EV Project Electric Vehicle Charging Infrastructure Summary Report

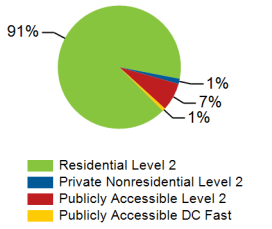
Region: ALL

Report period: January 2012 through December 2012

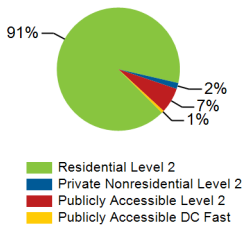
Number of EV Project vehicles in region: 5584

Charging Unit Usage	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	5,572	237	2,092	54	7,955
Number of charging events[2]	1,129,756	17,026	91,579	9,727	1,248,088
Electricity consumed (AC MWh)	9,500.64	164.92	694.05	67.84	10,427.40
Percent of time with a vehicle connected to charging unit	36%	8%	4%	2%	28%
Percent of time with a vehicle drawing power from charging unit	7%	4%	2%	2%	6%

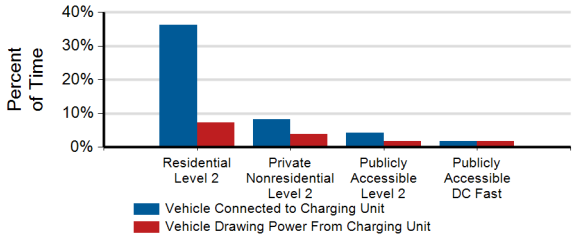
Number of Charge Events



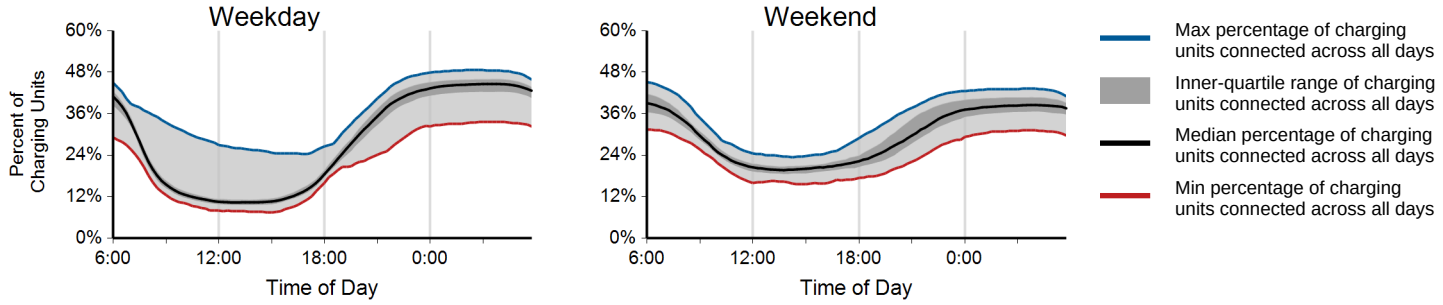
Electricity Consumed



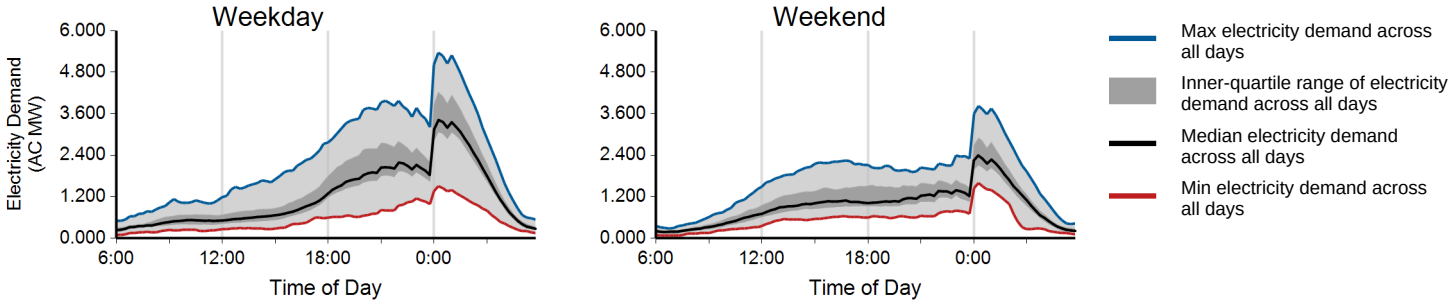
Charging Unit Utilization



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.

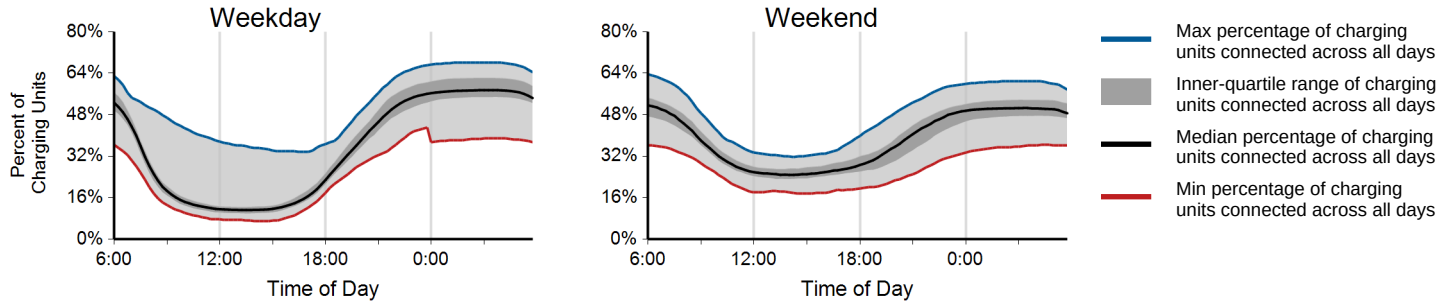
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: ALL

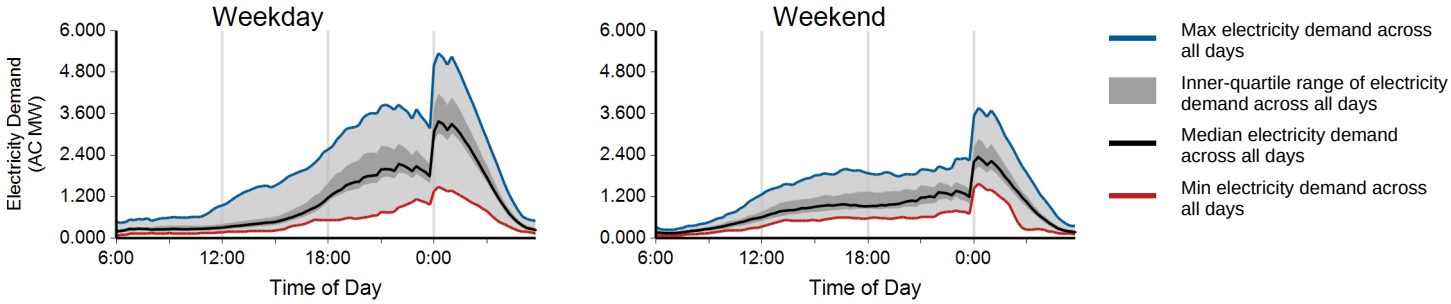
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	830,568	299,188	1,129,756
Electricity consumed (AC MWh)	7,263.81	2,236.83	9,500.64
Percent of time with a vehicle connected to EVSE	35%	39%	36%
Percent of time with a vehicle drawing power from EVSE	8%	6%	7%
Average number of charging events started per EVSE per day	0.76	0.68	0.74

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)

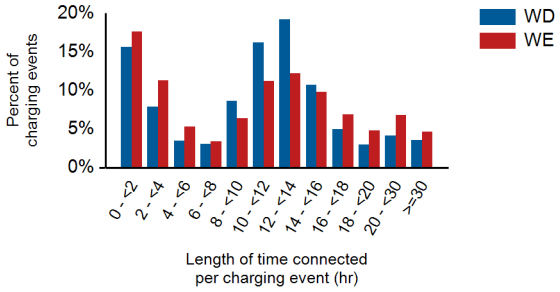
Region: ALL

Report period: January 2012 through December 2012

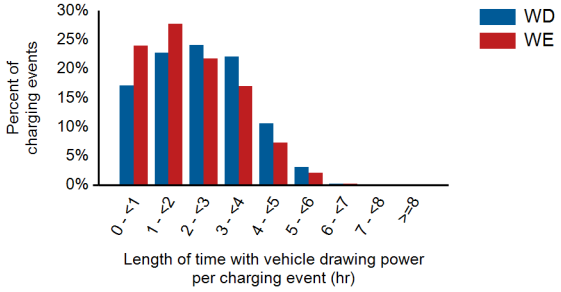
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	82%	18%	0%
Percent of electricity consumed	86%	14%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	11.9	11.8	11.9
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)	8.7	7.5	8.4

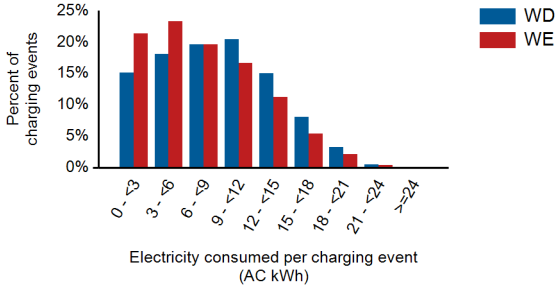
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



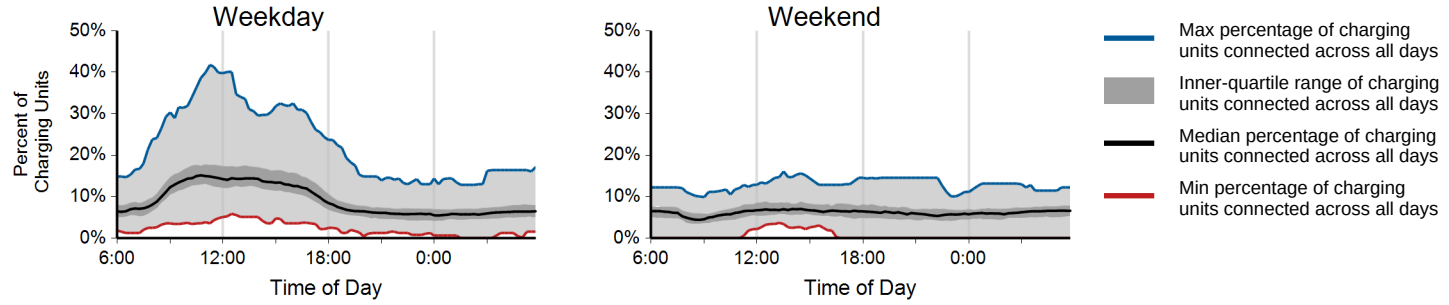
Private Nonresidential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: ALL

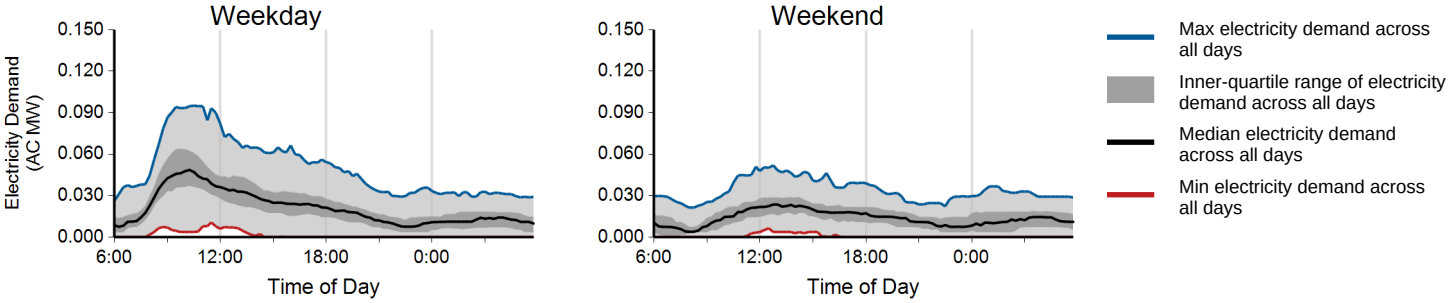
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	13,932	3,094	17,026
Electricity consumed (AC MWh)	131.36	33.56	164.92
Percent of time with a vehicle connected to EVSE	9%	6%	8%
Percent of time with a vehicle drawing power from EVSE	4%	3%	4%
Average number of charging events started per EVSE per day	0.38	0.21	0.33

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)

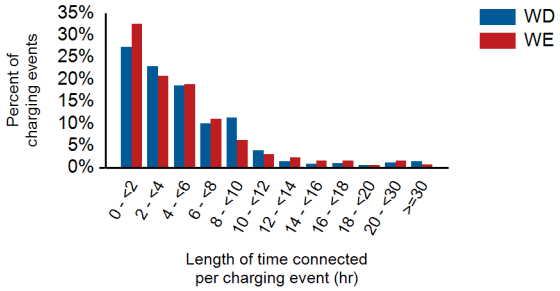
Region: ALL

Report period: January 2012 through December 2012

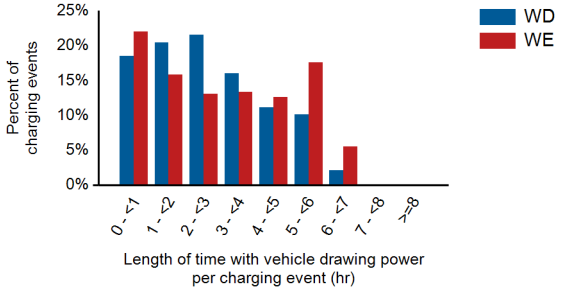
Vehicles Charged	Car sharing fleet [1]	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	43%	15%	6%	36%
Percent of electricity consumed	52%	12%	4%	32%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	6.1	5.1	5.9
Average length of time with vehicle drawing power per charging event (hr)	2.7	3.0	2.8
Average electricity consumed per charging event (AC kWh)	9.4	10.9	9.7

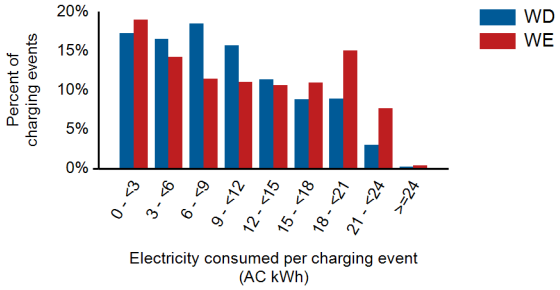
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



[1] 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.

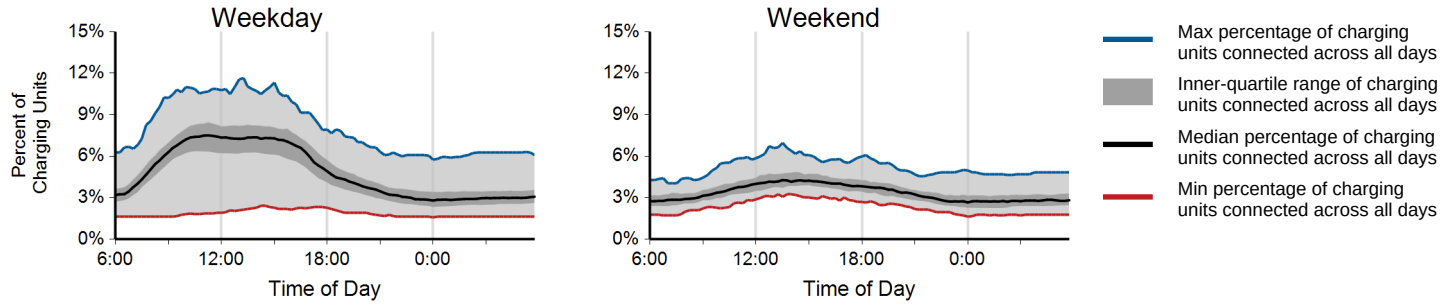
Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: ALL

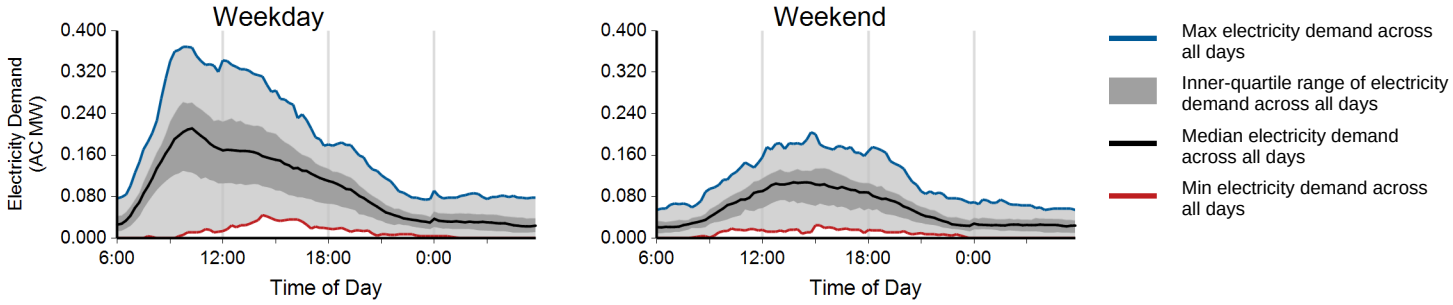
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	73,388	18,191	91,579
Electricity consumed (AC MWh)	564.36	129.69	694.05
Percent of time with a vehicle connected to EVSE	5%	3%	4%
Percent of time with a vehicle drawing power from EVSE	2%	1%	2%
Average number of charging events started per EVSE per day	0.22	0.13	0.19

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)

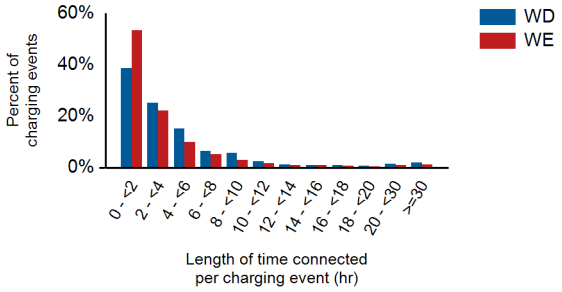
Region: ALL

Report period: January 2012 through December 2012

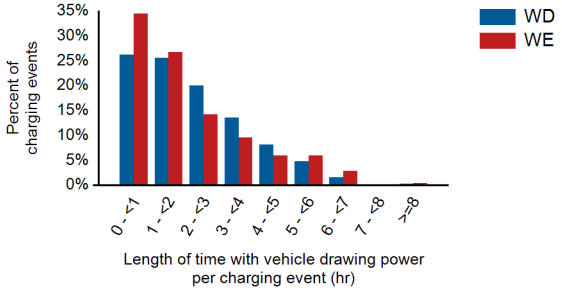
Vehicles Charged	Car sharing fleet [1]	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	17%	29%	5%	49%
Percent of electricity consumed	28%	25%	3%	44%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	5.6	3.8	5.3
Average length of time with vehicle drawing power per charging event (hr)	2.3	2.1	2.2
Average electricity consumed per charging event (AC kWh)	7.7	7.2	7.6

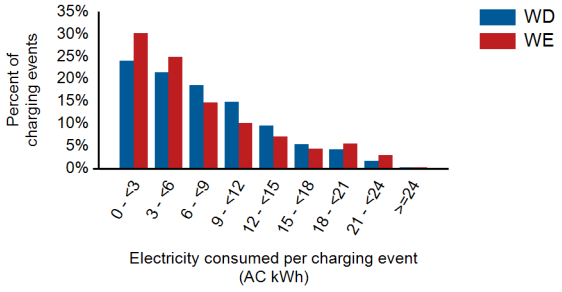
Distribution of Length of Time with a Vehicle Connected per Charging Event



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 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.

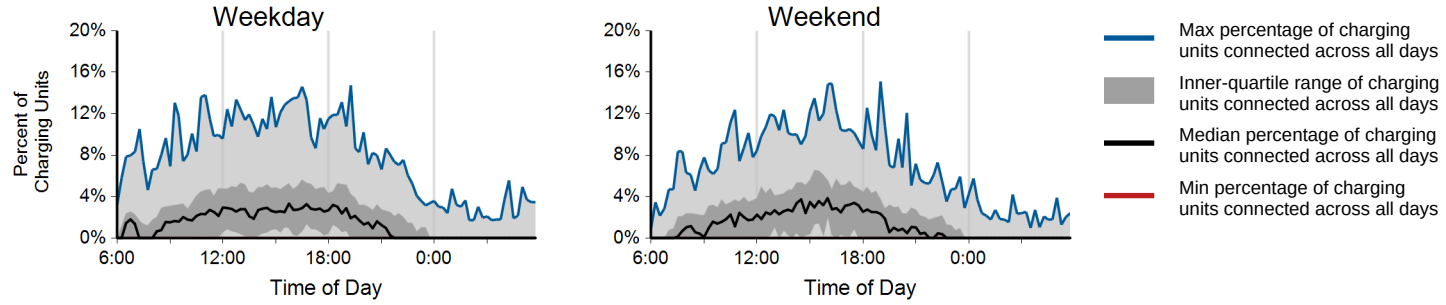
DC Fast Chargers

Region: ALL

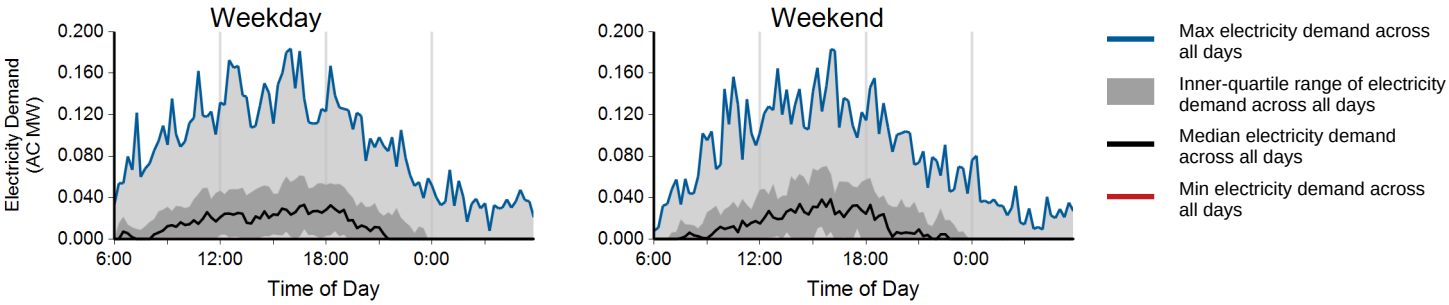
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	7,174	2,553	9,727
Electricity consumed (AC MWh)	48.31	19.53	67.84
Percent of time with a vehicle connected to EVSE	2%	2%	2%
Percent of time with a vehicle drawing power from EVSE	2%	2%	2%
Average number of charging events started per EVSE per day	1.41	1.23	1.36

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]



DC Fast Chargers

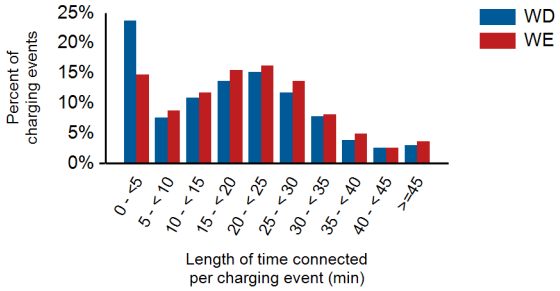
Region: ALL

Report period: January 2012 through December 2012

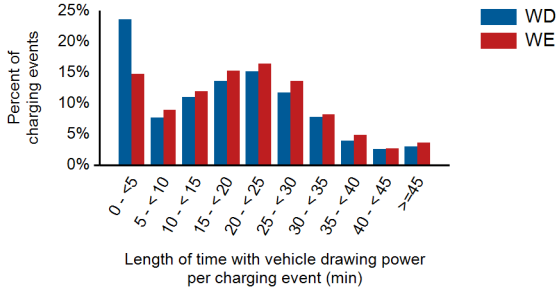
Vehicles Charged	Car sharing fleet [1]	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	0%	46%	0%	54%
Percent of electricity consumed	0%	49%	0%	51%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (min)	17.8	19.8	18.4
Average length of time with vehicle drawing power per charging event (min)	17.8	19.8	18.4
Average electricity consumed per charging event (AC kWh)	6.7	7.7	7.0

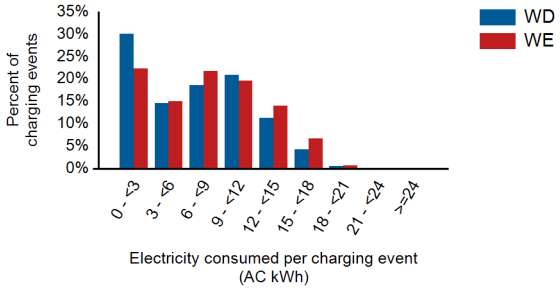
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



[1] 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

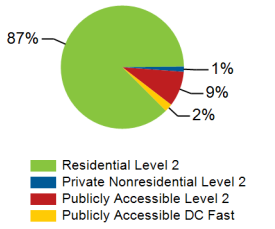
Report period: January 2012 through December 2012

Number of EV Project vehicles in region: 313

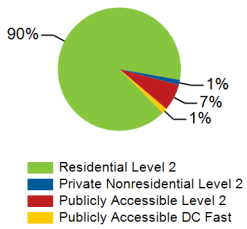
Charging Unit Usage

	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	312	20	306	12	650
Number of charging events[2]	70,220	1,098	7,411	1,674	80,403
Electricity consumed (AC MWh)	537.15	7.92	41.82	8.05	594.94
Percent of time with a vehicle connected to charging unit	37%	4%	2%	1%	22%
Percent of time with a vehicle drawing power from charging unit	7%	2%	1%	1%	4%

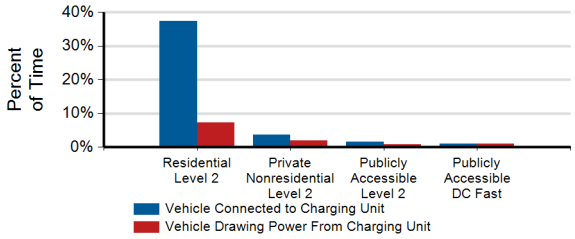
Number of Charge Events



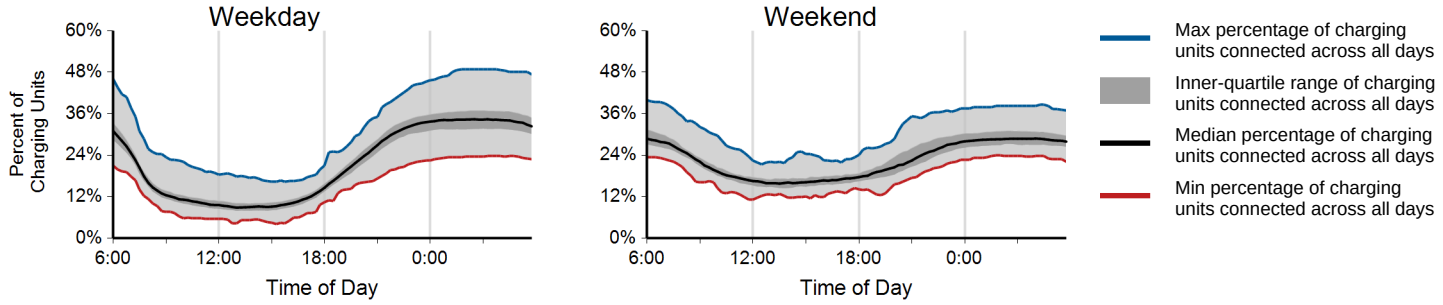
Electricity Consumed



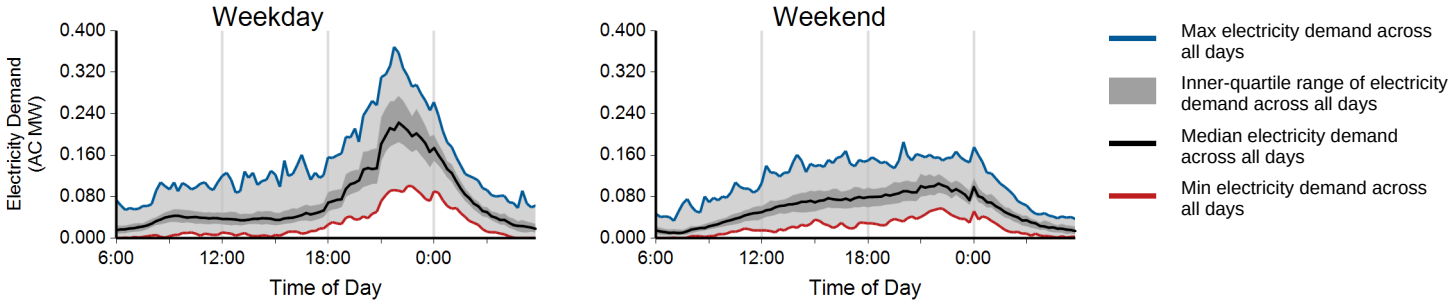
Charging Unit Utilization



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.

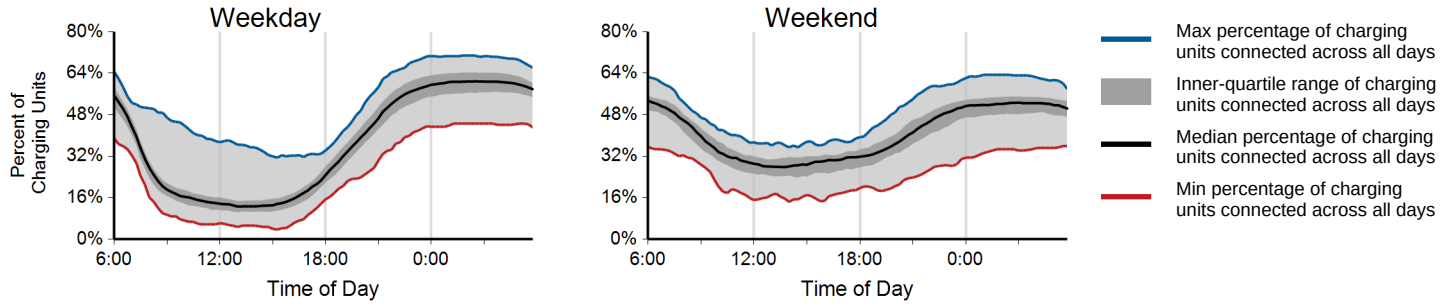
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Phoenix, AZ Metropolitan Area

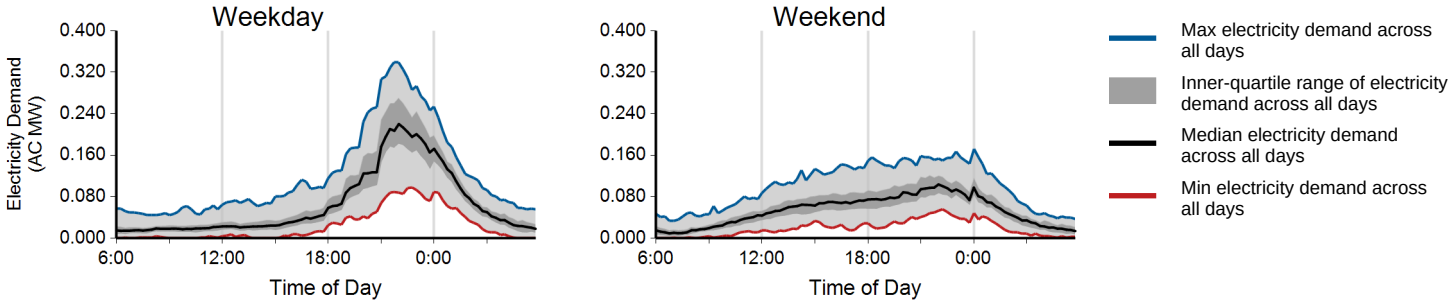
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	50,775	19,445	70,220
Electricity consumed (AC MWh)	406.44	130.71	537.15
Percent of time with a vehicle connected to EVSE	36%	40%	37%
Percent of time with a vehicle drawing power from EVSE	8%	6%	7%
Average number of charging events started per EVSE per day	0.81	0.77	0.80

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)

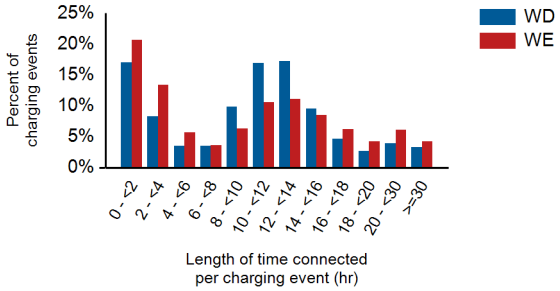
Region: Phoenix, AZ Metropolitan Area

Report period: January 2012 through December 2012

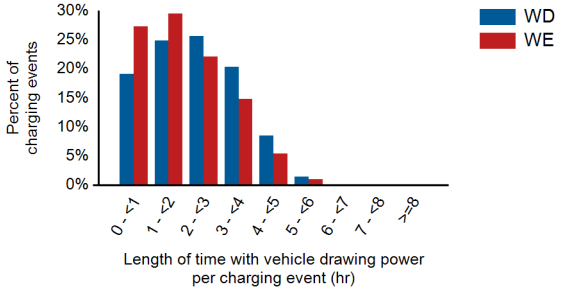
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	80%	20%	0%
Percent of electricity consumed	83%	17%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	11.5	11.0	11.3
Average length of time with vehicle drawing power per charging event (hr)	2.3	1.9	2.2
Average electricity consumed per charging event (AC kWh)	8.0	6.7	7.6

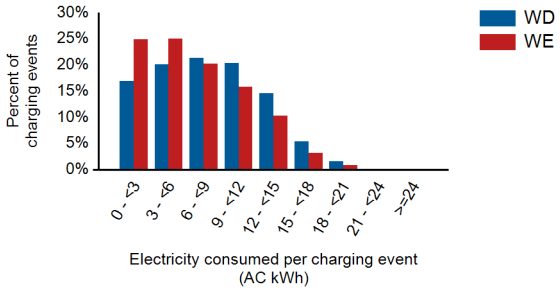
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



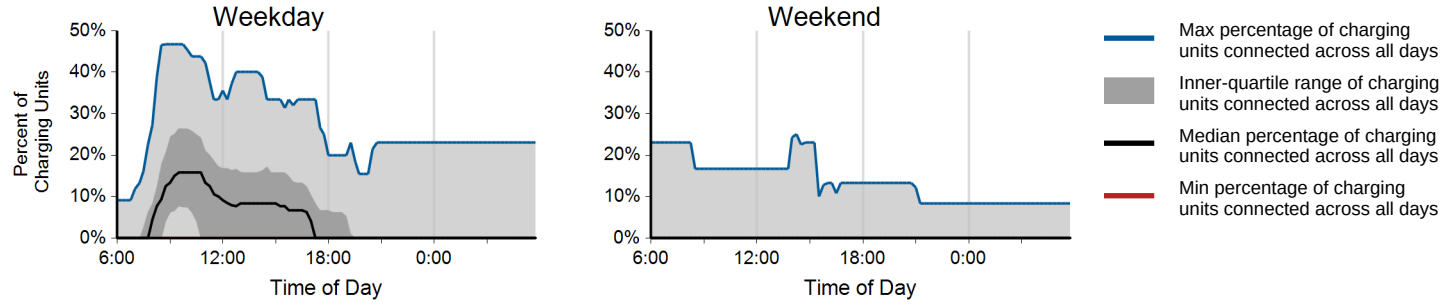
Private Nonresidential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Phoenix, AZ Metropolitan Area

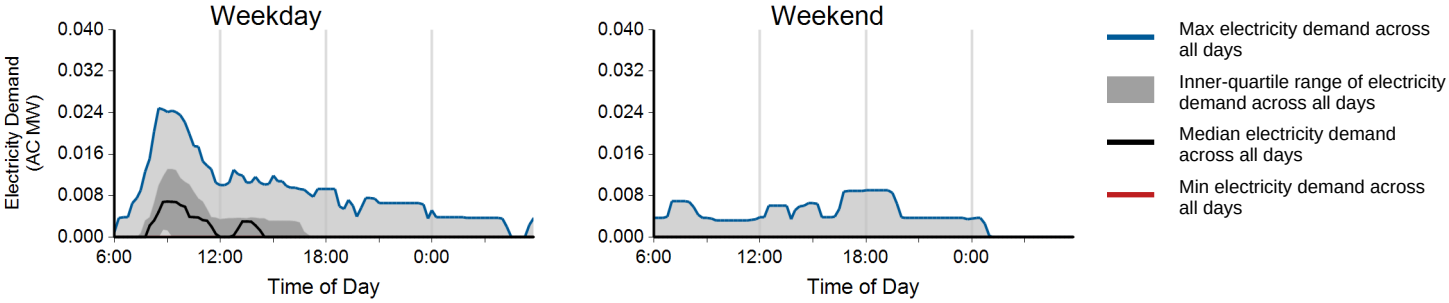
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	1,053	45	1,098
Electricity consumed (AC MWh)	7.60	0.32	7.92
Percent of time with a vehicle connected to EVSE	5%	1%	4%
Percent of time with a vehicle drawing power from EVSE	3%	0%	2%
Average number of charging events started per EVSE per day	0.30	0.03	0.23

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)

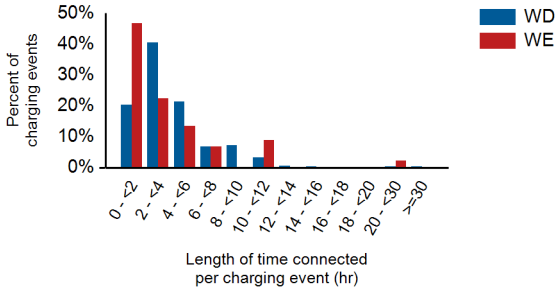
Region: Phoenix, AZ Metropolitan Area

Report period: January 2012 through December 2012

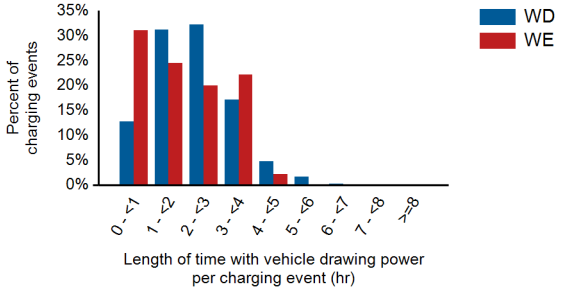
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	20%	25%	55%
Percent of electricity consumed	22%	19%	59%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	4.0	3.8	4.0
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)	7.2	6.7	7.2

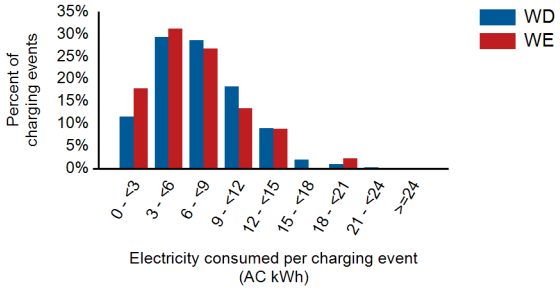
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



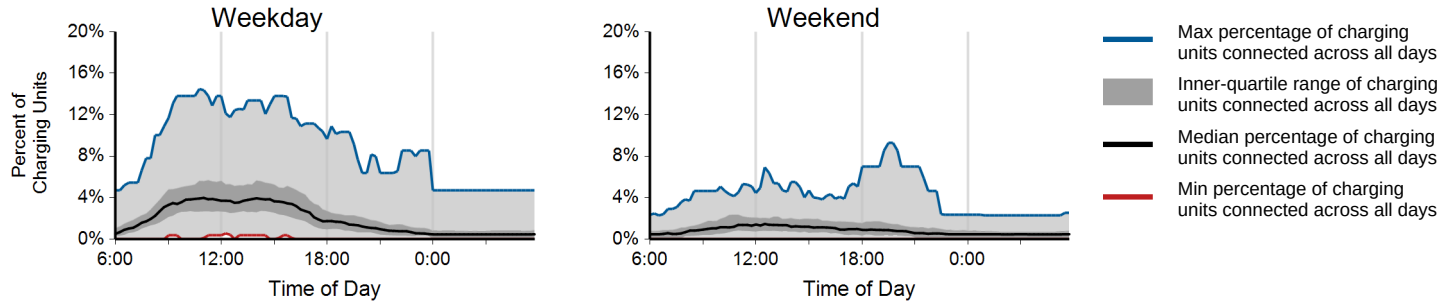
Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Phoenix, AZ Metropolitan Area

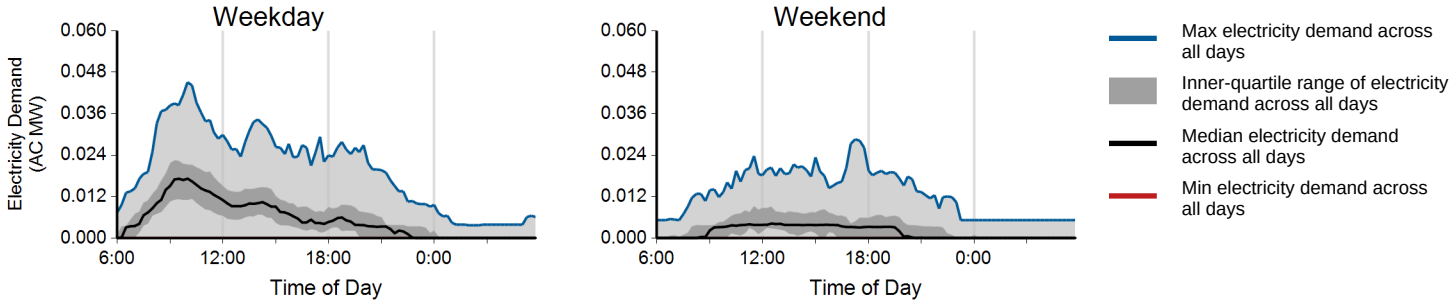
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	6,239	1,172	7,411
Electricity consumed (AC MWh)	35.86	5.96	41.82
Percent of time with a vehicle connected to EVSE	2%	1%	2%
Percent of time with a vehicle drawing power from EVSE	1%	0%	1%
Average number of charging events started per EVSE per day	0.14	0.06	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)

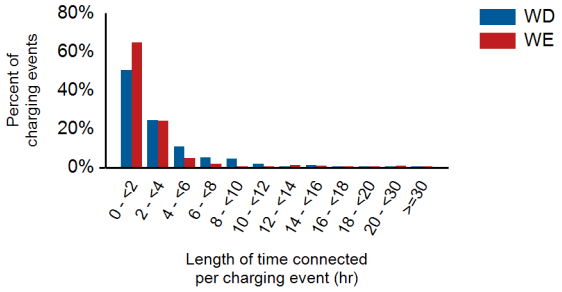
Region: Phoenix, AZ Metropolitan Area

Report period: January 2012 through December 2012

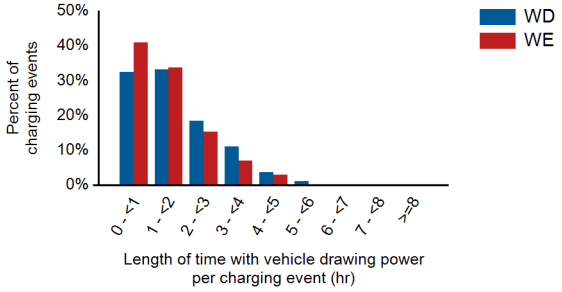
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	30%	10%	60%
Percent of electricity consumed	30%	10%	61%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	3.5	2.6	3.3
Average length of time with vehicle drawing power per charging event (hr)	1.7	1.5	1.7
Average electricity consumed per charging event (AC kWh)	5.7	5.1	5.6

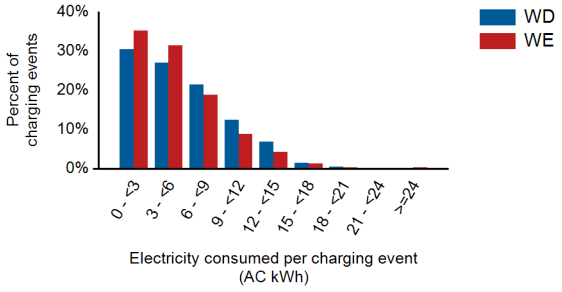
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



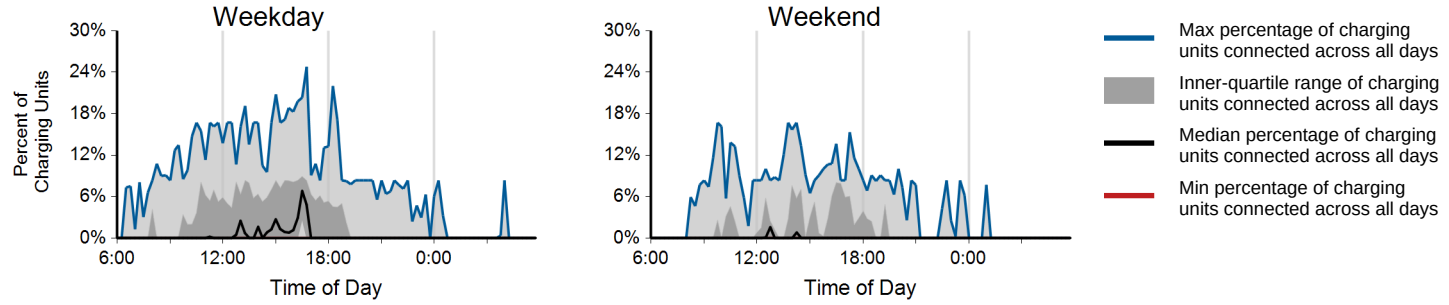
DC Fast Chargers

Region: Phoenix, AZ Metropolitan Area

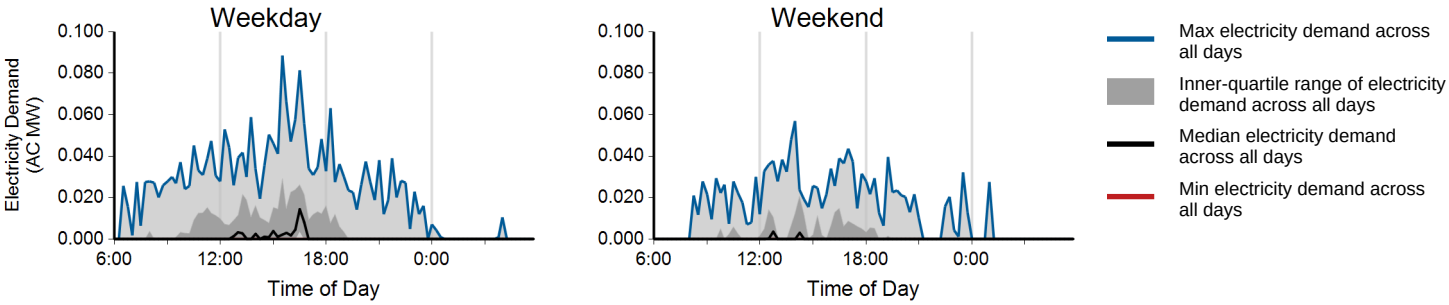
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	1,401	273	1,674
Electricity consumed (AC MWh)	6.25	1.80	8.05
Percent of time with a vehicle connected to EVSE	1%	1%	1%
Percent of time with a vehicle drawing power from EVSE	1%	1%	1%
Average number of charging events started per EVSE per day	1.33	0.63	1.13

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]



DC Fast Chargers

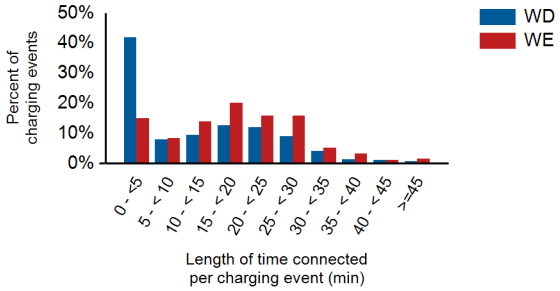
Region: Phoenix, AZ Metropolitan Area

Report period: January 2012 through December 2012

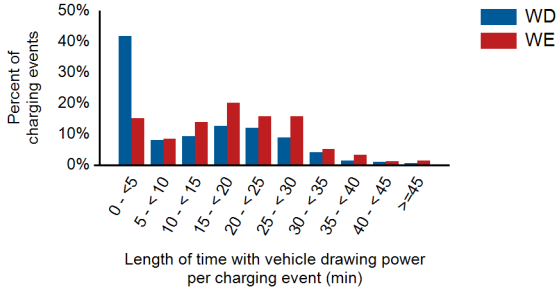
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	41%	0%	59%
Percent of electricity consumed	58%	0%	42%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (min)	12.3	18.1	13.2
Average length of time with vehicle drawing power per charging event (min)	12.3	18.1	13.2
Average electricity consumed per charging event (AC kWh)	4.5	6.6	4.8

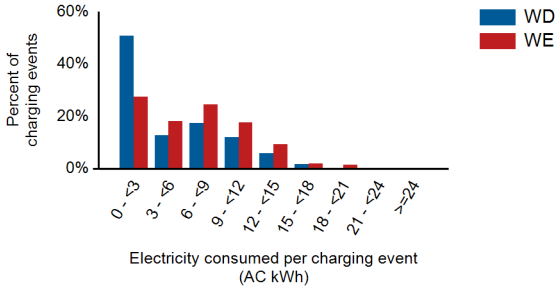
Distribution of Length of Time with a Vehicle Connected per Charging Event



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: Tucson, AZ Metropolitan Area

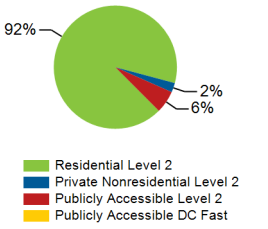
Report period: January 2012 through December 2012

Number of EV Project vehicles in region: 77

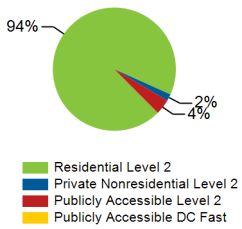
Charging Unit Usage

	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	76	5	87	0	168
Number of charging events[2]	18,399	494	1,182	0	20,075
Electricity consumed (AC MWh)	129.10	2.41	5.50	0.00	137.02
Percent of time with a vehicle connected to charging unit	36%	13%	1%	0%	20%
Percent of time with a vehicle drawing power from charging unit	6%	2%	0%	0%	4%

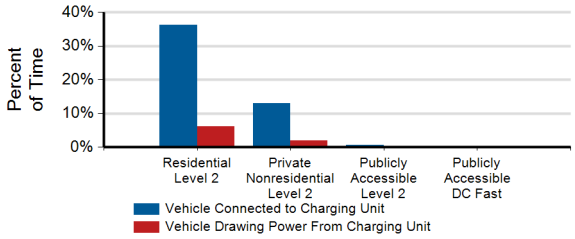
Number of Charge Events



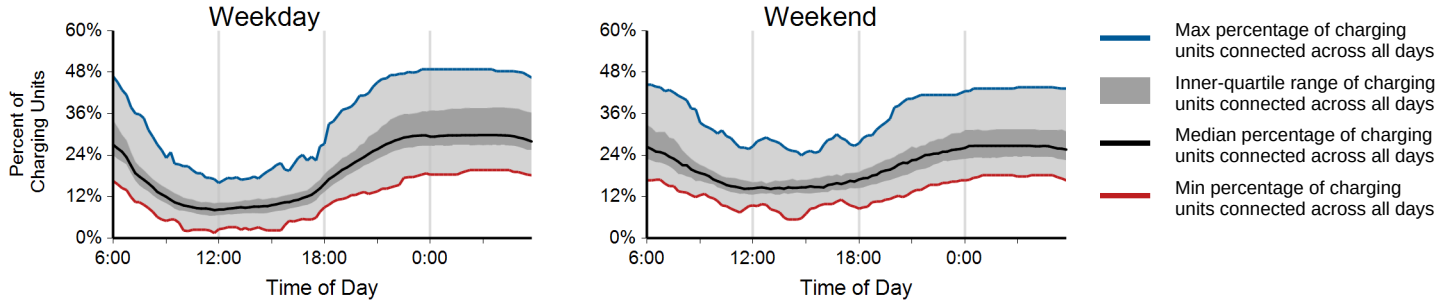
Electricity Consumed



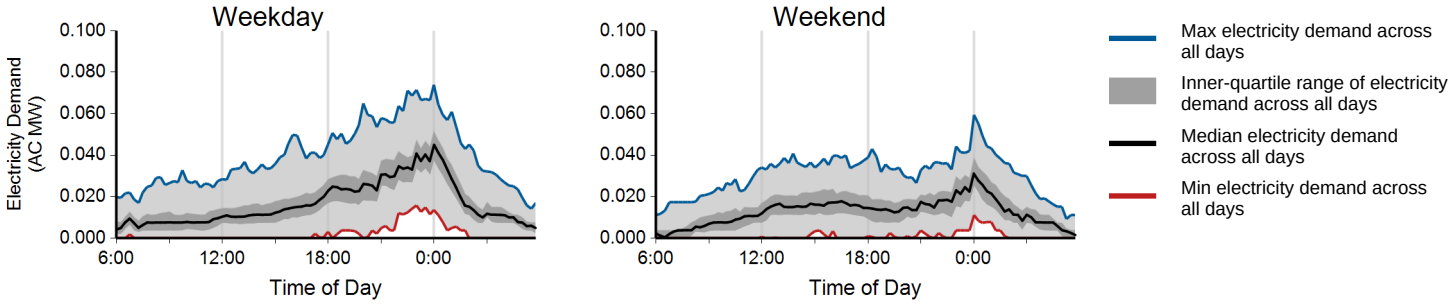
Charging Unit Utilization



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.

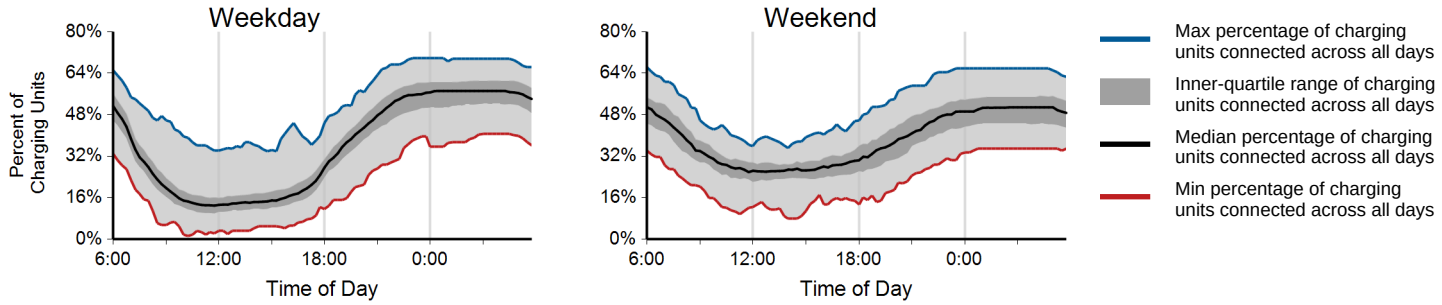
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Tucson, AZ Metropolitan Area

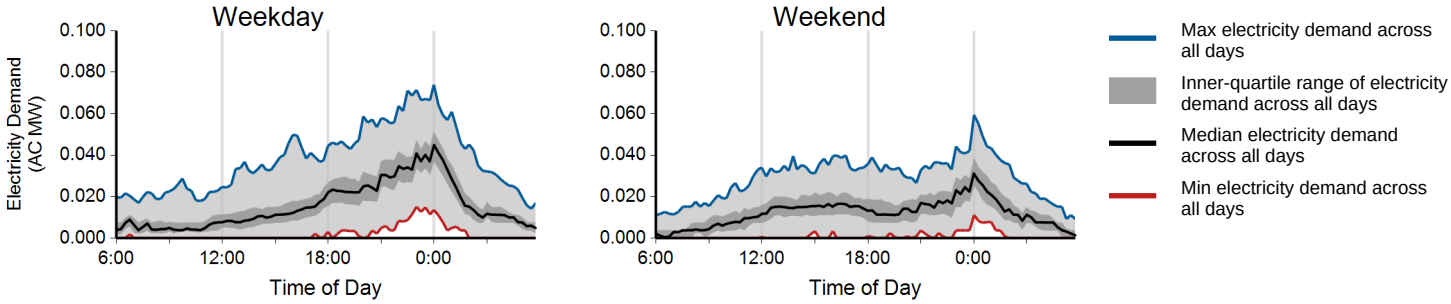
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	13,595	4,804	18,399
Electricity consumed (AC MWh)	98.24	30.86	129.10
Percent of time with a vehicle connected to EVSE	36%	38%	36%
Percent of time with a vehicle drawing power from EVSE	7%	5%	6%
Average number of charging events started per EVSE per day	0.79	0.69	0.76

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)

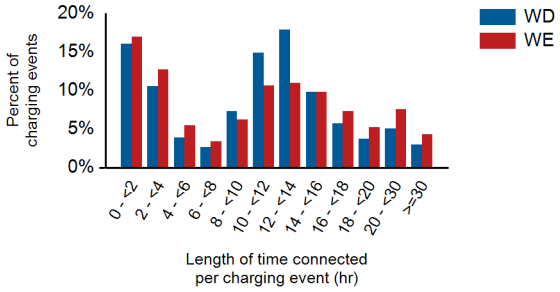
Region: Tucson, AZ Metropolitan Area

Report period: January 2012 through December 2012

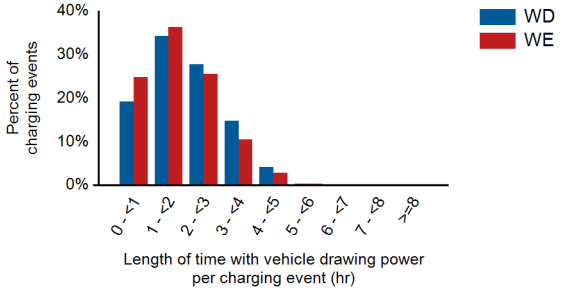
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	93%	7%	0%
Percent of electricity consumed	94%	6%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	11.5	11.7	11.6
Average length of time with vehicle drawing power per charging event (hr)	2.0	1.8	2.0
Average electricity consumed per charging event (AC kWh)	7.2	6.5	7.0

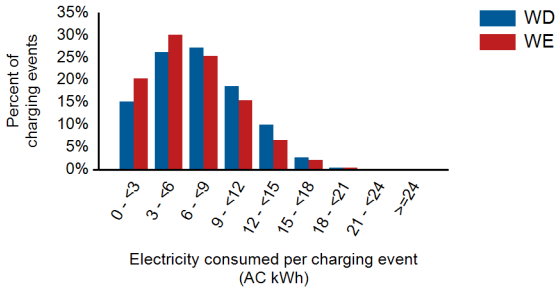
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



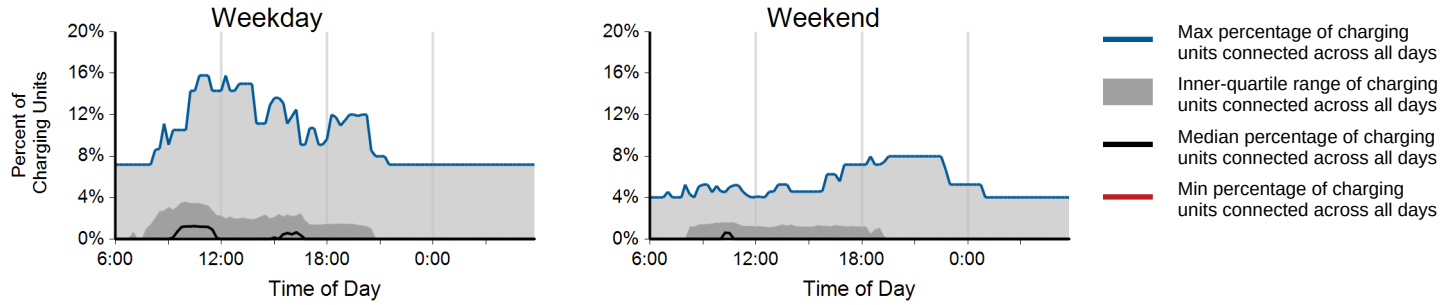
Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Tucson, AZ Metropolitan Area

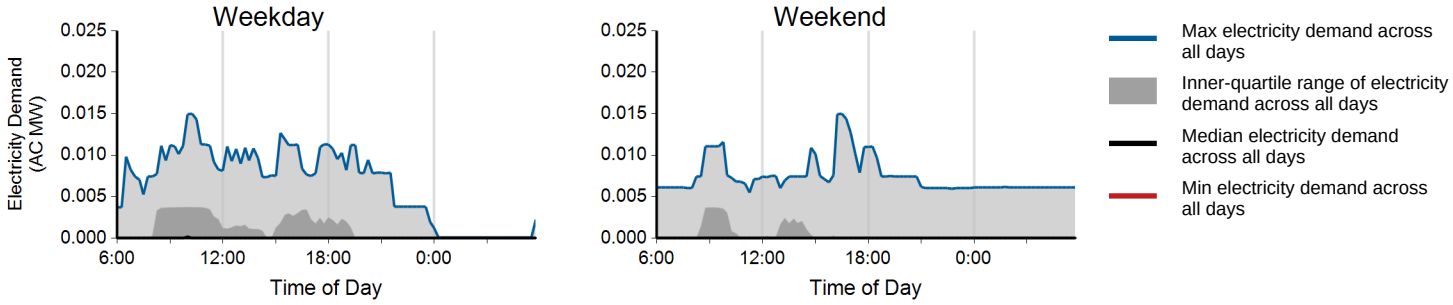
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	923	259	1,182
Electricity consumed (AC MWh)	4.18	1.32	5.50
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	0.07	0.05	0.06

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)

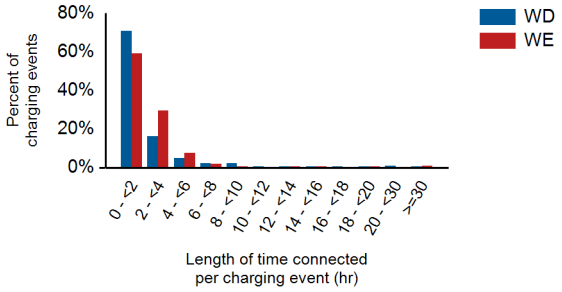
Region: Tucson, AZ Metropolitan Area

Report period: January 2012 through December 2012

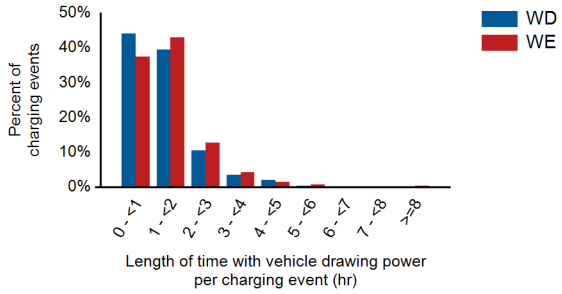
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	40%	1%	60%
Percent of electricity consumed	40%	1%	59%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	2.5	2.4	2.5
Average length of time with vehicle drawing power per charging event (hr)	1.3	1.4	1.3
Average electricity consumed per charging event (AC kWh)	4.5	5.2	4.7

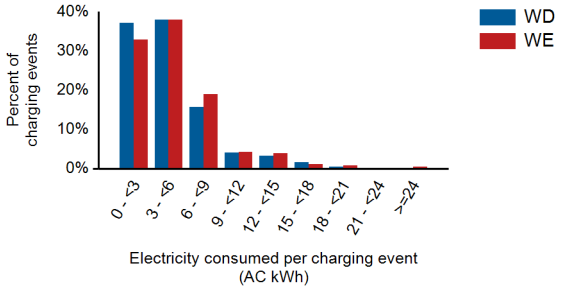
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



EV Project Electric Vehicle Charging Infrastructure Summary Report

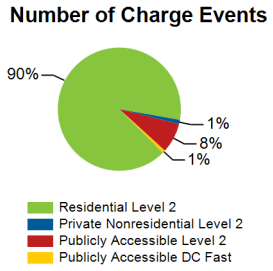
Region: Los Angeles, CA Metropolitan Area

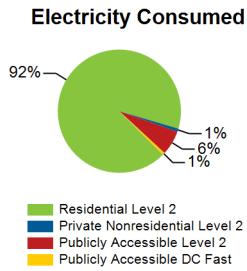
Report period: January 2012 through December 2012

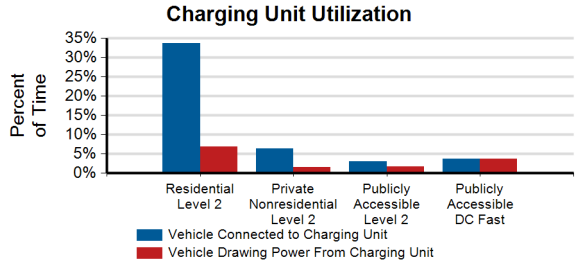
Number of EV Project vehicles in region: 489

Charging Unit Usage

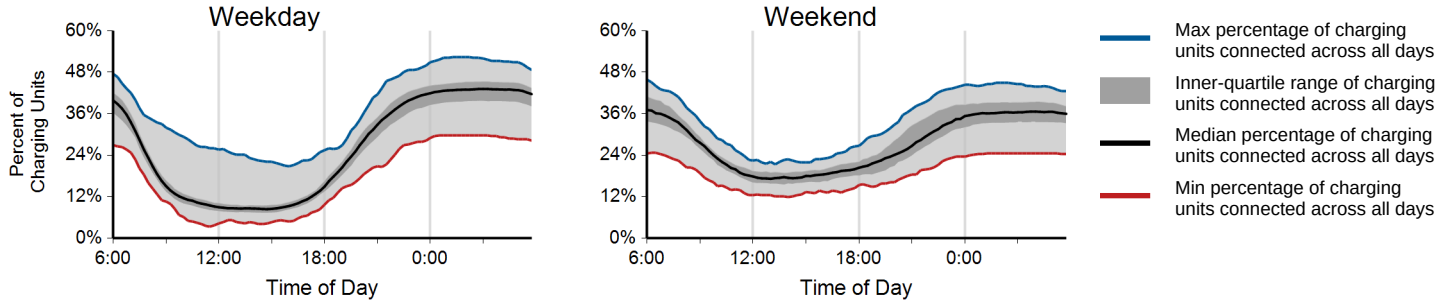
	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	490	29	203	2	724
Number of charging events[2]	92,648	1,092	8,085	786	102,611
Electricity consumed (AC MWh)	802.70	7.17	56.40	5.44	871.70
Percent of time with a vehicle connected to charging unit	34%	6%	3%	4%	26%
Percent of time with a vehicle drawing power from charging unit	7%	1%	2%	4%	6%



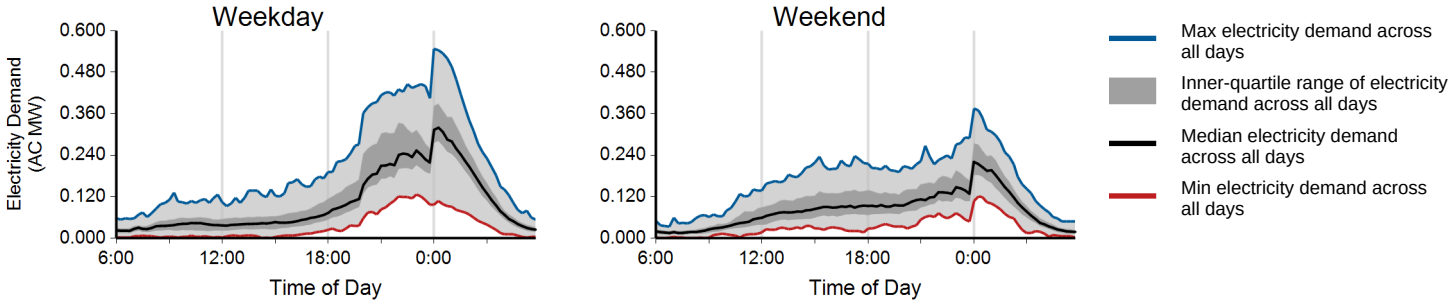




Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



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.

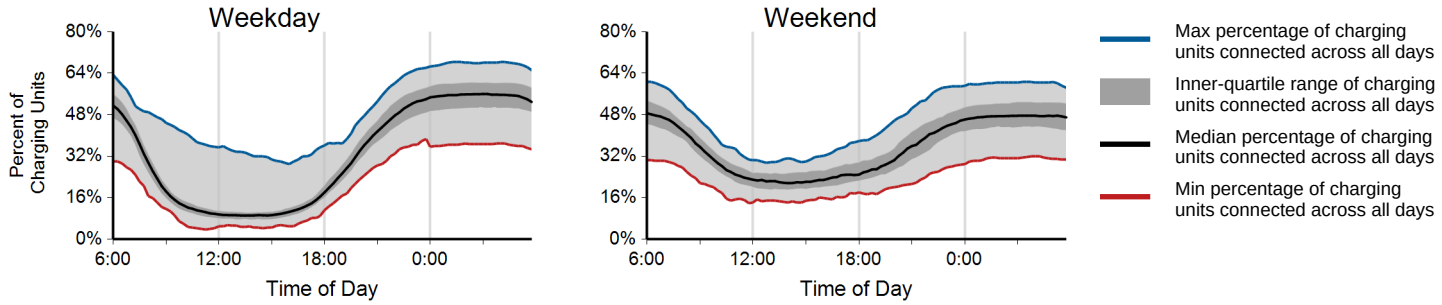
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Los Angeles, CA Metropolitan Area

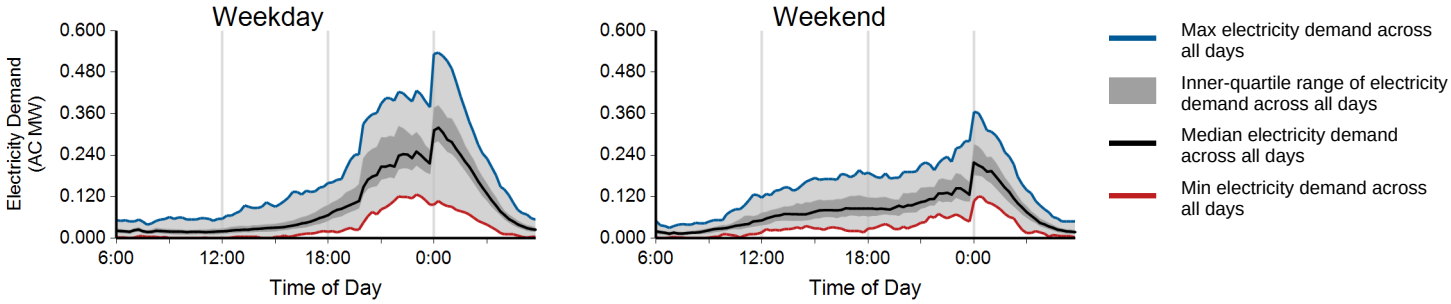
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	67,241	25,407	92,648
Electricity consumed (AC MWh)	608.03	194.67	802.70
Percent of time with a vehicle connected to EVSE	33%	36%	34%
Percent of time with a vehicle drawing power from EVSE	7%	6%	7%
Average number of charging events started per EVSE per day	0.69	0.65	0.68

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)

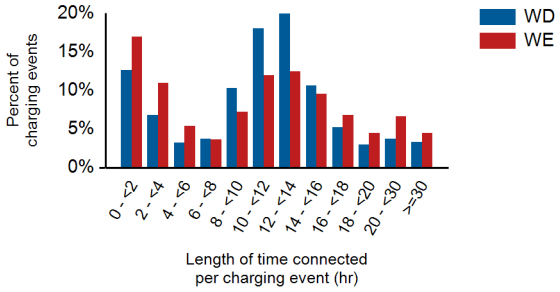
Region: Los Angeles, CA Metropolitan Area

Report period: January 2012 through December 2012

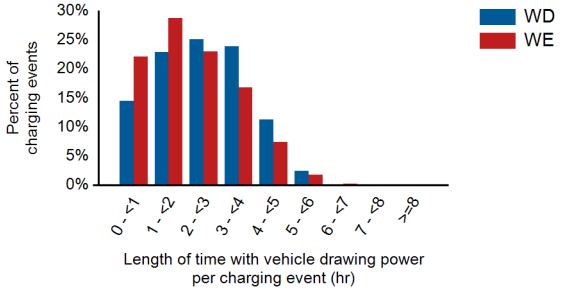
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	83%	17%	0%
Percent of electricity consumed	86%	14%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	12.0	11.6	11.9
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)	9.0	7.6	8.7

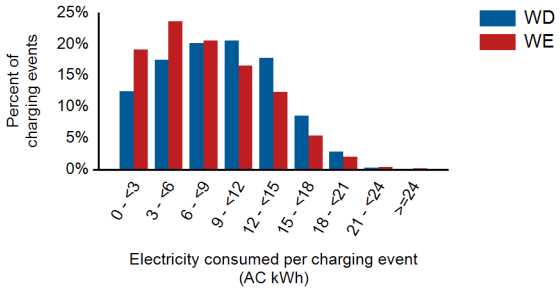
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



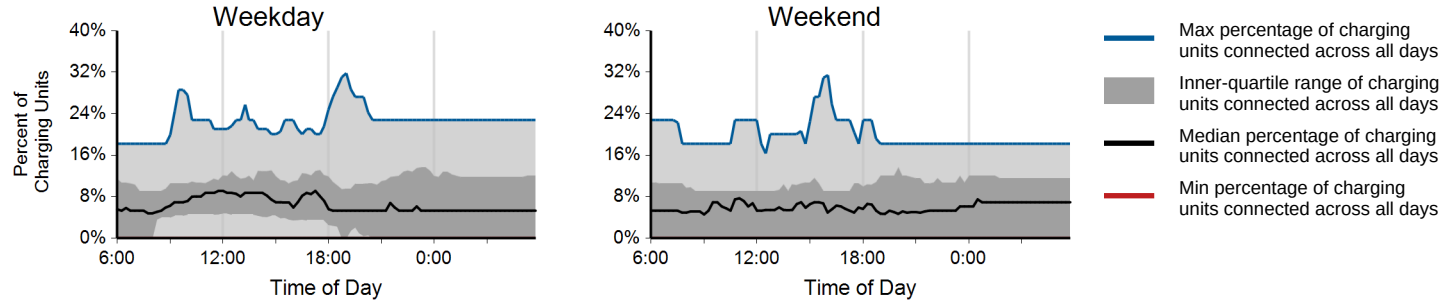
Private Nonresidential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Los Angeles, CA Metropolitan Area

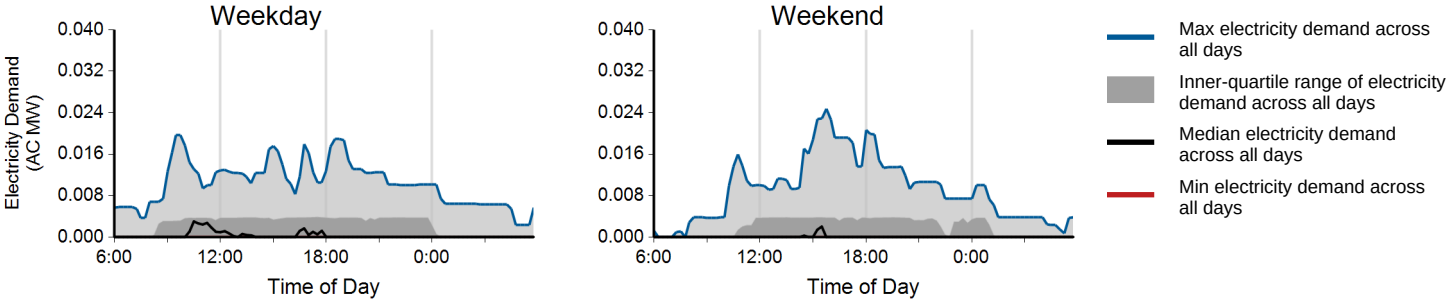
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	824	268	1,092
Electricity consumed (AC MWh)	5.33	1.84	7.17
Percent of time with a vehicle connected to EVSE	6%	6%	6%
Percent of time with a vehicle drawing power from EVSE	2%	1%	1%
Average number of charging events started per EVSE per day	0.21	0.17	0.20

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)

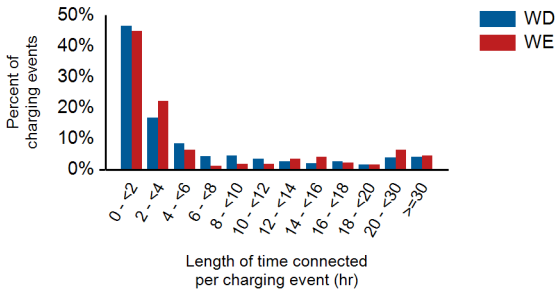
Region: Los Angeles, CA Metropolitan Area

Report period: January 2012 through December 2012

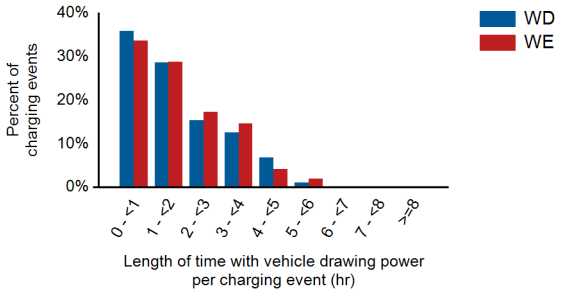
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	21%	3%	76%
Percent of electricity consumed	17%	2%	81%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	7.4	8.2	7.6
Average length of time with vehicle drawing power per charging event (hr)	1.8	1.8	1.8
Average electricity consumed per charging event (AC kWh)	6.5	6.9	6.6

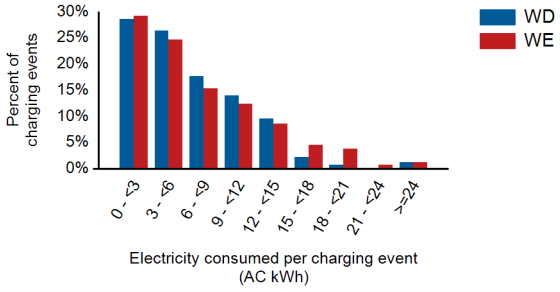
Distribution of Length of Time with a Vehicle Connected per Charging Event



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)

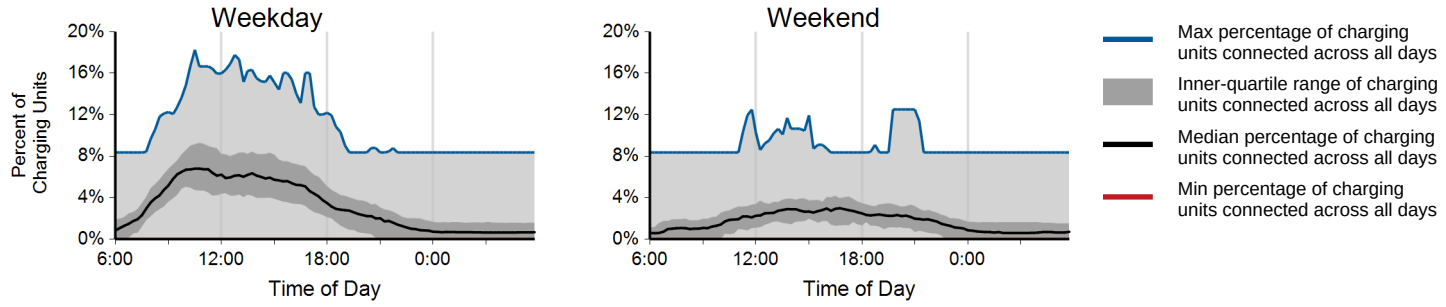
Region: Los Angeles, CA Metropolitan Area

Report period: January 2012 through December 2012

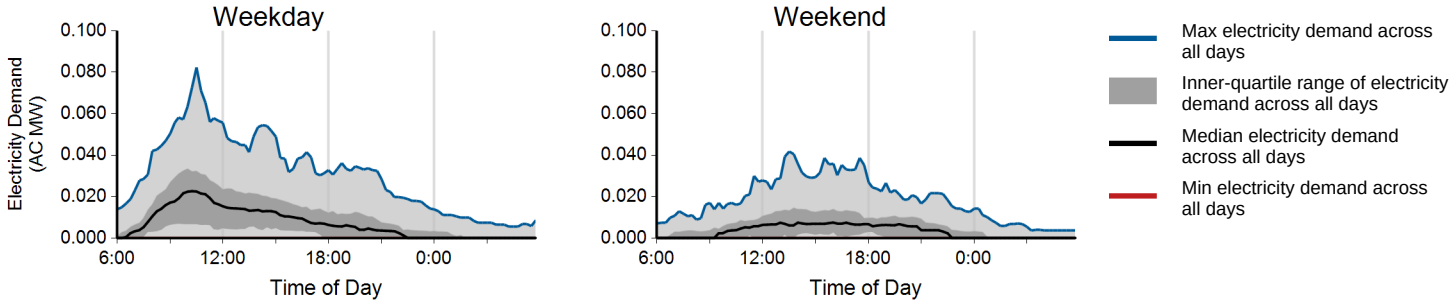
EVSE Usage

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	6,449	1,636	8,085
Electricity consumed (AC MWh)	46.74	9.66	56.40
Percent of time with a vehicle connected to EVSE	3%	2%	3%
Percent of time with a vehicle drawing power from EVSE	2%	1%	2%
Average number of charging events started per EVSE per day	0.23	0.14	0.20

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)

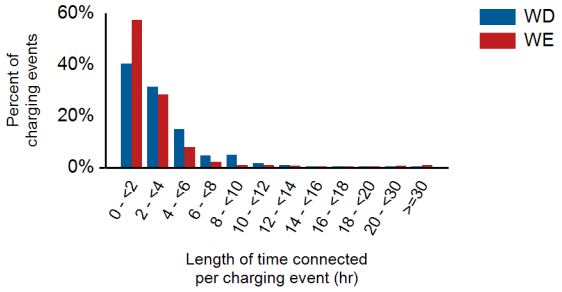
Region: Los Angeles, CA Metropolitan Area

Report period: January 2012 through December 2012

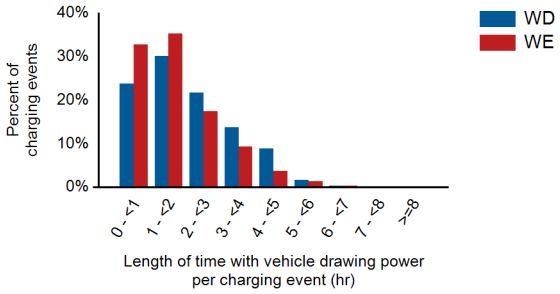
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	8%	4%	87%
Percent of electricity consumed	7%	4%	88%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	3.8	3.1	3.7
Average length of time with vehicle drawing power per charging event (hr)	2.1	1.7	2.0
Average electricity consumed per charging event (AC kWh)	7.2	5.9	7.0

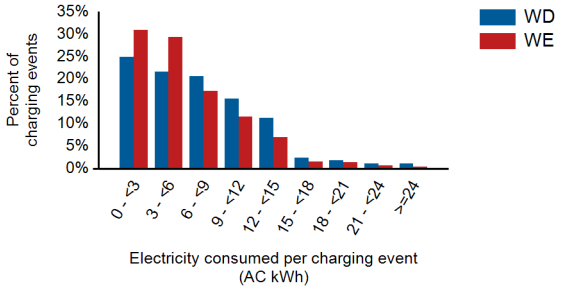
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



EV Project Electric Vehicle Charging Infrastructure Summary Report

Region: San Diego, CA Metropolitan Area

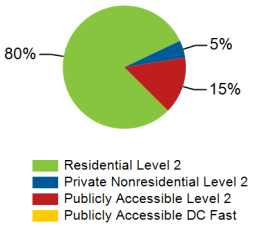
Report period: January 2012 through December 2012

Number of EV Project vehicles in region: 737

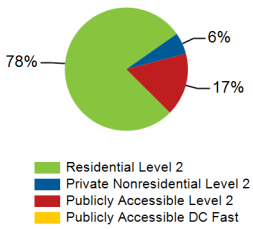
Charging Unit Usage

	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	737	52	228	1	1,018
Number of charging events[2]	169,864	9,663	31,536	49	211,112
Electricity consumed (AC MWh)	1,464.73	106.49	311.59	0.28	1,883.08
Percent of time with a vehicle connected to charging unit	38%	16%	12%	1%	33%
Percent of time with a vehicle drawing power from charging unit	8%	12%	7%	1%	8%

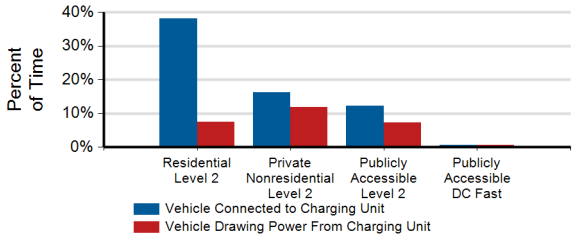
Number of Charge Events



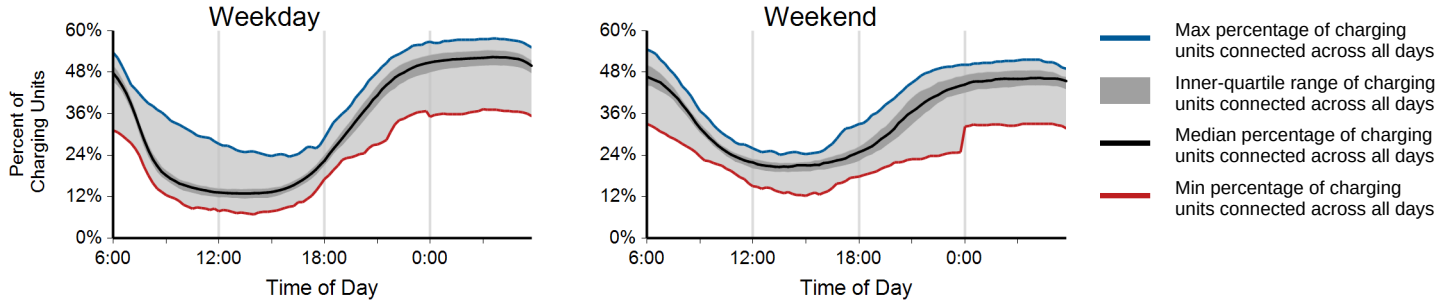
Electricity Consumed



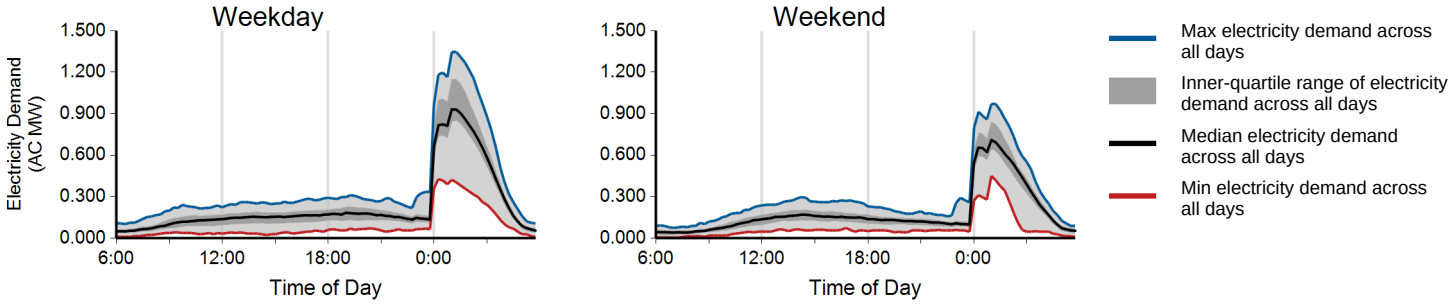
Charging Unit Utilization



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.

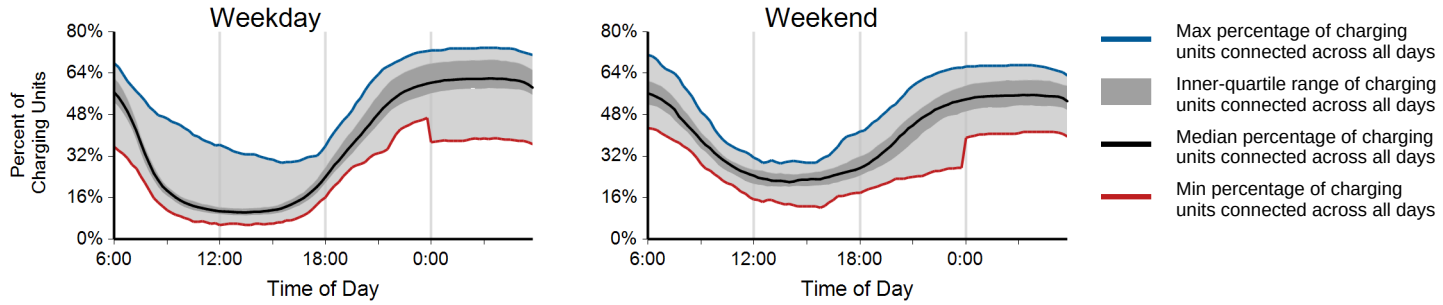
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: San Diego, CA Metropolitan Area

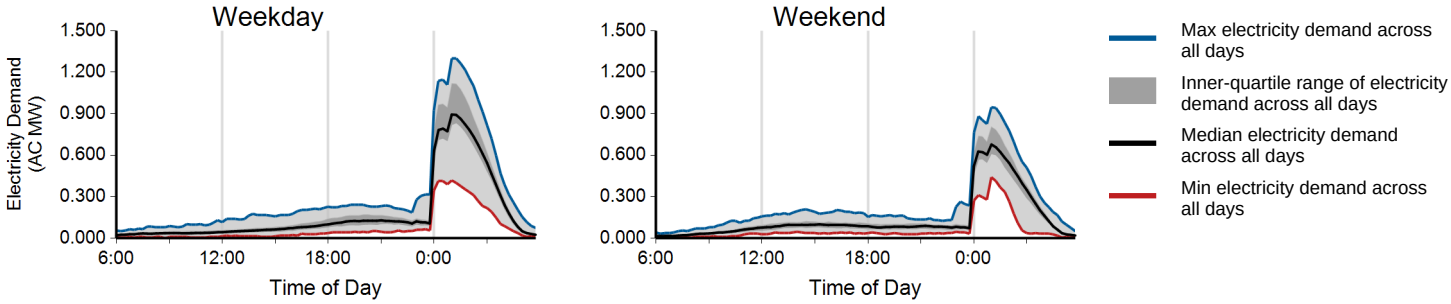
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	125,688	44,176	169,864
Electricity consumed (AC MWh)	1,119.52	345.20	1,464.73
Percent of time with a vehicle connected to EVSE	37%	40%	38%
Percent of time with a vehicle drawing power from EVSE	8%	6%	8%
Average number of charging events started per EVSE per day	0.78	0.68	0.75

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)

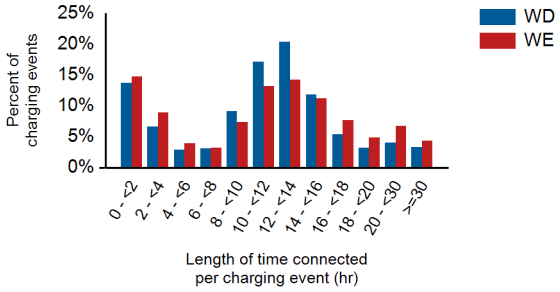
Region: San Diego, CA Metropolitan Area

Report period: January 2012 through December 2012

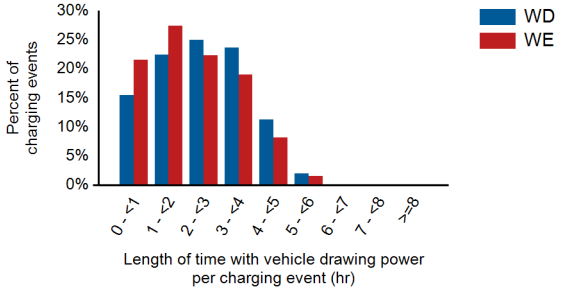
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	81%	19%	0%
Percent of electricity consumed	86%	14%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	12.2	12.3	12.2
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)	8.9	7.8	8.6

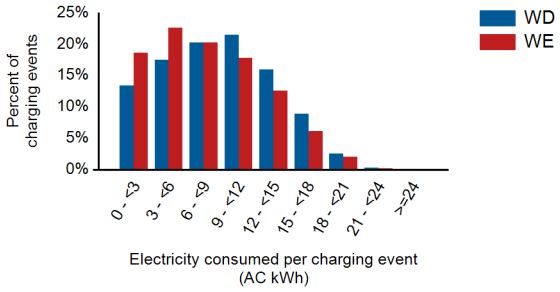
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



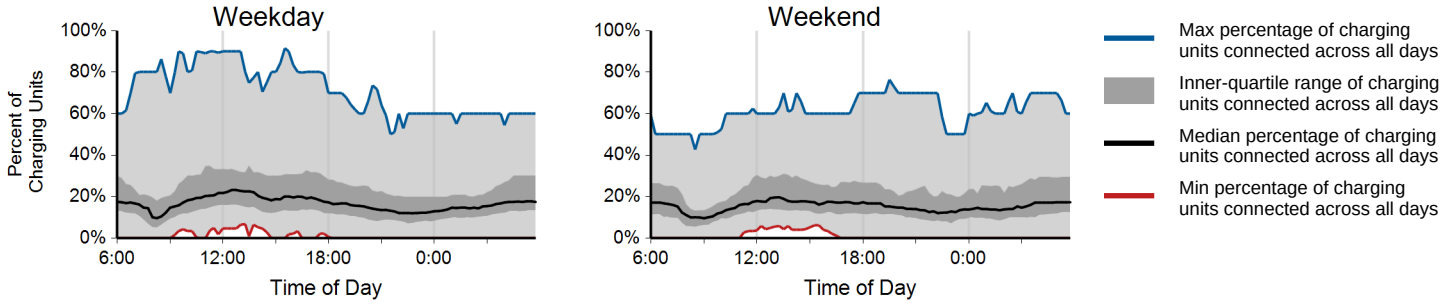
Private Nonresidential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: San Diego, CA Metropolitan Area

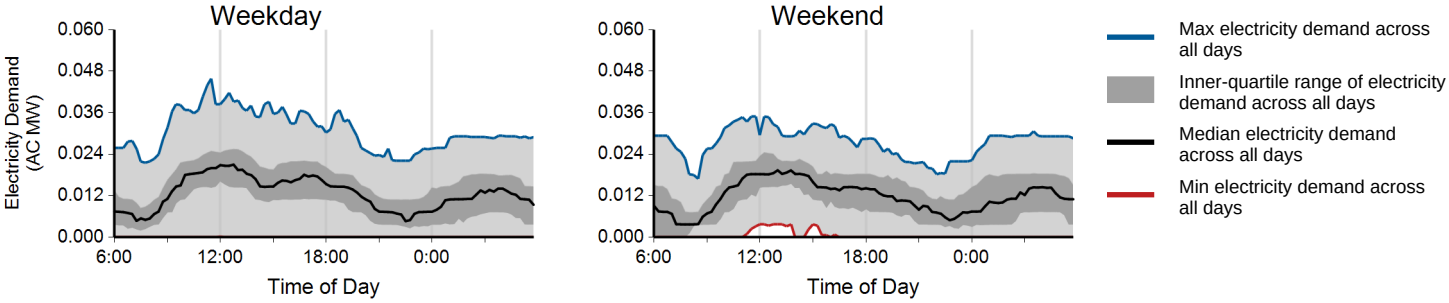
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	7,262	2,401	9,663
Electricity consumed (AC MWh)	77.86	28.63	106.49
Percent of time with a vehicle connected to EVSE	17%	16%	16%
Percent of time with a vehicle drawing power from EVSE	12%	11%	12%
Average number of charging events started per EVSE per day	0.98	0.80	0.93

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)

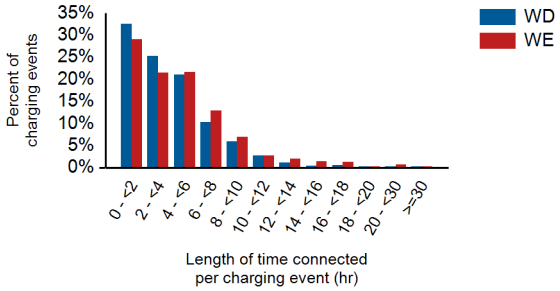
Region: San Diego, CA Metropolitan Area

Report period: January 2012 through December 2012

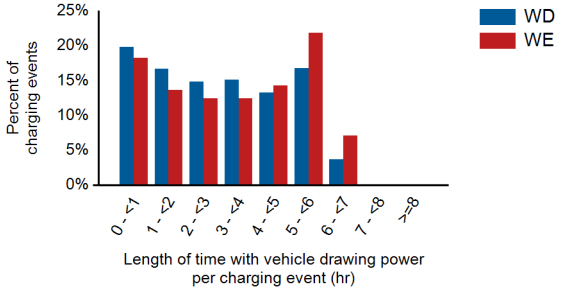
Vehicles Charged	Car2Go fleet [1]	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	74%	5%	1%	19%
Percent of electricity consumed	80%	3%	1%	16%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	4.1	4.6	4.2
Average length of time with vehicle drawing power per charging event (hr)	3.0	3.3	3.1
Average electricity consumed per charging event (AC kWh)	10.7	11.9	11.0

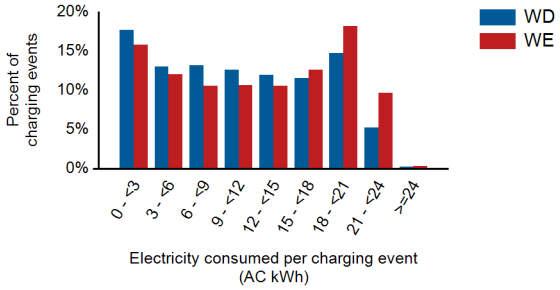
Distribution of Length of Time with a Vehicle Connected per Charging Event



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 private nonresidential EV Project charging units to charge these vehicles is included in this report.

Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

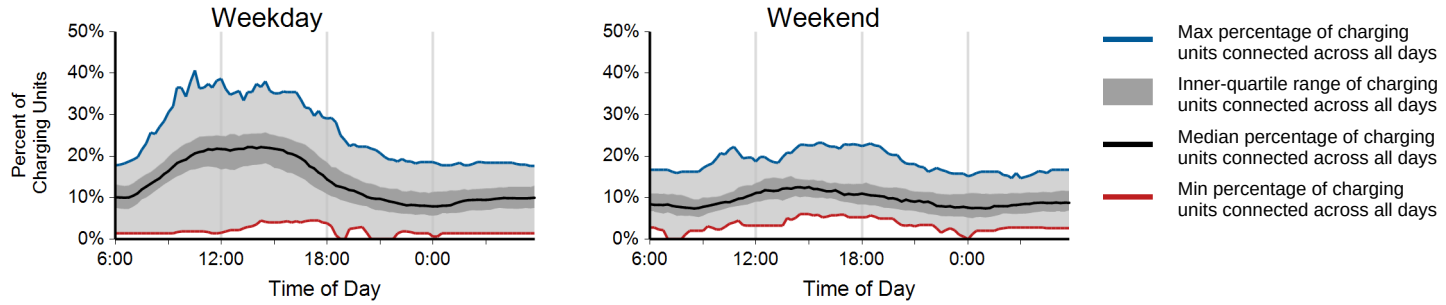
Region: San Diego, CA Metropolitan Area

Report period: January 2012 through December 2012

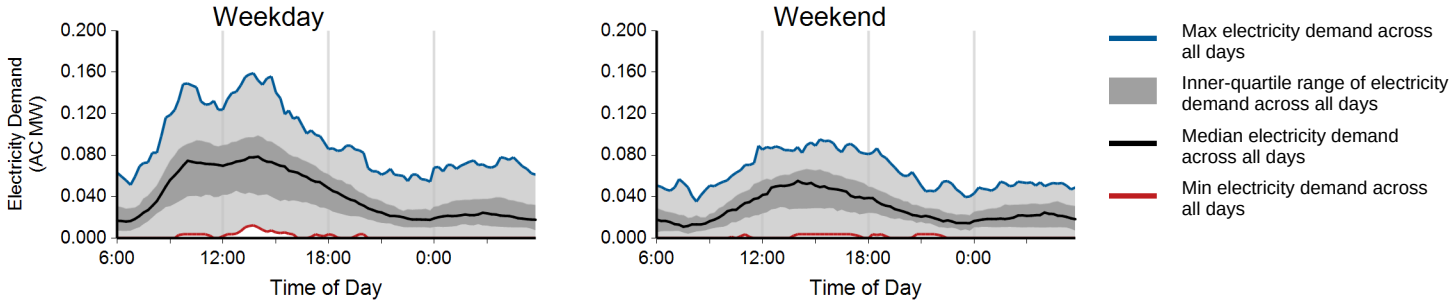
EVSE Usage

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	25,135	6,401	31,536
Electricity consumed (AC MWh)	245.24	66.35	311.59
Percent of time with a vehicle connected to EVSE	13%	9%	12%
Percent of time with a vehicle drawing power from EVSE	8%	5%	7%
Average number of charging events started per EVSE per day	0.70	0.44	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]



Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

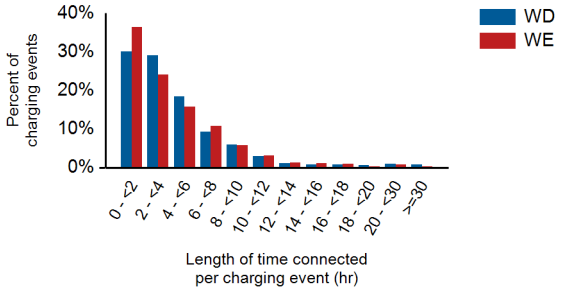
Region: San Diego, CA Metropolitan Area

Report period: January 2012 through December 2012

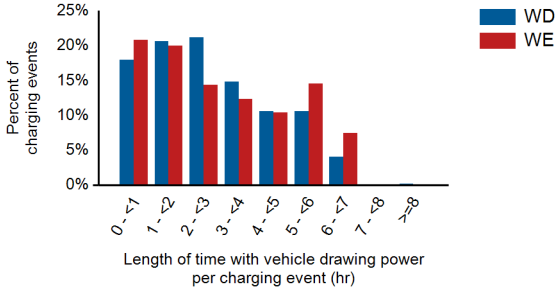
Vehicles Charged	Car2Go fleet [1]	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	49%	18%	3%	30%
Percent of electricity consumed	60%	14%	2%	24%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	4.8	4.3	4.7
Average length of time with vehicle drawing power per charging event (hr)	2.8	3.0	2.8
Average electricity consumed per charging event (AC kWh)	9.7	10.4	9.9

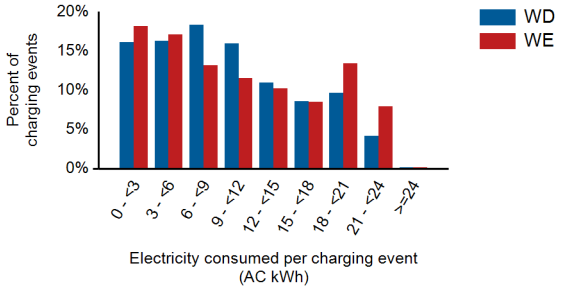
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



[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

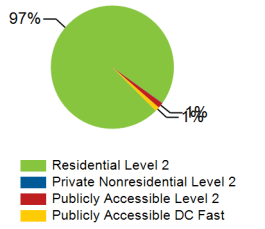
Report period: January 2012 through December 2012

Number of EV Project vehicles in region: 1335

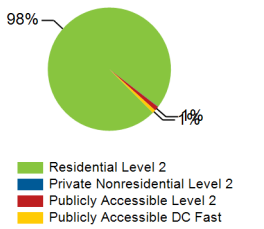
Charging Unit Usage

	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	1,333	2	50	9	1,394
Number of charging events[2]	255,388	195	3,745	2,951	262,279
Electricity consumed (AC MWh)	2,470.03	2.02	29.13	21.50	2,522.68
Percent of time with a vehicle connected to charging unit	33%	16%	9%	4%	33%
Percent of time with a vehicle drawing power from charging unit	7%	6%	4%	4%	7%

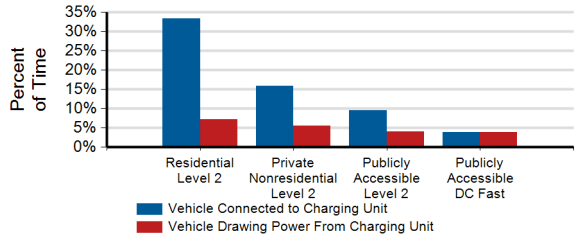
Number of Charge Events



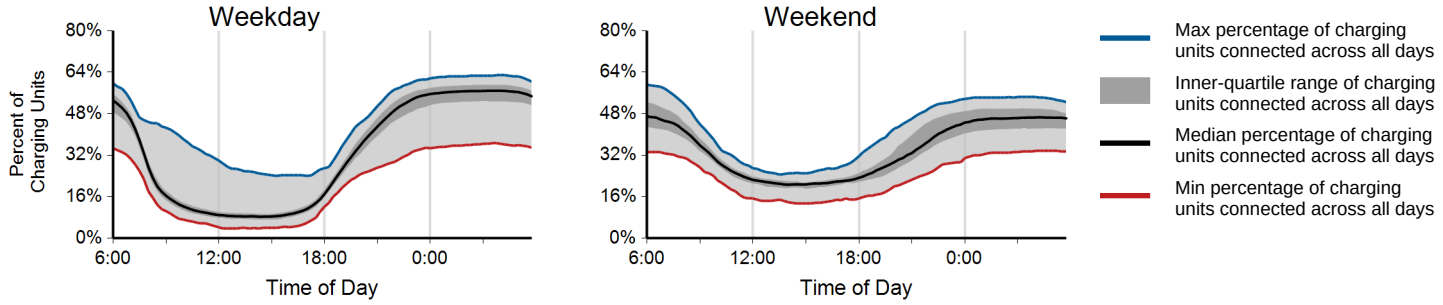
Electricity Consumed



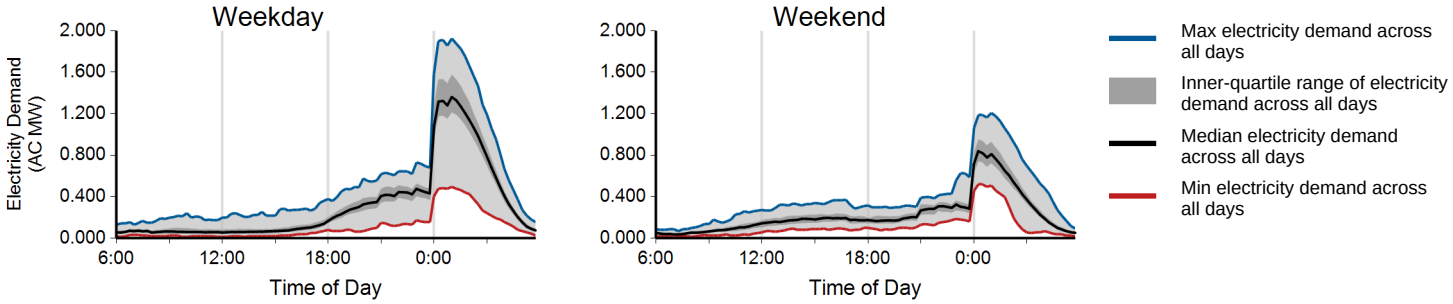
Charging Unit Utilization



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.

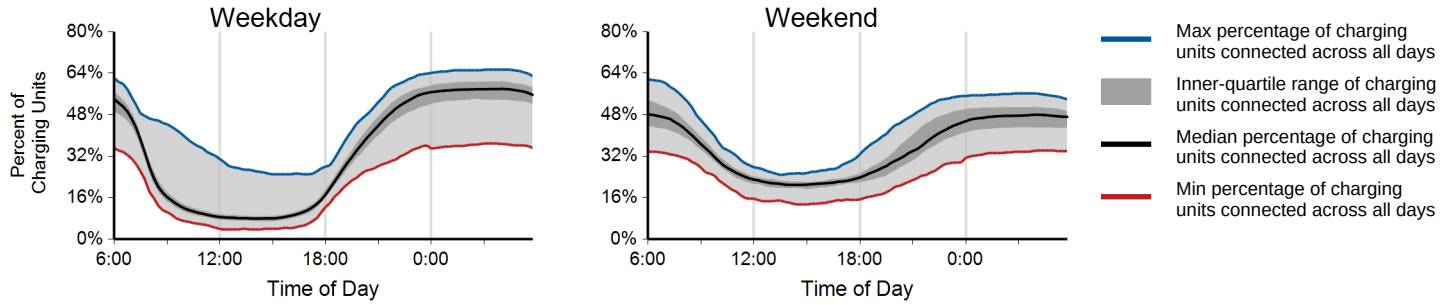
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: San Francisco, CA Metropolitan Area

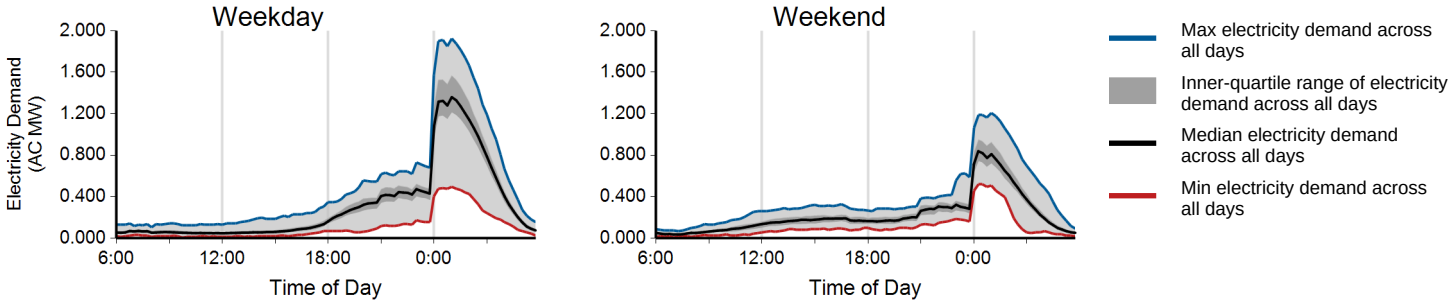
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	188,367	67,021	255,388
Electricity consumed (AC MWh)	1,918.48	551.55	2,470.03
Percent of time with a vehicle connected to EVSE	33%	35%	33%
Percent of time with a vehicle drawing power from EVSE	8%	6%	7%
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)

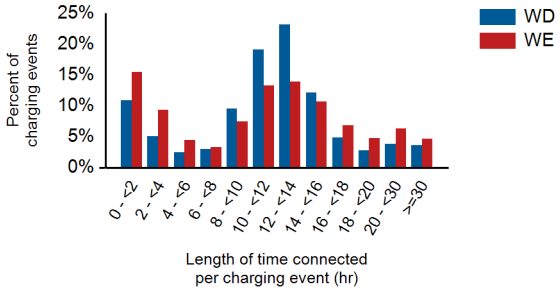
Region: San Francisco, CA Metropolitan Area

Report period: January 2012 through December 2012

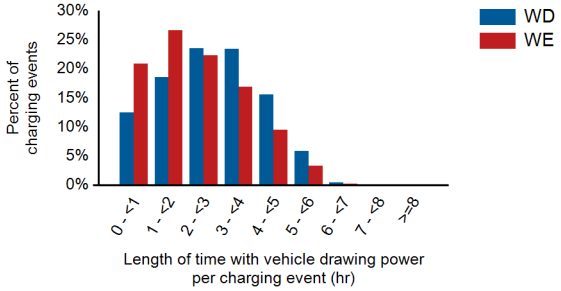
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	100%	0%	0%
Percent of electricity consumed	100%	0%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	12.6	12.3	12.5
Average length of time with vehicle drawing power per charging event (hr)	2.8	2.3	2.7
Average electricity consumed per charging event (AC kWh)	10.2	8.2	9.7

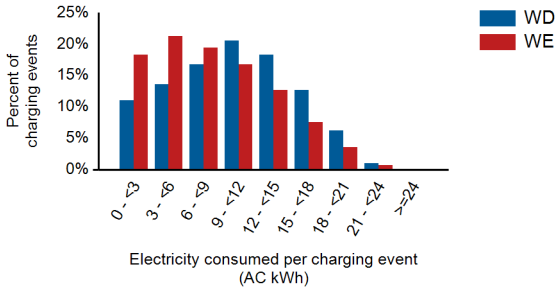
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



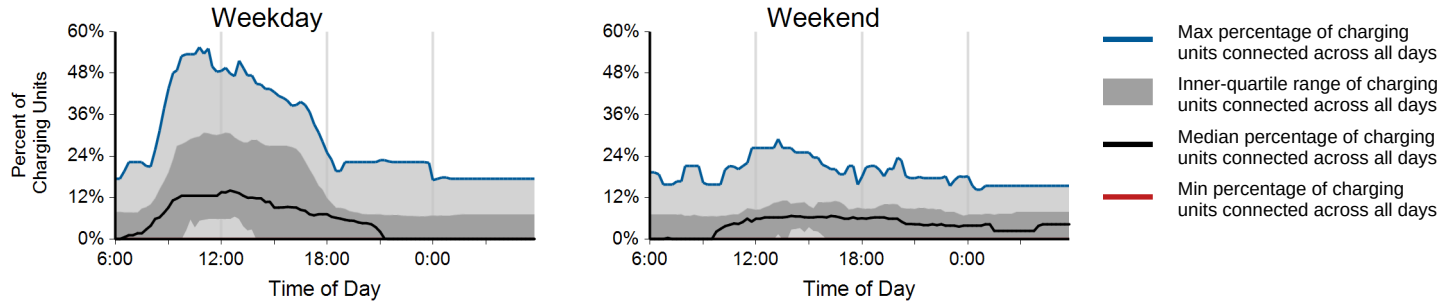
Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: San Francisco, CA Metropolitan Area

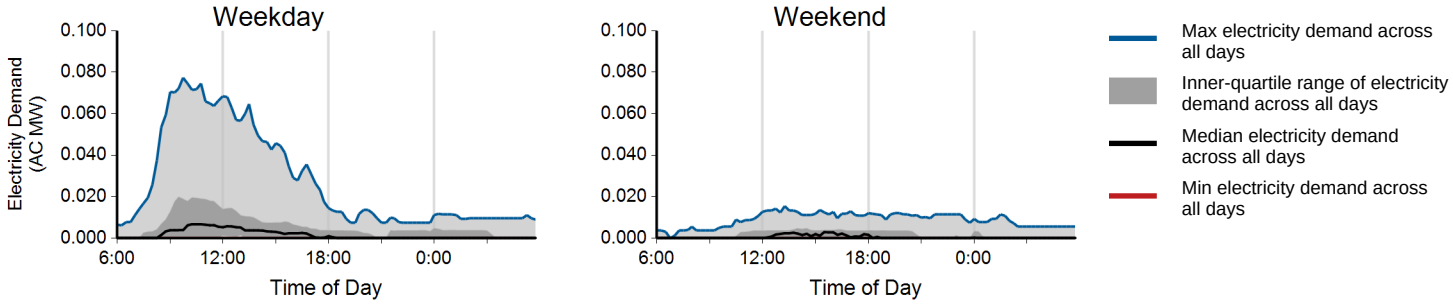
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	3,229	516	3,745
Electricity consumed (AC MWh)	26.27	2.85	29.13
Percent of time with a vehicle connected to EVSE	11%	6%	9%
Percent of time with a vehicle drawing power from EVSE	5%	1%	4%
Average number of charging events started per EVSE per day	0.54	0.21	0.44

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)

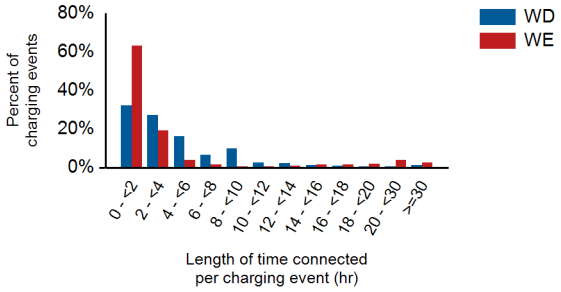
Region: San Francisco, CA Metropolitan Area

Report period: January 2012 through December 2012

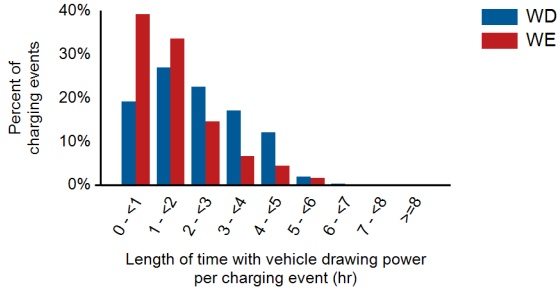
Vehicles Charged	City CarShare fleet [1]	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	0%	18%	0%	82%
Percent of electricity consumed	0%	15%	0%	85%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	5.3	4.8	5.2
Average length of time with vehicle drawing power per charging event (hr)	2.3	1.6	2.2
Average electricity consumed per charging event (AC kWh)	8.1	5.5	7.8

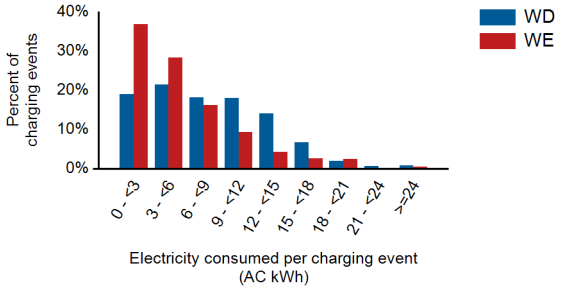
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



[1] City CarShare operates a car sharing fleet of Nissan Leaf, Chevrolet Volt, and Mitsubishi i-Miev vehicles in this region. Usage of publicly acccessible EV Project charging units to charge these vehicles is included in this report.

EV Project Electric Vehicle Charging Infrastructure Summary Report

Region: Washington, D.C. Metropolitan Area

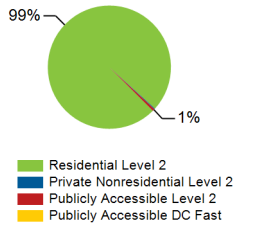
Report period: January 2012 through December 2012

Number of EV Project vehicles in region: 202

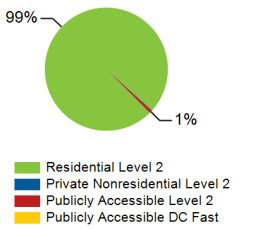
Charging Unit Usage

	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	202	14	16	0	232
Number of charging events[2]	41,871	80	240	0	42,191
Electricity consumed (AC MWh)	272.79	0.43	1.89	0.00	275.10
Percent of time with a vehicle connected to charging unit	47%	1%	3%	0%	43%
Percent of time with a vehicle drawing power from charging unit	8%	0%	1%	0%	8%

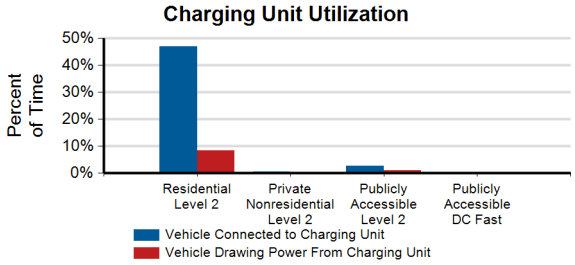
Number of Charge Events



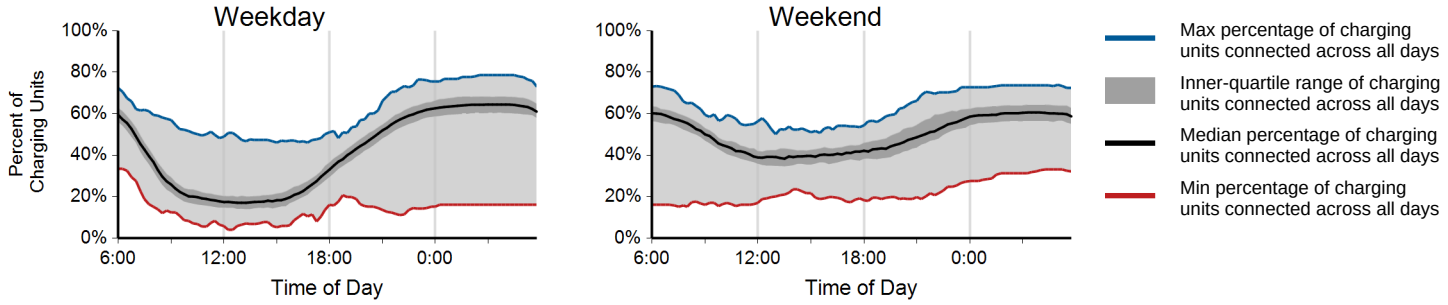
Electricity Consumed



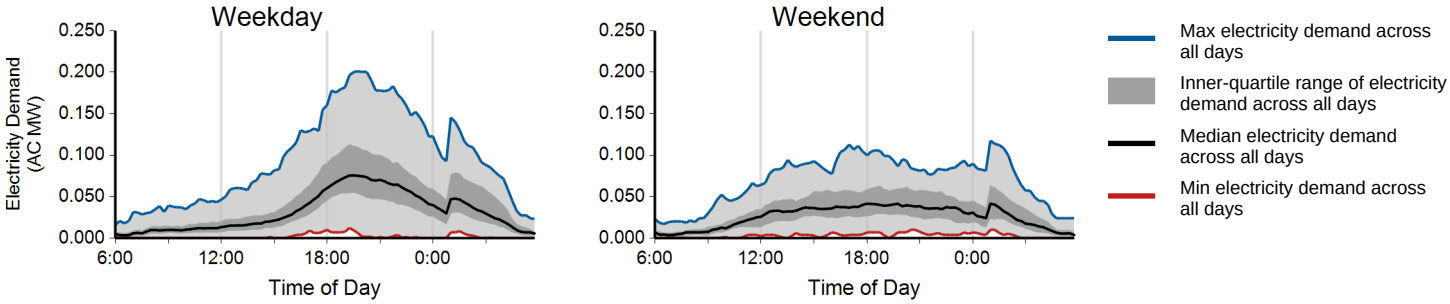
Charging Unit Utilization



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.

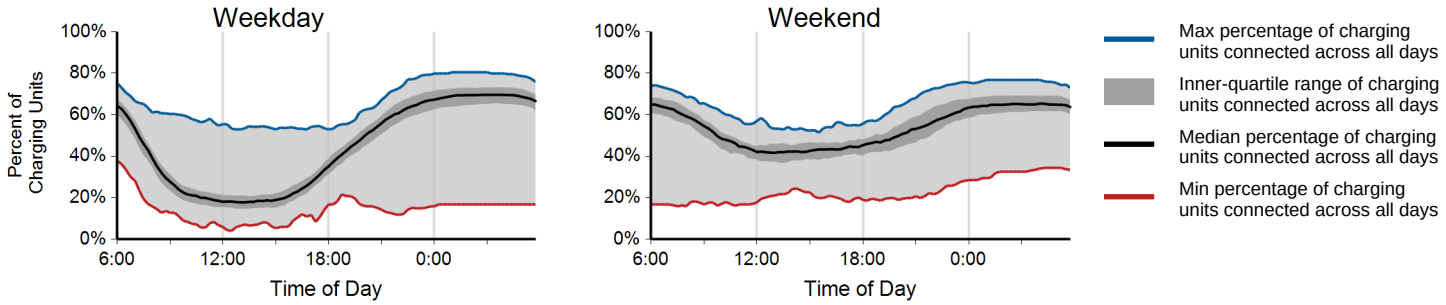
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Washington, D.C. Metropolitan Area

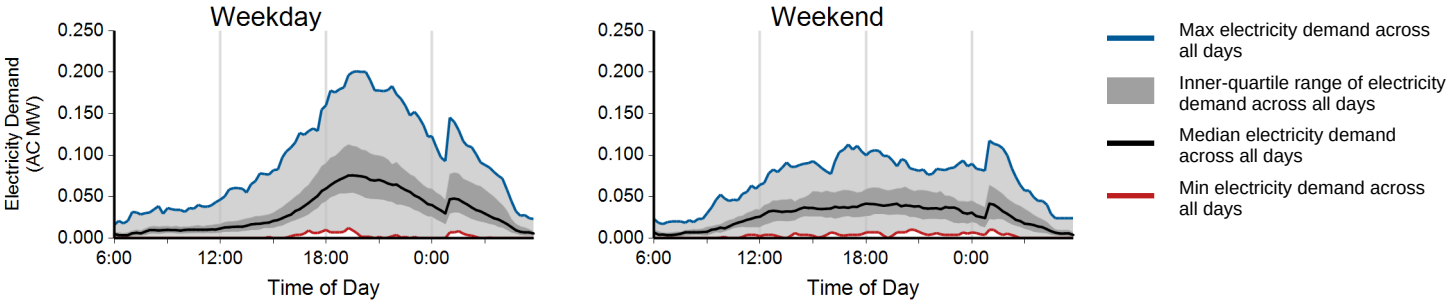
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	30,249	11,622	41,871
Electricity consumed (AC MWh)	206.93	65.86	272.79
Percent of time with a vehicle connected to EVSE	45%	53%	47%
Percent of time with a vehicle drawing power from EVSE	9%	7%	8%
Average number of charging events started per EVSE per day	1.01	0.95	0.99

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)

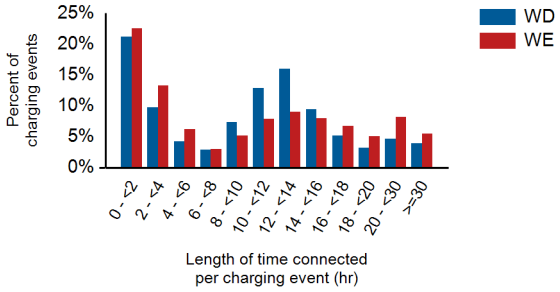
Region: Washington, D.C. Metropolitan Area

Report period: January 2012 through December 2012

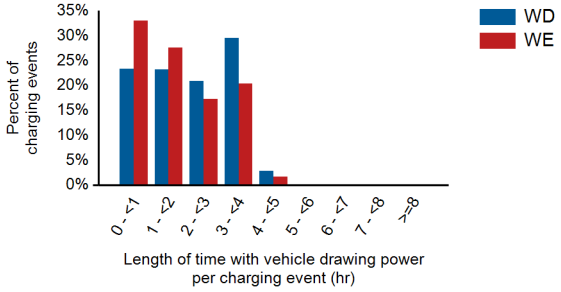
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	3%	97%	0%
Percent of electricity consumed	4%	96%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	11.4	11.6	11.4
Average length of time with vehicle drawing power per charging event (hr)	2.2	1.8	2.1
Average electricity consumed per charging event (AC kWh)	6.8	5.7	6.5

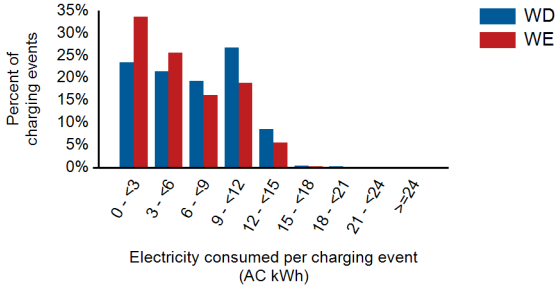
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



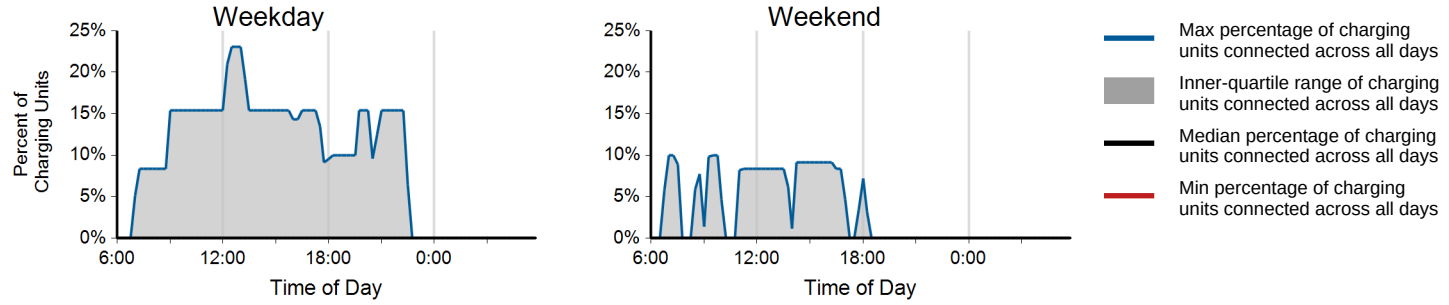
Private Nonresidential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Washington, D.C. Metropolitan Area

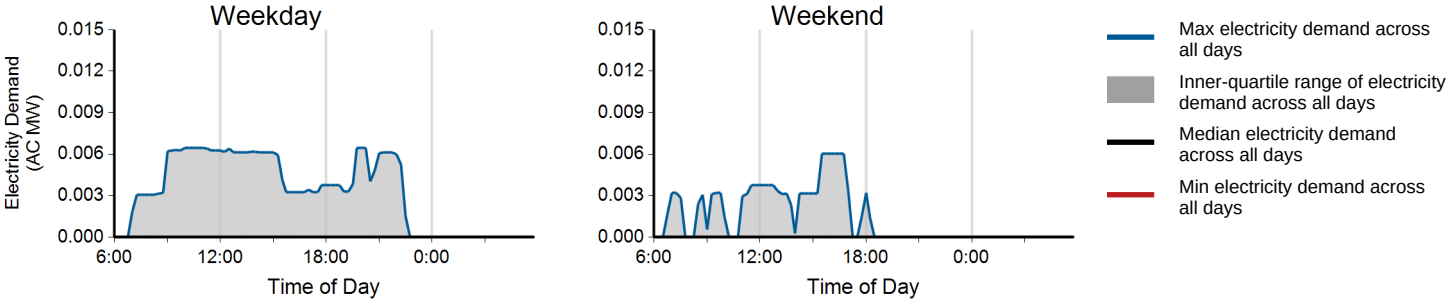
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	67	13	80
Electricity consumed (AC MWh)	0.37	0.06	0.43
Percent of time with a vehicle connected to EVSE	1%	0%	1%
Percent of time with a vehicle drawing power from EVSE	0%	0%	0%
Average number of charging events started per EVSE per day	0.06	0.03	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]



Private Nonresidential Level 2 Electric Vehicle Supply Equipment (EVSE)

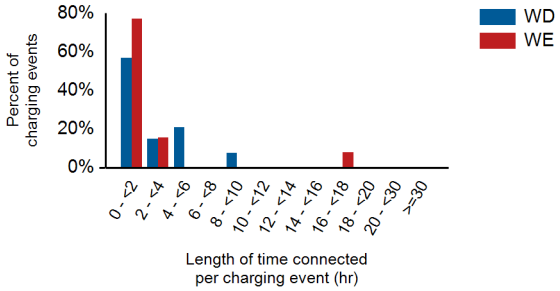
Region: Washington, D.C. Metropolitan Area

Report period: January 2012 through December 2012

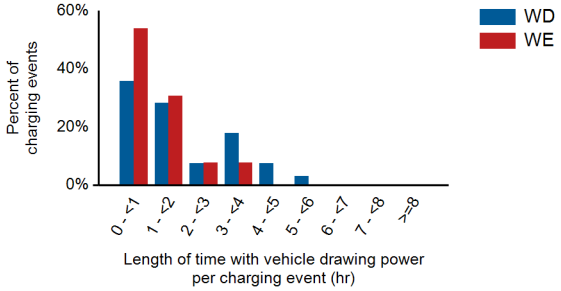
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	0%	5%	95%
Percent of electricity consumed	0%	2%	98%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	2.6	2.5	2.6
Average length of time with vehicle drawing power per charging event (hr)	1.8	1.4	1.7
Average electricity consumed per charging event (AC kWh)	5.5	4.5	5.4

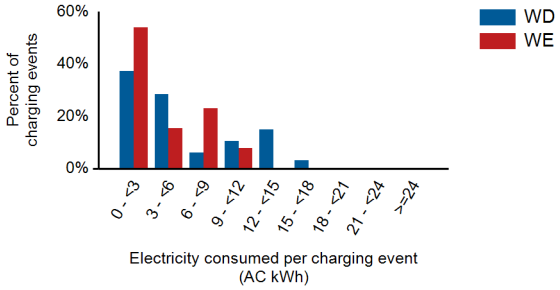
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



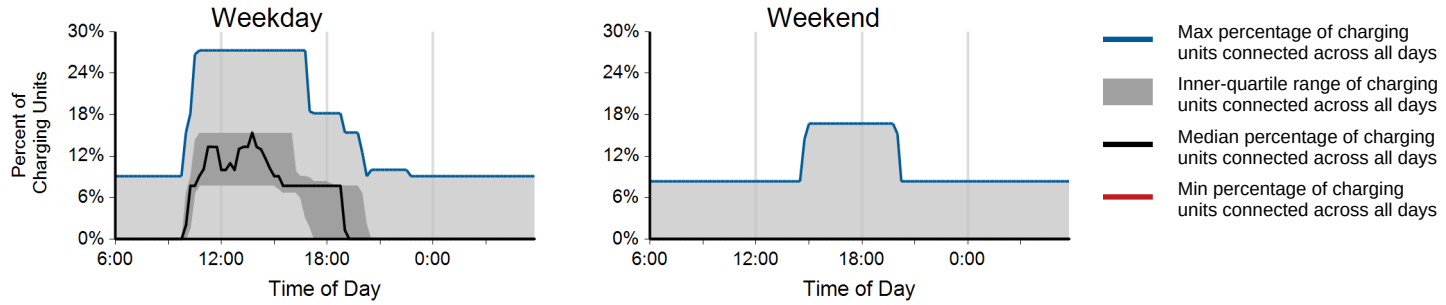
Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Washington, D.C. Metropolitan Area

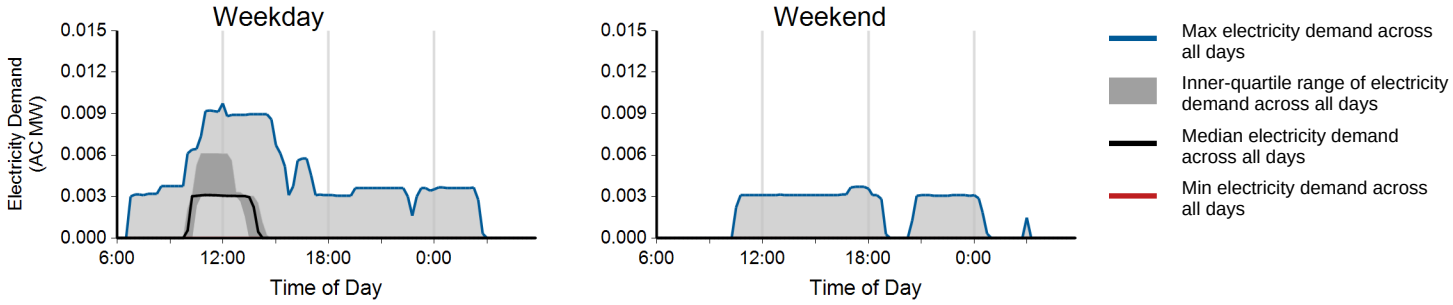
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	221	19	240
Electricity consumed (AC MWh)	1.77	0.12	1.89
Percent of time with a vehicle connected to EVSE	3%	1%	3%
Percent of time with a vehicle drawing power from EVSE	2%	0%	1%
Average number of charging events started per EVSE per day	0.13	0.03	0.10

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)

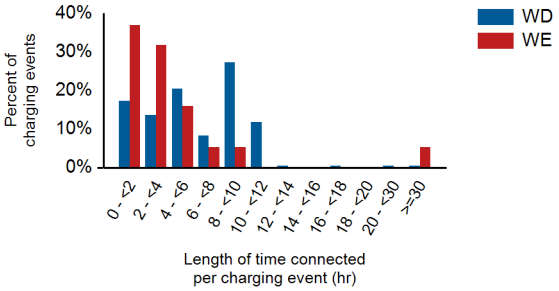
Region: Washington, D.C. Metropolitan Area

Report period: January 2012 through December 2012

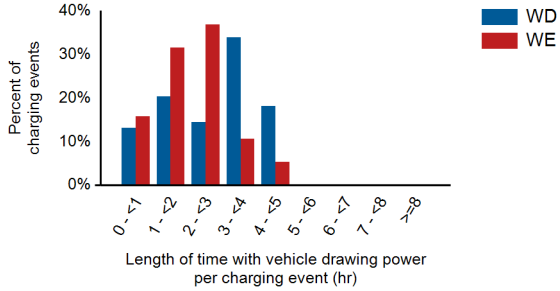
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	0%	40%	60%
Percent of electricity consumed	0%	33%	67%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	6.3	4.9	6.2
Average length of time with vehicle drawing power per charging event (hr)	2.7	2.0	2.7
Average electricity consumed per charging event (AC kWh)	8.0	6.3	7.9

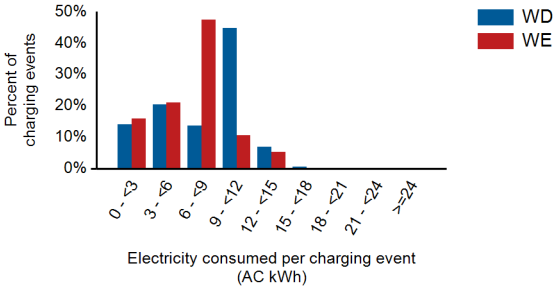
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



EV Project Electric Vehicle Charging Infrastructure Summary Report

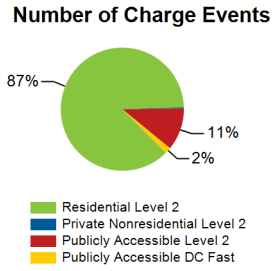
Region: Oregon

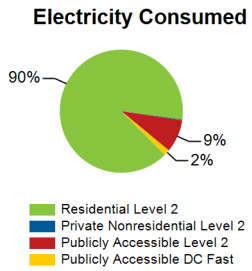
Report period: January 2012 through December 2012

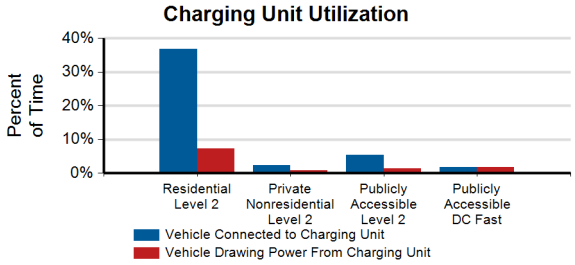
Number of EV Project vehicles in region: 521

Charging Unit Usage

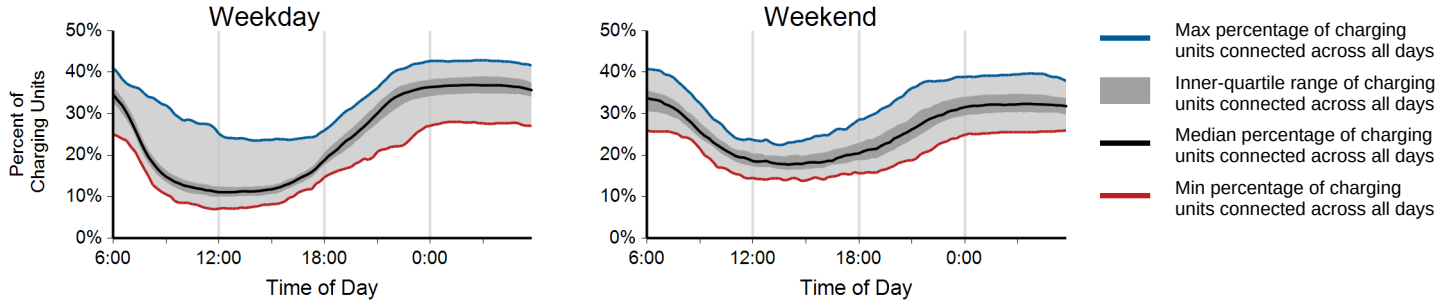
	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	518	12	334	14	878
Number of charging events[2]	111,324	350	14,232	2,018	127,924
Electricity consumed (AC MWh)	901.13	1.92	86.37	15.33	1,004.76
Percent of time with a vehicle connected to charging unit	37%	2%	5%	2%	25%
Percent of time with a vehicle drawing power from charging unit	7%	1%	1%	2%	5%



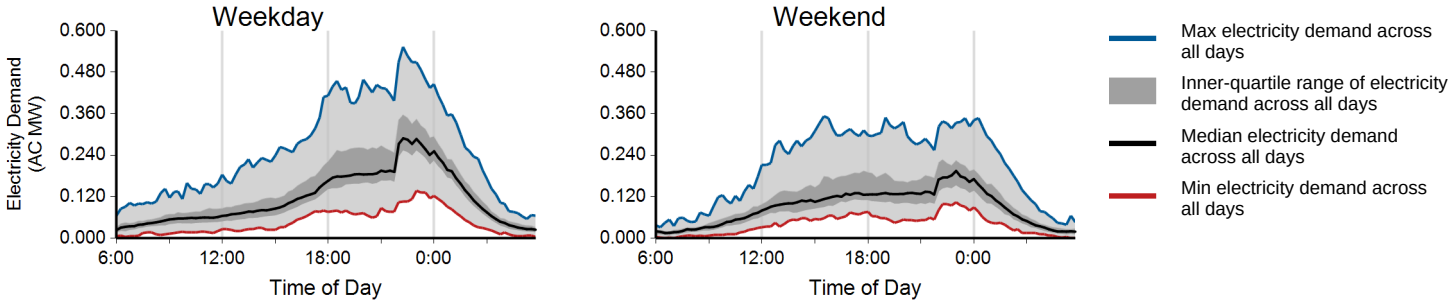




Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



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.

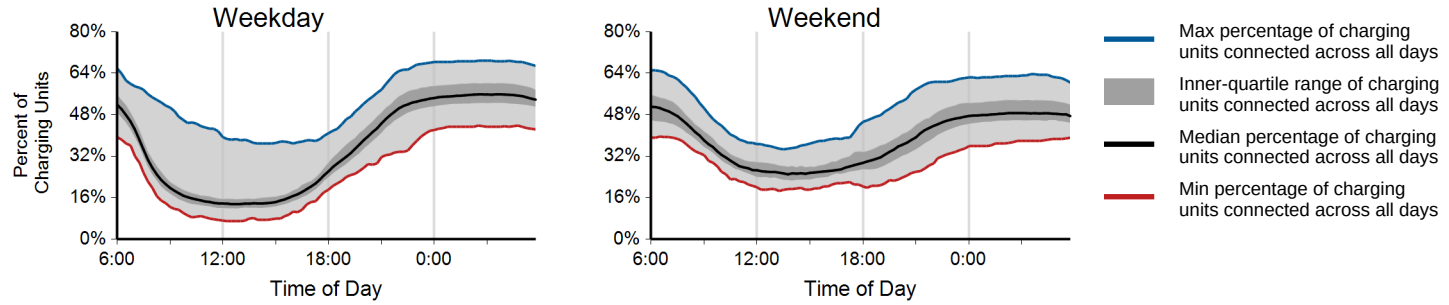
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Oregon

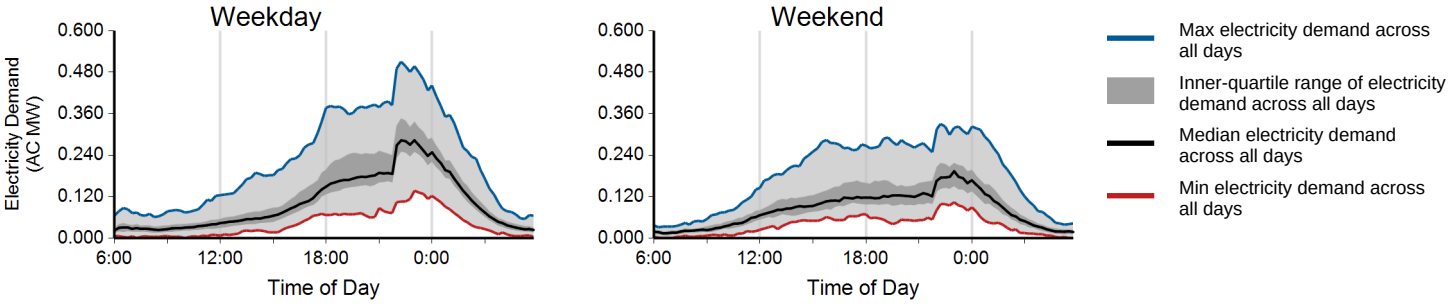
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	82,309	29,015	111,324
Electricity consumed (AC MWh)	684.71	216.43	901.13
Percent of time with a vehicle connected to EVSE	36%	39%	37%
Percent of time with a vehicle drawing power from EVSE	8%	6%	7%
Average number of charging events started per EVSE per day	0.80	0.69	0.77

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)

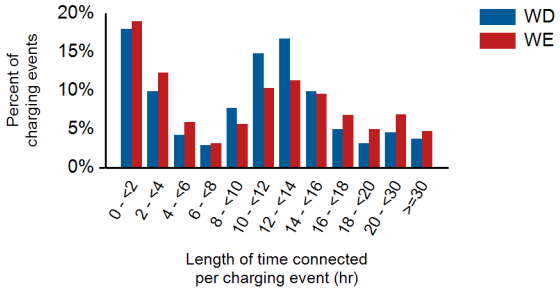
Region: Oregon

Report period: January 2012 through December 2012

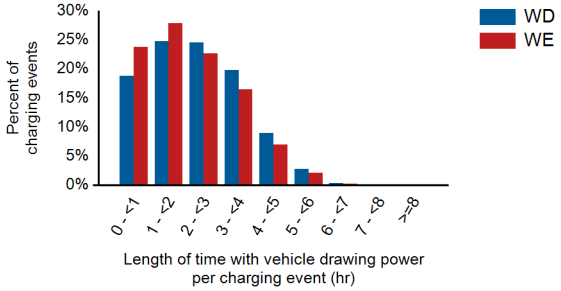
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	83%	17%	0%
Percent of electricity consumed	87%	13%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	11.5	11.7	11.6
Average length of time with vehicle drawing power per charging event (hr)	2.4	2.1	2.3
Average electricity consumed per charging event (AC kWh)	8.3	7.5	8.1

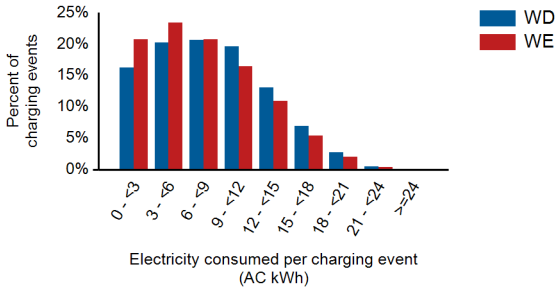
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



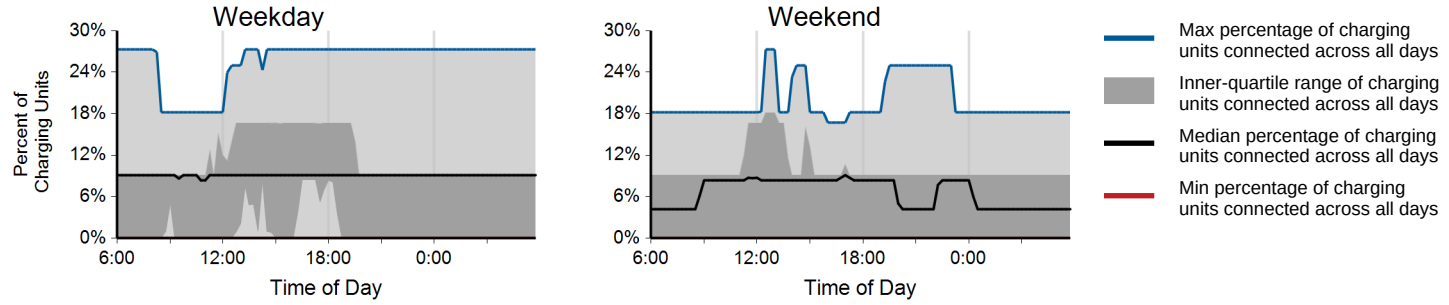
Private Nonresidential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Oregon

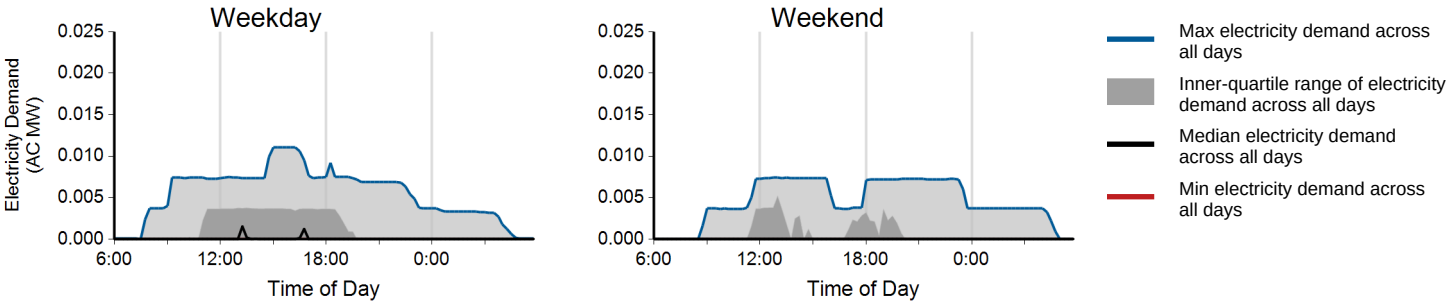
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	247	103	350
Electricity consumed (AC MWh)	1.39	0.53	1.92
Percent of time with a vehicle connected to EVSE	3%	2%	2%
Percent of time with a vehicle drawing power from EVSE	1%	1%	1%
Average number of charging events started per EVSE per day	0.12	0.12	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]



Private Nonresidential Level 2 Electric Vehicle Supply Equipment (EVSE)

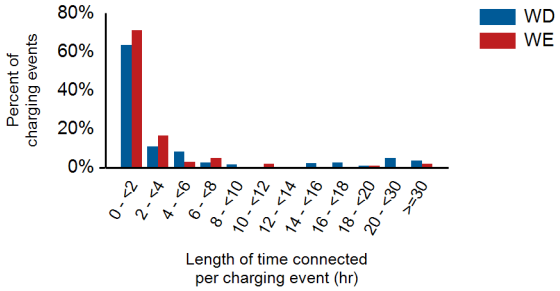
Region: Oregon

Report period: January 2012 through December 2012

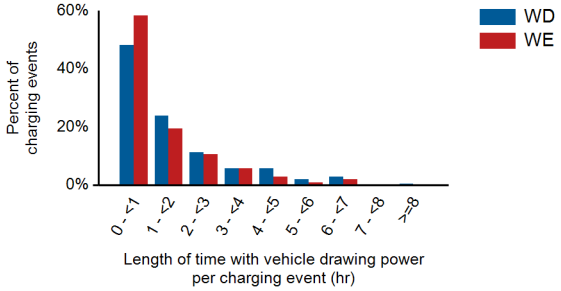
Vehicles Charged	Car2Go fleet [1]	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	25%	40%	2%	33%
Percent of electricity consumed	40%	26%	2%	32%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	5.8	3.2	5.0
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)	5.6	5.2	5.5

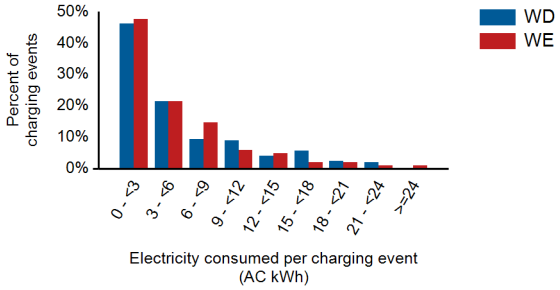
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



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

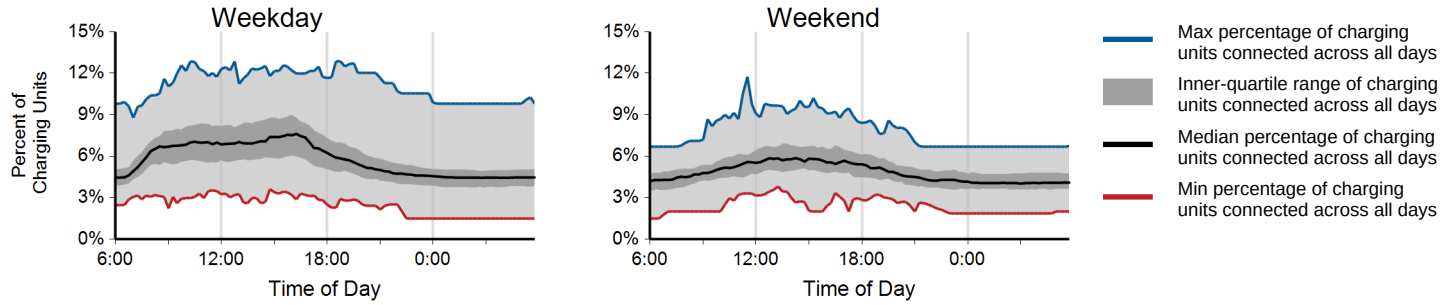
Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Oregon

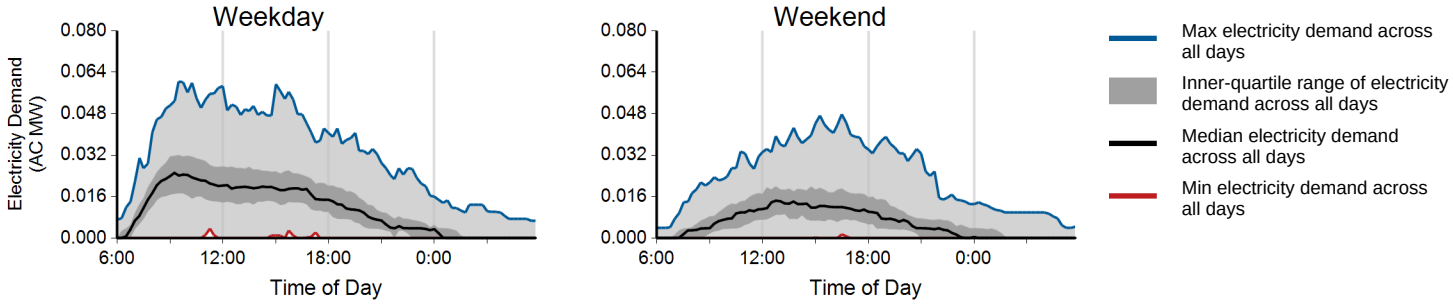
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	11,237	2,995	14,232
Electricity consumed (AC MWh)	70.59	15.79	86.37
Percent of time with a vehicle connected to EVSE	6%	5%	5%
Percent of time with a vehicle drawing power from EVSE	2%	1%	1%
Average number of charging events started per EVSE per day	0.19	0.13	0.17

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)

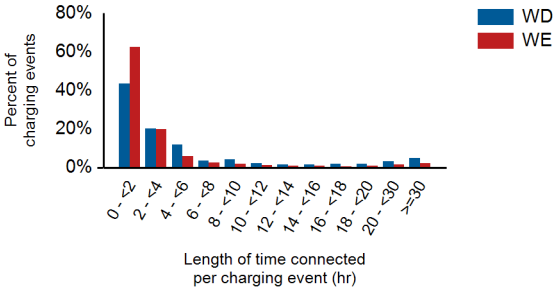
Region: Oregon

Report period: January 2012 through December 2012

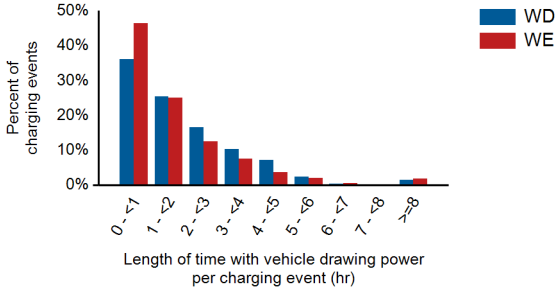
Vehicles Charged	Car2Go fleet [1]	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	3%	43%	3%	51%
Percent of electricity consumed	6%	43%	3%	48%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	8.7	3.8	7.7
Average length of time with vehicle drawing power per charging event (hr)	2.0	1.8	2.0
Average electricity consumed per charging event (AC kWh)	6.3	5.3	6.1

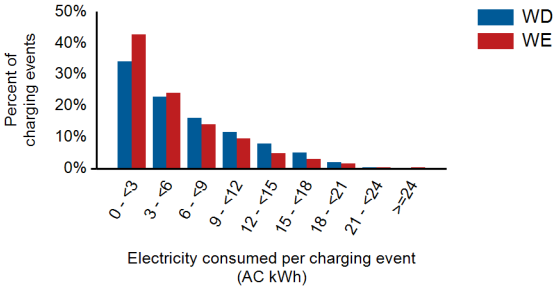
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



[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.

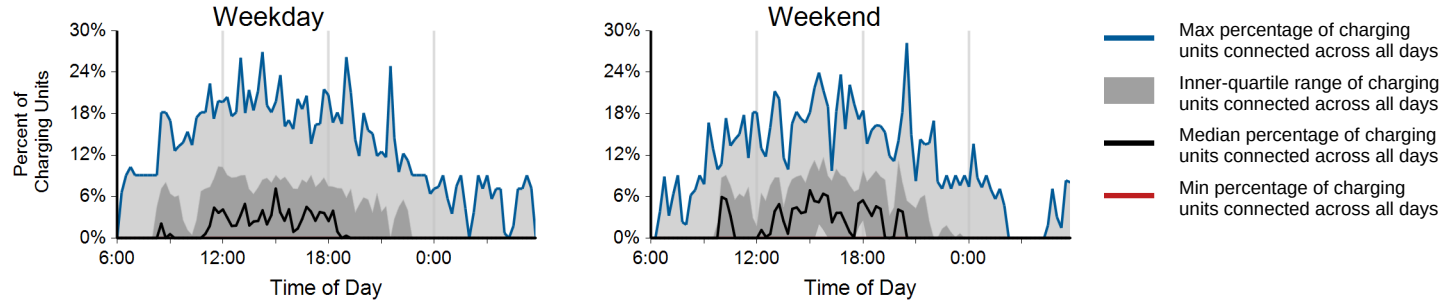
DC Fast Chargers

Region: Oregon

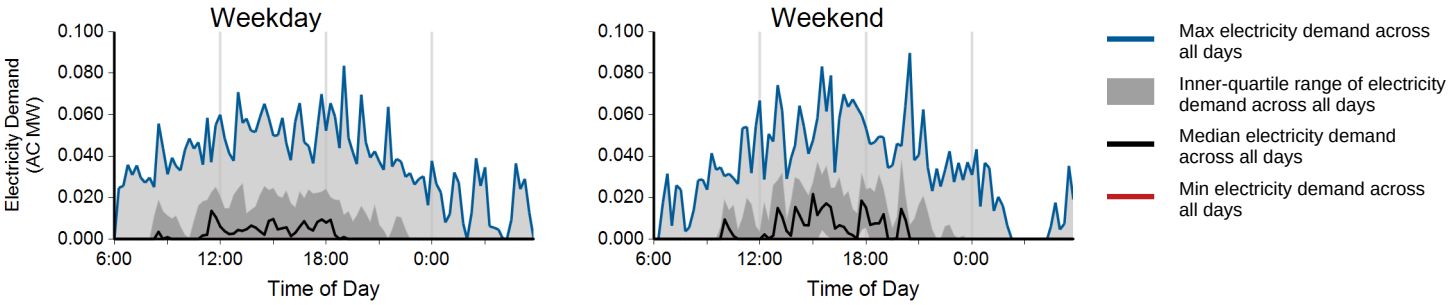
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	1,441	577	2,018
Electricity consumed (AC MWh)	10.64	4.69	15.33
Percent of time with a vehicle connected to EVSE	2%	2%	2%
Percent of time with a vehicle drawing power from EVSE	2%	2%	2%
Average number of charging events started per EVSE per day	1.34	1.31	1.33

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]



DC Fast Chargers

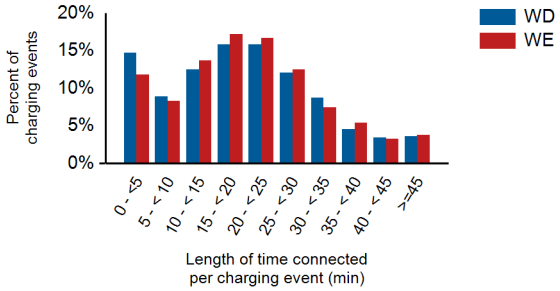
Region: Oregon

Report period: January 2012 through December 2012

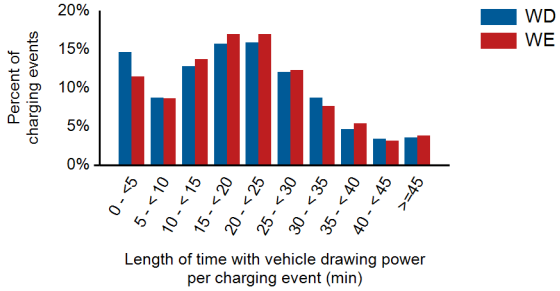
Vehicles Charged	Car2Go fleet [1]	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	0%	56%	0%	44%
Percent of electricity consumed	0%	59%	0%	41%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (min)	19.9	20.4	20.1
Average length of time with vehicle drawing power per charging event (min)	19.9	20.4	20.0
Average electricity consumed per charging event (AC kWh)	7.4	8.1	7.6

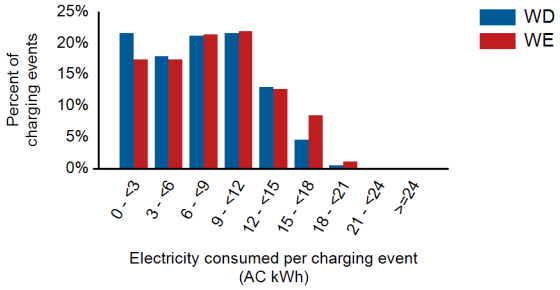
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



[1] 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

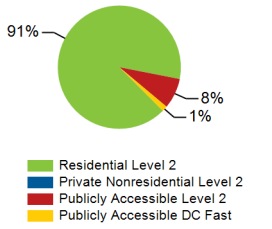
Report period: January 2012 through December 2012

Number of EV Project vehicles in region: 67

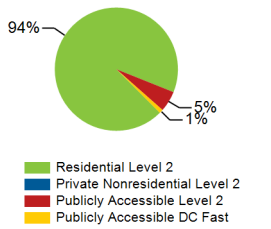
Charging Unit Usage

	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	65	0	52	6	123
Number of charging events[2]	11,878	0	1,051	185	13,114
Electricity consumed (AC MWh)	100.47	0.00	5.84	1.07	107.38
Percent of time with a vehicle connected to charging unit	34%	0%	1%	0%	17%
Percent of time with a vehicle drawing power from charging unit	7%	0%	0%	0%	4%

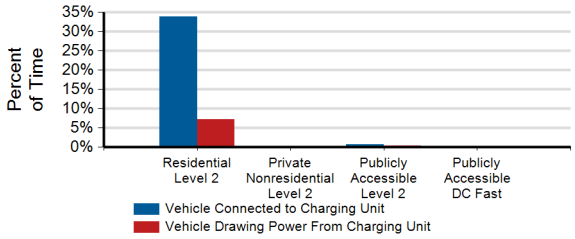
Number of Charge Events



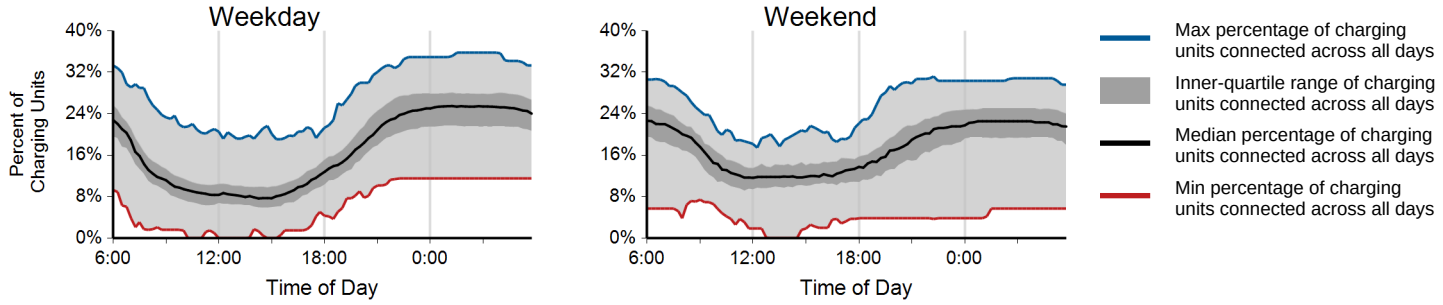
Electricity Consumed



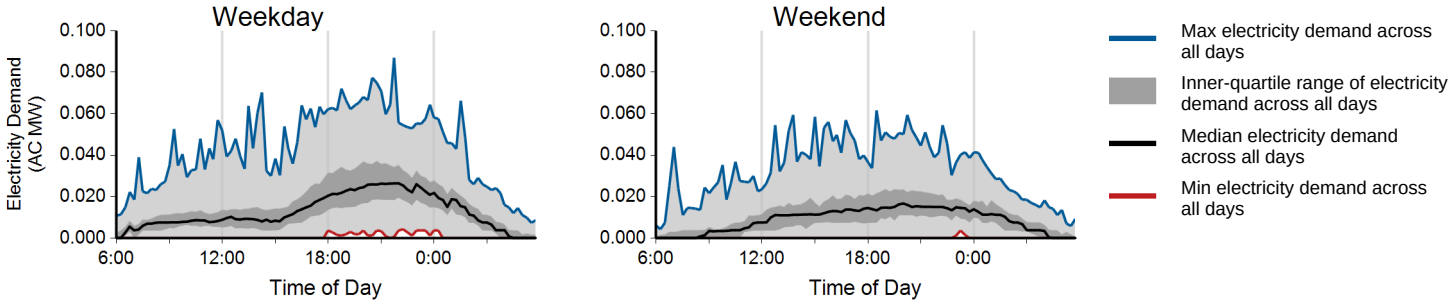
Charging Unit Utilization



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.

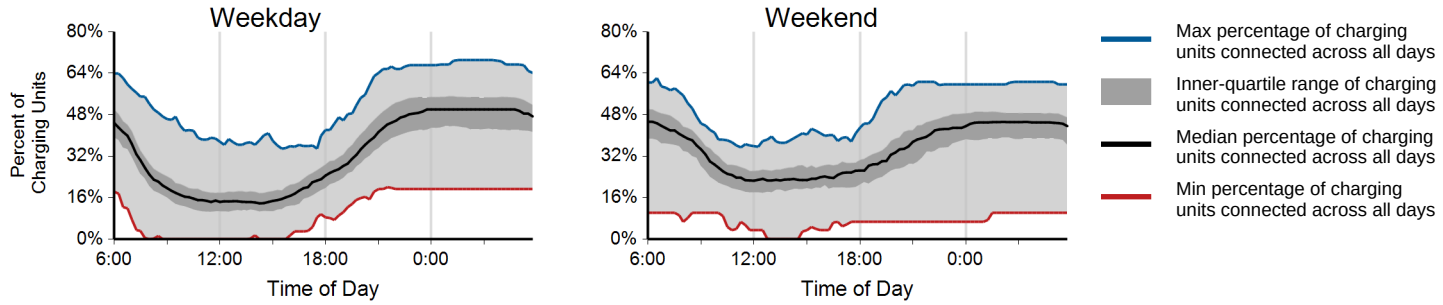
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Chattanooga, TN Metropolitan Area

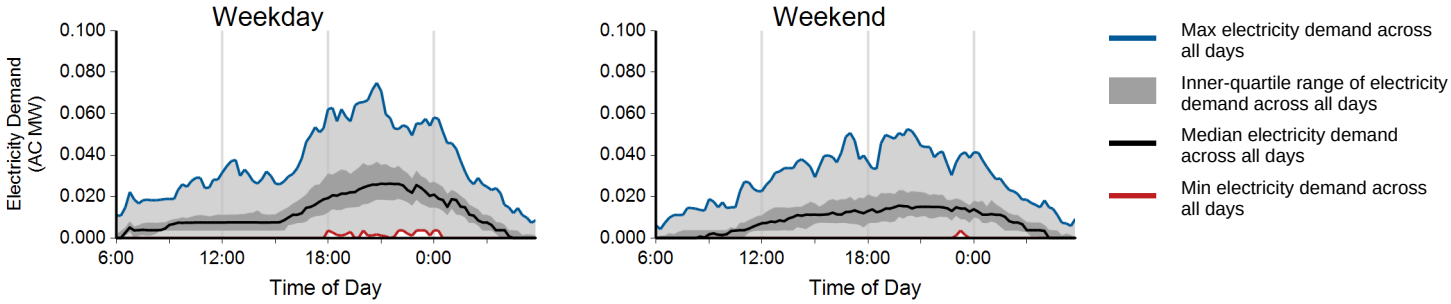
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	8,932	2,946	11,878
Electricity consumed (AC MWh)	78.28	22.19	100.47
Percent of time with a vehicle connected to EVSE	33%	35%	34%
Percent of time with a vehicle drawing power from EVSE	8%	6%	7%
Average number of charging events started per EVSE per day	0.79	0.64	0.74

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)

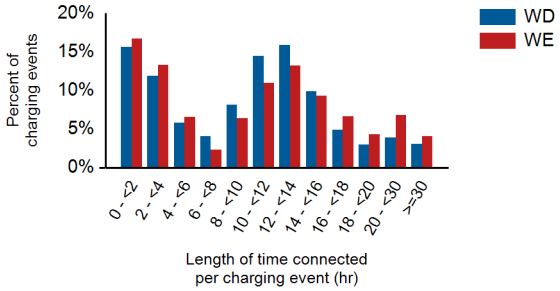
Region: Chattanooga, TN Metropolitan Area

Report period: January 2012 through December 2012

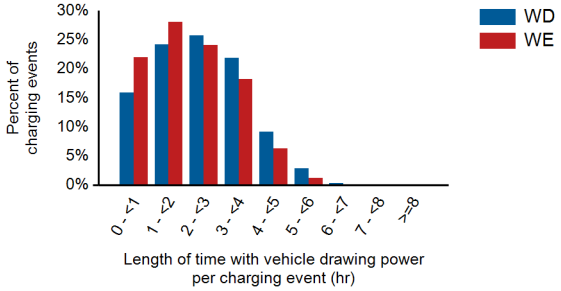
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	91%	9%	0%
Percent of electricity consumed	92%	8%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	10.8	11.3	10.9
Average length of time with vehicle drawing power per charging event (hr)	2.4	2.1	2.4
Average electricity consumed per charging event (AC kWh)	8.8	7.6	8.5

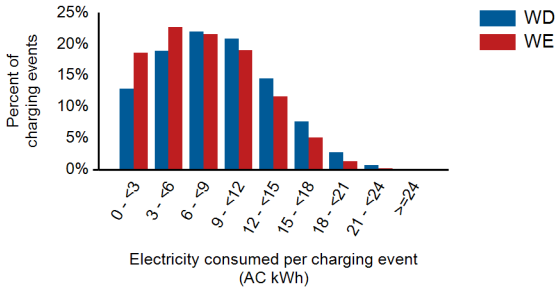
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



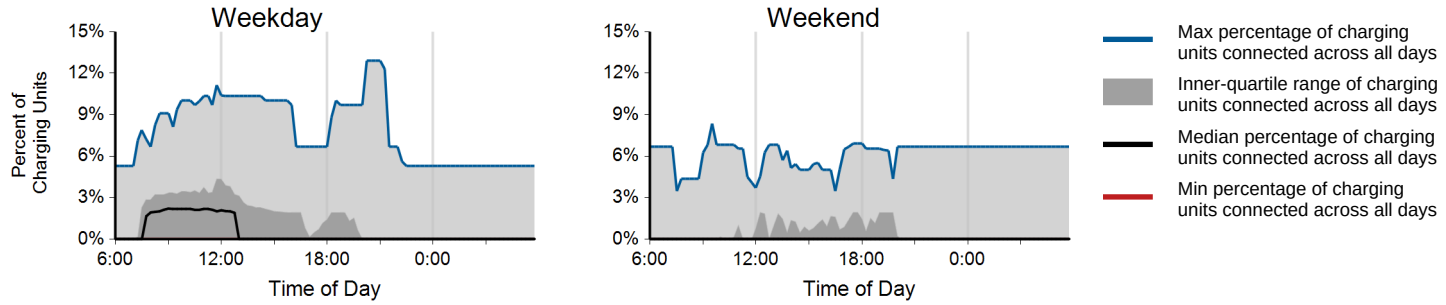
Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Chattanooga, TN Metropolitan Area

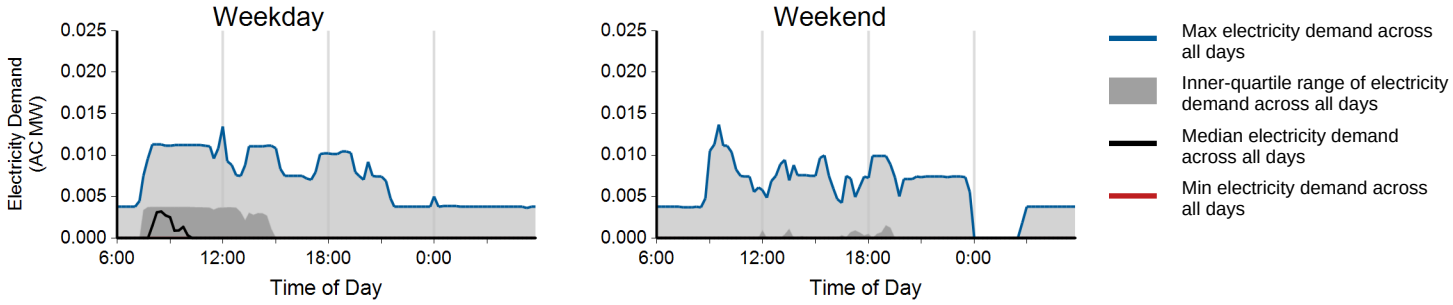
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	803	248	1,051
Electricity consumed (AC MWh)	4.72	1.13	5.84
Percent of time with a vehicle connected to EVSE	1%	0%	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	0.07

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)

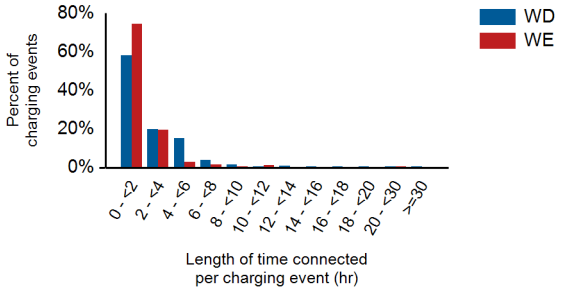
Region: Chattanooga, TN Metropolitan Area

Report period: January 2012 through December 2012

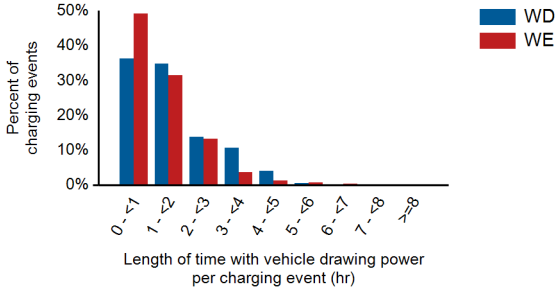
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	60%	9%	31%
Percent of electricity consumed	65%	8%	28%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	2.6	1.8	2.4
Average length of time with vehicle drawing power per charging event (hr)	1.7	1.3	1.6
Average electricity consumed per charging event (AC kWh)	5.9	4.6	5.6

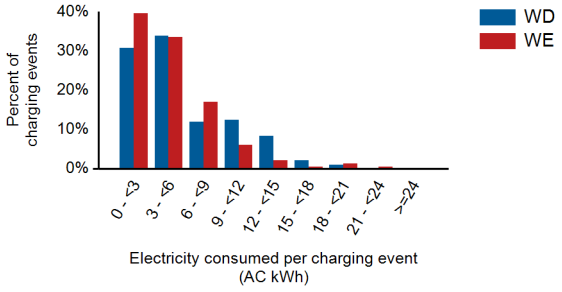
Distribution of Length of Time with a Vehicle Connected per Charging Event



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: Knoxville, TN Metropolitan Area

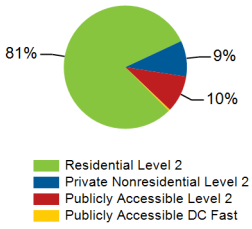
Report period: January 2012 through December 2012

Number of EV Project vehicles in region: 103

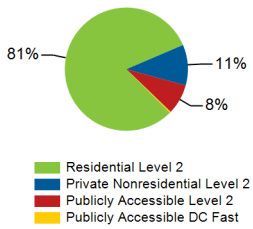
Charging Unit Usage

	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	102	43	123	3	271
Number of charging events[2]	21,139	2,471	2,535	100	26,245
Electricity consumed (AC MWh)	181.12	23.83	17.72	0.70	223.38
Percent of time with a vehicle connected to charging unit	35%	6%	3%	0%	17%
Percent of time with a vehicle drawing power from charging unit	7%	3%	1%	0%	4%

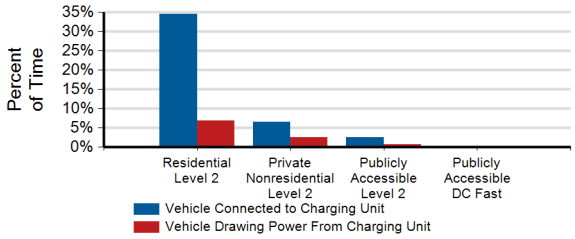
Number of Charge Events



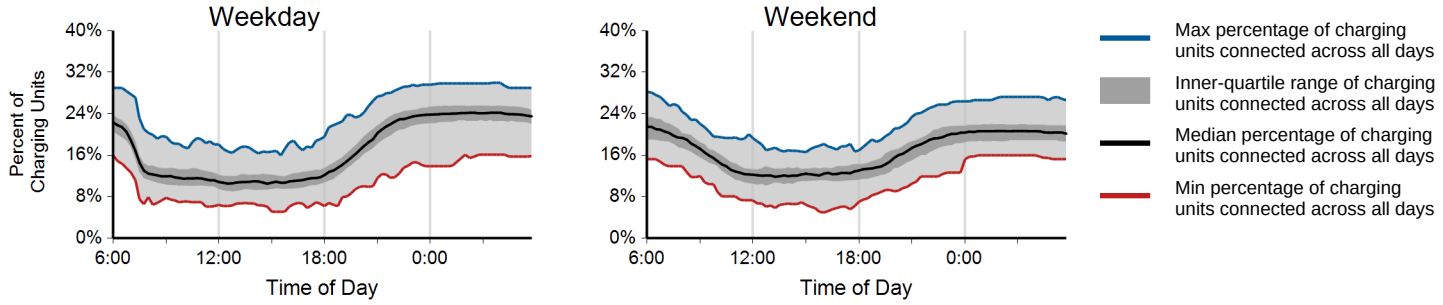
Electricity Consumed



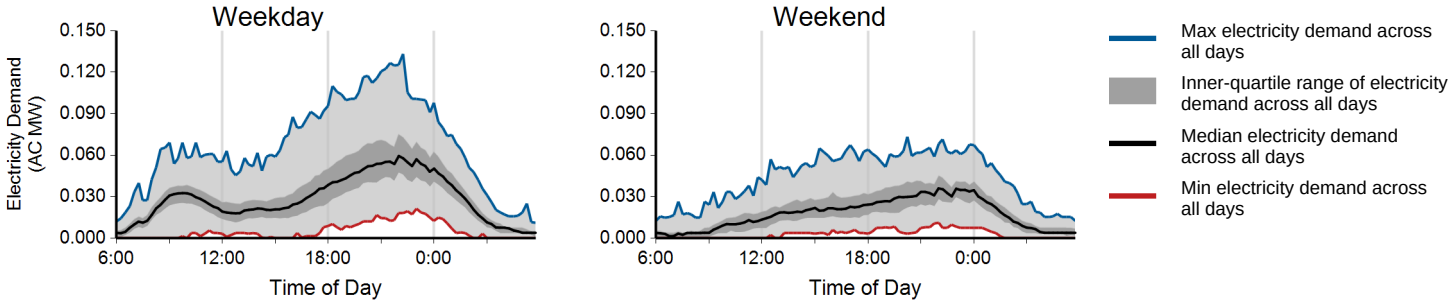
Charging Unit Utilization



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.

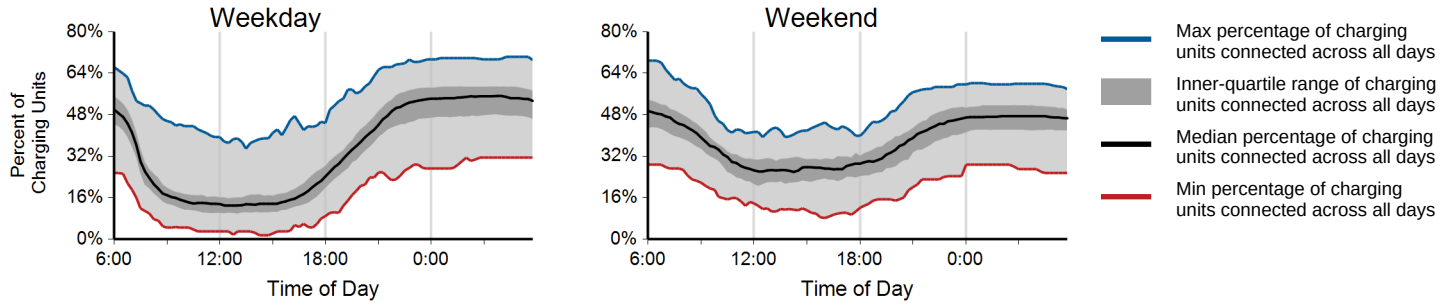
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Knoxville, TN Metropolitan Area

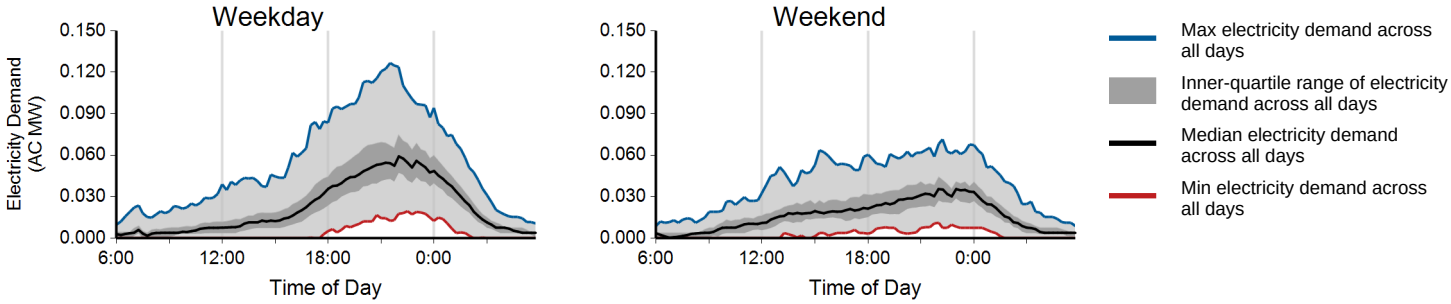
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	15,808	5,331	21,139
Electricity consumed (AC MWh)	140.13	40.98	181.12
Percent of time with a vehicle connected to EVSE	34%	37%	35%
Percent of time with a vehicle drawing power from EVSE	7%	5%	7%
Average number of charging events started per EVSE per day	0.73	0.61	0.69

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)

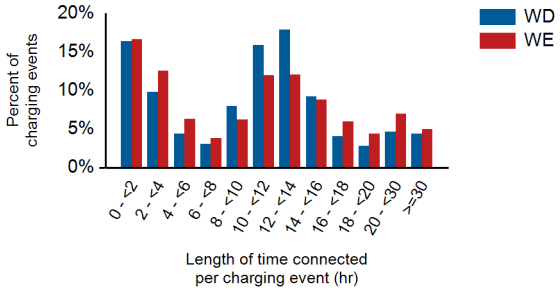
Region: Knoxville, TN Metropolitan Area

Report period: January 2012 through December 2012

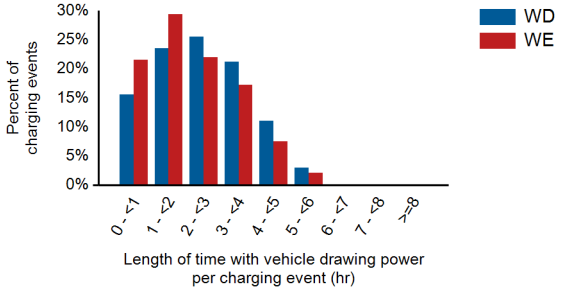
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	87%	13%	0%
Percent of electricity consumed	90%	10%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	12.1	11.9	12.0
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)	8.9	7.7	8.6

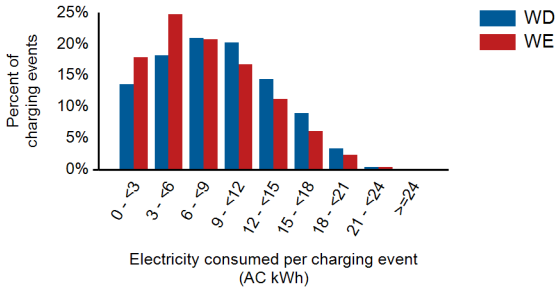
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



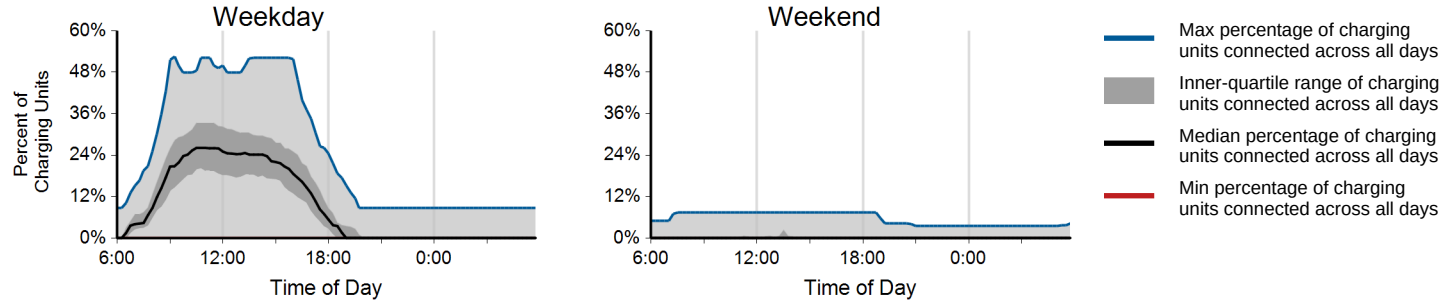
Private Nonresidential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Knoxville, TN Metropolitan Area

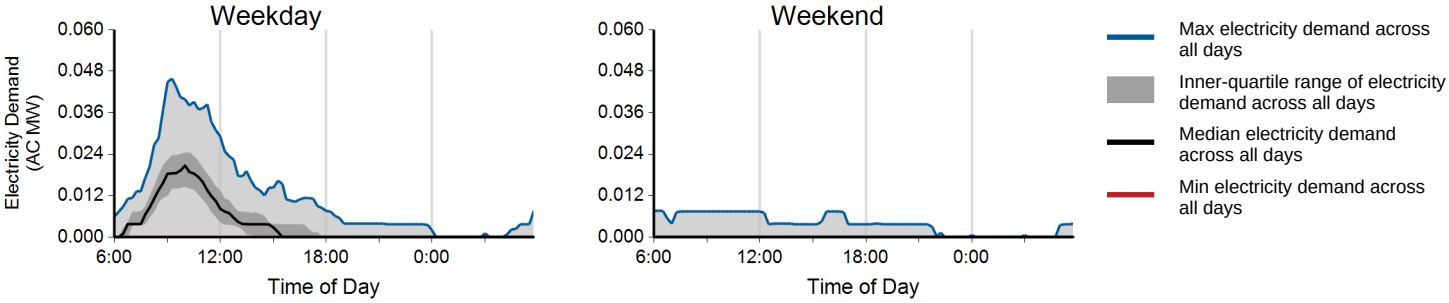
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	2,424	47	2,471
Electricity consumed (AC MWh)	23.39	0.45	23.83
Percent of time with a vehicle connected to EVSE	9%	1%	6%
Percent of time with a vehicle drawing power from EVSE	4%	0%	3%
Average number of charging events started per EVSE per day	0.32	0.02	0.23

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)

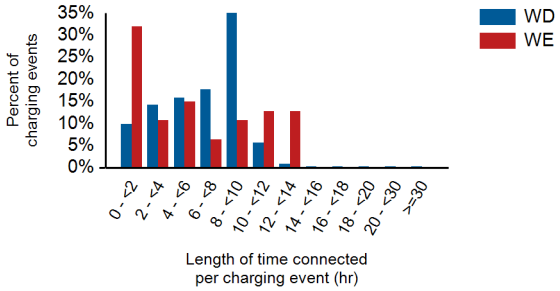
Region: Knoxville, TN Metropolitan Area

Report period: January 2012 through December 2012

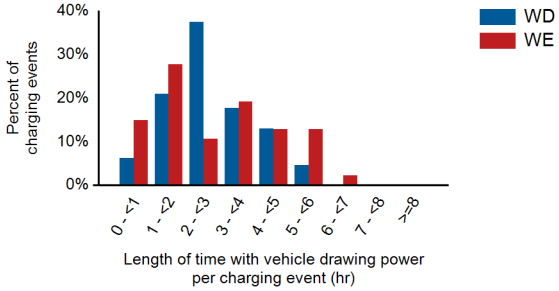
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	30%	0%	69%
Percent of electricity consumed	31%	0%	69%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	6.7	5.8	6.7
Average length of time with vehicle drawing power per charging event (hr)	2.7	2.8	2.7
Average electricity consumed per charging event (AC kWh)	9.6	10.2	9.6

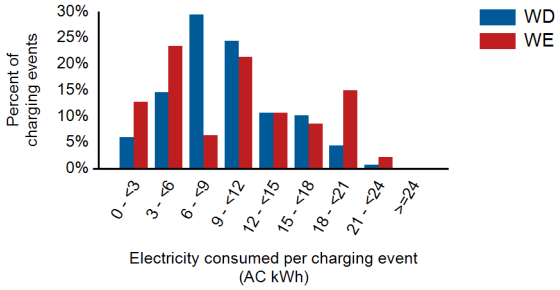
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



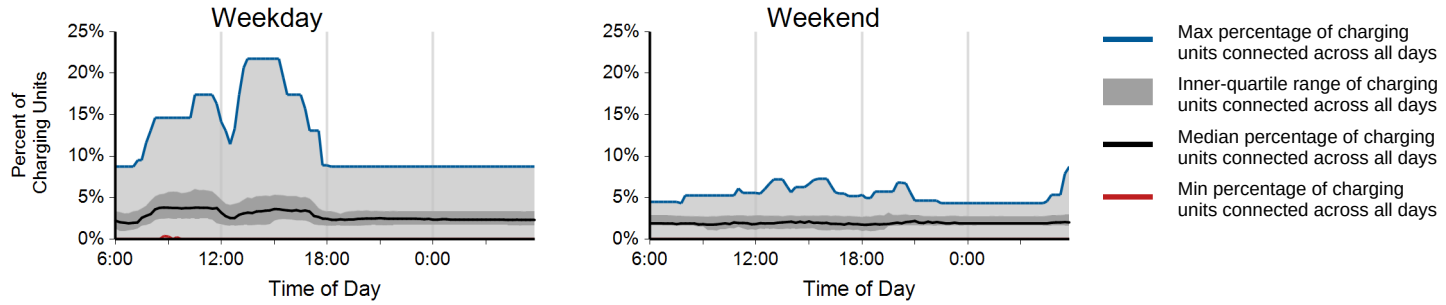
Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Knoxville, TN Metropolitan Area

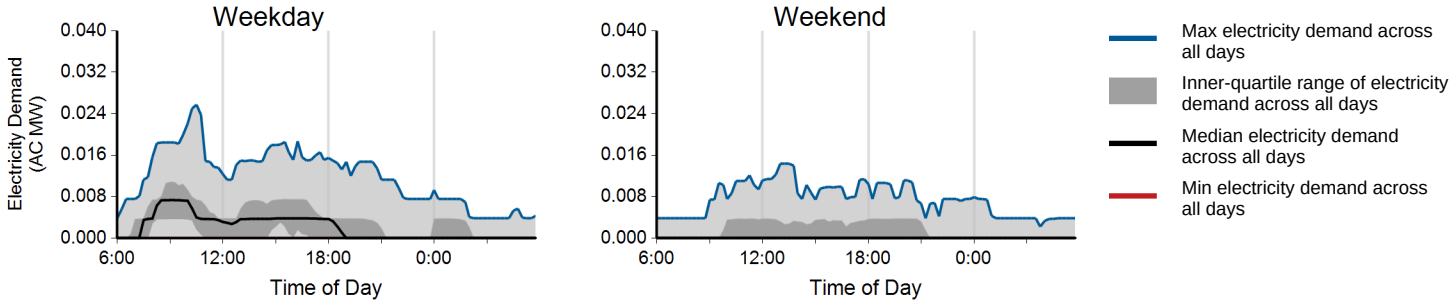
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	2,116	419	2,535
Electricity consumed (AC MWh)	15.52	2.21	17.72
Percent of time with a vehicle connected to EVSE	3%	2%	3%
Percent of time with a vehicle drawing power from EVSE	1%	0%	1%
Average number of charging events started per EVSE per day	0.10	0.05	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)

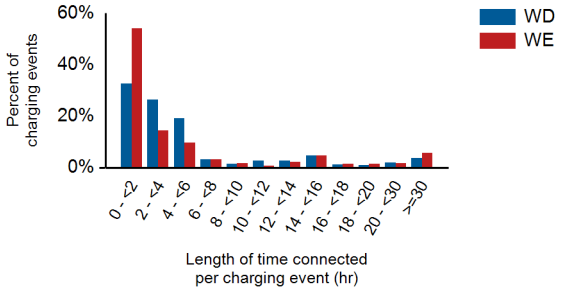
Region: Knoxville, TN Metropolitan Area

Report period: January 2012 through December 2012

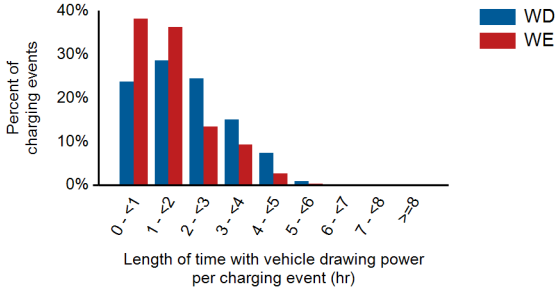
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	64%	2%	34%
Percent of electricity consumed	60%	2%	38%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	7.5	7.8	7.5
Average length of time with vehicle drawing power per charging event (hr)	2.1	1.5	2.0
Average electricity consumed per charging event (AC kWh)	7.3	5.4	7.0

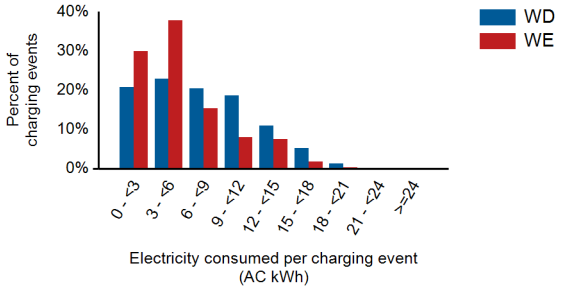
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



EV Project Electric Vehicle Charging Infrastructure Summary Report

Region: Memphis, TN Metropolitan Area

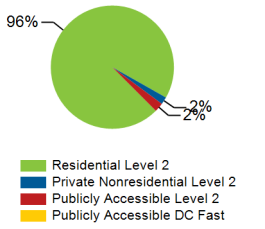
Report period: January 2012 through December 2012

Number of EV Project vehicles in region: 62

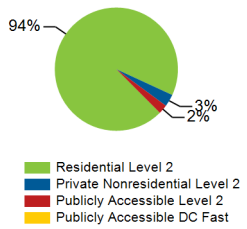
Charging Unit Usage

	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	62	1	24	0	87
Number of charging events[2]	11,761	238	291	0	12,290
Electricity consumed (AC MWh)	87.45	3.00	2.21	0.00	92.65
Percent of time with a vehicle connected to charging unit	38%	41%	1%	0%	28%
Percent of time with a vehicle drawing power from charging unit	7%	11%	0%	0%	5%

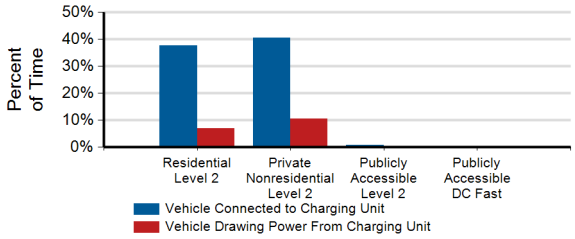
Number of Charge Events



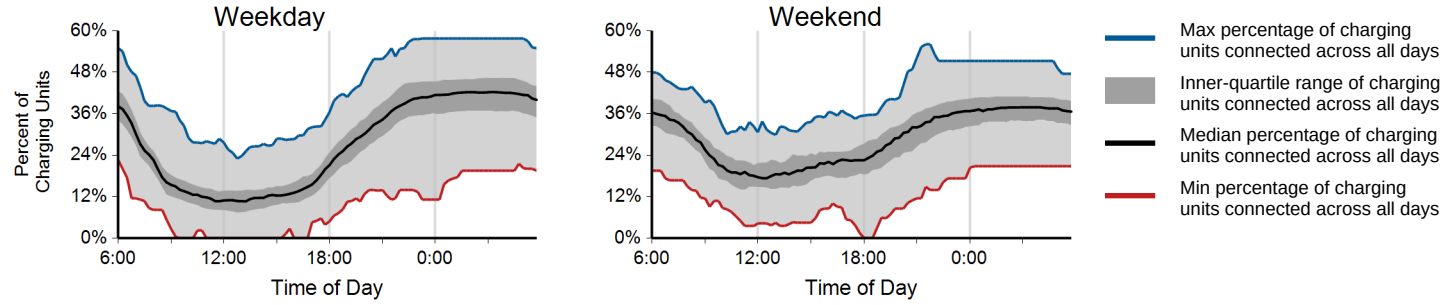
Electricity Consumed



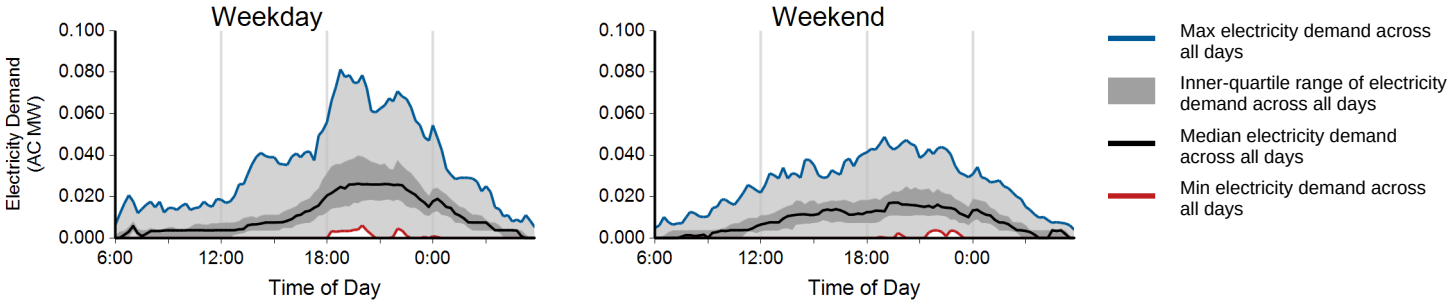
Charging Unit Utilization



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.

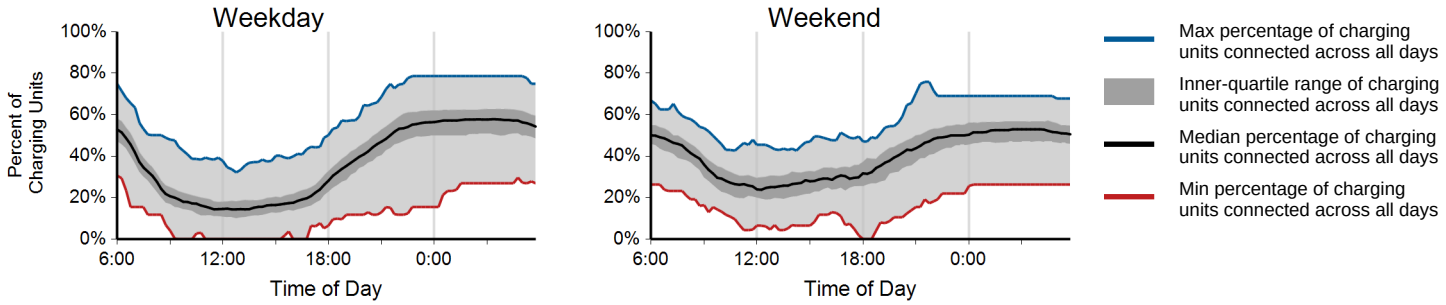
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Memphis, TN Metropolitan Area

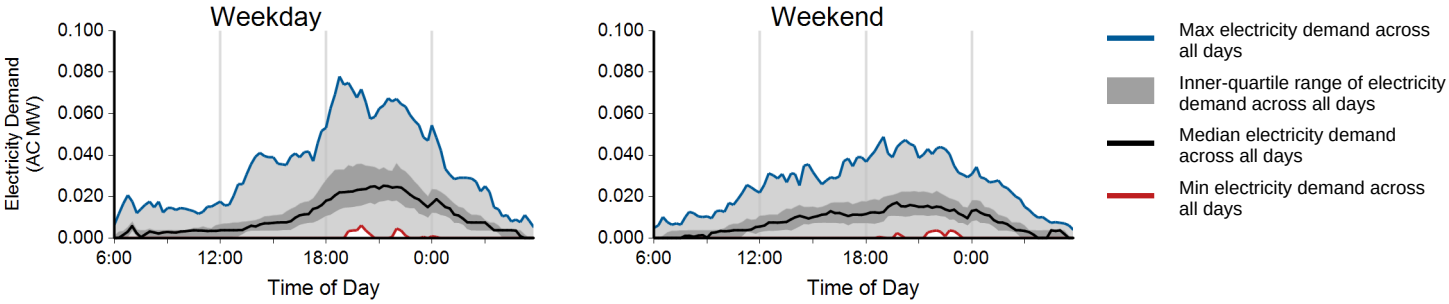
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	8,640	3,121	11,761
Electricity consumed (AC MWh)	66.46	20.98	87.45
Percent of time with a vehicle connected to EVSE	37%	39%	38%
Percent of time with a vehicle drawing power from EVSE	8%	6%	7%
Average number of charging events started per EVSE per day	0.84	0.75	0.81

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)

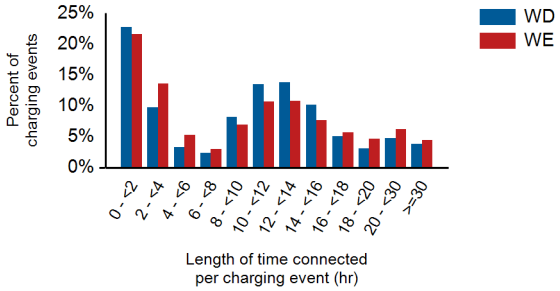
Region: Memphis, TN Metropolitan Area

Report period: January 2012 through December 2012

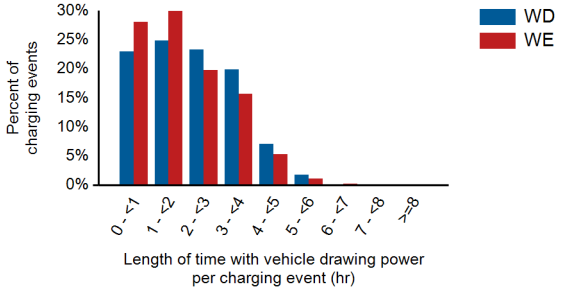
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	78%	22%	0%
Percent of electricity consumed	83%	17%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	11.4	10.8	11.2
Average length of time with vehicle drawing power per charging event (hr)	2.2	1.9	2.1
Average electricity consumed per charging event (AC kWh)	7.7	6.7	7.4

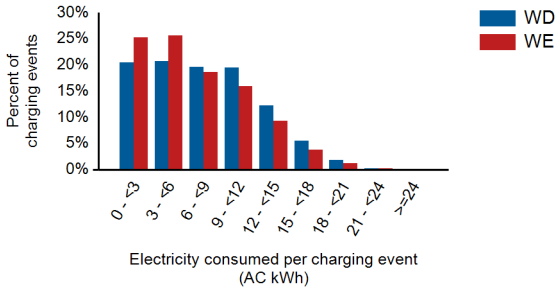
Distribution of Length of Time with a Vehicle Connected per Charging Event



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)

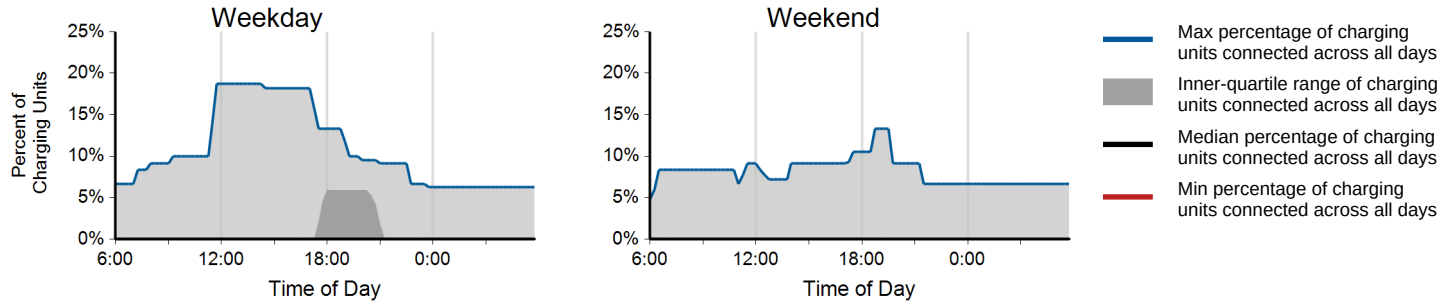
Region: Memphis, TN Metropolitan Area

Report period: January 2012 through December 2012

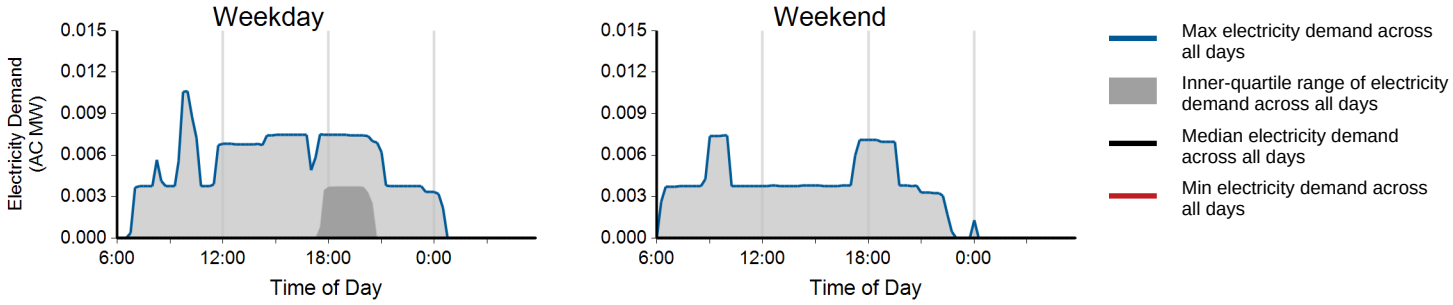
EVSE Usage

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	242	49	291
Electricity consumed (AC MWh)	1.90	0.31	2.21
Percent of time with a vehicle connected to EVSE	1%	0%	1%
Percent of time with a vehicle drawing power from EVSE	1%	0%	0%
Average number of charging events started per EVSE per day	0.06	0.03	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)

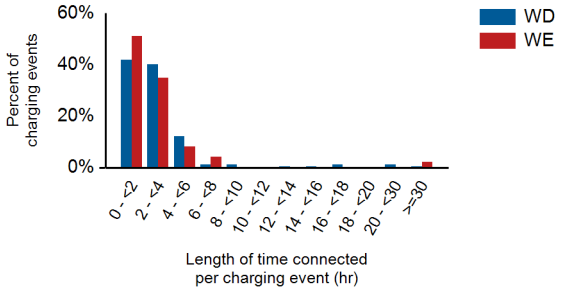
Region: Memphis, TN Metropolitan Area

Report period: January 2012 through December 2012

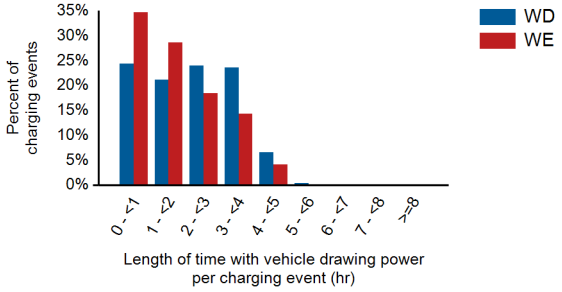
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	58%	20%	22%
Percent of electricity consumed	61%	19%	21%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	3.3	3.5	3.3
Average length of time with vehicle drawing power per charging event (hr)	2.2	1.8	2.1
Average electricity consumed per charging event (AC kWh)	7.9	6.4	7.6

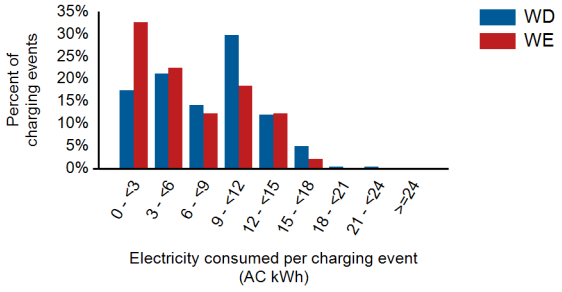
Distribution of Length of Time with a Vehicle Connected per Charging Event



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

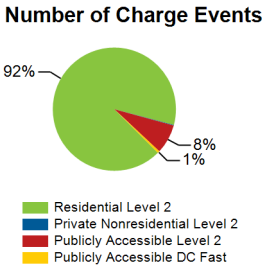
Region: Nashville, TN Metropolitan Area

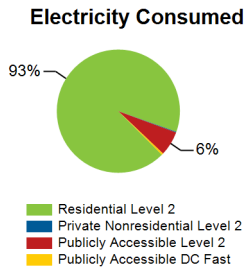
Report period: January 2012 through December 2012

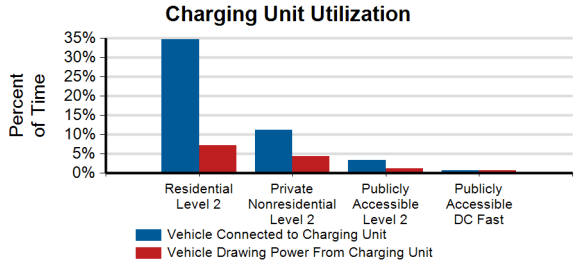
Number of EV Project vehicles in region: 515

Charging Unit Usage

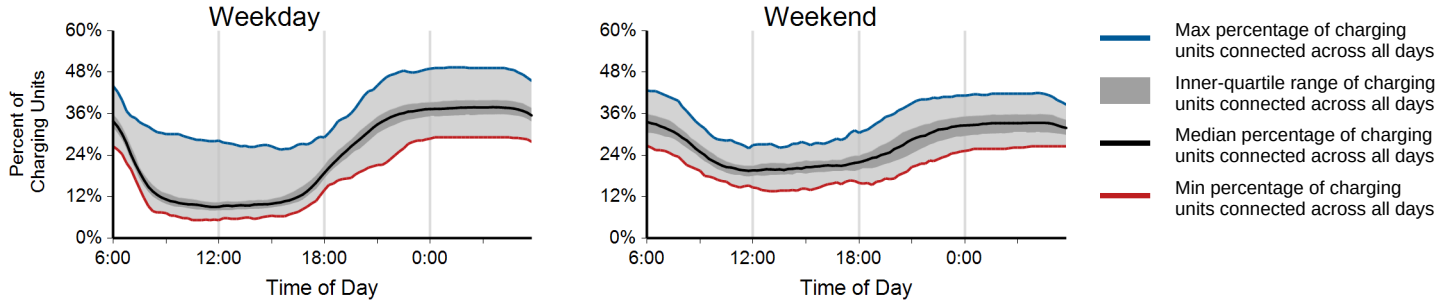
	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	513	5	206	4	728
Number of charging events[2]	92,981	147	7,816	537	101,481
Electricity consumed (AC MWh)	789.60	1.52	54.69	3.81	849.62
Percent of time with a vehicle connected to charging unit	35%	11%	3%	1%	25%
Percent of time with a vehicle drawing power from charging unit	7%	4%	1%	1%	5%



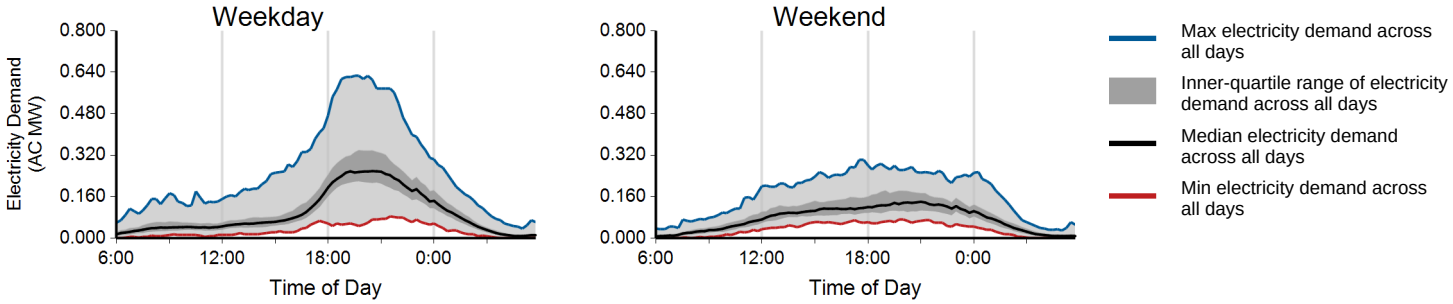




Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



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.

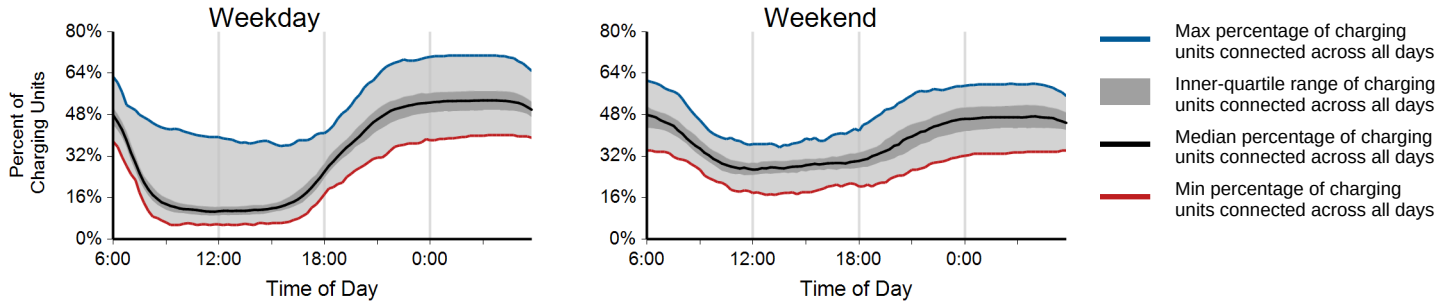
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Nashville, TN Metropolitan Area

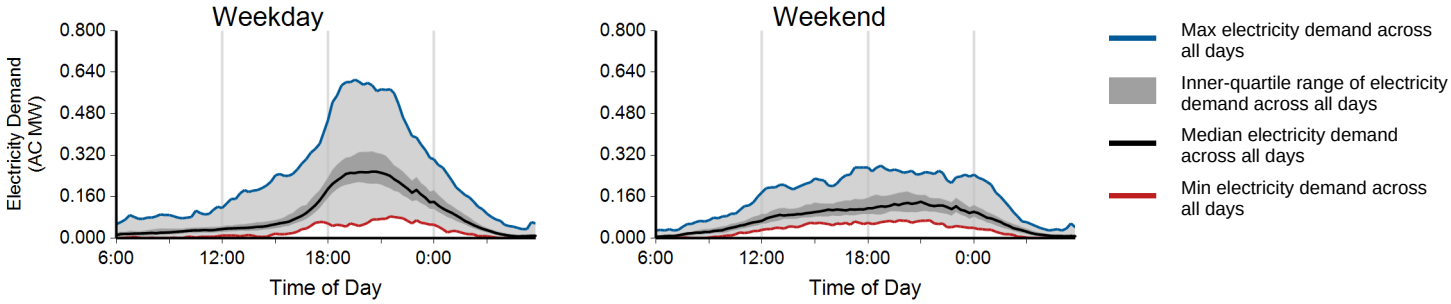
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	67,880	25,101	92,981
Electricity consumed (AC MWh)	602.23	187.37	789.60
Percent of time with a vehicle connected to EVSE	34%	38%	35%
Percent of time with a vehicle drawing power from EVSE	8%	6%	7%
Average number of charging events started per EVSE per day	0.76	0.70	0.74

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)

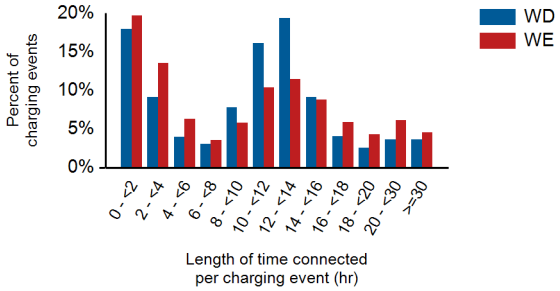
Region: Nashville, TN Metropolitan Area

Report period: January 2012 through December 2012

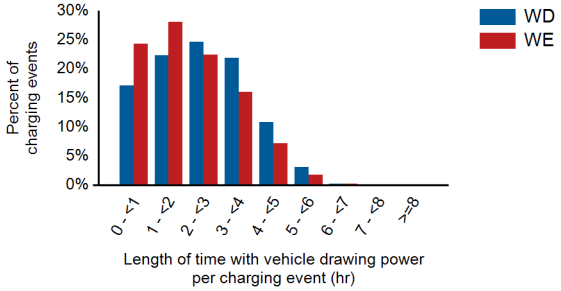
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	95%	5%	0%
Percent of electricity consumed	96%	4%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	11.3	11.2	11.3
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	7.5	8.5

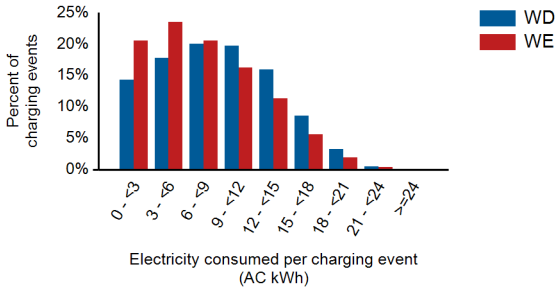
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



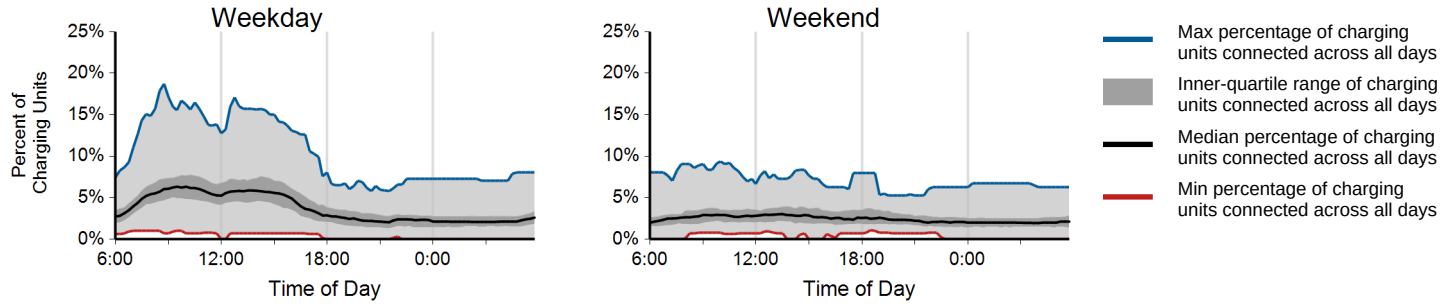
Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Nashville, TN Metropolitan Area

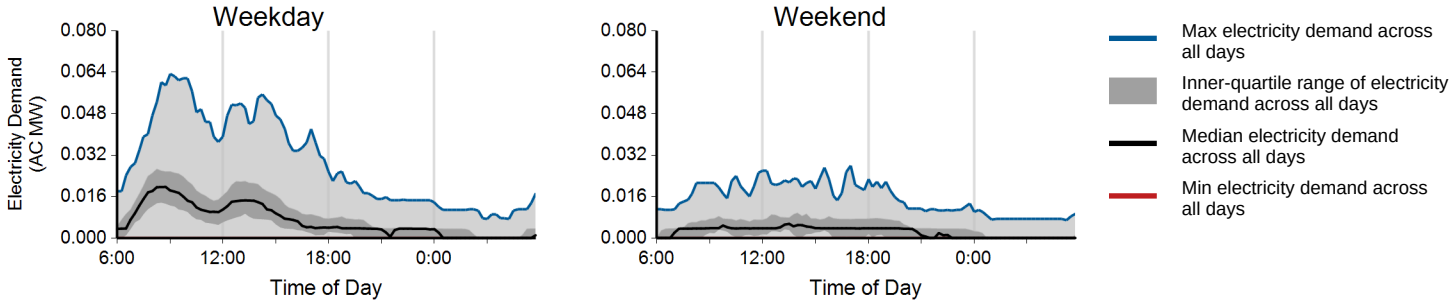
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	6,318	1,498	7,816
Electricity consumed (AC MWh)	46.75	7.93	54.69
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	0.16	0.10	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)

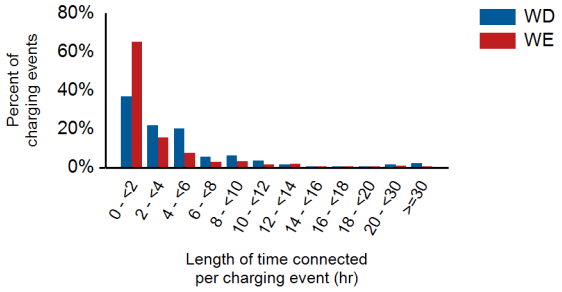
Region: Nashville, TN Metropolitan Area

Report period: January 2012 through December 2012

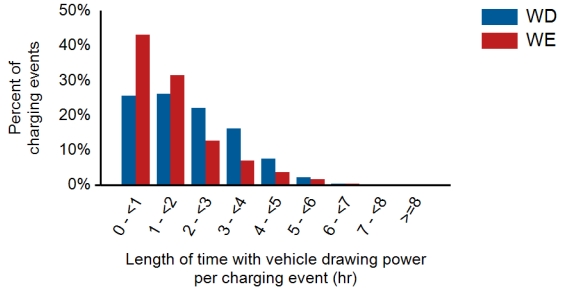
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	59%	4%	37%
Percent of electricity consumed	61%	3%	36%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	6.3	3.2	5.7
Average length of time with vehicle drawing power per charging event (hr)	2.1	1.6	2.0
Average electricity consumed per charging event (AC kWh)	7.4	5.4	7.0

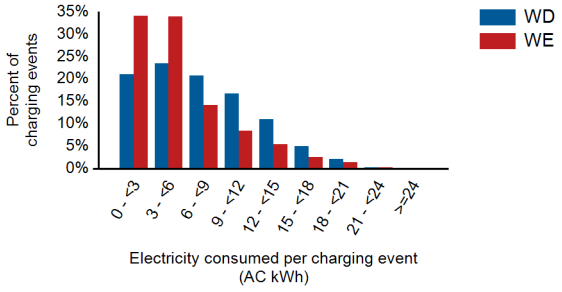
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



EV Project Electric Vehicle Charging Infrastructure Summary Report

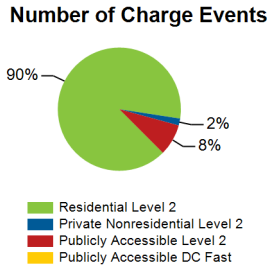
Region: Dallas/Ft. Worth, TX Metropolitan Area

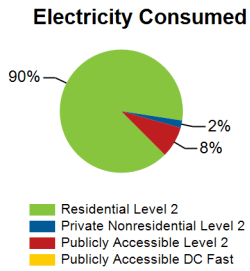
Report period: January 2012 through December 2012

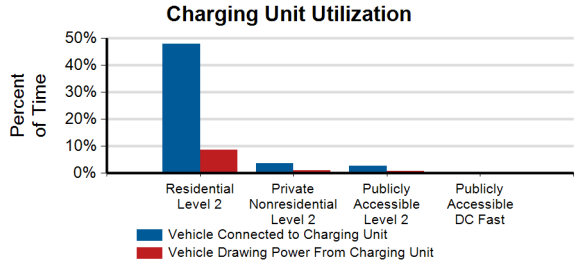
Number of EV Project vehicles in region: 146

Charging Unit Usage

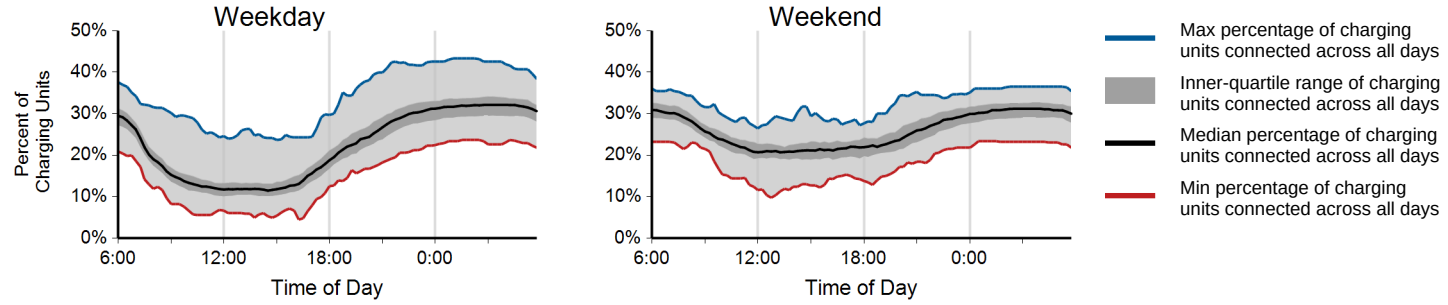
	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	144	28	160	0	332
Number of charging events[2]	33,256	672	3,051	0	36,979
Electricity consumed (AC MWh)	202.13	4.31	18.32	0.00	224.77
Percent of time with a vehicle connected to charging unit	48%	4%	3%	0%	23%
Percent of time with a vehicle drawing power from charging unit	9%	1%	1%	0%	4%



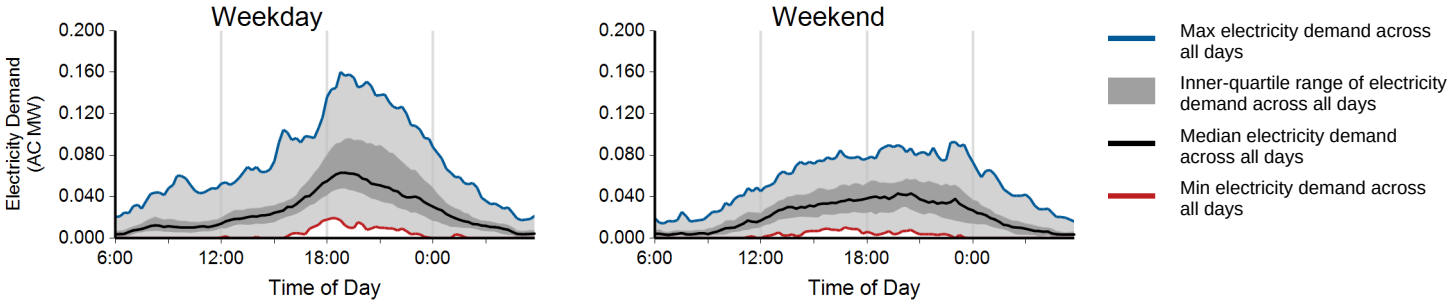




Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day[3]



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.

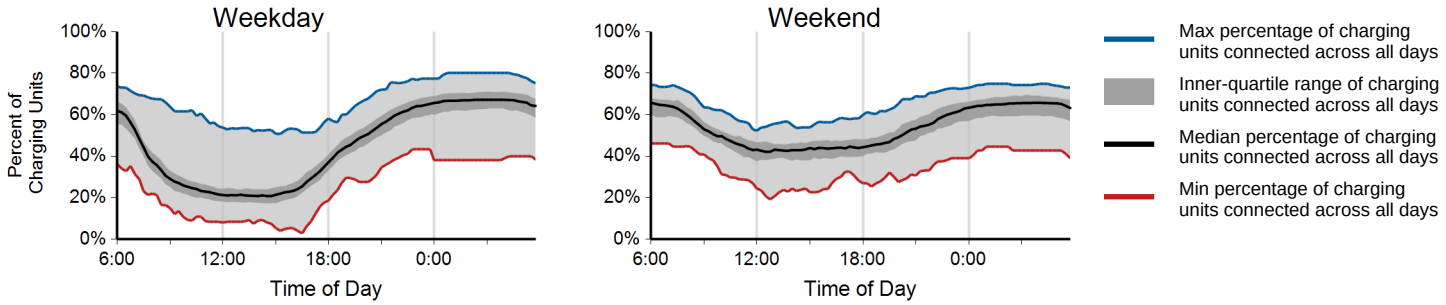
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Dallas/Ft. Worth, TX Metropolitan Area

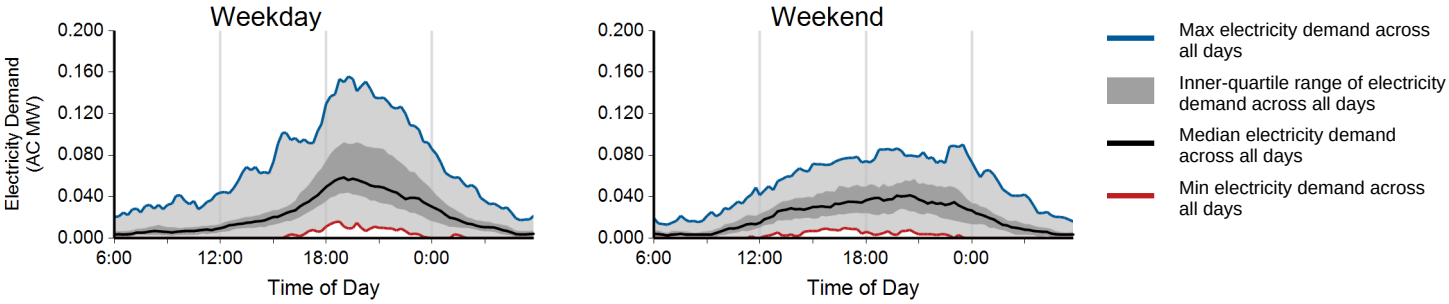
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	24,300	8,956	33,256
Electricity consumed (AC MWh)	151.01	51.12	202.13
Percent of time with a vehicle connected to EVSE	45%	54%	48%
Percent of time with a vehicle drawing power from EVSE	9%	8%	9%
Average number of charging events started per EVSE per day	1.08	0.98	1.05

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]



Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

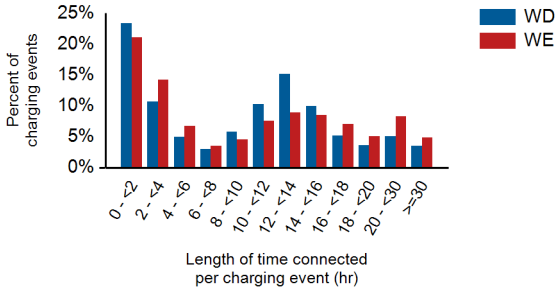
Region: Dallas/Ft. Worth, TX Metropolitan Area

Report period: January 2012 through December 2012

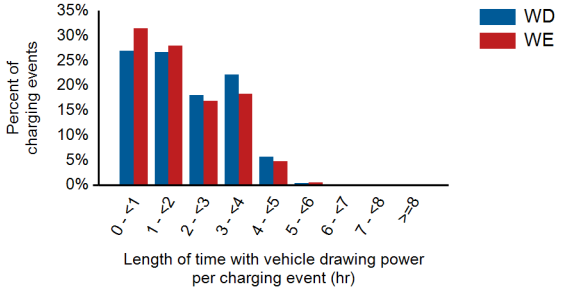
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	1%	99%	0%
Percent of electricity consumed	2%	98%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	10.9	11.3	11.0
Average length of time with vehicle drawing power per charging event (hr)	2.1	1.9	2.0
Average electricity consumed per charging event (AC kWh)	6.2	5.7	6.1

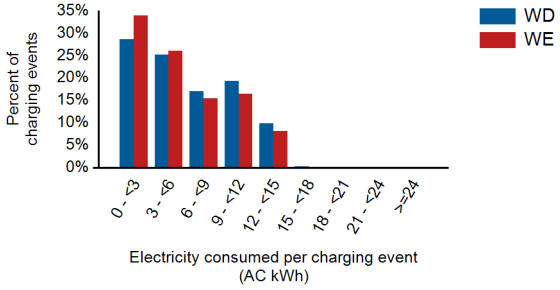
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



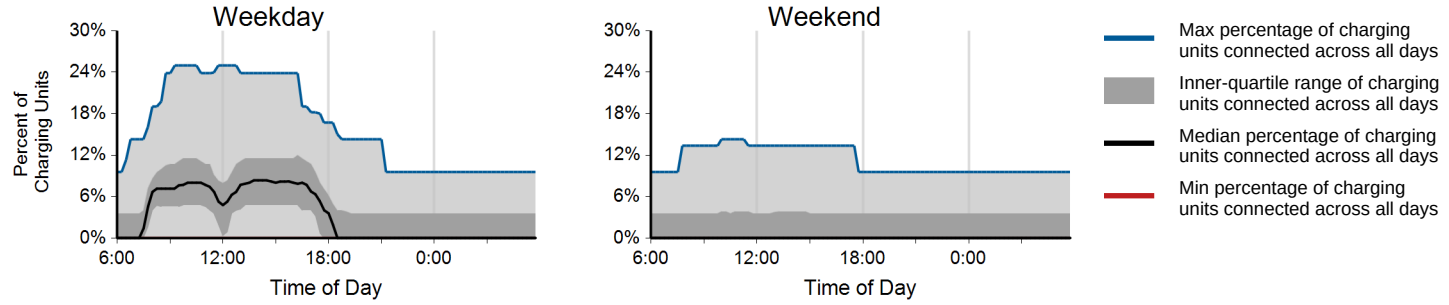
Private Nonresidential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Dallas/Ft. Worth, TX Metropolitan Area

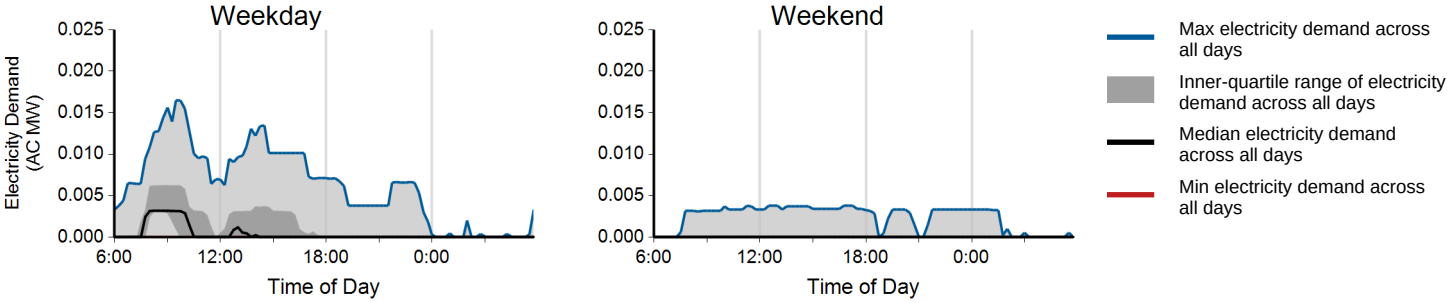
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	634	38	672
Electricity consumed (AC MWh)	4.12	0.19	4.31
Percent of time with a vehicle connected to EVSE	4%	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	0.16	0.02	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]



Private Nonresidential Level 2 Electric Vehicle Supply Equipment (EVSE)

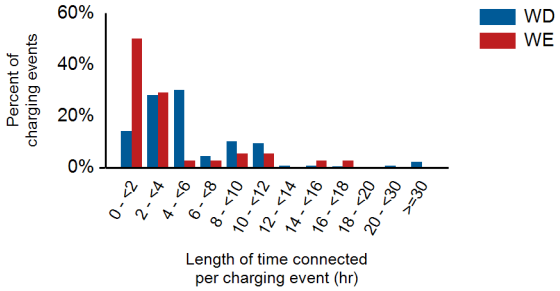
Region: Dallas/Ft. Worth, TX Metropolitan Area

Report period: January 2012 through December 2012

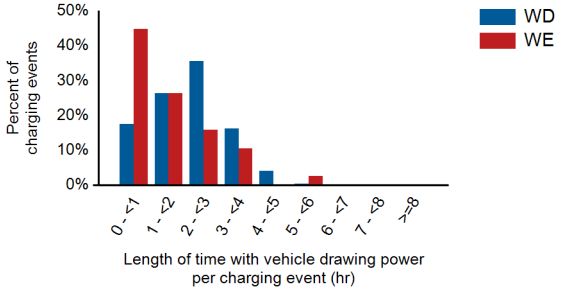
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	0%	76%	24%
Percent of electricity consumed	0%	78%	22%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	7.6	3.5	7.4
Average length of time with vehicle drawing power per charging event (hr)	2.1	1.6	2.1
Average electricity consumed per charging event (AC kWh)	6.5	5.1	6.4

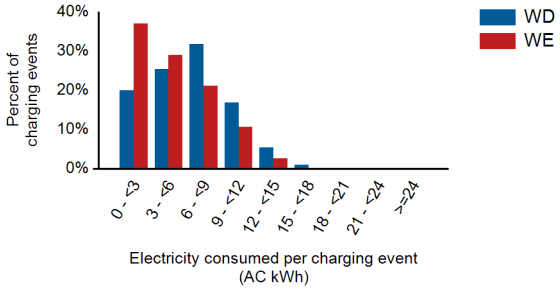
Distribution of Length of Time with a Vehicle Connected per Charging Event



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)

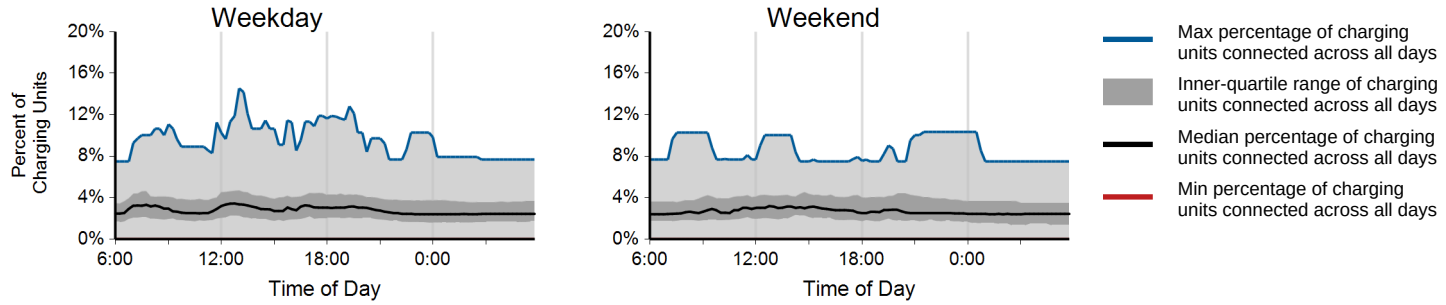
Region: Dallas/Ft. Worth, TX Metropolitan Area

Report period: January 2012 through December 2012

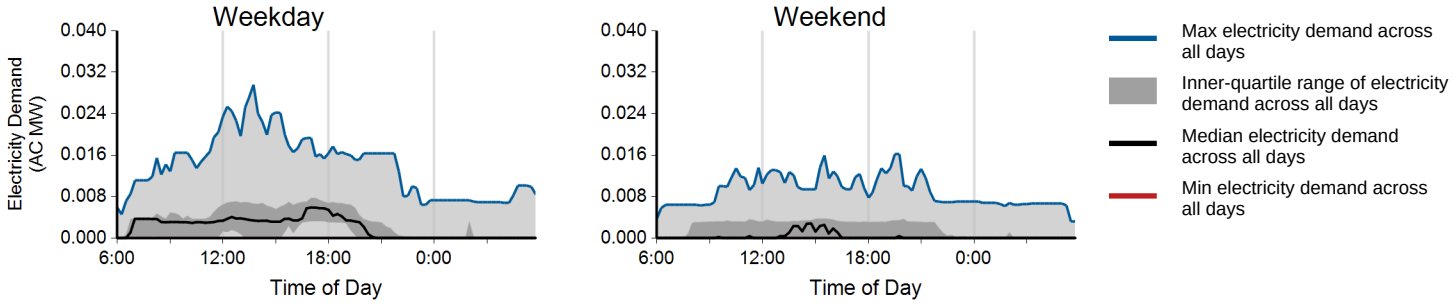
EVSE Usage

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	2,480	571	3,051
Electricity consumed (AC MWh)	15.30	3.02	18.32
Percent of time with a vehicle connected to EVSE	3%	3%	3%
Percent of time with a vehicle drawing power from EVSE	1%	0%	1%
Average number of charging events started per EVSE per day	0.11	0.06	0.09

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)

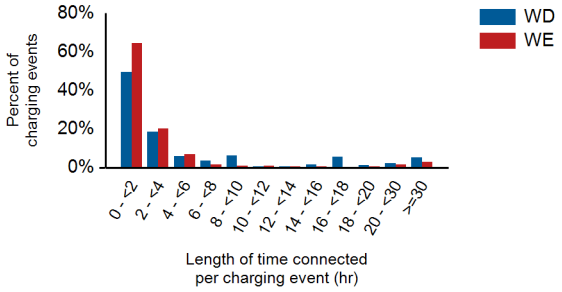
Region: Dallas/Ft. Worth, TX Metropolitan Area

Report period: January 2012 through December 2012

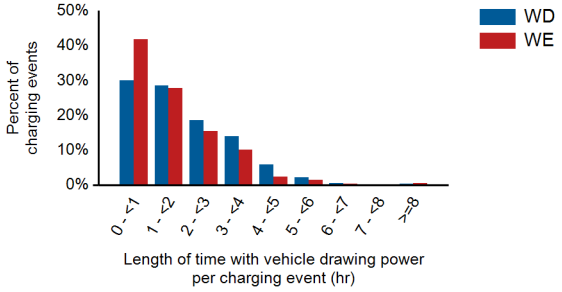
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	3%	12%	85%
Percent of electricity consumed	3%	10%	88%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	8.0	3.8	7.2
Average length of time with vehicle drawing power per charging event (hr)	2.0	1.6	1.9
Average electricity consumed per charging event (AC kWh)	6.2	5.1	6.0

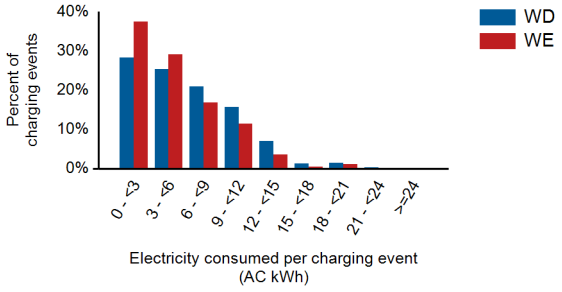
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



EV Project Electric Vehicle Charging Infrastructure Summary Report

Region: Houston, TX Metropolitan Area

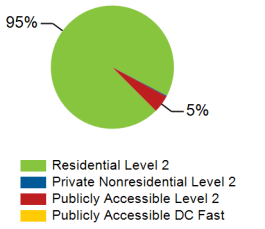
Report period: January 2012 through December 2012

Number of EV Project vehicles in region: 74

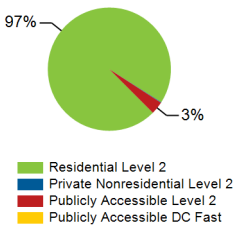
Charging Unit Usage

	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	75	7	77	0	159
Number of charging events[2]	18,638	46	899	0	19,583
Electricity consumed (AC MWh)	124.61	0.19	4.29	0.00	129.09
Percent of time with a vehicle connected to charging unit	43%	0%	1%	0%	23%
Percent of time with a vehicle drawing power from charging unit	8%	0%	0%	0%	4%

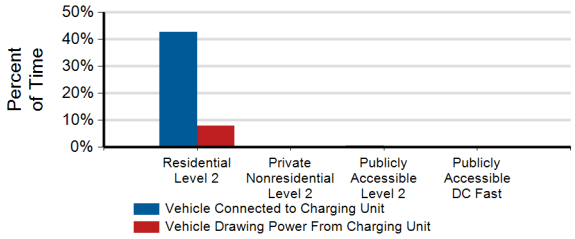
Number of Charge Events



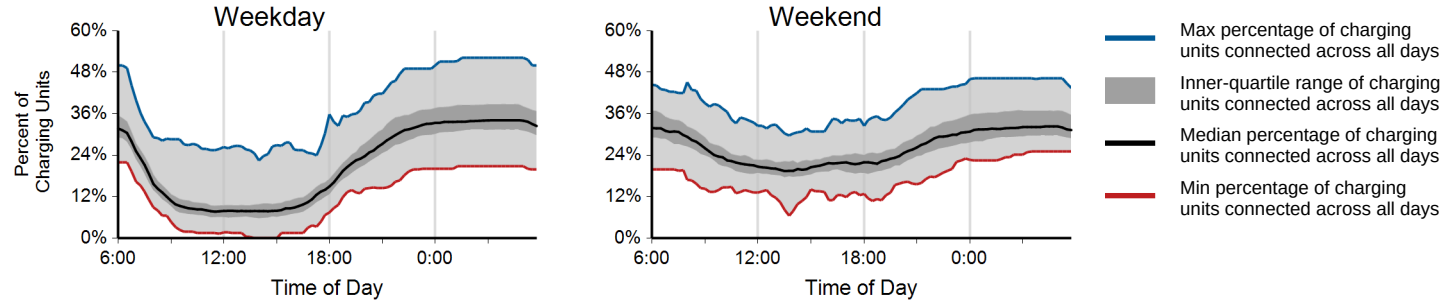
Electricity Consumed



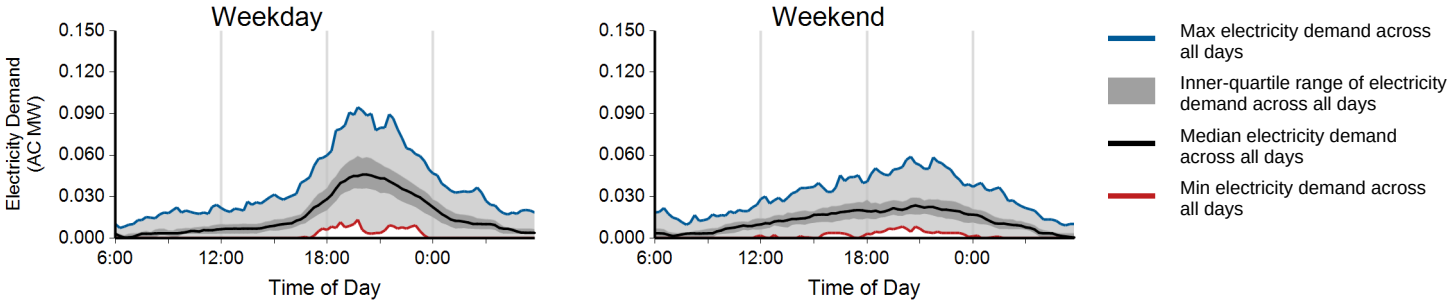
Charging Unit Utilization



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.

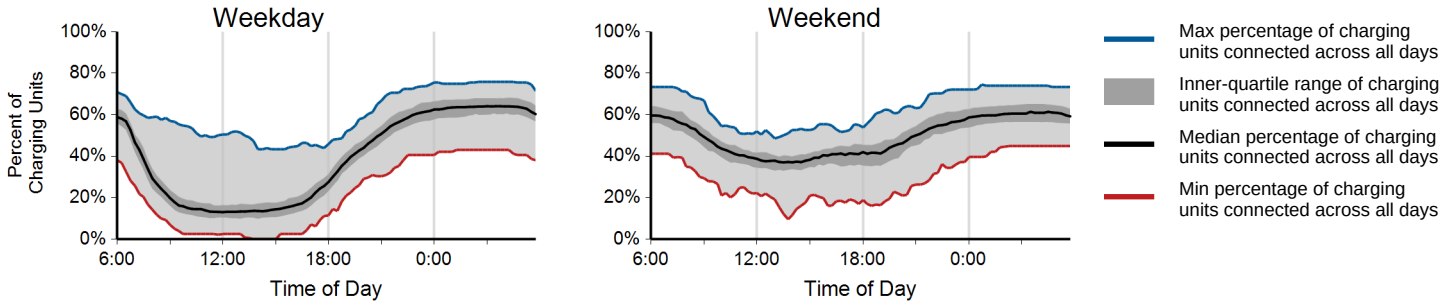
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Houston, TX Metropolitan Area

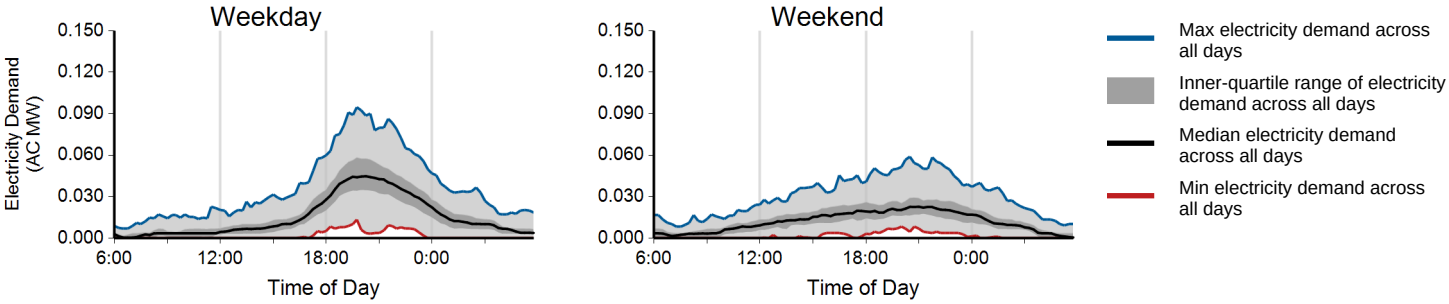
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	13,413	5,225	18,638
Electricity consumed (AC MWh)	94.94	29.67	124.61
Percent of time with a vehicle connected to EVSE	40%	50%	43%
Percent of time with a vehicle drawing power from EVSE	9%	7%	8%
Average number of charging events started per EVSE per day	0.90	0.86	0.89

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)

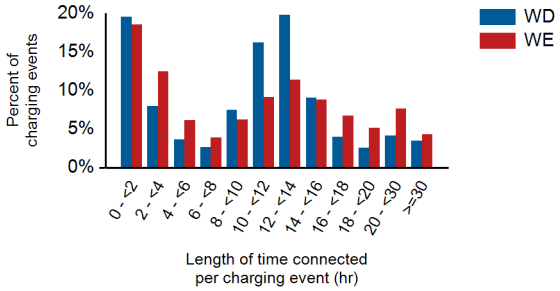
Region: Houston, TX Metropolitan Area

Report period: January 2012 through December 2012

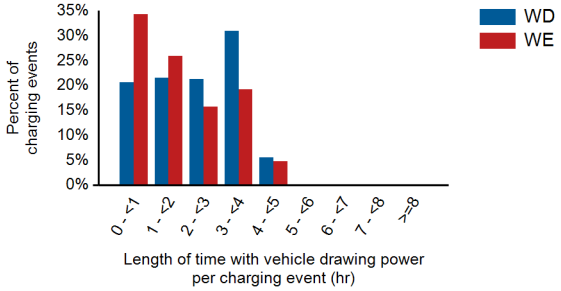
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	0%	100%	0%
Percent of electricity consumed	0%	100%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	11.5	11.8	11.6
Average length of time with vehicle drawing power per charging event (hr)	2.3	1.8	2.2
Average electricity consumed per charging event (AC kWh)	7.1	5.6	6.7

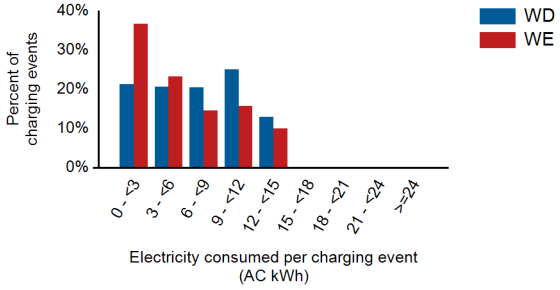
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

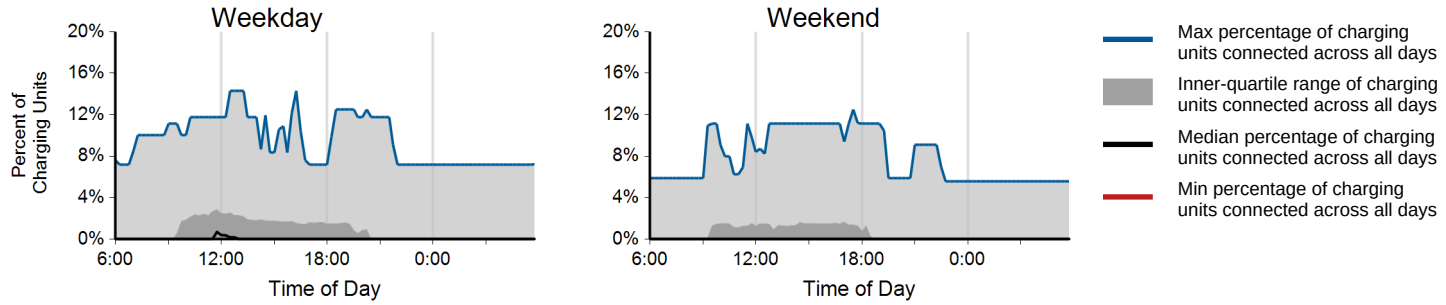
Region: Houston, TX Metropolitan Area

Report period: January 2012 through December 2012

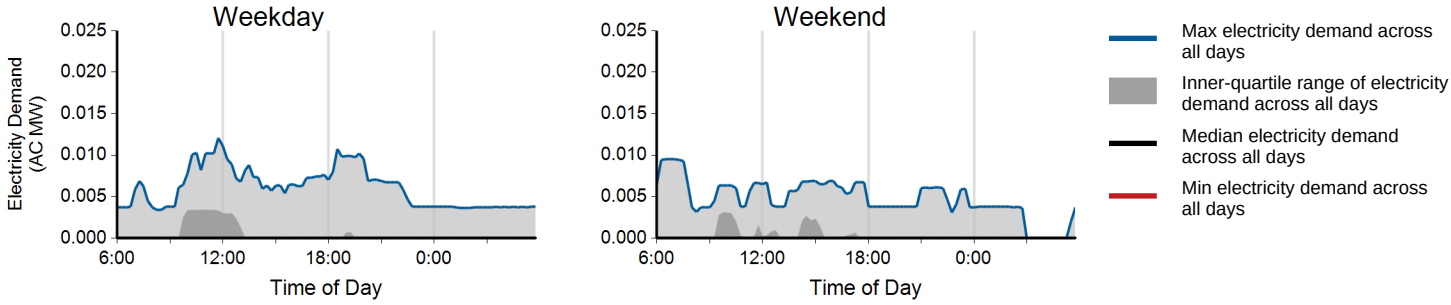
EVSE Usage

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	711	188	899
Electricity consumed (AC MWh)	3.34	0.95	4.29
Percent of time with a vehicle connected to EVSE	1%	0%	1%
Percent of time with a vehicle drawing power from EVSE	0%	0%	0%
Average number of charging events started per EVSE per day	0.06	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)

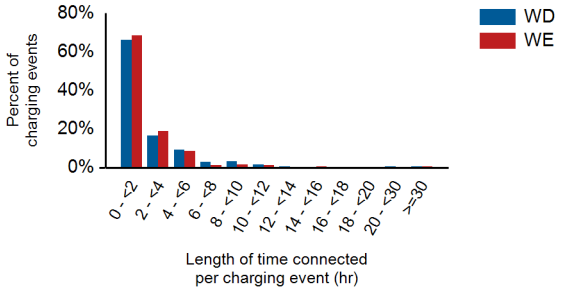
Region: Houston, TX Metropolitan Area

Report period: January 2012 through December 2012

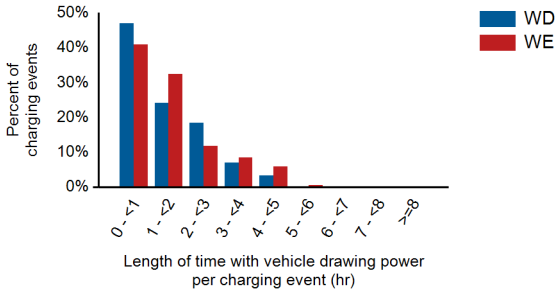
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	4%	18%	78%
Percent of electricity consumed	2%	23%	75%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	2.5	2.2	2.5
Average length of time with vehicle drawing power per charging event (hr)	1.5	1.5	1.5
Average electricity consumed per charging event (AC kWh)	4.7	5.0	4.8

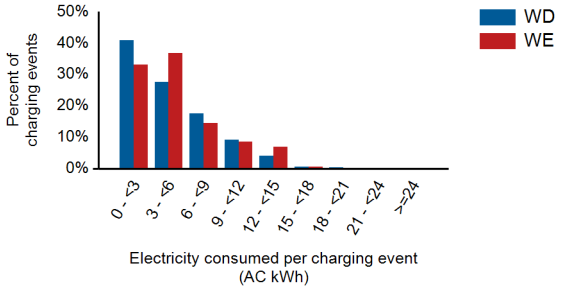
Distribution of Length of Time with a Vehicle Connected per Charging Event



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: Washington State

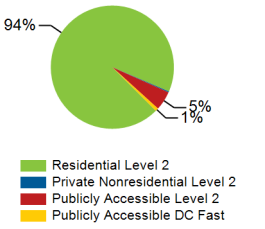
Report period: January 2012 through December 2012

Number of EV Project vehicles in region: 777

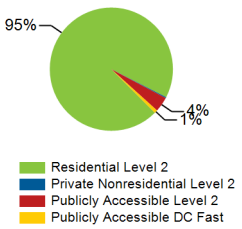
Charging Unit Usage

	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	771	18	205	3	997
Number of charging events[2]	171,948	470	9,179	1,427	183,024
Electricity consumed (AC MWh)	1,371.45	3.69	56.65	11.66	1,443.45
Percent of time with a vehicle connected to charging unit	36%	11%	5%	5%	30%
Percent of time with a vehicle drawing power from charging unit	7%	1%	1%	5%	6%

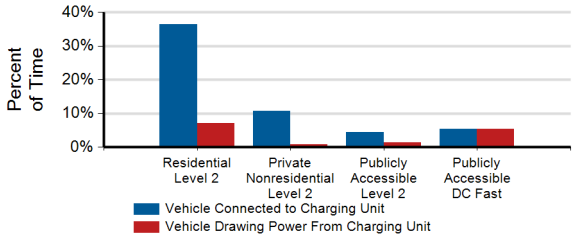
Number of Charge Events



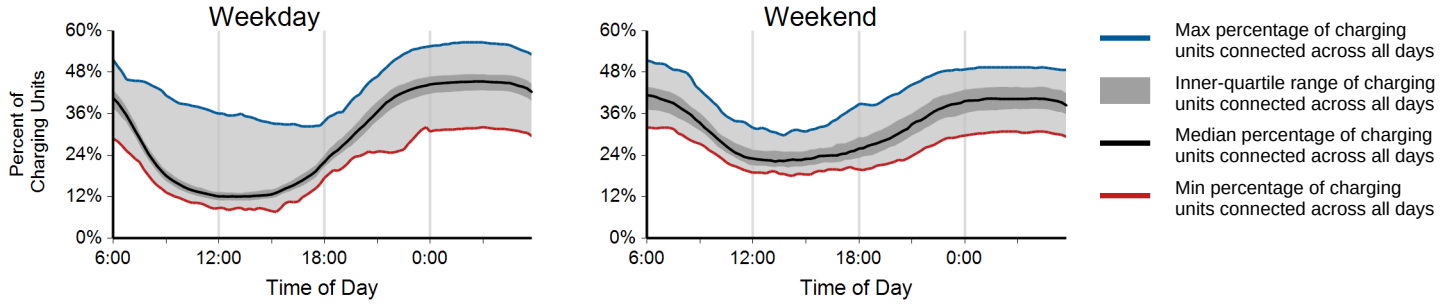
Electricity Consumed



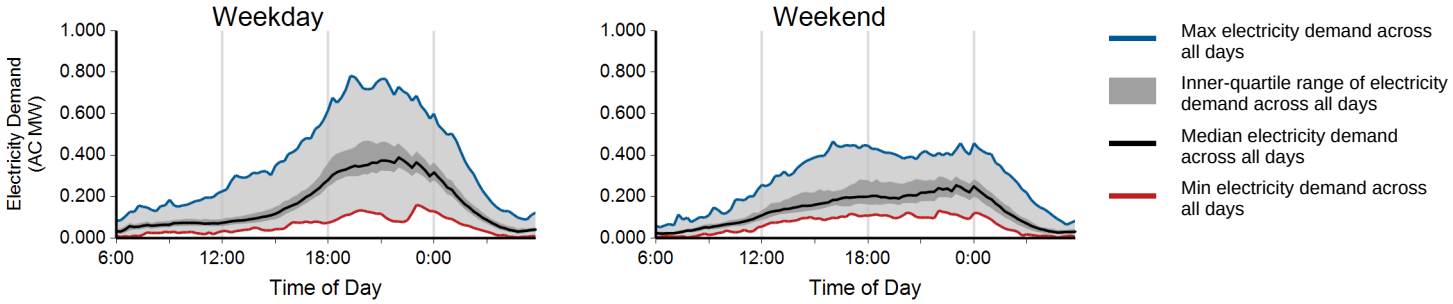
Charging Unit Utilization



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.

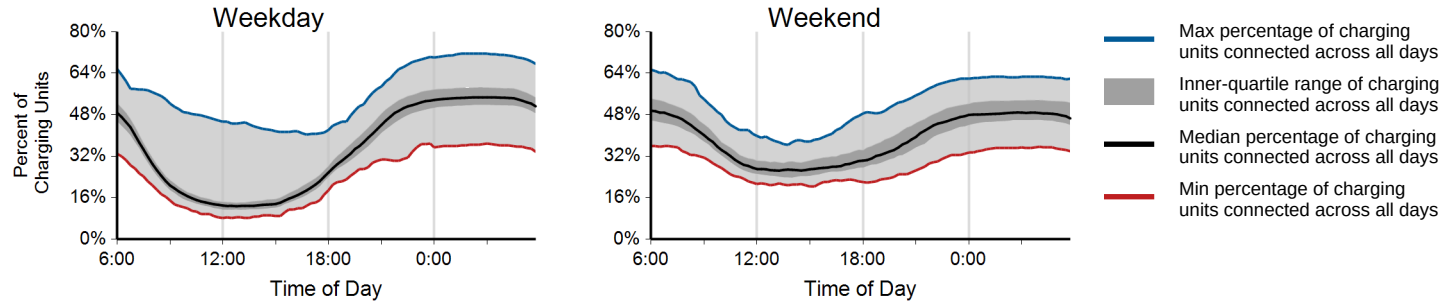
Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Washington State

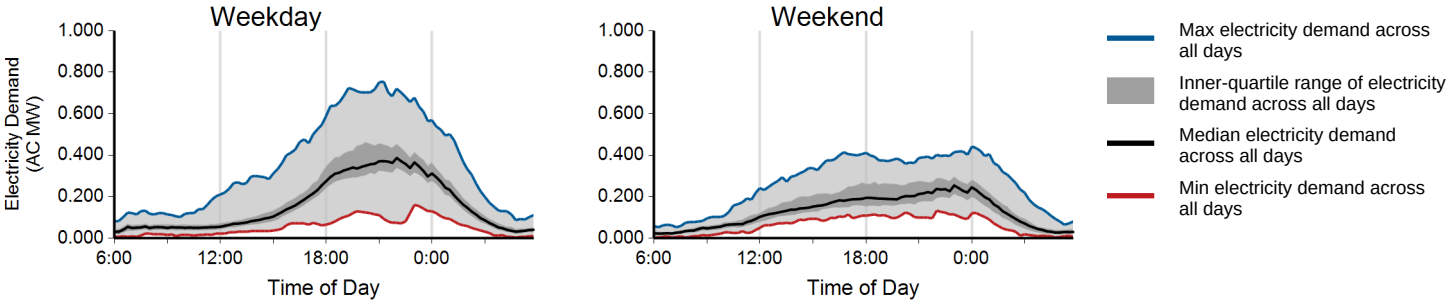
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	127,378	44,570	171,948
Electricity consumed (AC MWh)	1,039.64	331.81	1,371.45
Percent of time with a vehicle connected to EVSE	35%	39%	36%
Percent of time with a vehicle drawing power from EVSE	7%	6%	7%
Average number of charging events started per EVSE per day	0.79	0.68	0.76

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)

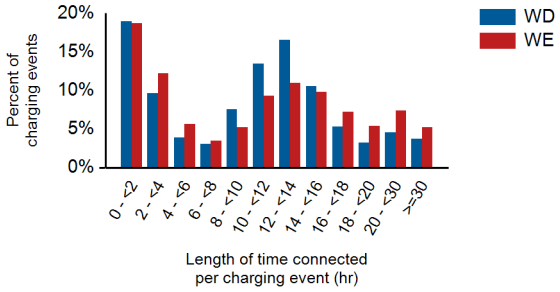
Region: Washington State

Report period: January 2012 through December 2012

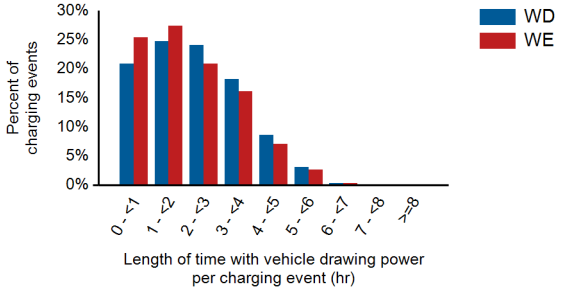
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	88%	12%	0%
Percent of electricity consumed	91%	9%	0%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	11.5	11.9	11.6
Average length of time with vehicle drawing power per charging event (hr)	2.3	2.1	2.2
Average electricity consumed per charging event (AC kWh)	8.2	7.5	8.0

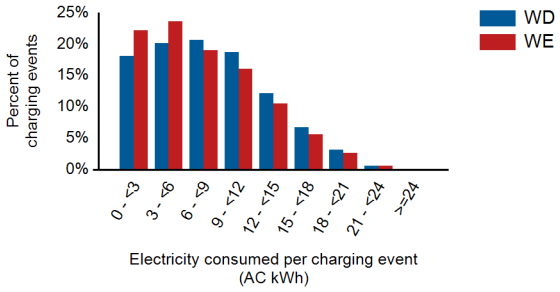
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



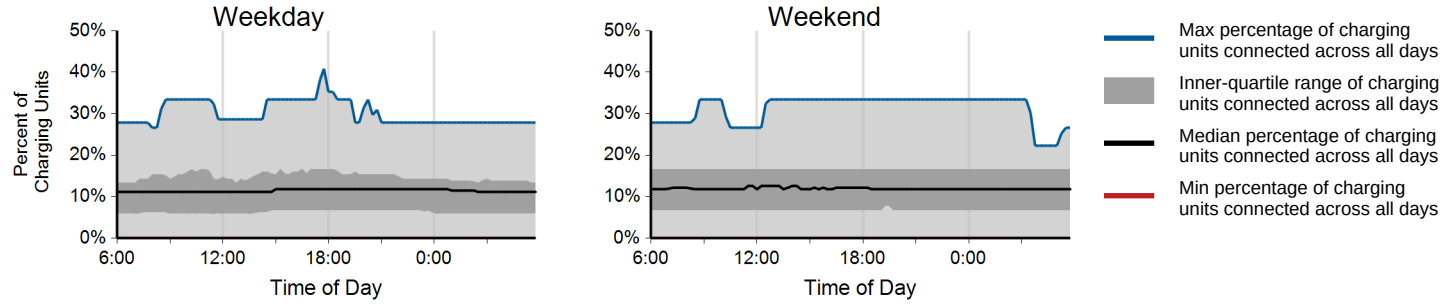
Private Nonresidential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Washington State

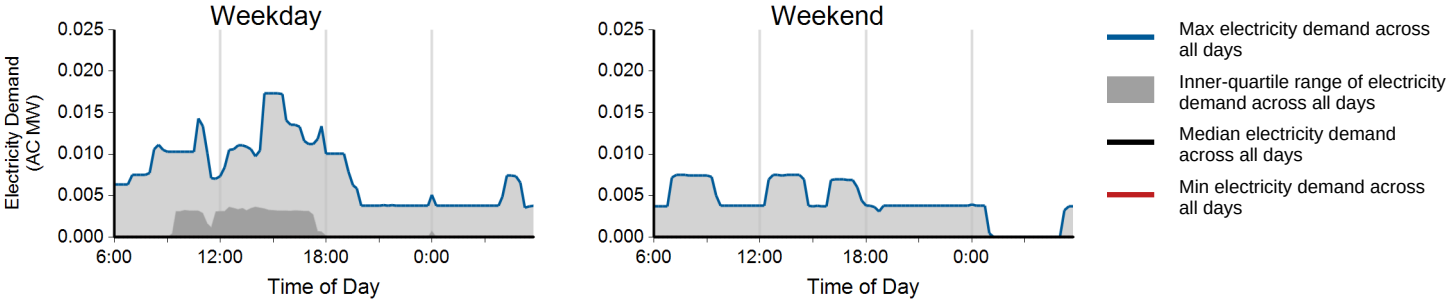
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	417	53	470
Electricity consumed (AC MWh)	3.29	0.40	3.69
Percent of time with a vehicle connected to EVSE	11%	11%	11%
Percent of time with a vehicle drawing power from EVSE	1%	0%	1%
Average number of charging events started per EVSE per day	0.12	0.04	0.10

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)

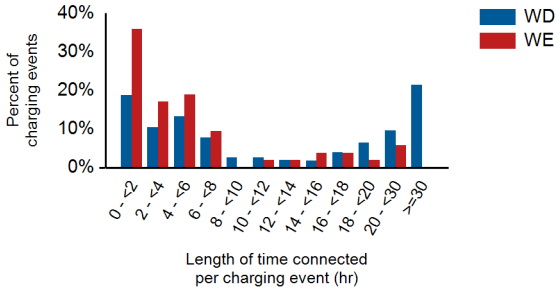
Region: Washington State

Report period: January 2012 through December 2012

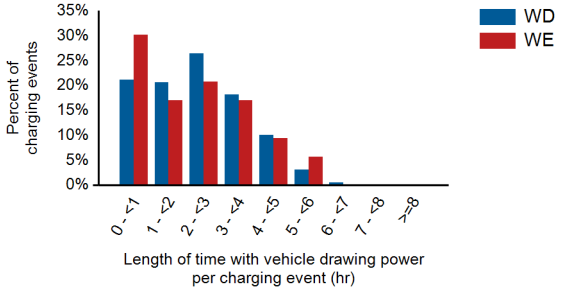
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	29%	1%	71%
Percent of electricity consumed	25%	1%	74%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	29.3	5.5	26.6
Average length of time with vehicle drawing power per charging event (hr)	2.3	2.2	2.3
Average electricity consumed per charging event (AC kWh)	7.9	7.6	7.8

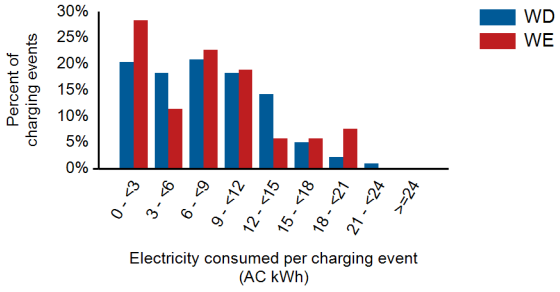
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



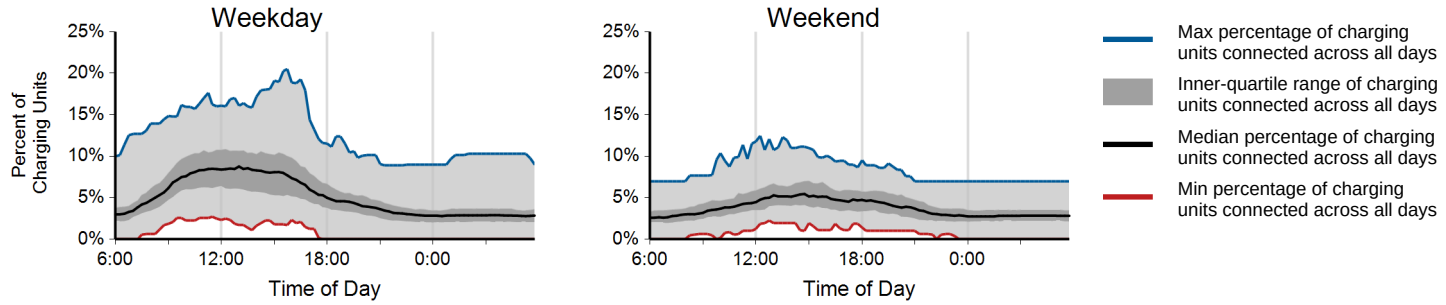
Publicly Accessible Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Washington State

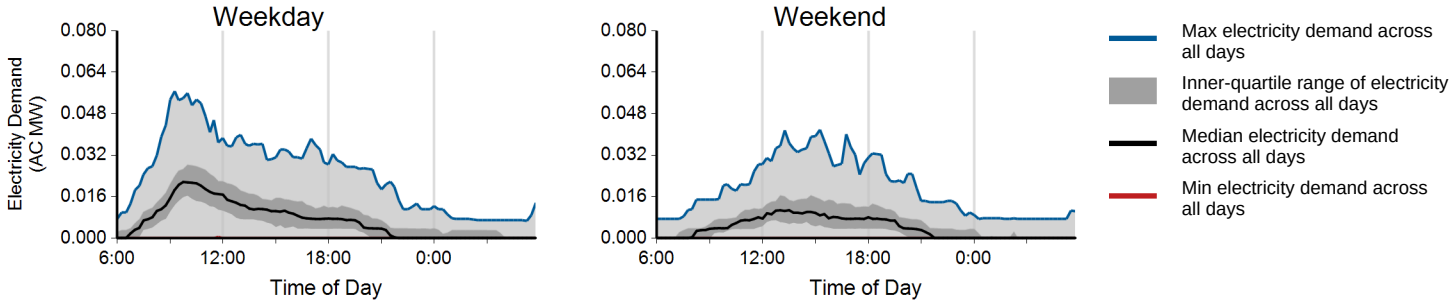
Report period: January 2012 through December 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	7,081	2,098	9,179
Electricity consumed (AC MWh)	45.14	11.51	56.65
Percent of time with a vehicle connected to EVSE	5%	4%	5%
Percent of time with a vehicle drawing power from EVSE	2%	1%	1%
Average number of charging events started per EVSE per day	0.20	0.15	0.18

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)

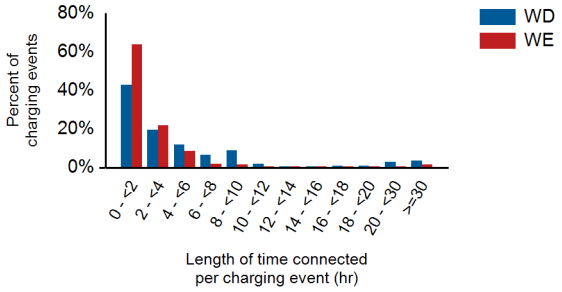
Region: Washington State

Report period: January 2012 through December 2012

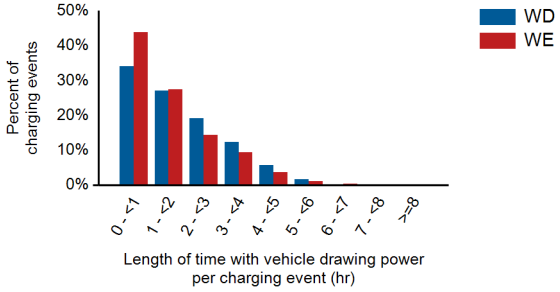
Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	36%	5%	59%
Percent of electricity consumed	34%	4%	62%

Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	6.9	3.0	6.0
Average length of time with vehicle drawing power per charging event (hr)	1.8	1.6	1.8
Average electricity consumed per charging event (AC kWh)	6.4	5.5	6.2

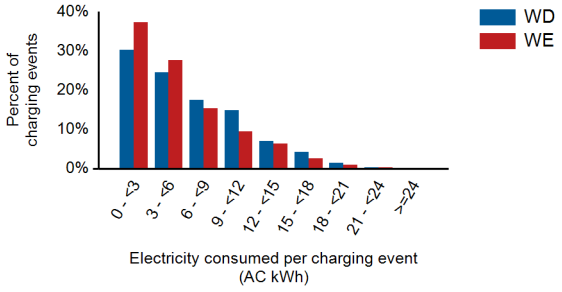
Distribution of Length of Time with a Vehicle Connected per Charging Event



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: Chicago, IL Metropolitan Area

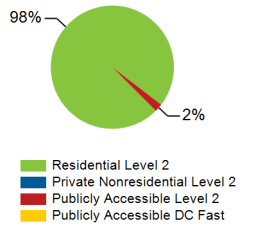
Report period: January 2012 through December 2012

Number of EV Project vehicles in region: 55

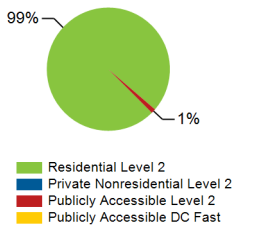
Charging Unit Usage

	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	55	0	9	0	64
Number of charging events[2]	3,340	0	71	0	3,411
Electricity consumed (AC MWh)	24.21	0.00	0.29	0.00	24.49
Percent of time with a vehicle connected to charging unit	49%	0%	1%	0%	37%
Percent of time with a vehicle drawing power from charging unit	10%	0%	0%	0%	8%

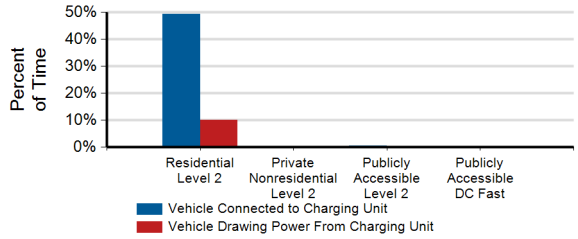
Number of Charge Events



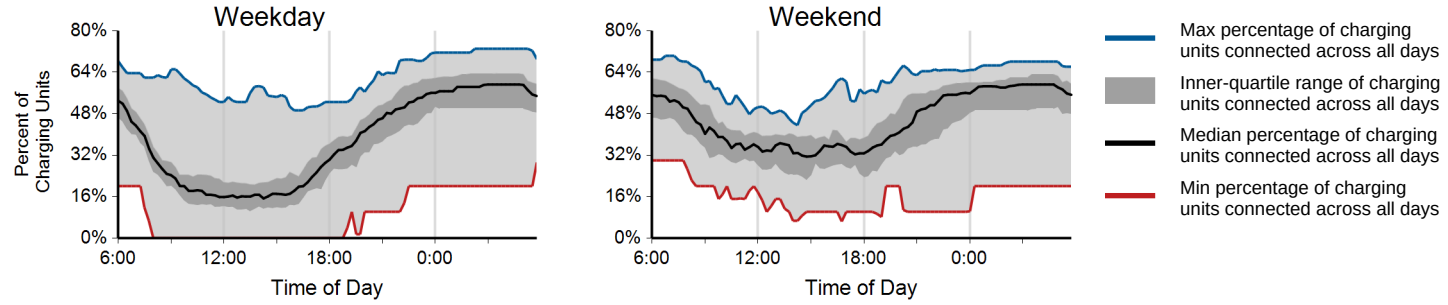
Electricity Consumed



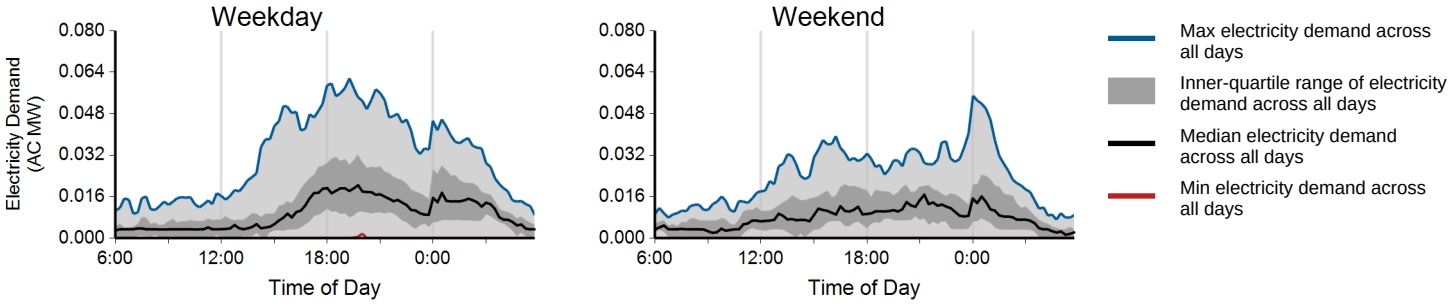
Charging Unit Utilization



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: Chicago, IL Metropolitan Area

Report period: January 2012 through December 2012

EVSE Usage

	Weekday	Weekend	Overall
Number of charging events	2,391	949	3,340
Electricity consumed (AC MWh)	18.08	6.13	24.21
Percent of time with a vehicle connected to EVSE	47%	54%	49%
Percent of time with a vehicle drawing power from EVSE	11%	9%	10%
Average number of charging events started per EVSE per day	1.12	1.06	1.10

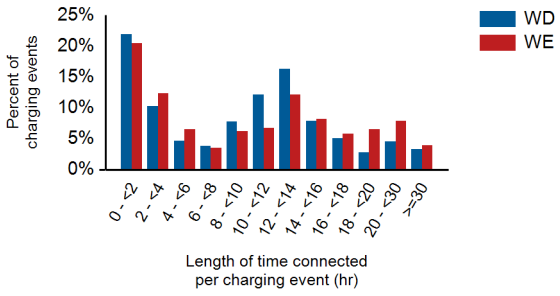
Vehicles Charged

	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	27%	73%	0%
Percent of electricity consumed	36%	64%	0%

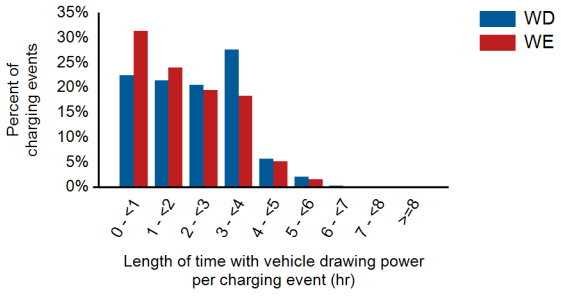
Individual Charging Event Statistics

	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	10.8	11.5	11.0
Average length of time with vehicle drawing power per charging event (hr)	2.3	2.0	2.2
Average electricity consumed per charging event (AC kWh)	7.6	6.4	7.2

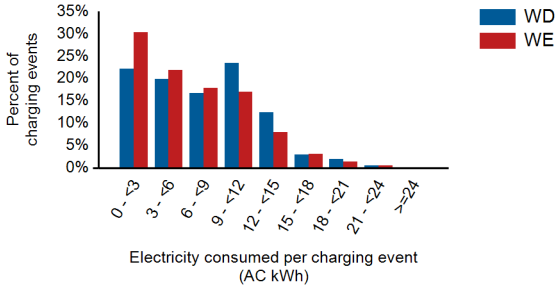
Distribution of Length of Time with a Vehicle Connected per Charging Event



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: Atlanta, GA Metropolitan Area

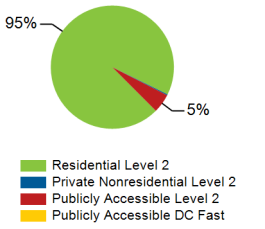
Report period: January 2012 through December 2012

Number of EV Project vehicles in region: 85

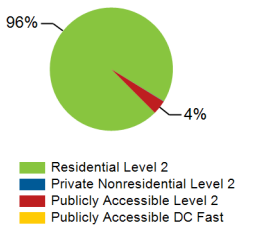
Charging Unit Usage

	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	84	1	10	0	95
Number of charging events[2]	3,536	10	185	0	3,731
Electricity consumed (AC MWh)	30.32	0.03	1.17	0.00	31.51
Percent of time with a vehicle connected to charging unit	44%	0%	4%	0%	38%
Percent of time with a vehicle drawing power from charging unit	10%	0%	3%	0%	8%

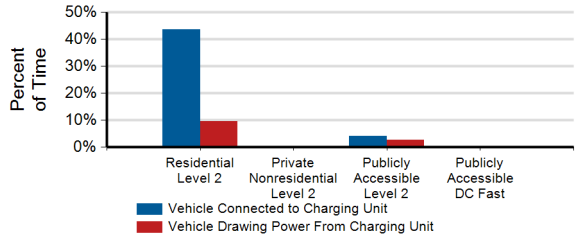
Number of Charge Events



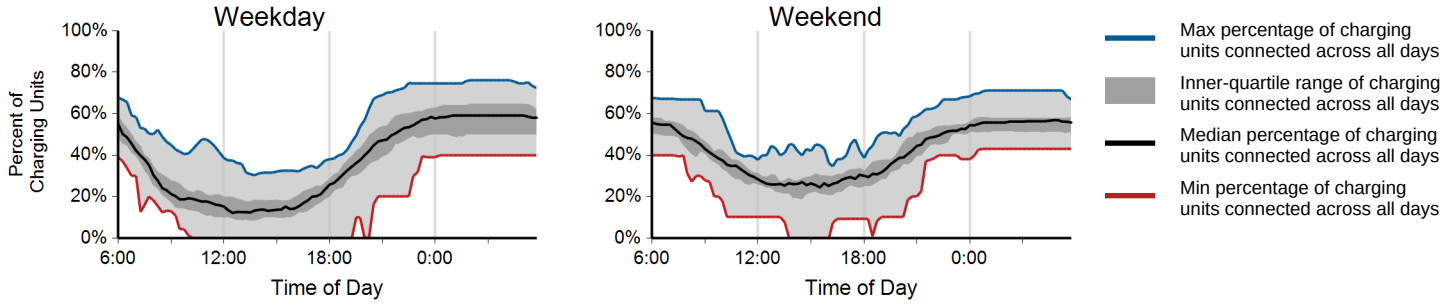
Electricity Consumed



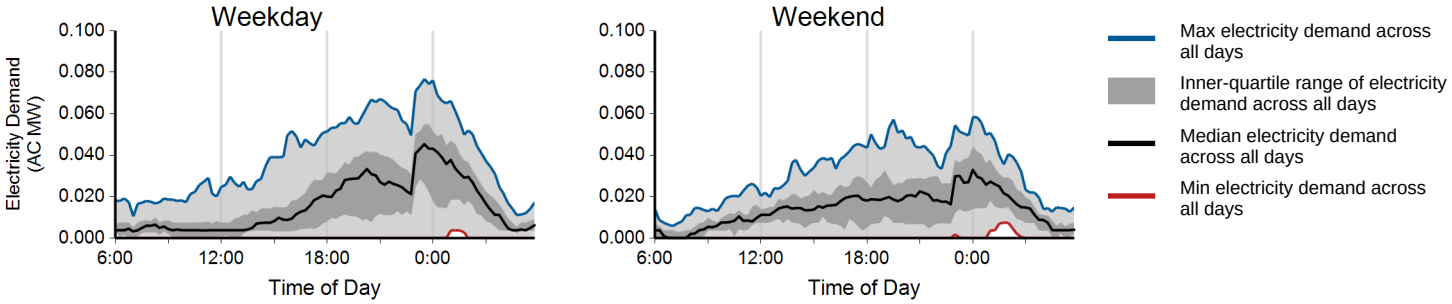
Charging Unit Utilization



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: Atlanta, GA Metropolitan Area

Report period: January 2012 through December 2012

EVSE Usage

	Weekday	Weekend	Overall
Number of charging events	2,486	1,050	3,536
Electricity consumed (AC MWh)	22.09	8.23	30.32
Percent of time with a vehicle connected to EVSE	42%	47%	44%
Percent of time with a vehicle drawing power from EVSE	10%	9%	10%
Average number of charging events started per EVSE per day	0.93	0.92	0.93

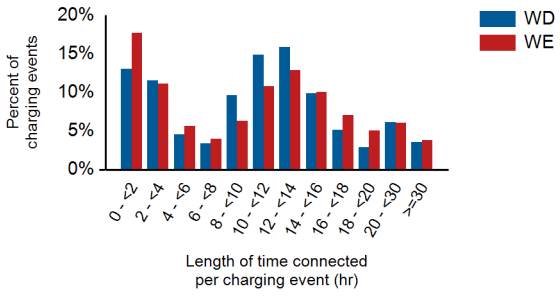
Vehicles Charged

	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	82%	18%	0%
Percent of electricity consumed	86%	14%	0%

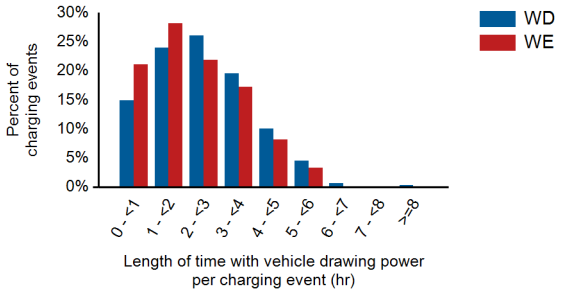
Individual Charging Event Statistics

	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)	2.6	2.2	2.5
Average electricity consumed per charging event (AC kWh)	8.9	7.9	8.6

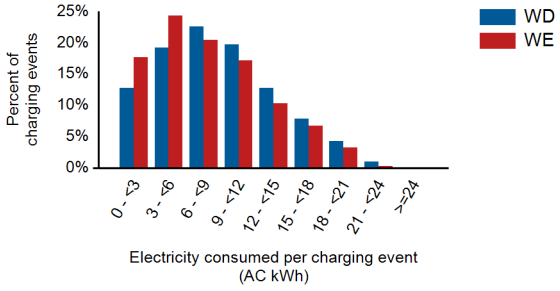
Distribution of Length of Time with a Vehicle Connected per Charging Event



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



Distribution of Electricity Consumed per Charging Event



EV Project Electric Vehicle Charging Infrastructure Summary Report

Region: Philadelphia, PA Metropolitan Area

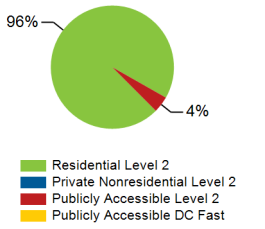
Report period: January 2012 through December 2012

Number of EV Project vehicles in region: 34

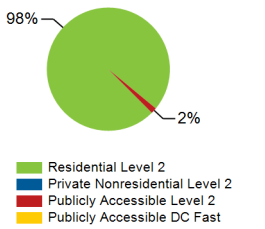
Charging Unit Usage

	Residential Level 2	Private Nonresidential Level 2	Publicly Accessible Level 2	Publicly Accessible DC Fast	Total
Number of charging units[1]	33	0	2	0	35
Number of charging events[2]	1,565	0	70	0	1,635
Electricity consumed (AC MWh)	11.66	0.00	0.18	0.00	11.83
Percent of time with a vehicle connected to charging unit	41%	0%	1%	0%	34%
Percent of time with a vehicle drawing power from charging unit	8%	0%	1%	0%	7%

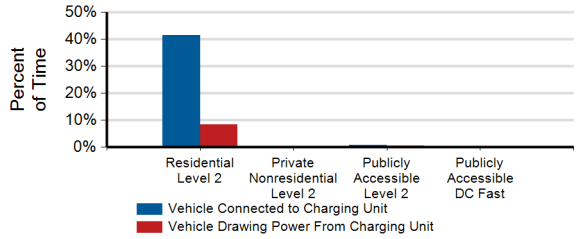
Number of Charge Events



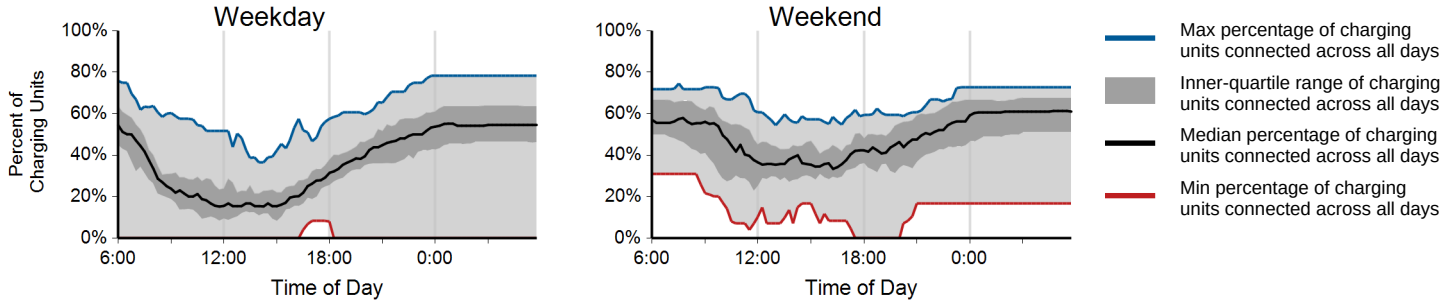
Electricity Consumed



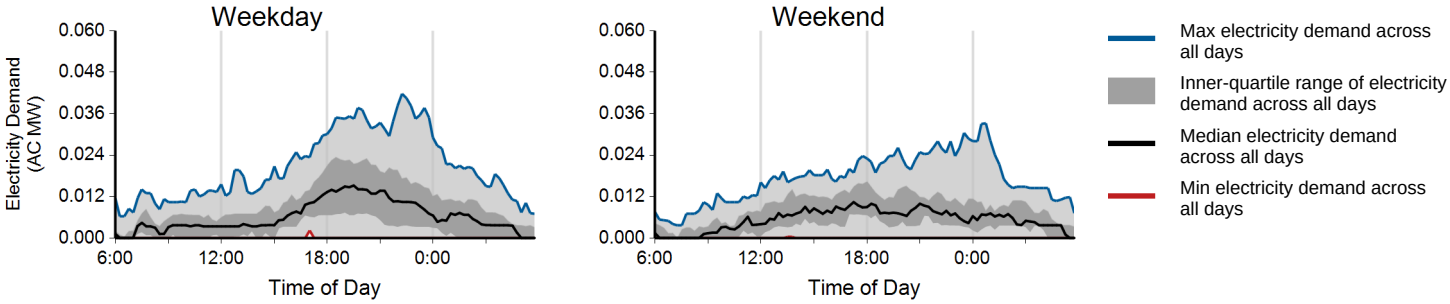
Charging Unit Utilization



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: Philadelphia, PA Metropolitan Area

Report period: January 2012 through December 2012

EVSE Usage

	Weekday	Weekend	Overall
Number of charging events	1,116	449	1,565
Electricity consumed (AC MWh)	8.58	3.07	11.66
Percent of time with a vehicle connected to EVSE	38%	49%	41%
Percent of time with a vehicle drawing power from EVSE	9%	8%	8%
Average number of charging events started per EVSE per day	0.91	0.87	0.90

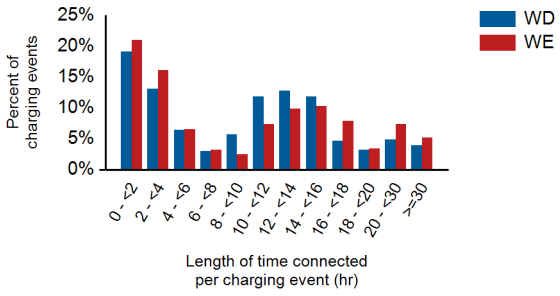
Vehicles Charged

	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	38%	62%	0%
Percent of electricity consumed	41%	59%	0%

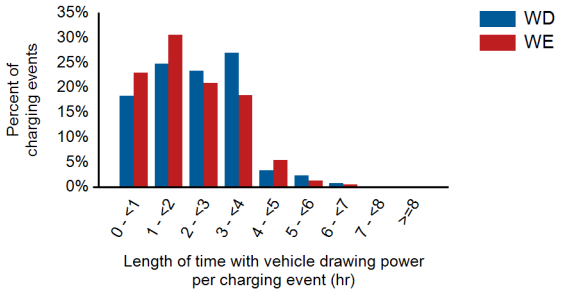
Individual Charging Event Statistics

	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	11.7	11.0	11.5
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)	7.7	6.8	7.4

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