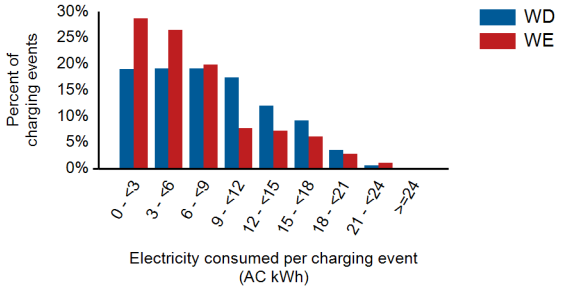
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



[1] Car2Go operates a car sharing fleet of Smart Fortwo Electric Drive vehicles in this region. Usage of publicly accessible EV Project charging units to charge these vehicles is included in this report.

EV Project Electric Vehicle Charging Infrastructure Summary Report

Region: San Francisco, CA Metropolitan Area

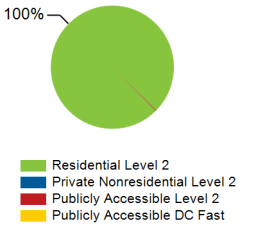
Report period: January 2011 through December 2011

Number of EV Project vehicles in region: 830

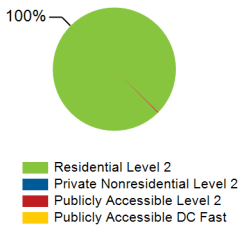
Charging Unit Usage

	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	829	0	9	0	838
Number of charging events[2]	58,163	0	101	0	58,264
Electricity consumed (AC MWh)	540.08	0.00	1.12	0.00	541.21
Percent of time with a vehicle connected to charging unit	26%	0%	13%	0%	26%
Percent of time with a vehicle drawing power from charging unit	6%	0%	3%	0%	6%

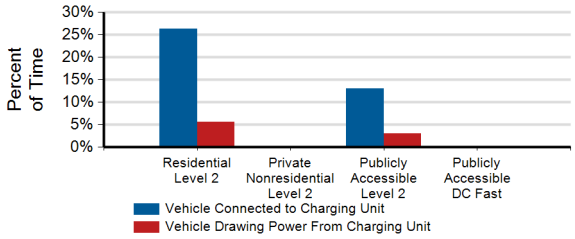
Number of Charge Events



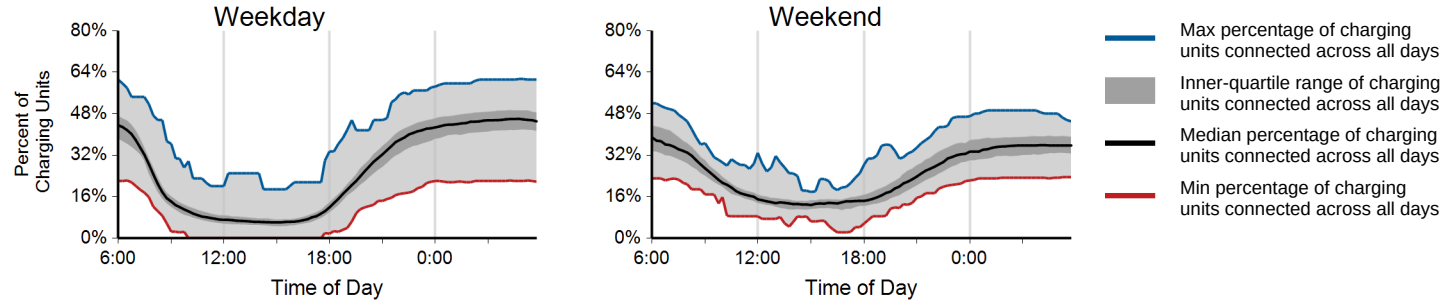
Electricity Consumed



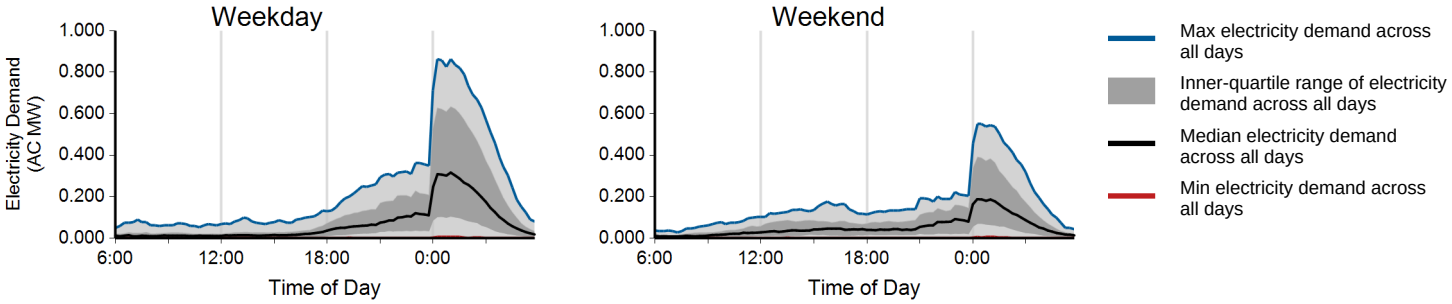
Charging Unit Utilization



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



[1] Includes charging units that reported at least one use during the reporting period. Some residential charging units are excluded due to incomplete data.

[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

[3] Considers the connection status of all charging units every minute

[4] Based on 15 minute rolling average power output from all charging units

Note: throughout this report, weekdays are defined as the period from Monday 6:00 AM until Saturday 6:00 AM. The weekend is defined as the period from Saturday 6:00 AM until Monday 6:00 AM.

Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: San Francisco, CA Metropolitan Area

Report period: January 2011 through December 2011

EVSE Usage

	Weekday	Weekend	Overall
Number of charging events	42,581	15,582	58,163
Electricity consumed (AC MWh)	416.78	123.30	540.08
Percent of time with a vehicle connected to EVSE	26%	26%	26%
Percent of time with a vehicle drawing power from EVSE	6%	5%	6%
Average number of charging events started per EVSE per day	0.55	0.50	0.54

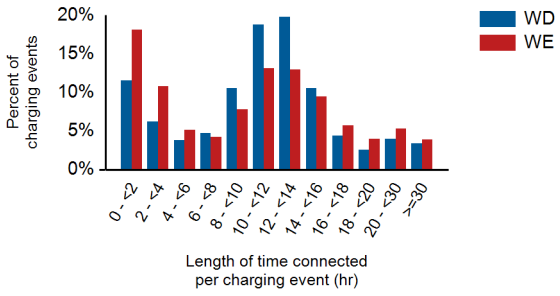
Vehicles Charged

	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	100%	0%	0%
Percent of electricity consumed	100%	0%	0%

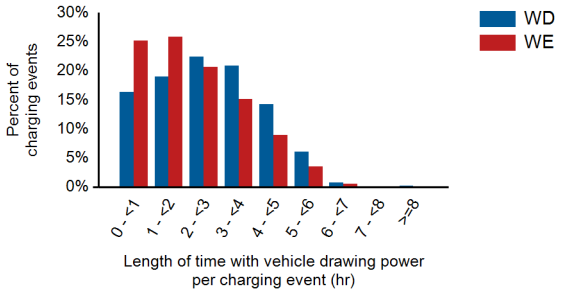
Individual Charging Event Statistics

	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	12.1	11.3	11.9
Average length of time with vehicle drawing power per charging event (hr)	2.7	2.2	2.6
Average electricity consumed per charging event (AC kWh)	9.8	7.9	9.3

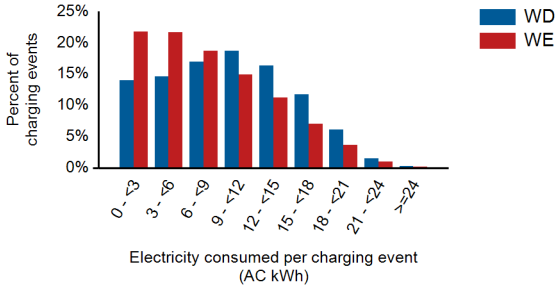
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



EV Project Electric Vehicle Charging Infrastructure Summary Report

Region: Oregon

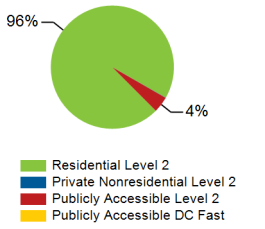
Report period: January 2011 through December 2011

Number of EV Project vehicles in region: 307

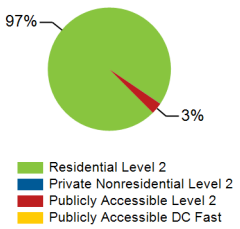
Charging Unit Usage

	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	299	1	114	0	414
Number of charging events[2]	31,677	24	1,384	0	33,085
Electricity consumed (AC MWh)	255.79	0.12	7.94	0.00	263.85
Percent of time with a vehicle connected to charging unit	27%	2%	6%	0%	24%
Percent of time with a vehicle drawing power from charging unit	6%	1%	1%	0%	5%

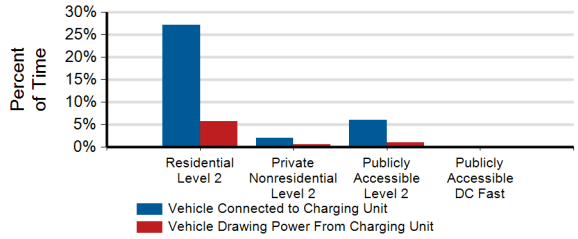
Number of Charge Events



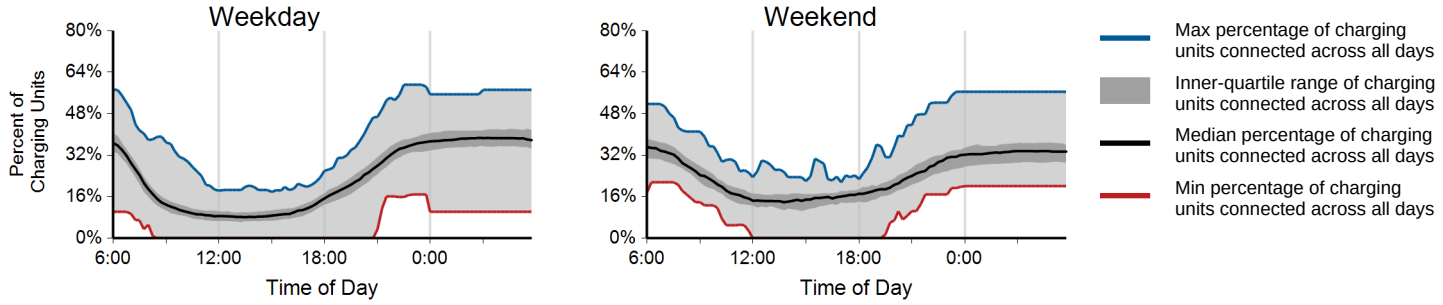
Electricity Consumed



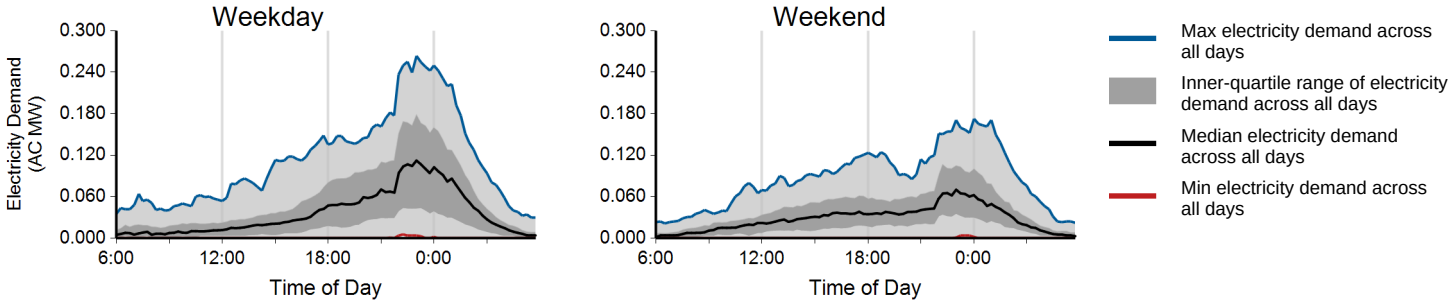
Charging Unit Utilization



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



[1] Includes charging units that reported at least one use during the reporting period. Some residential charging units are excluded due to incomplete data.

[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

[3] Considers the connection status of all charging units every minute

[4] Based on 15 minute rolling average power output from all charging units

Note: throughout this report, weekdays are defined as the period from Monday 6:00 AM until Saturday 6:00 AM. The weekend is defined as the period from Saturday 6:00 AM until Monday 6:00 AM.

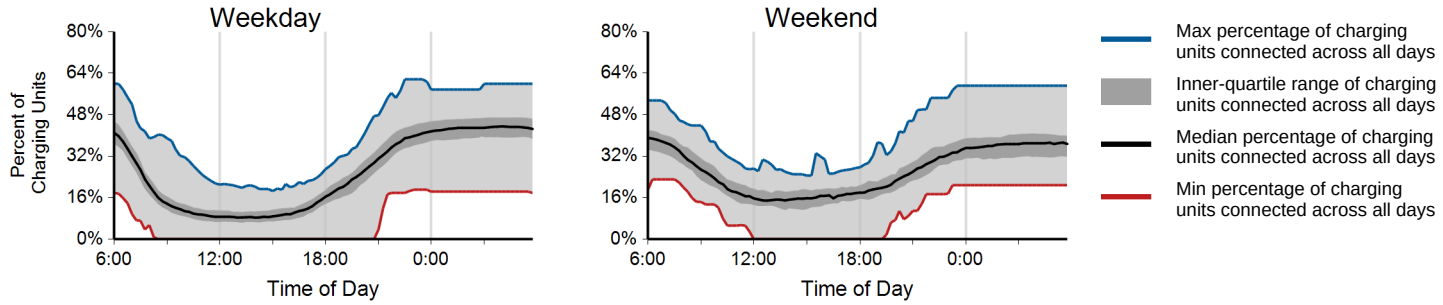
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Oregon

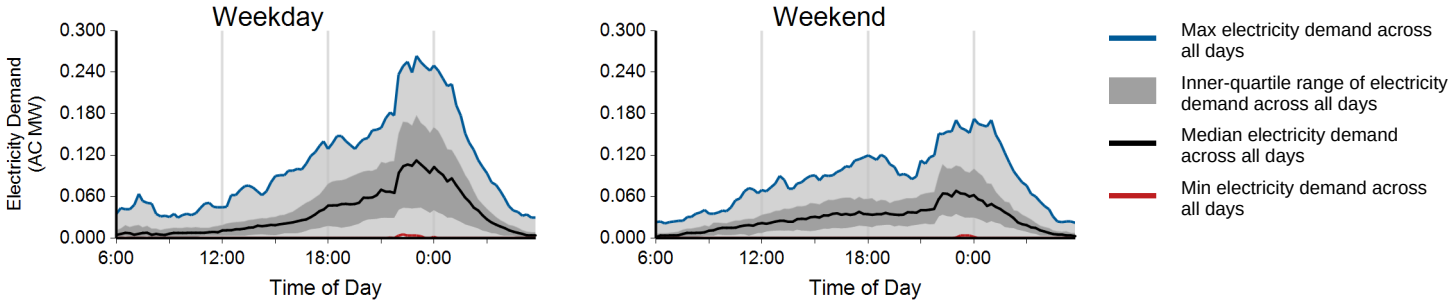
Report period: January 2011 through December 2011

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	23,078	8,599	31,677
Electricity consumed (AC MWh)	192.70	63.10	255.79
Percent of time with a vehicle connected to EVSE	27%	28%	27%
Percent of time with a vehicle drawing power from EVSE	6%	5%	6%
Average number of charging events started per EVSE per day	0.63	0.59	0.62

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

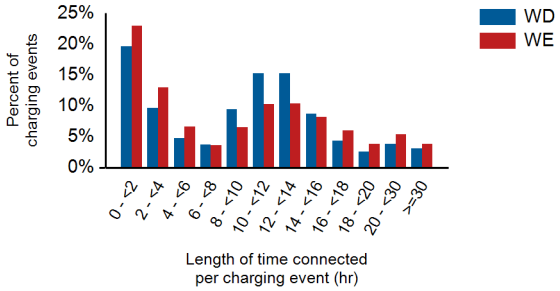
Region: Oregon

Report period: January 2011 through December 2011

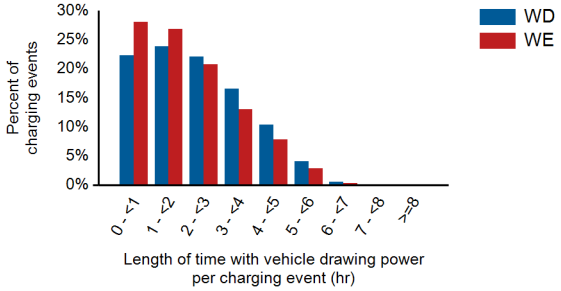
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	100%	0%	0%
Percent of electricity consumed	100%	0%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	10.6	10.3	10.6
Average length of time with vehicle drawing power per charging event (hr)	2.3	2.1	2.3
Average electricity consumed per charging event (AC kWh)	8.4	7.3	8.1

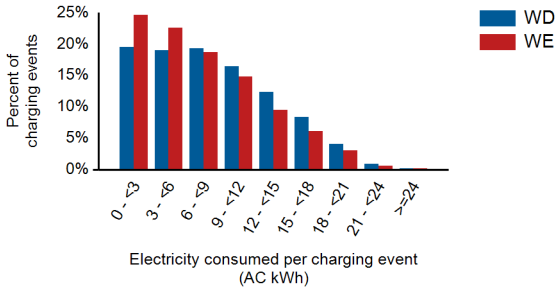
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



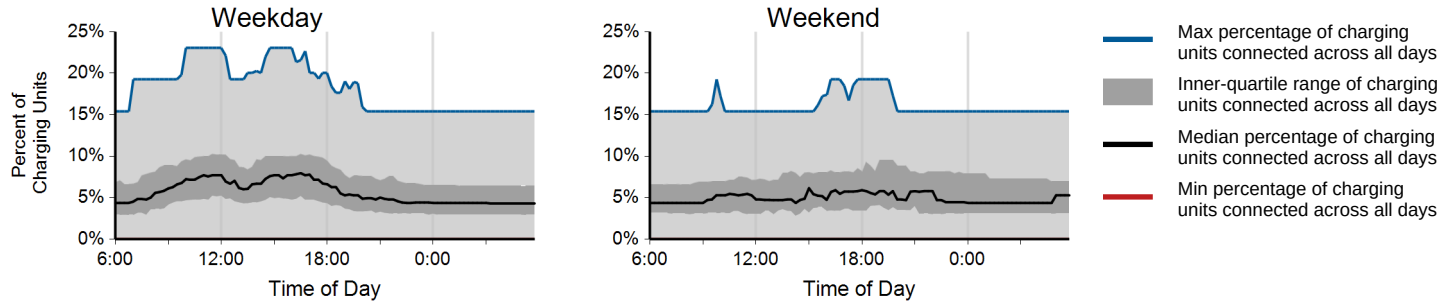
Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Oregon

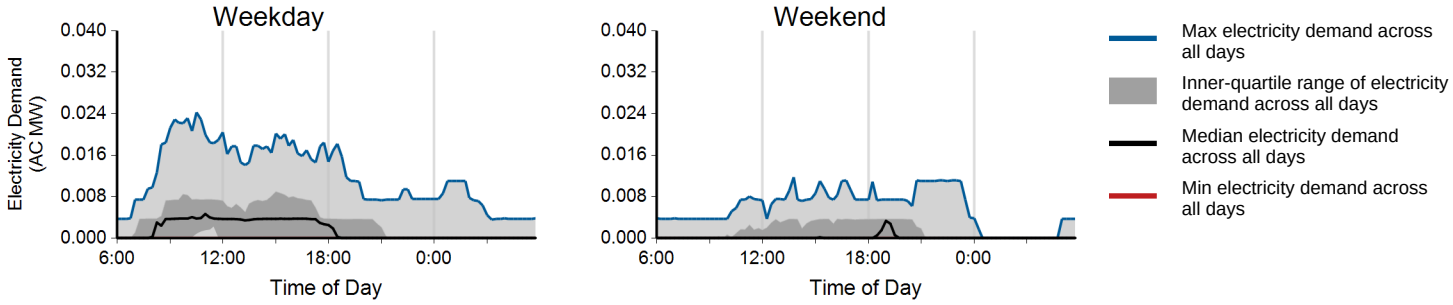
Report period: January 2011 through December 2011

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	1,150	234	1,384
Electricity consumed (AC MWh)	6.92	1.02	7.94
Percent of time with a vehicle connected to EVSE	6%	5%	6%
Percent of time with a vehicle drawing power from EVSE	1%	0%	1%
Average number of charging events started per EVSE per day	0.17	0.09	0.15

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

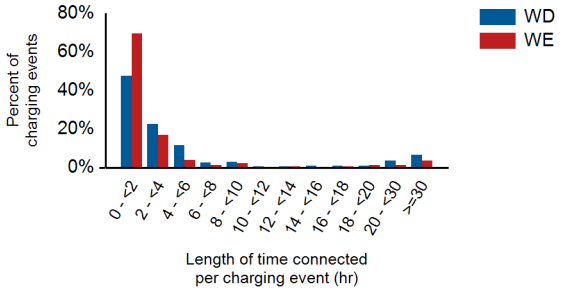
Region: Oregon

Report period: January 2011 through December 2011

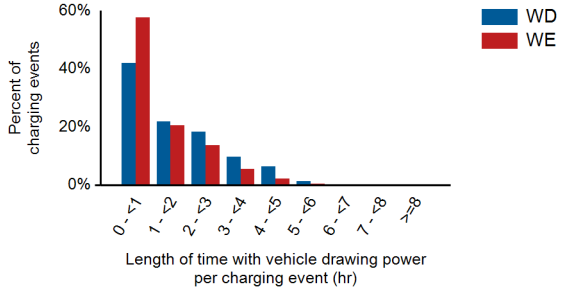
Vehicles Charged	Car2Go fleet [1]	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	0%	64%	0%	36%
Percent of electricity consumed	0%	65%	0%	35%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	10.9	5.1	9.9
Average length of time with vehicle drawing power per charging event (hr)	1.7	1.2	1.6
Average electricity consumed per charging event (AC kWh)	6.0	4.4	5.7

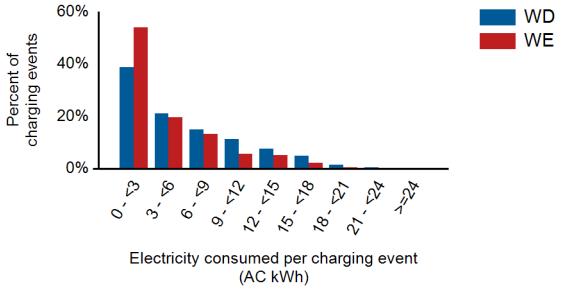
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



[1] Car2Go operates a car sharing fleet of Smart Fortwo Electric Drive vehicles in this region. Usage of publicly accessible EV Project charging units to charge these vehicles is included in this report.

EV Project Electric Vehicle Charging Infrastructure Summary Report

Region: Chattanooga, TN Metropolitan Area

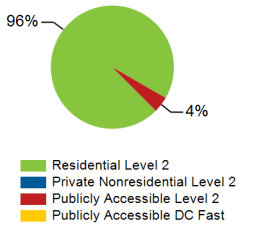
Report period: January 2011 through December 2011

Number of EV Project vehicles in region: 27

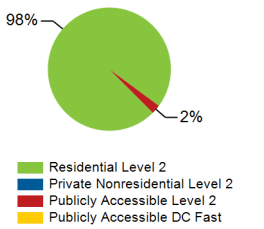
Charging Unit Usage

	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	27	0	22	0	49
Number of charging events[2]	2,401	0	105	0	2,506
Electricity consumed (AC MWh)	21.97	0.00	0.53	0.00	22.50
Percent of time with a vehicle connected to charging unit	28%	0%	2%	0%	21%
Percent of time with a vehicle drawing power from charging unit	6%	0%	0%	0%	5%

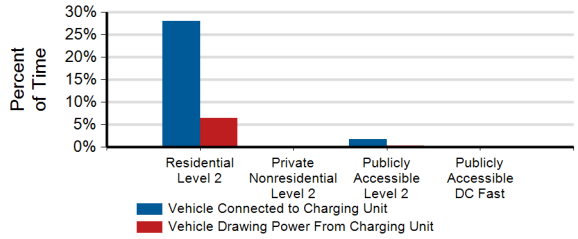
Number of Charge Events



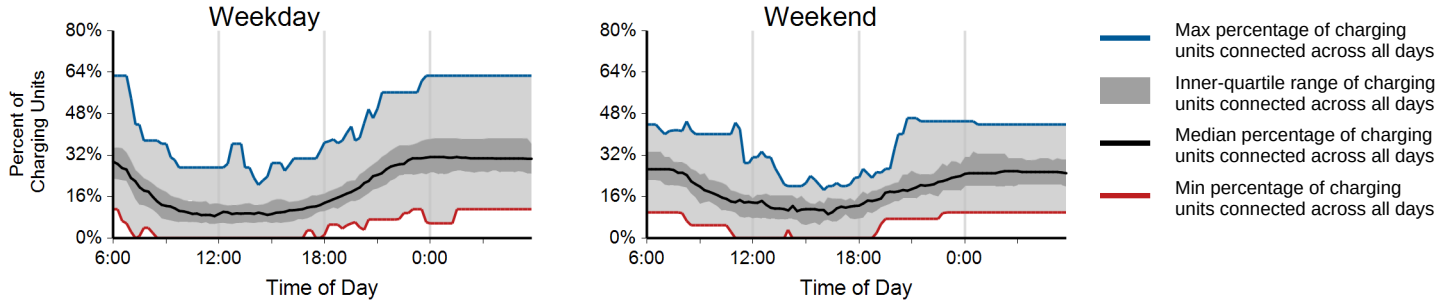
Electricity Consumed



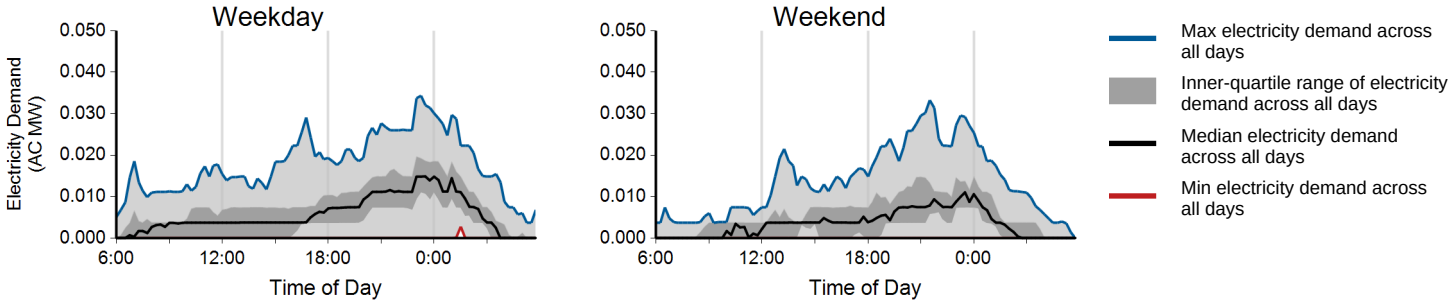
Charging Unit Utilization



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



[1] Includes charging units that reported at least one use during the reporting period. Some residential charging units are excluded due to incomplete data.

[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

[3] Considers the connection status of all charging units every minute

[4] Based on 15 minute rolling average power output from all charging units

Note: throughout this report, weekdays are defined as the period from Monday 6:00 AM until Saturday 6:00 AM. The weekend is defined as the period from Saturday 6:00 AM until Monday 6:00 AM.

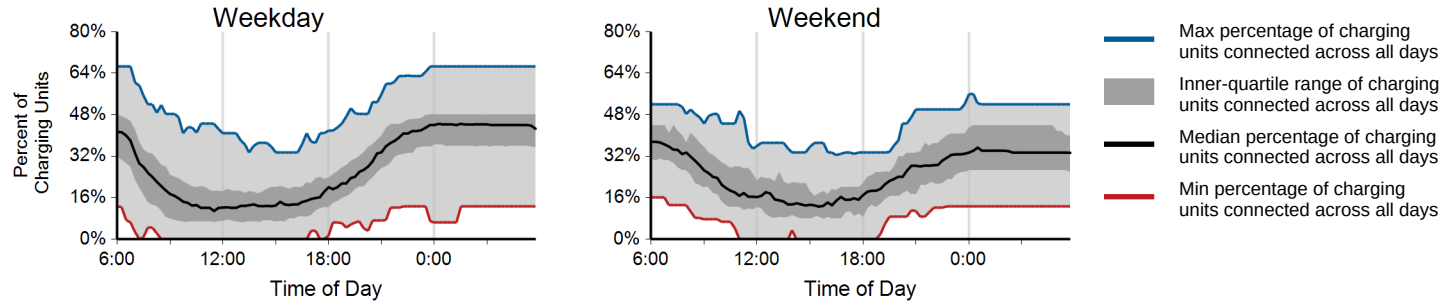
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Chattanooga, TN Metropolitan Area

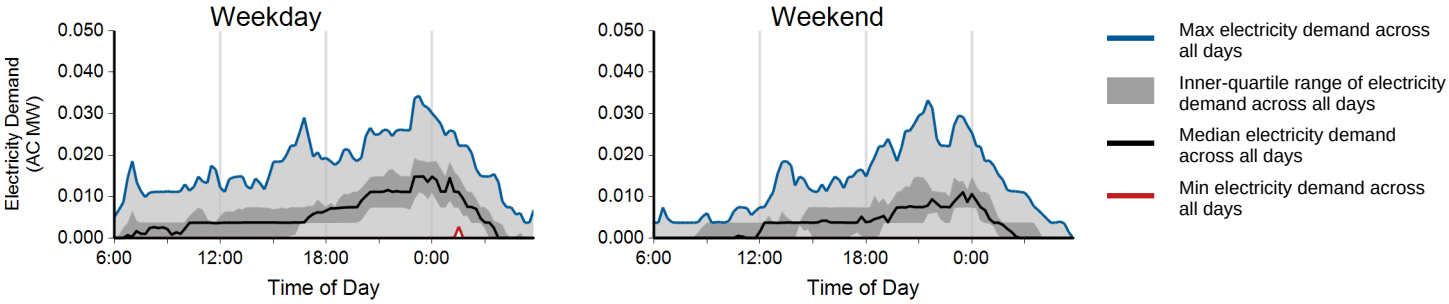
Report period: January 2011 through December 2011

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	1,825	576	2,401
Electricity consumed (AC MWh)	17.15	4.81	21.97
Percent of time with a vehicle connected to EVSE	28%	27%	28%
Percent of time with a vehicle drawing power from EVSE	7%	5%	6%
Average number of charging events started per EVSE per day	0.66	0.52	0.62

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

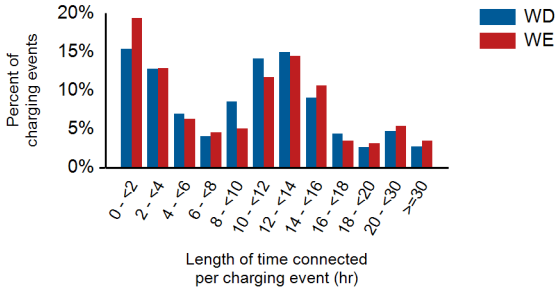
Region: Chattanooga, TN Metropolitan Area

Report period: January 2011 through December 2011

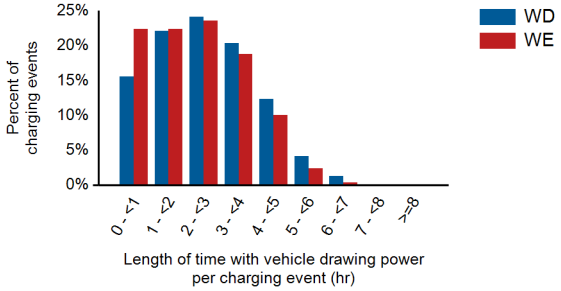
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	100%	0%	0%
Percent of electricity consumed	100%	0%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	11.1	10.3	10.9
Average length of time with vehicle drawing power per charging event (hr)	2.6	2.3	2.5
Average electricity consumed per charging event (AC kWh)	9.4	8.3	9.1

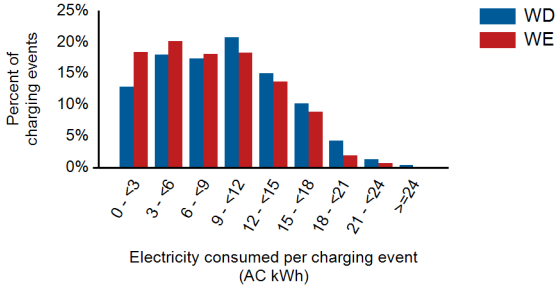
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

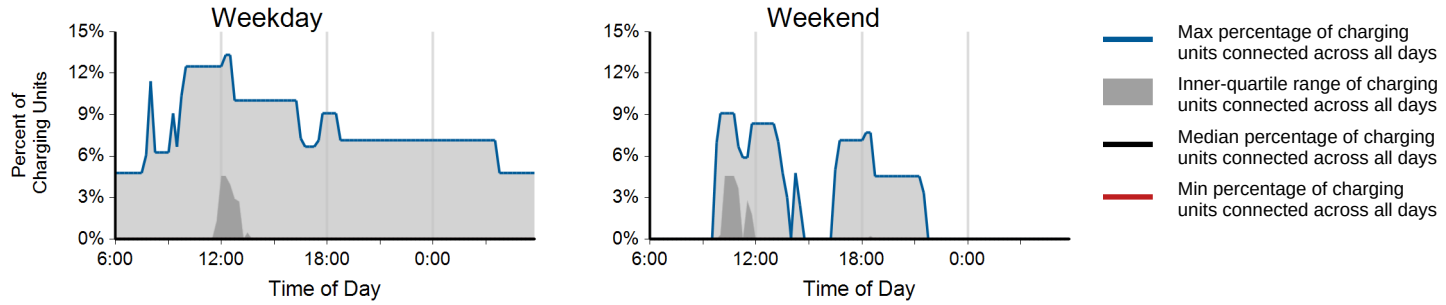
Region: Chattanooga, TN Metropolitan Area

Report period: January 2011 through December 2011

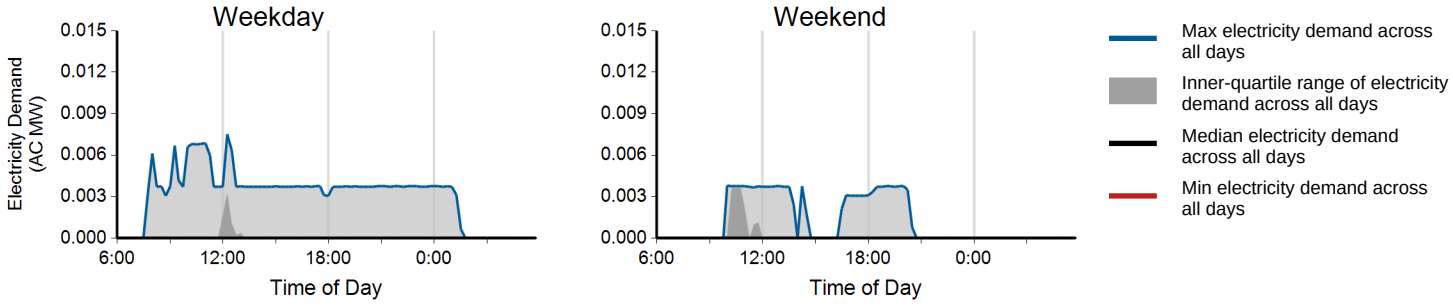
EVSE Usage

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	76	29	105
Electricity consumed (AC MWh)	0.39	0.14	0.53
Percent of time with a vehicle connected to EVSE	2%	2%	2%
Percent of time with a vehicle drawing power from EVSE	0%	0%	0%
Average number of charging events started per EVSE per day	0.07	0.07	0.07

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

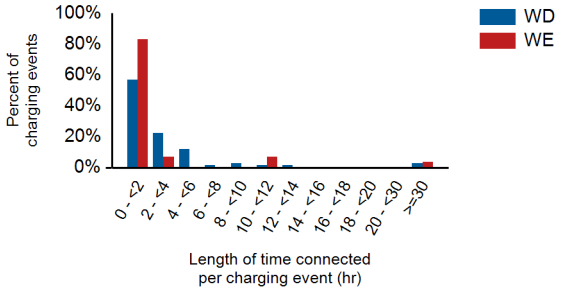
Region: Chattanooga, TN Metropolitan Area

Report period: January 2011 through December 2011

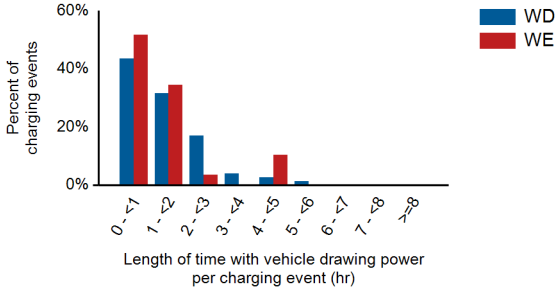
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	61%	0%	39%
Percent of electricity consumed	57%	0%	43%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	7.2	4.8	6.5
Average length of time with vehicle drawing power per charging event (hr)	1.5	1.3	1.4
Average electricity consumed per charging event (AC kWh)	5.2	4.7	5.1

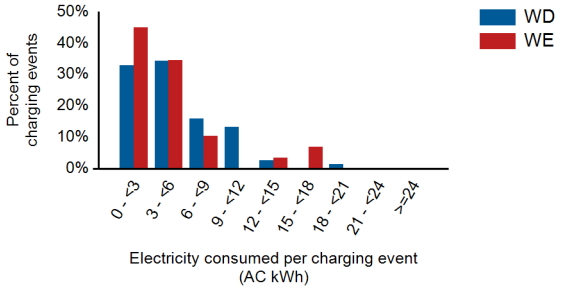
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



EV Project Electric Vehicle Charging Infrastructure Summary Report

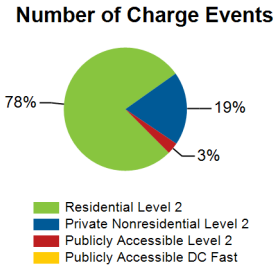
Region: Knoxville, TN Metropolitan Area

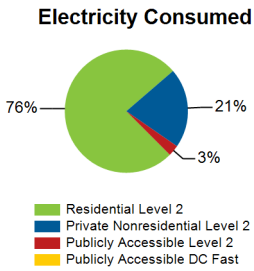
Report period: January 2011 through December 2011

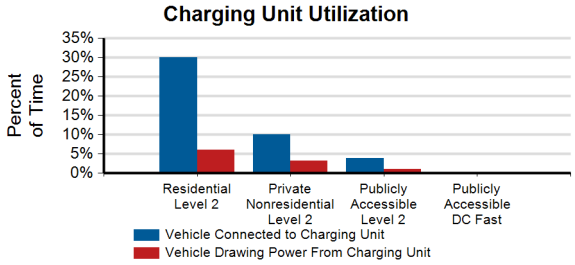
Number of EV Project vehicles in region: 56

Charging Unit Usage

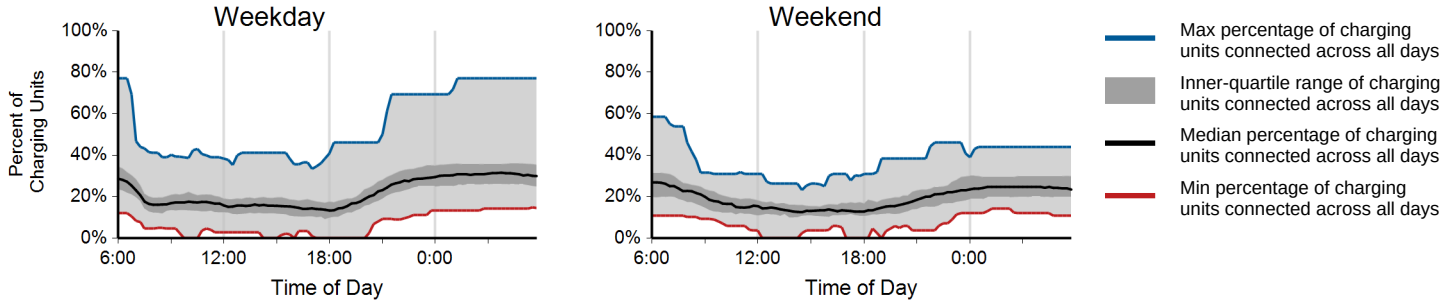
	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	55	23	21	0	99
Number of charging events[2]	4,436	1,099	174	0	5,709
Electricity consumed (AC MWh)	38.26	10.51	1.44	0.00	50.21
Percent of time with a vehicle connected to charging unit	30%	10%	4%	0%	21%
Percent of time with a vehicle drawing power from charging unit	6%	3%	1%	0%	5%



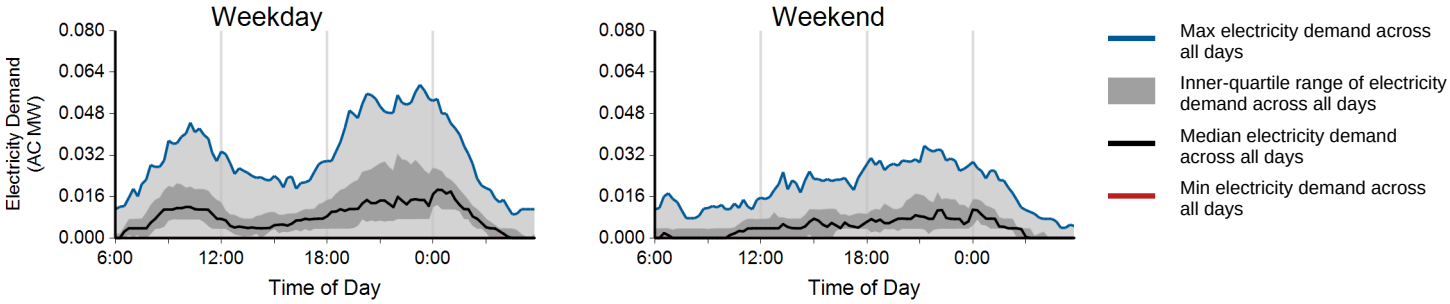




Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



[1] Includes charging units that reported at least one use during the reporting period. Some residential charging units are excluded due to incomplete data.

[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

[3] Considers the connection status of all charging units every minute

[4] Based on 15 minute rolling average power output from all charging units

Note: throughout this report, weekdays are defined as the period from Monday 6:00 AM until Saturday 6:00 AM. The weekend is defined as the period from Saturday 6:00 AM until Monday 6:00 AM.

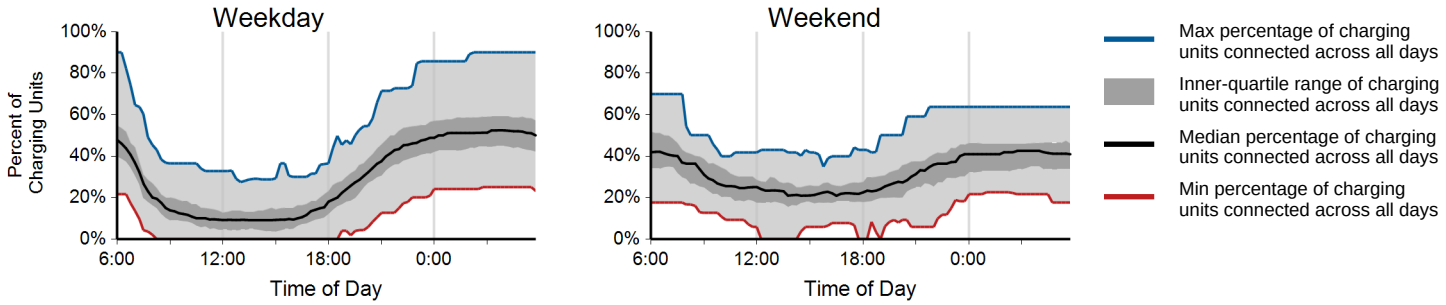
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Knoxville, TN Metropolitan Area

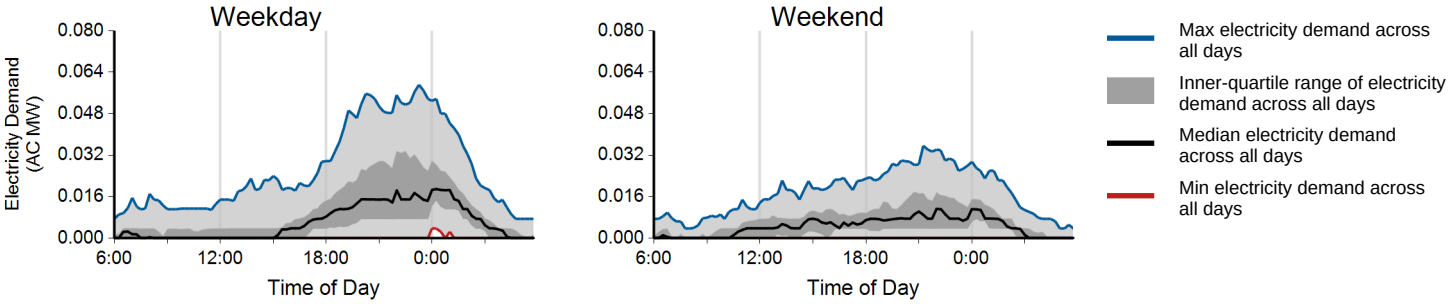
Report period: January 2011 through December 2011

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	3,310	1,126	4,436
Electricity consumed (AC MWh)	29.93	8.32	38.26
Percent of time with a vehicle connected to EVSE	30%	31%	30%
Percent of time with a vehicle drawing power from EVSE	7%	5%	6%
Average number of charging events started per EVSE per day	0.65	0.55	0.62

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

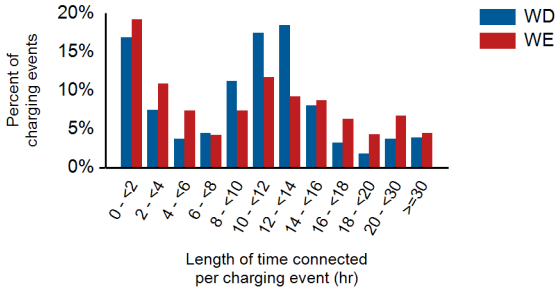
Region: Knoxville, TN Metropolitan Area

Report period: January 2011 through December 2011

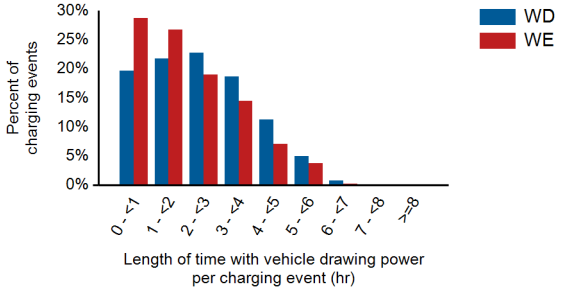
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	100%	0%	0%
Percent of electricity consumed	100%	0%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	11.9	11.0	11.6
Average length of time with vehicle drawing power per charging event (hr)	2.5	2.0	2.4
Average electricity consumed per charging event (AC kWh)	9.0	7.4	8.6

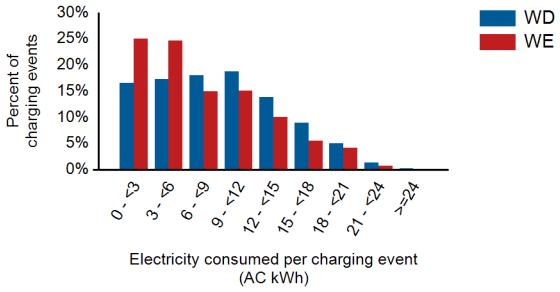
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



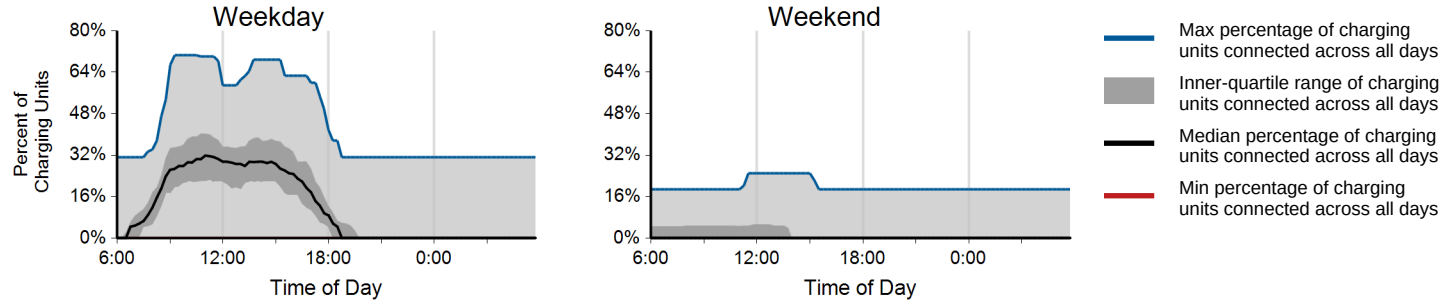
Private Nonresidential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Knoxville, TN Metropolitan Area

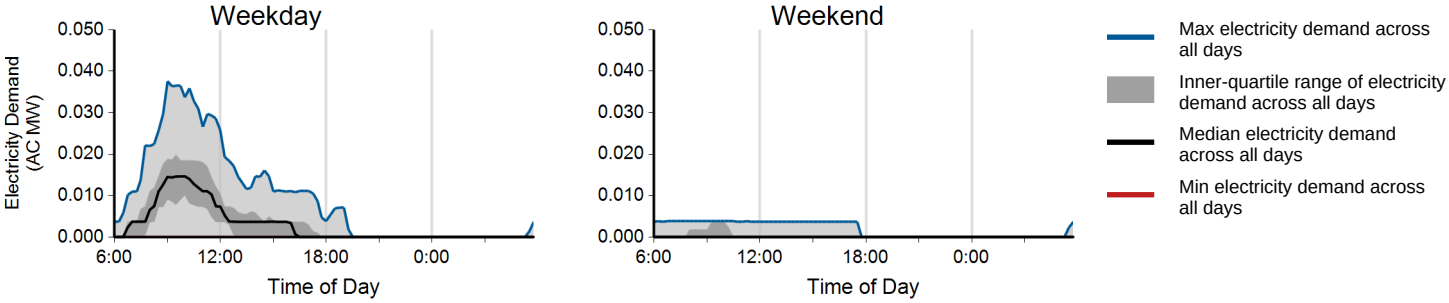
Report period: January 2011 through December 2011

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	1,078	21	1,099
Electricity consumed (AC MWh)	10.21	0.31	10.51
Percent of time with a vehicle connected to EVSE	13%	2%	10%
Percent of time with a vehicle drawing power from EVSE	4%	0%	3%
Average number of charging events started per EVSE per day	0.41	0.02	0.30

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Private Nonresidential Level 2 Electric Vehicle Supply Equipment (EVSE)

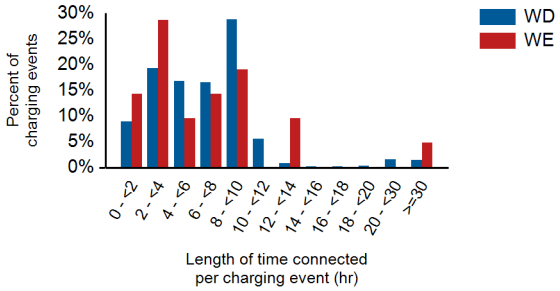
Region: Knoxville, TN Metropolitan Area

Report period: January 2011 through December 2011

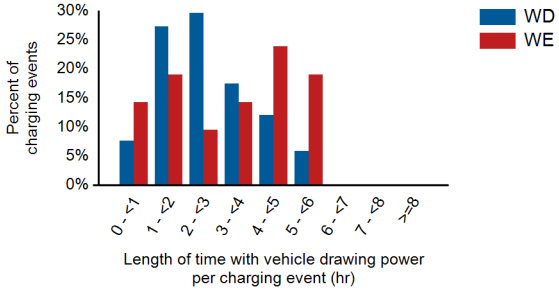
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	37%	0%	63%
Percent of electricity consumed	39%	0%	61%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	7.8	17.8	8.0
Average length of time with vehicle drawing power per charging event (hr)	2.7	3.2	2.7
Average electricity consumed per charging event (AC kWh)	9.5	11.7	9.6

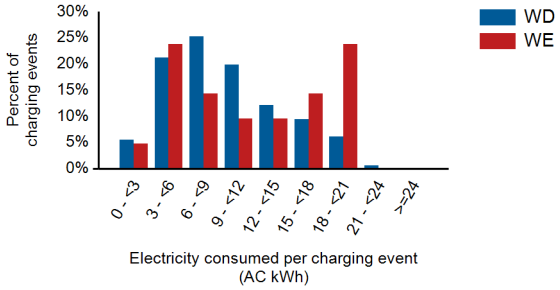
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



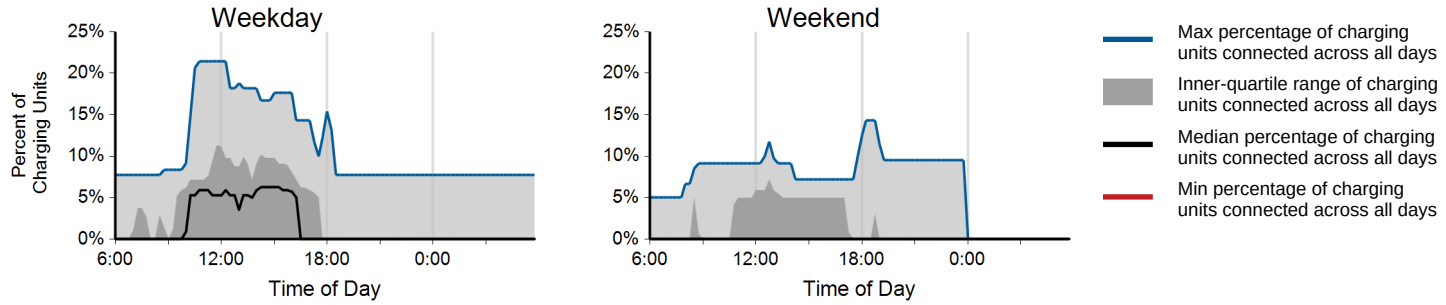
Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Knoxville, TN Metropolitan Area

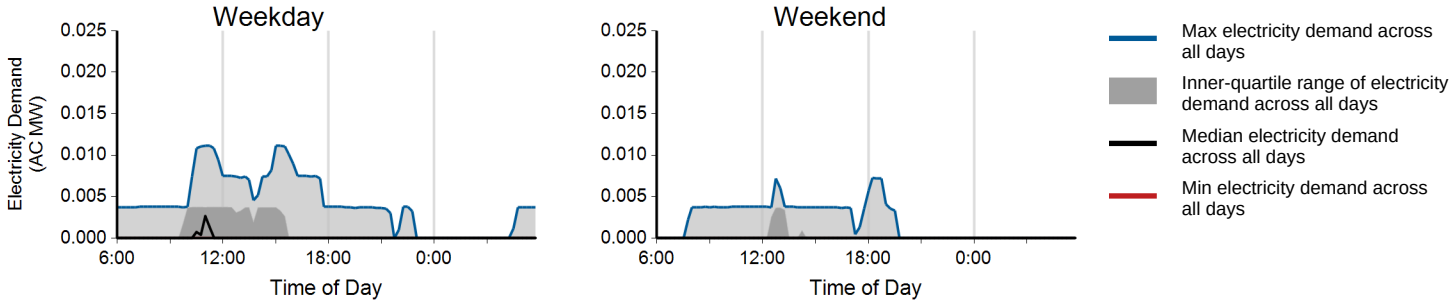
Report period: January 2011 through December 2011

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	149	25	174
Electricity consumed (AC MWh)	1.24	0.20	1.44
Percent of time with a vehicle connected to EVSE	5%	2%	4%
Percent of time with a vehicle drawing power from EVSE	1%	0%	1%
Average number of charging events started per EVSE per day	0.13	0.05	0.11

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

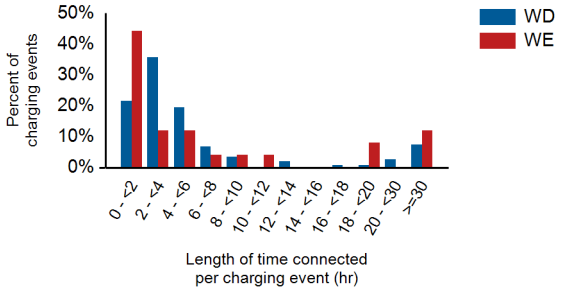
Region: Knoxville, TN Metropolitan Area

Report period: January 2011 through December 2011

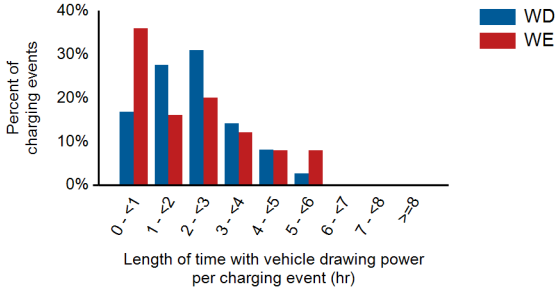
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	74%	0%	26%
Percent of electricity consumed	74%	0%	26%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	9.0	11.2	9.3
Average length of time with vehicle drawing power per charging event (hr)	2.3	2.1	2.3
Average electricity consumed per charging event (AC kWh)	8.4	7.7	8.3

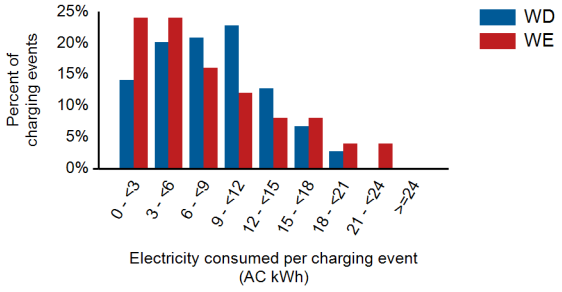
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



EV Project Electric Vehicle Charging Infrastructure Summary Report

Region: Memphis, TN Metropolitan Area

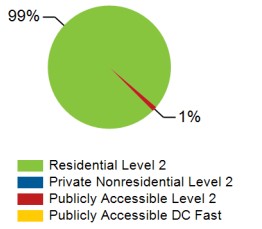
Report period: January 2011 through December 2011

Number of EV Project vehicles in region: 18

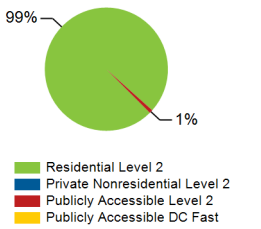
Charging Unit Usage

	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	17	0	4	0	21
Number of charging events[2]	948	0	12	0	960
Electricity consumed (AC MWh)	7.74	0.00	0.07	0.00	7.80
Percent of time with a vehicle connected to charging unit	28%	0%	2%	0%	21%
Percent of time with a vehicle drawing power from charging unit	7%	0%	0%	0%	5%

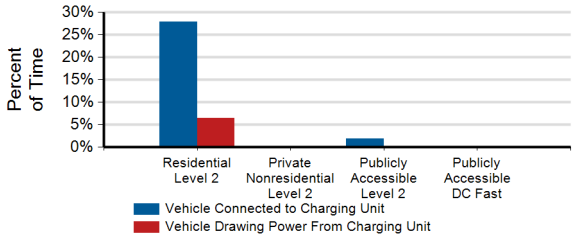
Number of Charge Events



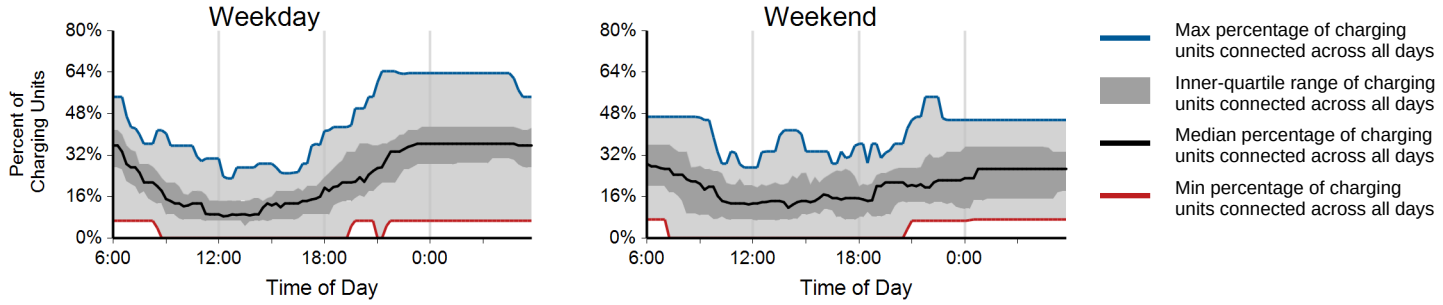
Electricity Consumed



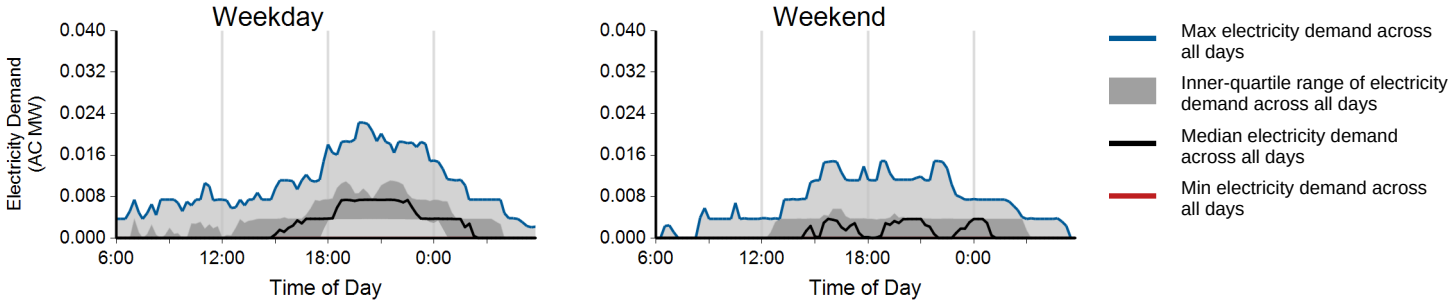
Charging Unit Utilization



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



[1] Includes charging units that reported at least one use during the reporting period. Some residential charging units are excluded due to incomplete data.

[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

[3] Considers the connection status of all charging units every minute

[4] Based on 15 minute rolling average power output from all charging units

Note: throughout this report, weekdays are defined as the period from Monday 6:00 AM until Saturday 6:00 AM. The weekend is defined as the period from Saturday 6:00 AM until Monday 6:00 AM.

Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Memphis, TN Metropolitan Area

Report period: January 2011 through December 2011

EVSE Usage

	Weekday	Weekend	Overall
Number of charging events	720	228	948
Electricity consumed (AC MWh)	5.99	1.74	7.74
Percent of time with a vehicle connected to EVSE	28%	27%	28%
Percent of time with a vehicle drawing power from EVSE	7%	5%	7%
Average number of charging events started per EVSE per day	0.74	0.59	0.70

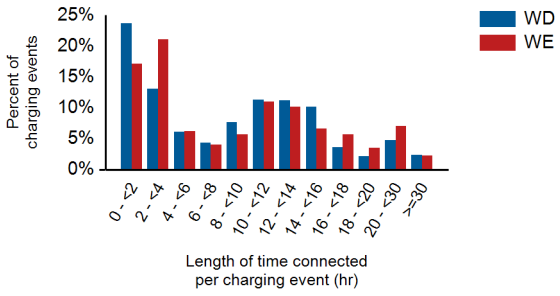
Vehicles Charged

	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	100%	0%	0%
Percent of electricity consumed	100%	0%	0%

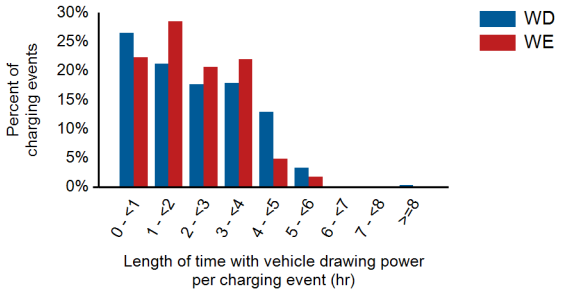
Individual Charging Event Statistics

	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	9.7	9.7	9.7
Average length of time with vehicle drawing power per charging event (hr)	2.3	2.1	2.3
Average electricity consumed per charging event (AC kWh)	8.3	7.6	8.2

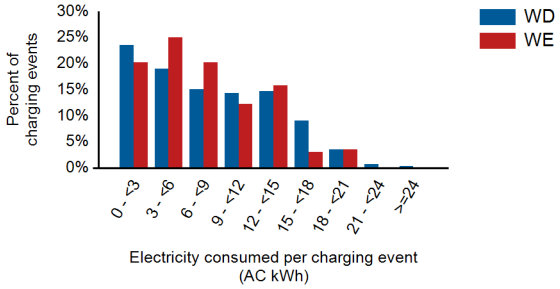
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



EV Project Electric Vehicle Charging Infrastructure Summary Report

Region: Nashville, TN Metropolitan Area

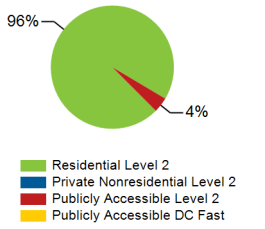
Report period: January 2011 through December 2011

Number of EV Project vehicles in region: 259

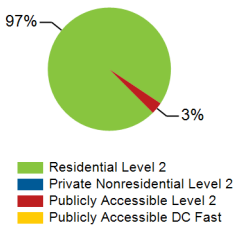
Charging Unit Usage

	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	257	0	77	0	334
Number of charging events[2]	18,011	0	745	0	18,756
Electricity consumed (AC MWh)	145.92	0.00	4.73	0.00	150.65
Percent of time with a vehicle connected to charging unit	27%	0%	6%	0%	24%
Percent of time with a vehicle drawing power from charging unit	6%	0%	1%	0%	5%

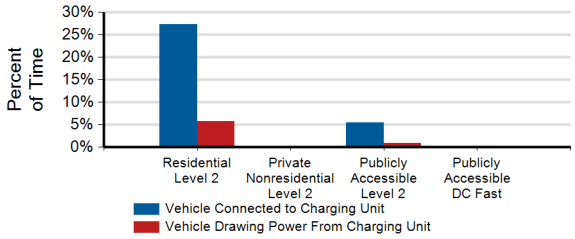
Number of Charge Events



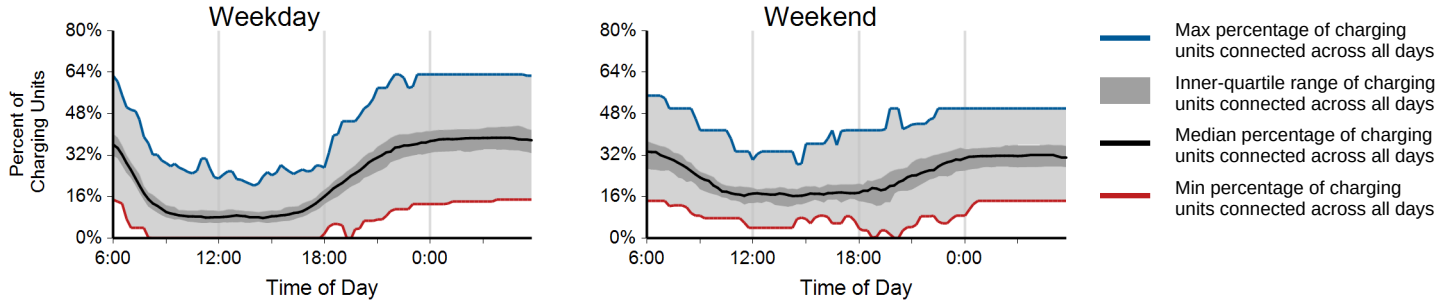
Electricity Consumed



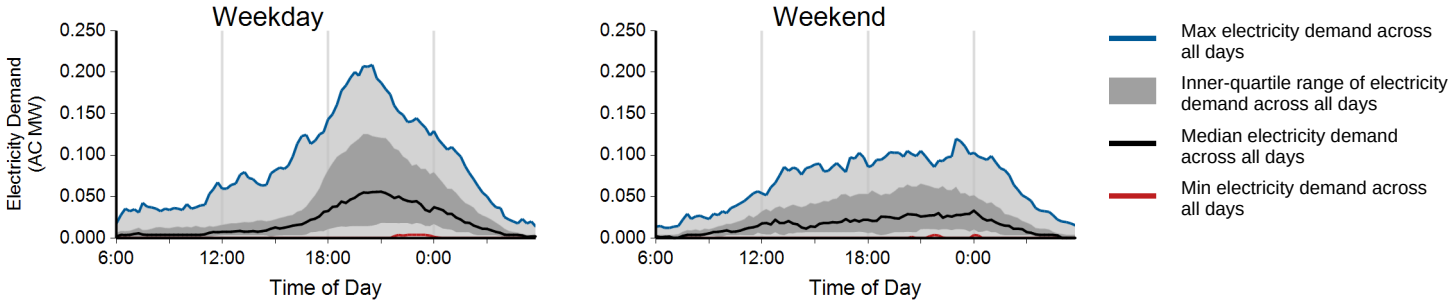
Charging Unit Utilization



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



[1] Includes charging units that reported at least one use during the reporting period. Some residential charging units are excluded due to incomplete data.

[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

[3] Considers the connection status of all charging units every minute

[4] Based on 15 minute rolling average power output from all charging units

Note: throughout this report, weekdays are defined as the period from Monday 6:00 AM until Saturday 6:00 AM. The weekend is defined as the period from Saturday 6:00 AM until Monday 6:00 AM.

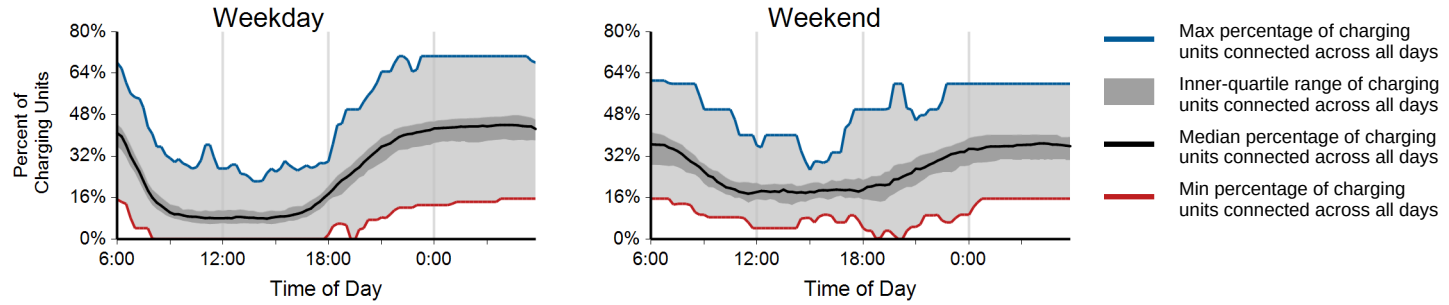
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Nashville, TN Metropolitan Area

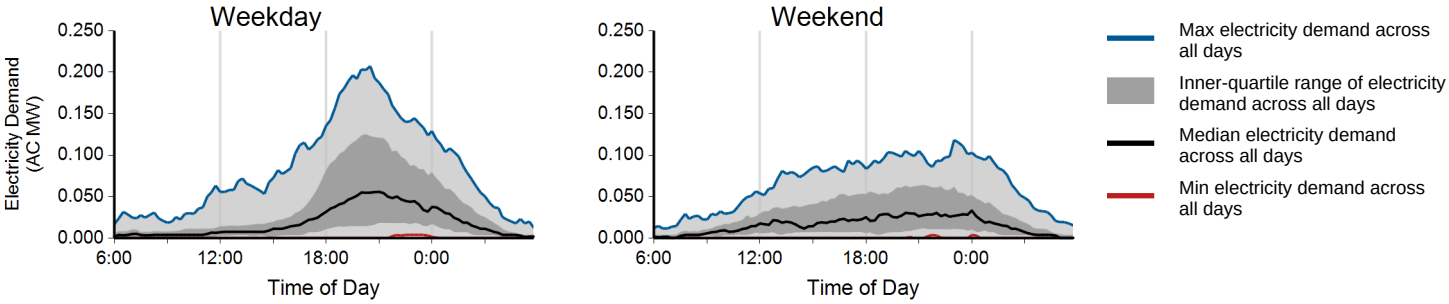
Report period: January 2011 through December 2011

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	13,027	4,984	18,011
Electricity consumed (AC MWh)	109.75	36.17	145.92
Percent of time with a vehicle connected to EVSE	27%	29%	27%
Percent of time with a vehicle drawing power from EVSE	6%	5%	6%
Average number of charging events started per EVSE per day	0.63	0.61	0.62

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

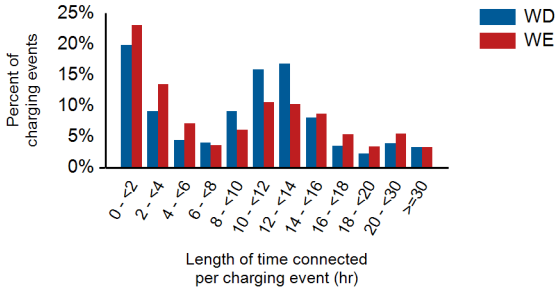
Region: Nashville, TN Metropolitan Area

Report period: January 2011 through December 2011

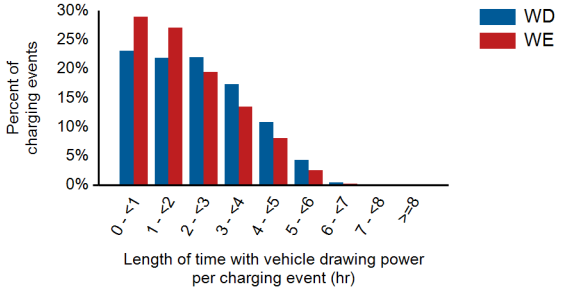
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	100%	0%	0%
Percent of electricity consumed	100%	0%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	10.8	10.1	10.6
Average length of time with vehicle drawing power per charging event (hr)	2.4	2.0	2.3
Average electricity consumed per charging event (AC kWh)	8.4	7.2	8.1

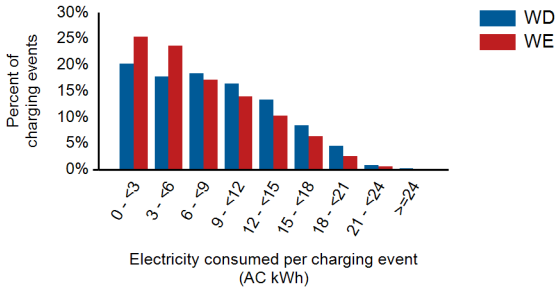
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



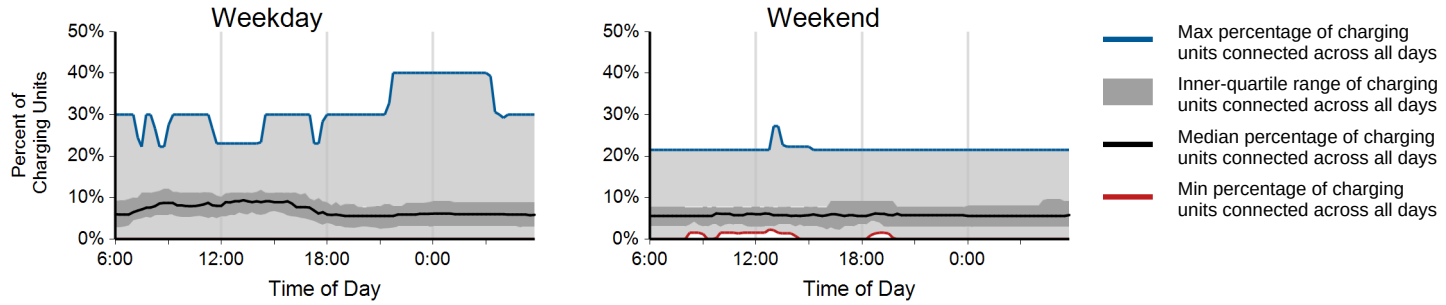
Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Nashville, TN Metropolitan Area

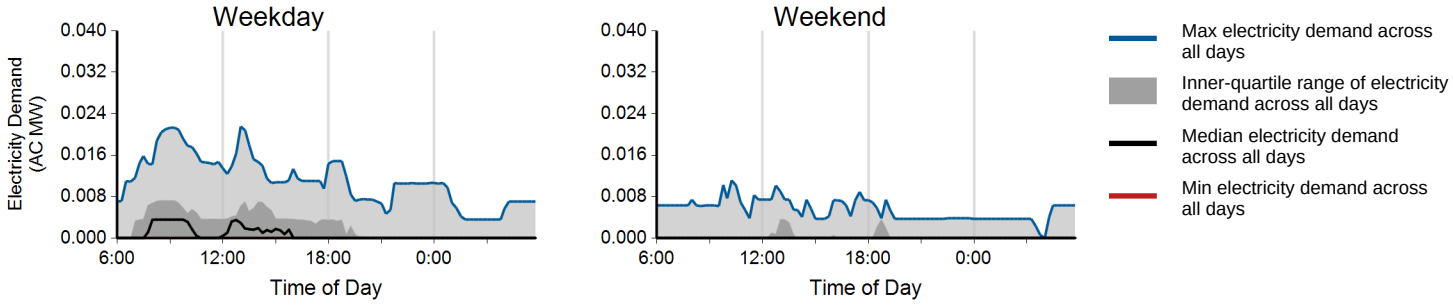
Report period: January 2011 through December 2011

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	623	122	745
Electricity consumed (AC MWh)	4.21	0.53	4.73
Percent of time with a vehicle connected to EVSE	6%	5%	6%
Percent of time with a vehicle drawing power from EVSE	1%	0%	1%
Average number of charging events started per EVSE per day	0.15	0.07	0.12

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

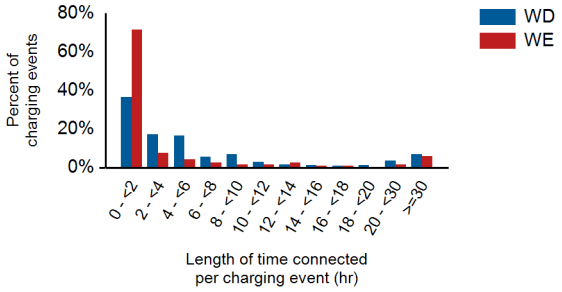
Region: Nashville, TN Metropolitan Area

Report period: January 2011 through December 2011

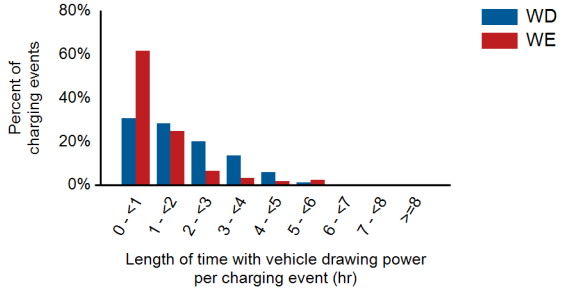
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	57%	0%	43%
Percent of electricity consumed	52%	0%	48%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	11.4	6.7	10.7
Average length of time with vehicle drawing power per charging event (hr)	1.9	1.2	1.8
Average electricity consumed per charging event (AC kWh)	6.7	4.4	6.3

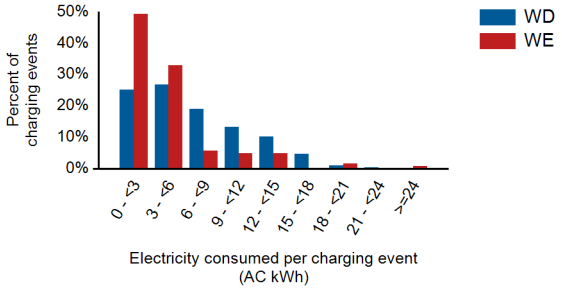
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



EV Project Electric Vehicle Charging Infrastructure Summary Report

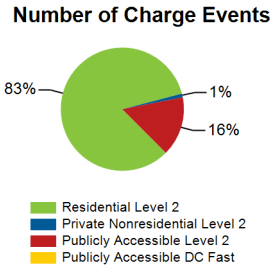
Region: Dallas/Ft. Worth, TX Metropolitan Area

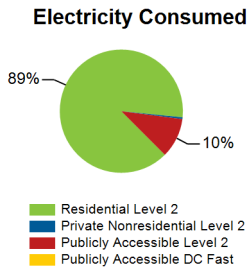
Report period: January 2011 through December 2011

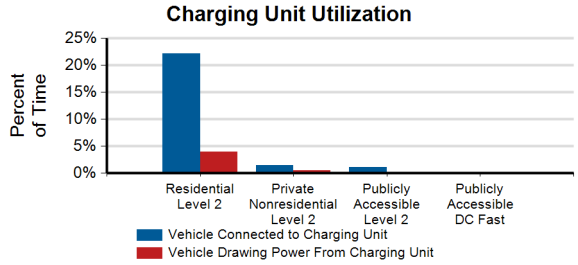
Number of EV Project vehicles in region: 31

Charging Unit Usage

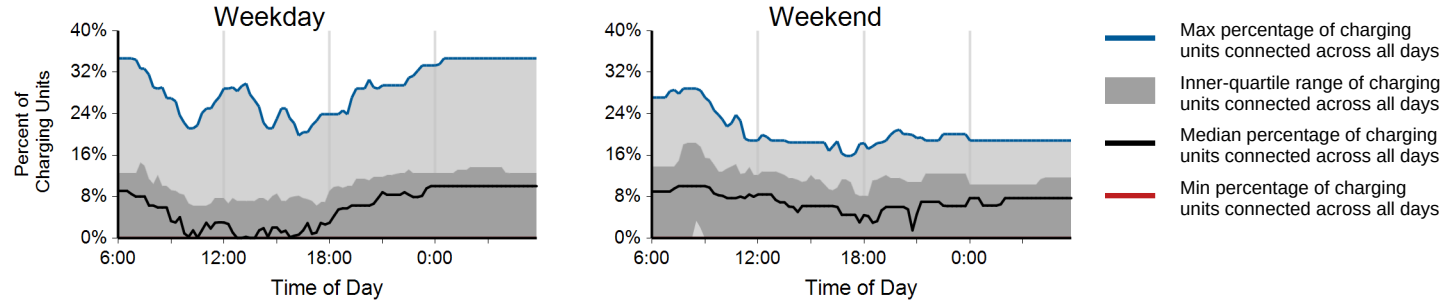
	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	31	2	28	0	61
Number of charging events[2]	514	6	96	0	616
Electricity consumed (AC MWh)	3.09	0.02	0.36	0.00	3.47
Percent of time with a vehicle connected to charging unit	22%	2%	1%	0%	7%
Percent of time with a vehicle drawing power from charging unit	4%	0%	0%	0%	1%



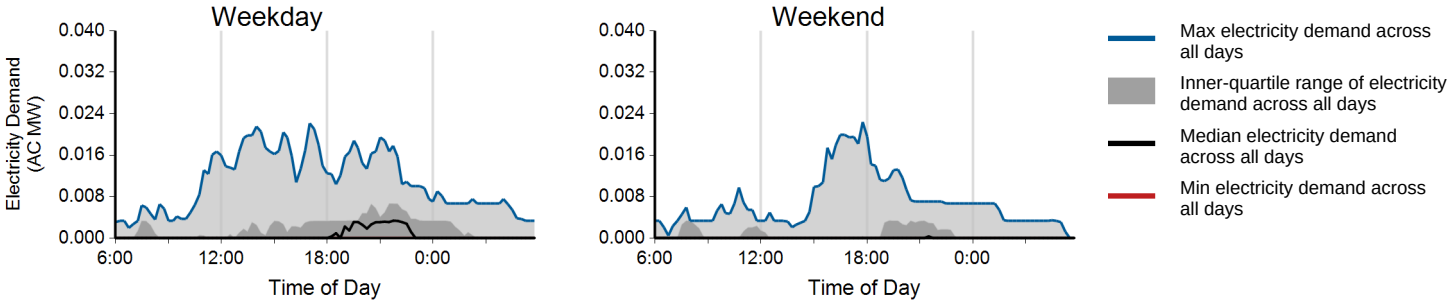




Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



[1] Includes charging units that reported at least one use during the reporting period. Some residential charging units are excluded due to incomplete data.

[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

[3] Considers the connection status of all charging units every minute

[4] Based on 15 minute rolling average power output from all charging units

Note: throughout this report, weekdays are defined as the period from Monday 6:00 AM until Saturday 6:00 AM. The weekend is defined as the period from Saturday 6:00 AM until Monday 6:00 AM.

Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Dallas/Ft. Worth, TX Metropolitan Area

Report period: January 2011 through December 2011

EVSE Usage

	Weekday	Weekend	Overall
Number of charging events	87	9	96
Electricity consumed (AC MWh)	0.34	0.02	0.36
Percent of time with a vehicle connected to EVSE	1%	1%	1%
Percent of time with a vehicle drawing power from EVSE	0%	0%	0%
Average number of charging events started per EVSE per day	0.05	0.01	0.04

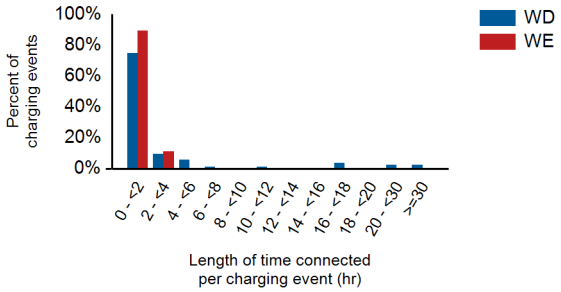
Vehicles Charged

	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	0%	8%	92%
Percent of electricity consumed	0%	7%	93%

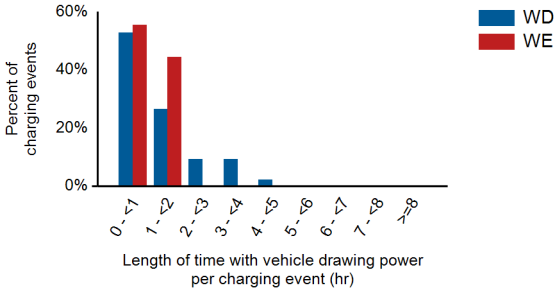
Individual Charging Event Statistics

	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	6.8	1.0	6.3
Average length of time with vehicle drawing power per charging event (hr)	1.3	0.8	1.2
Average electricity consumed per charging event (AC kWh)	3.9	2.5	3.8

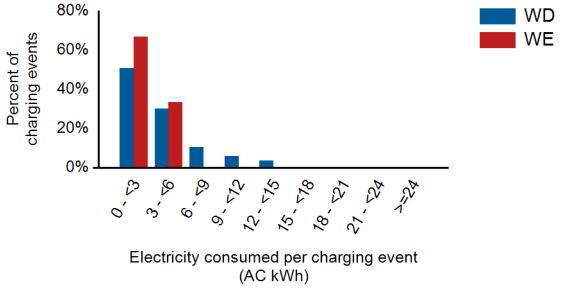
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



EV Project Electric Vehicle Charging Infrastructure Summary Report

Region: Houston, TX Metropolitan Area

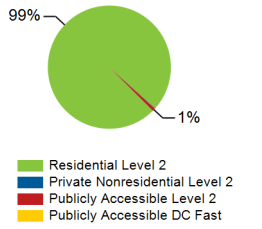
Report period: January 2011 through December 2011

Number of EV Project vehicles in region: 34

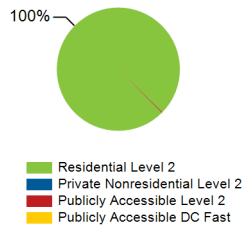
Charging Unit Usage

	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	34	1	6	0	41
Number of charging events[2]	1,183	1	9	0	1,193
Electricity consumed (AC MWh)	6.65	0.00	0.01	0.00	6.67
Percent of time with a vehicle connected to charging unit	39%	0%	0%	0%	29%
Percent of time with a vehicle drawing power from charging unit	7%	0%	0%	0%	5%

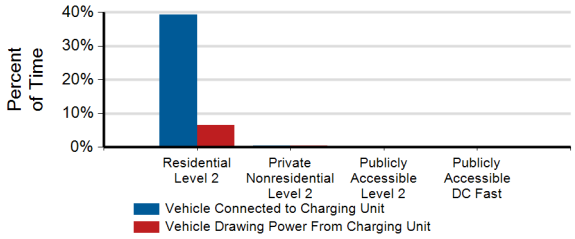
Number of Charge Events



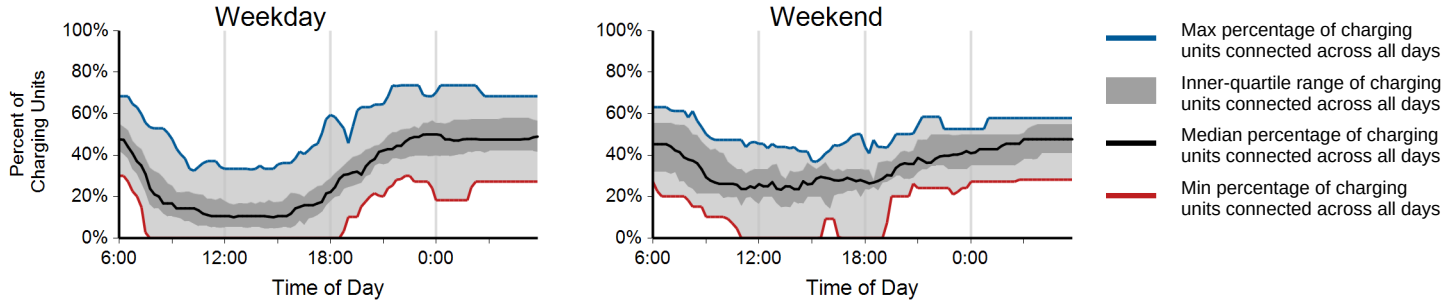
Electricity Consumed



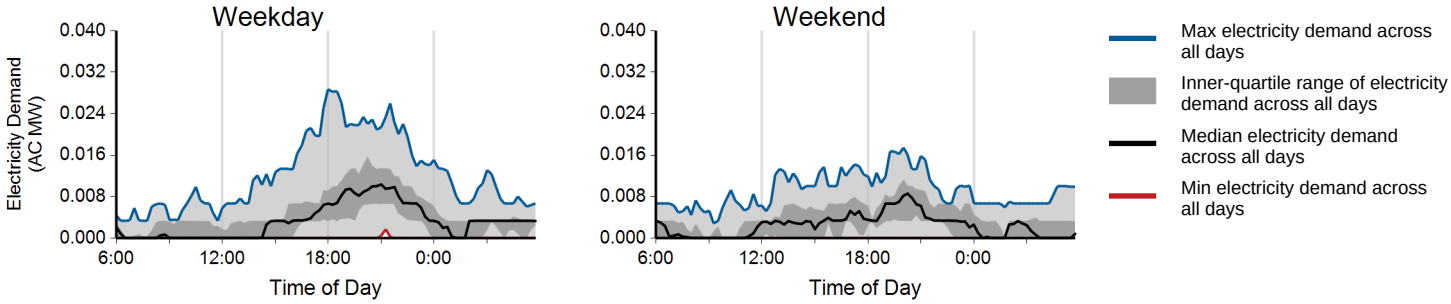
Charging Unit Utilization



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



[1] Includes charging units that reported at least one use during the reporting period. Some residential charging units are excluded due to incomplete data.

[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

[3] Considers the connection status of all charging units every minute

[4] Based on 15 minute rolling average power output from all charging units

Note: throughout this report, weekdays are defined as the period from Monday 6:00 AM until Saturday 6:00 AM. The weekend is defined as the period from Saturday 6:00 AM until Monday 6:00 AM.

Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Houston, TX Metropolitan Area

Report period: January 2011 through December 2011

EVSE Usage

	Weekday	Weekend	Overall
Number of charging events	840	343	1,183
Electricity consumed (AC MWh)	5.03	1.62	6.65
Percent of time with a vehicle connected to EVSE	38%	42%	39%
Percent of time with a vehicle drawing power from EVSE	7%	6%	7%
Average number of charging events started per EVSE per day	0.88	0.93	0.90

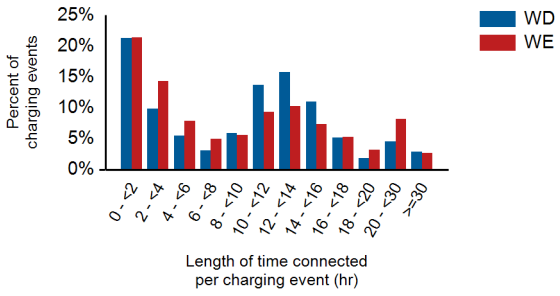
Vehicles Charged

	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	0%	100%	0%
Percent of electricity consumed	0%	100%	0%

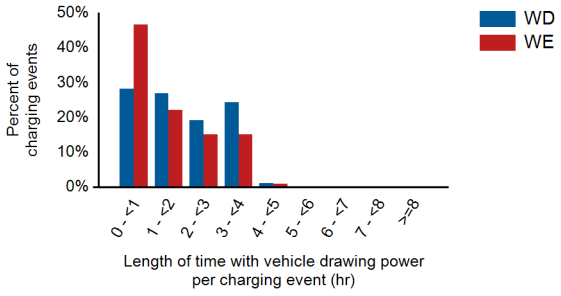
Individual Charging Event Statistics

	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	11.0	10.0	10.7
Average length of time with vehicle drawing power per charging event (hr)	1.9	1.5	1.8
Average electricity consumed per charging event (AC kWh)	6.0	4.6	5.6

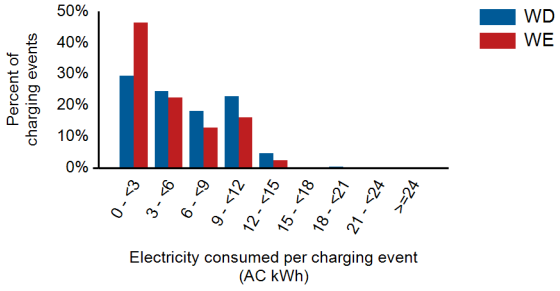
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



EV Project Electric Vehicle Charging Infrastructure Summary Report

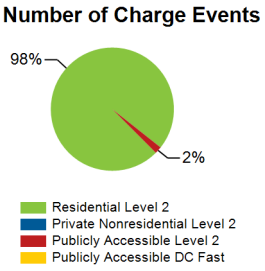
Region: Washington State

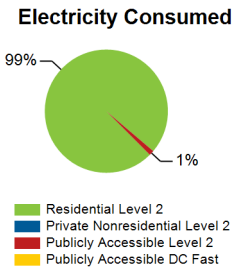
Report period: January 2011 through December 2011

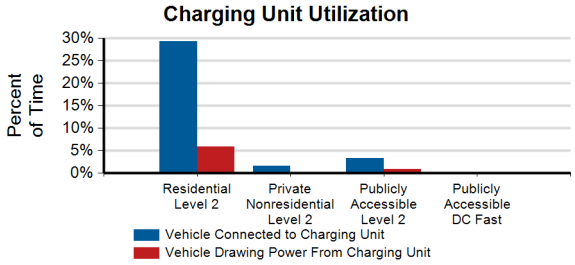
Number of EV Project vehicles in region: 525

Charging Unit Usage

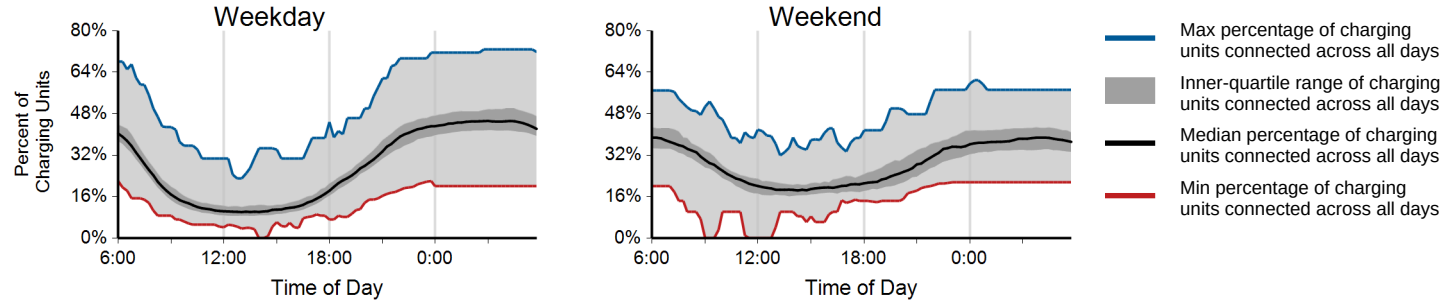
	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	522	6	71	0	599
Number of charging events[2]	55,616	9	1,038	0	56,663
Electricity consumed (AC MWh)	451.77	0.06	5.84	0.00	457.67
Percent of time with a vehicle connected to charging unit	29%	2%	3%	0%	27%
Percent of time with a vehicle drawing power from charging unit	6%	0%	1%	0%	6%



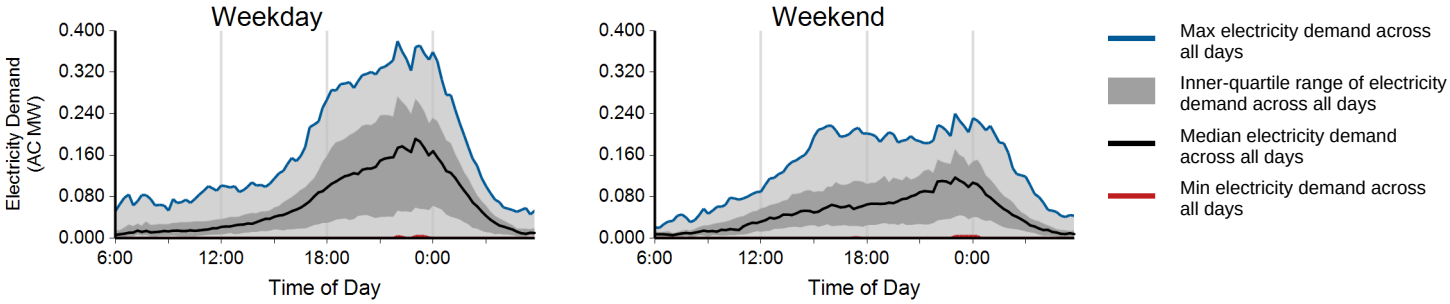




Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



[1] Includes charging units that reported at least one use during the reporting period. Some residential charging units are excluded due to incomplete data.

[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

[3] Considers the connection status of all charging units every minute

[4] Based on 15 minute rolling average power output from all charging units

Note: throughout this report, weekdays are defined as the period from Monday 6:00 AM until Saturday 6:00 AM. The weekend is defined as the period from Saturday 6:00 AM until Monday 6:00 AM.

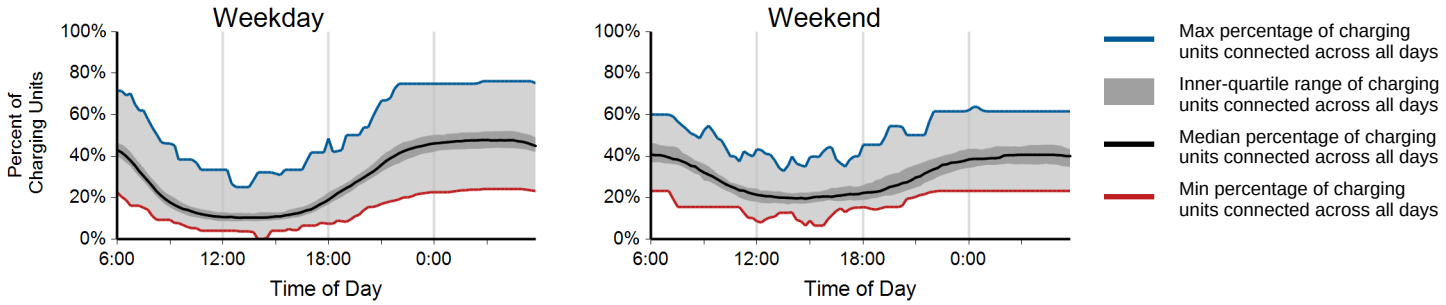
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Washington State

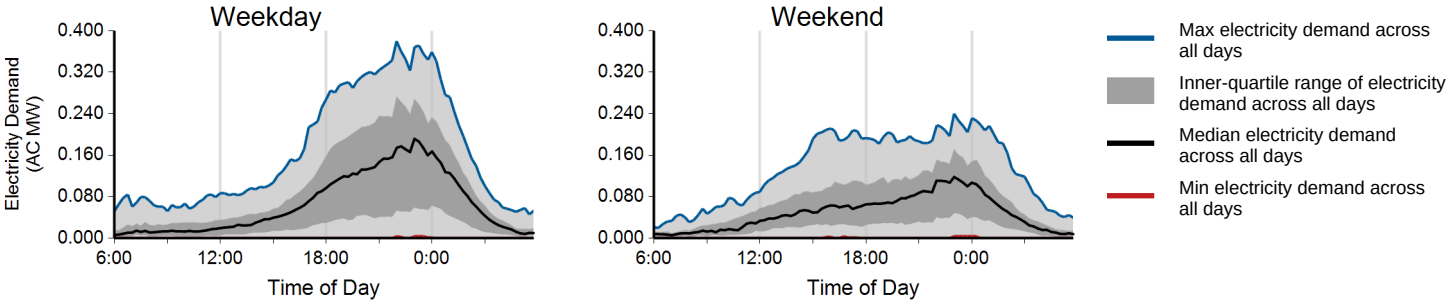
Report period: January 2011 through December 2011

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	40,939	14,677	55,616
Electricity consumed (AC MWh)	343.41	108.35	451.77
Percent of time with a vehicle connected to EVSE	29%	30%	29%
Percent of time with a vehicle drawing power from EVSE	6%	5%	6%
Average number of charging events started per EVSE per day	0.66	0.59	0.64

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

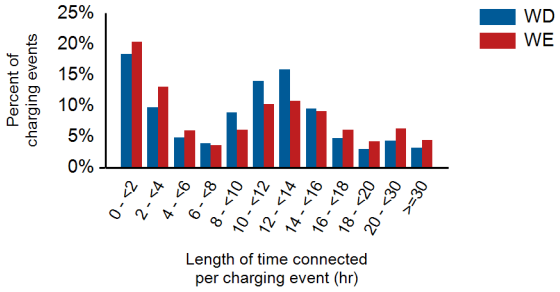
Region: Washington State

Report period: January 2011 through December 2011

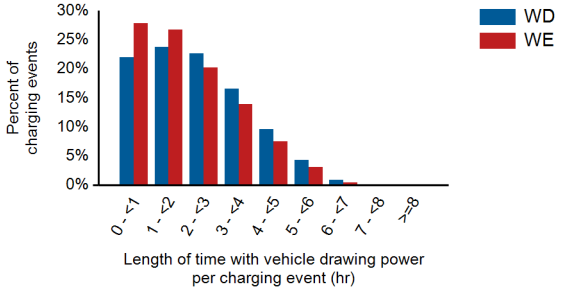
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	100%	0%	0%
Percent of electricity consumed	100%	0%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	11.1	11.1	11.1
Average length of time with vehicle drawing power per charging event (hr)	2.3	2.1	2.3
Average electricity consumed per charging event (AC kWh)	8.4	7.4	8.1

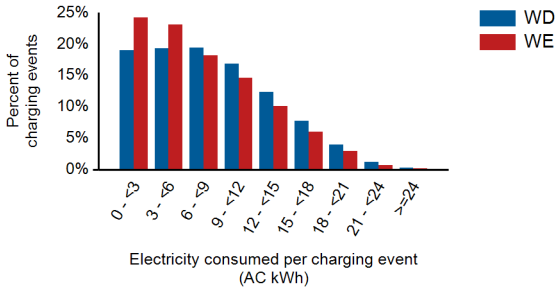
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



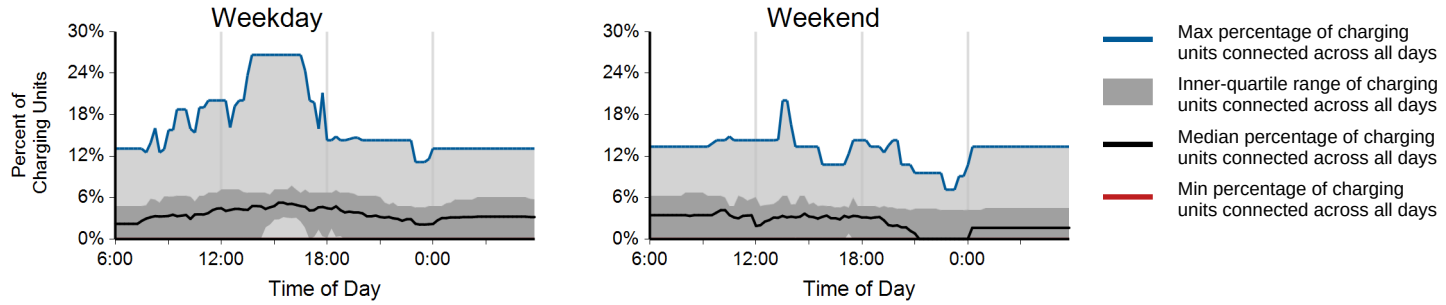
Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Washington State

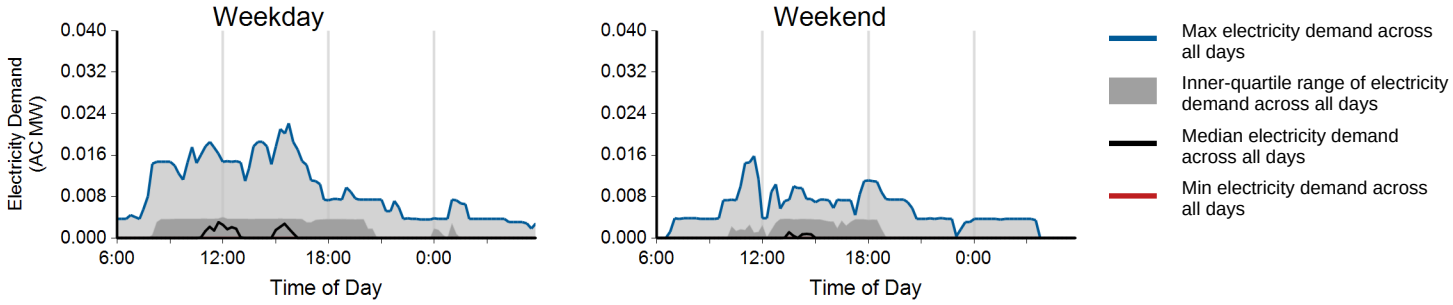
Report period: January 2011 through December 2011

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	837	201	1,038
Electricity consumed (AC MWh)	4.84	1.00	5.84
Percent of time with a vehicle connected to EVSE	4%	3%	3%
Percent of time with a vehicle drawing power from EVSE	1%	1%	1%
Average number of charging events started per EVSE per day	0.15	0.09	0.14

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day[4]



Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

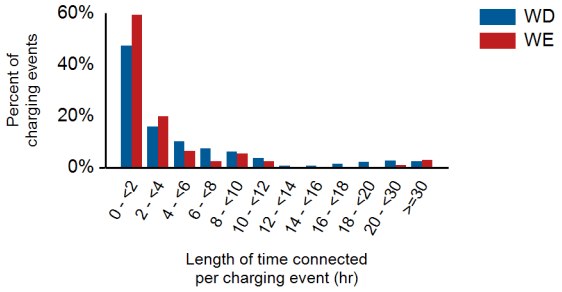
Region: Washington State

Report period: January 2011 through December 2011

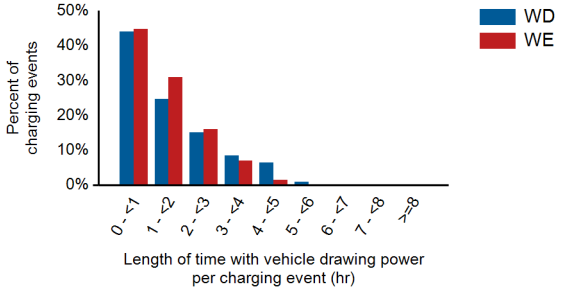
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	52%	0%	47%
Percent of electricity consumed	51%	1%	48%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	6.4	4.6	6.0
Average length of time with vehicle drawing power per charging event (hr)	1.6	1.4	1.6
Average electricity consumed per charging event (AC kWh)	5.8	4.9	5.6

Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event