87%

Region: ALL

86%

Report period: July 2012 through September 2012

Number of EV Project vehicles in region: 4009

Charging Unit Usage	Residential Level 2	Nonresidential Level 2	Available Level 2	Available DC Fast	Total
Number of charging units ¹	4,020	0	1,818	39	5,877
Number of charging events ²	248,745	0	38,975	1,644	289,364
Electricity consumed (AC MWh)	2,017.13	0.00	296.06	9.41	2,322.60
Percent of time with a vehicle connected to charging unit	37%	0%	6%	1%	27%
Percent of time with a vehicle drawing power from charging unit	7%	0%	3%	1%	6%



3%

1%

Residential Level 2

Private Nonresidential Level 2

Publicly Available Level 2 Publicly Available DC Fast



Private

Publicly



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³

Residential Level 2

Publicly Available Level 2

Publicly Available DC Fast

rivate Nonresid

13%

ntial Level 2





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

Project

Publicly

Min percentage of charging units connected across all days

Charging Demand: Range of Aggregate Electricity Demand versus Time of Day⁴



4.000 3.200 2.400 1.600 0.800 0.000 6:00 12:00 18:00 0:00 Time of Day

Max electricity demand across all days

Inner-quartile range of electricity demand across all days

Median electricity demand across all days

Min electricity demand across all days

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

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

³ Considers the connection status of all charging units every minute

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.





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Region: ALL

Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	181,620	67,125	248,745
Electricity consumed (AC MWh)	1,531.35	485.78	2,017.13
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	0.78	0.69	0.75

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: ALL

Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	79%	21%	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)	12.0	11.8	12.0
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)	8.4	7.2	8.1

WD

WE





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



Distribution of Electricity Consumed per Charging Event









Region: ALL

Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	31,205	7,770	38,975
Electricity consumed (AC MWh)	237.83	58.22	296.05
Percent of time with a vehicle connected to EVSE	6%	4%	6%
Percent of time with a vehicle drawing power from EVSE	3%	2%	2%
Average number of charging events started per EVSE per day	0.31	0.18	0.27

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: ALL

Report period: July 2012 through September 2012

Vehicles Charged	Car sharing fleet 1	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	24%	21%	4%	51%
Percent of electricity consumed	39%	18%	3%	41%
Individual Charging Event Statistics		Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)		5.4	3.7	5.0
Average length of time with vehicle drawing power per charging event (h	nr)	2.3	2.2	2.2
Average electricity consumed per charging event (AC kWh)		7.6	7.5	7.6

WD

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

WD



Distribution of Electricity Consumed per Charging Event



¹ Car sharing fleets in the Oregon, Philadelphia, San Diego, and San Francisco regions use publicly available 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.





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Region: Phoenix, AZ Metropolitan Area

U.S. DEPARTMENT OF

Report period: July 2012 through September 2012

Number of EV Project vehicles in region: 250

Charging Unit Usage	Residential Level 2	Nonresidential Level 2	Available Level 2	Available DC Fast	Total
Number of charging units ¹	249	0	259	10	518
Number of charging events ²	17,178	0	5,223	485	22,886
Electricity consumed (AC MWh)	129.75	0.00	19.88	1.68	151.31
Percent of time with a vehicle connected to charging unit	41%	0%	2%	1%	21%
Percent of time with a vehicle drawing power from charging unit	8%	0%	1%	1%	4%

Drivato



Residential Level 2

Private Nonresidential Level 2

Publicly Available Level 2 Publicly Available DC Fast Electricity Consumed

Residential Level 2

Publicly Available Level 2

Publicly Available DC Fast

Private Nonresid

Charging Unit Utilization

Dublich



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³

ntial Level 2







Project

Publicly

win percentage of charging units connected across all days

Charging Demand: Range of Aggregate Electricity Demand versus Time of Day⁴



Max electricity demand across all days

Inner-quartile range of electricity demand across all days

Median electricity demand across all days

Min electricity demand across all days

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

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

³ Considers the connection status of all charging units every minute

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.





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Region: Phoenix, AZ Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	12,324	4,854	17,178
Electricity consumed (AC MWh)	97.65	32.10	129.75
Percent of time with a vehicle connected to EVSE	40%	44%	41%
Percent of time with a vehicle drawing power from EVSE	8%	7%	8%
Average number of charging events started per EVSE per day	0.89	0.84	0.87

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: Phoenix, AZ Metropolitan Area Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	79%	21%	0%
Percent of electricity consumed	79%	21%	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	11.4
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)	7.9	6.6	7.6

WD

WE

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







Region: Phoenix, AZ Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	4,291	932	5,223
Electricity consumed (AC MWh)	18.00	1.88	19.88
Percent of time with a vehicle connected to EVSE	3%	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	0.29	0.15	0.25

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: Phoenix, AZ Metropolitan Area Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	18%	6%	76%
Percent of electricity consumed	31%	9%	60%
Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	2.5	1.0	2.2
Average length of time with vehicle drawing power per charging event (hr)	1.3	0.6	1.2
Average electricity consumed per charging event (AC kWh)	4.2	2.0	3.8

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



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



Distribution of Electricity Consumed per Charging Event







Region: Tucson, AZ Metropolitan Area

U.S. DEPARTMENT OF

Report period: July 2012 through September 2012

Number of EV Project vehicles in region: 64

Charging Unit Usage		Residential Level 2	Nonresidential Level 2	Available Level 2	Available DC Fast	Total
Number of charging units ¹		65	0	80	0	145
Number of charging events ²		4,268	0	542	0	4,810
Electricity consumed (AC MWh)		29.36	0.00	2.43	0.00	31.79
Percent of time with a vehicle connected to charging	unit	36%	0%	1%	0%	17%
Percent of time with a vehicle drawing power from ch	narging unit	6%	0%	0%	0%	3%
Number of Charge Events	Electricity Con	ourned		Charging L	Init I Itilization	

Drivato



ng Unit

Dublich



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³





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

Project

Publicly

Charging Demand: Range of Aggregate Electricity Demand versus Time of Day⁴





Max electricity demand across all days

Inner-quartile range of electricity demand across all days

Median electricity demand across all days

Min electricity demand across all days

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

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

Considers the connection status of all charging units every minute

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.





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Region: Tucson, AZ Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	3,096	1,172	4,268
Electricity consumed (AC MWh)	21.96	7.40	29.36
Percent of time with a vehicle connected to EVSE	35%	37%	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	0.72	0.77

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: Tucson, AZ Metropolitan Area Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	90%	10%	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)	11.1	11.4	11.2
Average length of time with vehicle drawing power per charging event (hr)	2.0	1.8	1.9
Average electricity consumed per charging event (AC kWh)	7.1	6.4	6.9

Distribution of Length of Time with a Vehicle Connected per Charging Event 20% WD WE 15% 10%



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



Distribution of Electricity Consumed per Charging Event







Region: Tucson, AZ Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall	
Number of charging events	452	90	542	
Electricity consumed (AC MWh)	2.02	0.40	2.43	
Percent of time with a vehicle connected to EVSE	1%	1%	1%	
Percent of time with a vehicle drawing power from EVSE	1%	0%	0%	
Average number of charging events started per EVSE per day	0.10	0.05	0.09	

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: Tucson, AZ Metropolitan Area Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	29%	1%	70%
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)	3.1	2.4	3.0
Average length of time with vehicle drawing power per charging event (hr)	1.2	1.3	1.3
Average electricity consumed per charging event (AC kWh)	4.4	4.7	4.5

WD

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







Energy Efficiency & Renewable Energy

Region: Los Angeles, CA Metropolitan Area Report period: July 2012 through September 2012

U.S. DEPARTMENT OF

83%

Number of EV Project vehicles in region: 381

Charging Unit Usage	Residential Level 2	Nonresidential Level 2	Available Level 2	Available DC Fast	Total
Number of charging units ¹	382	0	201	2	585
Number of charging events ²	19,862	0	3,851	155	23,868
Electricity consumed (AC MWh)	169.23	0.00	27.19	0.84	197.26
Percent of time with a vehicle connected to charging unit	34%	0%	4%	2%	23%
Percent of time with a vehicle drawing power from charging unit	7%	0%	2%	2%	5%



6%

Residential Level 2

Private Nonresidential Level 2

Publicly Available Level 2 Publicly Available DC Fast



4%

ntial Level 2



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³

Residential Level 2

Publicly Available Level 2

Publicly Available DC Fast

rivate Nonresid







Project

Charging Demand: Range of Aggregate Electricity Demand versus Time of Day⁴





Max electricity demand across all days

Inner-quartile range of electricity demand across all days

Median electricity demand across all days

Min electricity demand across all days

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

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

Considers the connection status of all charging units every minute

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.





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Region: Los Angeles, CA Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall	
Number of charging events	14,262	5,600	19,862	
Electricity consumed (AC MWh)	127.32	41.90	169.23	
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	0.70	0.66	0.69	

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: Los Angeles, CA Metropolitan Area Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	82%	18%	0%
Percent of electricity consumed	85%	15%	0%
Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	12.1	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)	8.9	7.4	8.5

WD

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









Region: Los Angeles, CA Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall	
Number of charging events	3,142	709	3,851	
Electricity consumed (AC MWh)	23.16	4.03	27.19	
Percent of time with a vehicle connected to EVSE	5%	2%	4%	
Percent of time with a vehicle drawing power from EVSE	2%	1%	2%	
Average number of charging events started per EVSE per day	0.28	0.15	0.24	

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: Los Angeles, CA Metropolitan Area Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	9%	3%	87%
Percent of electricity consumed	10%	3%	87%
Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	4.3	3.8	4.2
Average length of time with vehicle drawing power per charging event (hr)	2.1	1.7	2.1
Average electricity consumed per charging event (AC kWh)	7.3	5.9	7.1

WD

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







Region: San Diego, CA Metropolitan Area Report period: July 2012 through September 2012

U.S. DEPARTMENT OF

Number of EV Project vehicles in region: 579

Number of EV Project vehicles in region: 579		Private	Publicly	Publicly	
Charging Unit Usage	Residential Level 2	Nonresidential Level 2	Available Level 2	Available DC Fast	Total
Number of charging units ¹	581	0	253	0	834
Number of charging events ²	39,091	0	15,375	0	54,466
Electricity consumed (AC MWh)	329.44	0.00	159.31	0.00	488.75
Percent of time with a vehicle connected to charging unit	40%	0%	16%	0%	33%
Percent of time with a vehicle drawing power from charging unit	8%	0%	10%	0%	8%
			Channing I		



Charging Unit Utilization



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³





0.00



Project

- Median percentage of charging units connected across all days
- Min percentage of charging units connected across all days

Charging Demand: Range of Aggregate Electricity Demand versus Time of Day⁴



Max electricity demand across all days

Inner-quartile range of electricity demand across all days

Median electricity demand across all days

Min electricity demand across all days

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

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

³ Considers the connection status of all charging units every minute

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.





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Region: San Diego, CA Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	28,652	10,439	39,091
Electricity consumed (AC MWh)	249.33	80.11	329.44
Percent of time with a vehicle connected to EVSE	39%	41%	40%
Percent of time with a vehicle drawing power from EVSE	8%	6%	8%
Average number of charging events started per EVSE per day	0.80	0.70	0.77

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: San Diego, CA Metropolitan Area Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	79%	21%	0%
Percent of electricity consumed	82%	18%	0%
Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	12.5	12.3	12.4
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)	8.7	7.6	8.4

WD

Distribution of Length of Time with a Vehicle Connected per Charging Event 25% WE 20%



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



Distribution of Electricity Consumed per Charging Event









Region: San Diego, CA Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	11,950	3,425	15,375
Electricity consumed (AC MWh)	121.04	38.27	159.31
Percent of time with a vehicle connected to EVSE	17%	13%	16%
Percent of time with a vehicle drawing power from EVSE	11%	8%	10%
Average number of charging events started per EVSE per day	0.89	0.61	0.81

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: San Diego, CA Metropolitan Area Report period: July 2012 through September 2012

Vehicles Charged	Car2Go fleet 1	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	60%	14%	2%	24%
Percent of electricity consumed	71%	10%	1%	18%
Individual Charging Event Statistics		Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)		4.7	4.5	4.7
Average length of time with vehicle drawing power per charging event (hr)	2.8	3.2	2.9
Average electricity consumed per charging event (AC kWh)		10.1	11.3	10.4

WD

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





Renewable Energy

Region: San Francisco, CA Metropolitan Area Report period: July 2012 through September 2012

Number of EV Project vehicles in region: 964

U.S. DEPARTMENT OF

Number of EV Troject vehicles in region. 304		Private	Publicly	Publicly	
Charging Unit Usage	Residential Level 2	Nonresidential Level 2	Available Level 2	Available DC Fast	Total
Number of charging units ¹	972	0	26	5	1,003
Number of charging events ²	53,717	0	754	428	54,899
Electricity consumed (AC MWh)	503.13	0.00	5.22	3.35	511.70
Percent of time with a vehicle connected to charging unit	34%	0%	8%	2%	34%
Percent of time with a vehicle drawing power from charging unit	7%	0%	4%	2%	7%

Number of Charge Events

Residential Level 2

98%



Charging Unit Utilization



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³

ntial Level 2

Electricity Consumed







Project

Min percentage of charging units connected across all days

Charging Demand: Range of Aggregate Electricity Demand versus Time of Day⁴





Max electricity demand across all days

Inner-quartile range of electricity demand across all days

Median electricity demand across all days

Min electricity demand across all days

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

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

Considers the connection status of all charging units every minute

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.





Region: San Francisco, CA Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	39,430	14,287	53,717
Electricity consumed (AC MWh)	388.34	114.79	503.13
Percent of time with a vehicle connected to EVSE	34%	35%	34%
Percent of time with a vehicle drawing power from EVSE	8%	5%	7%
Average number of charging events started per EVSE per day	0.67	0.58	0.64

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: San Francisco, CA Metropolitan Area Report period: July 2012 through September 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)	13.0	12.5	12.8
Average length of time with vehicle drawing power per charging event (hr)	2.7	2.3	2.6
Average electricity consumed per charging event (AC kWh)	9.9	8.0	9.4

Distribution of Length of Time with a Vehicle Connected per Charging Event 20% 15%



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



Distribution of Electricity Consumed per Charging Event







Region: San Francisco, CA Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall	
Number of charging events	594	160	754	
Electricity consumed (AC MWh)	4.31	0.91	5.22	
Percent of time with a vehicle connected to EVSE	9%	5%	8%	
Percent of time with a vehicle drawing power from EVSE	4%	2%	3%	
Average number of charging events started per EVSE per day	0.48	0.31	0.43	

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: San Francisco, CA Metropolitan Area Report period: July 2012 through September 2012

Vehicles Charged	City CarShare fleet 1	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	0%	21%	0%	79%
Percent of electricity consumed	0%	18%	0%	82%
Individual Charging Event Statistics		Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)		4.7	3.4	4.4
Average length of time with vehicle drawing power per charging event (hr)	2.2	1.6	2.0
Average electricity consumed per charging event (AC kWh)		7.2	5.7	6.9

WD





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





Region: Washington, D.C. Metropolitan Area Report period: July 2012 through September 2012

Number of EV Project vehicles in region: 149

U.S. DEPARTMENT OF

Charging Unit Usage		Residential Level 2	Nonresidential Level 2	Available Level 2	Available DC Fast	Total
Number of charging units ¹		153	0	23	0	176
Number of charging events ²		10,758	0	123	0	10,881
Electricity consumed (AC MWh)		69.75	0.00	0.94	0.00	70.69
Percent of time with a vehicle connected to ch	arging unit	48%	0%	2%	0%	44%
Percent of time with a vehicle drawing power	from charging unit	9%	0%	1%	0%	8%
Number of Charge Events	Electricity	Consumed		Charging L	Jnit Utilization	

Drivete





99%

Charging Unit Utilization

Dublich



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³







Project

Dublich

Charging Demand: Range of Aggregate Electricity Demand versus Time of Day⁴



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

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

Considers the connection status of all charging units every minute

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.





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Region: Washington, D.C. Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	7,748	3,010	10,758
Electricity consumed (AC MWh)	52.97	16.78	69.75
Percent of time with a vehicle connected to EVSE	46%	54%	48%
Percent of time with a vehicle drawing power from EVSE	9%	7%	9%
Average number of charging events started per EVSE per day	1.02	0.95	1.00

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: Washington, D.C. Metropolitan Area Report period: July 2012 through September 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)	11.7	11.6	11.7
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	5.6	6.5

WD

WE

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



Electricity consumed per charging event (AC kWh)





Region: Washington, D.C. Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall	
Number of charging events	114	9	123	
Electricity consumed (AC MWh)	0.89	0.04	0.94	
Percent of time with a vehicle connected to EVSE	3%	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	0.12	0.02	0.09	

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: Washington, D.C. Metropolitan Area Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	0%	31%	69%
Percent of electricity consumed	0%	31%	69%
Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	6.0	7.5	6.1
Average length of time with vehicle drawing power per charging event (hr)	2.7	1.8	2.6
Average electricity consumed per charging event (AC kWh)	7.8	4.9	7.6

WD

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







Region: Oregon

Report period: July 2012 through September 2012



Charging Unit Usage	Residential Level 2	Nonresidential Level 2	Available Level 2	Available DC Fast	Total
Number of charging units ¹	395	0	305	9	709
Number of charging events ²	23,334	0	5,473	359	29,166
Electricity consumed (AC MWh)	178.74	0.00	31.03	1.93	211.71
Percent of time with a vehicle connected to charging unit	36%	0%	7%	1%	23%
Percent of time with a vehicle drawing power from charging unit	7%	0%	2%	1%	4%

Drivato





Dublich



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³







Project

Publicly

Charging Demand: Range of Aggregate Electricity Demand versus Time of Day⁴





Max electricity demand across
all days

Inner-quartile range of electricity demand across all days

Median electricity demand across all days

Min electricity demand across all days

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

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

³ Considers the connection status of all charging units every minute

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.





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Region: Oregon

Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	17,171	6,163	23,334
Electricity consumed (AC MWh)	134.75	43.99	178.74
Percent of time with a vehicle connected to EVSE	35%	37%	36%
Percent of time with a vehicle drawing power from EVSE	7%	5%	7%
Average number of charging events started per EVSE per day	0.76	0.66	0.73

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: Oregon

Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	79%	21%	0%
Percent of electricity consumed	84%	16%	0%
Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	11.9	11.4	11.8
Average length of time with vehicle drawing power per charging event (hr)	2.2	2.0	2.2
Average electricity consumed per charging event (AC kWh)	7.9	7.1	7.7

WD

WE

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



(AC KWN)





Region: Oregon

Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	4,468	1,005	5,473
Electricity consumed (AC MWh)	26.13	4.90	31.03
Percent of time with a vehicle connected to EVSE	8%	6%	7%
Percent of time with a vehicle drawing power from EVSE	2%	1%	2%
Average number of charging events started per EVSE per day	0.25	0.14	0.22

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: Oregon

Report period: July 2012 through September 2012

Vehicles Charged	Car2Go fleet ¹	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	2%	35%	4%	59%
Percent of electricity consumed	6%	33%	4%	58%
Individual Charging Event Statistics		Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)		8.7	4.2	7.9
Average length of time with vehicle drawing power per charging event (hr)	2.2	1.7	2.1
Average electricity consumed per charging event (AC kWh)		5.9	4.8	5.7

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



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

WD



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





EV Project Electric Vehicle Charging Infrastructure Summary Report

Energy Efficiency & Renewable Energy

Region: Chattanooga, TN Metropolitan Area Report period: July 2012 through September 2012

U.S. DEPARTMENT OF

Number of EV Project vehicles in region: 49

Charging Unit Usage	Residential Level 2	Private Nonresidential Level 2	Publicly Available Level 2	Publicly Available DC Fast	Total
Number of charging units ¹	49	0	48	5	102
Number of charging events ²	3,060	0	341	35	3,436
Electricity consumed (AC MWh)	23.93	0.00	1.91	0.08	25.92
Percent of time with a vehicle connected to charging unit	35%	0%	1%	0%	17%
Percent of time with a vehicle drawing power from charging unit	7%	0%	1%	0%	4%



80%



Charging Unit Utilization



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³

Electricity Consumed







Project

units connected across all days

Charging Demand: Range of Aggregate Electricity Demand versus Time of Day⁴





Max electricity demand across all days

Inner-quartile range of electricity demand across all days

Median electricity demand across all days

Min electricity demand across all days

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

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

³ Considers the connection status of all charging units every minute

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.





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Region: Chattanooga, TN Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall	
Number of charging events	2,281	779	3,060	
Electricity consumed (AC MWh)	18.47	5.45	23.93	
Percent of time with a vehicle connected to EVSE	34%	36%	35%	
Percent of time with a vehicle drawing power from EVSE	8%	5%	7%	
Average number of charging events started per EVSE per day	0.82	0.67	0.77	

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: Chattanooga, TN Metropolitan Area Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	88%	12%	0%
Percent of electricity consumed	89%	11%	0%
Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	10.7	11.2	10.9
Average length of time with vehicle drawing power per charging event (hr)	2.2	2.0	2.2
Average electricity consumed per charging event (AC kWh)	8.1	7.0	7.8

WD

WE

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







Region: Chattanooga, TN Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall	
Number of charging events	261	80	341	
Electricity consumed (AC MWh)	1.50	0.41	1.91	
Percent of time with a vehicle connected to EVSE	1%	1%	1%	
Percent of time with a vehicle drawing power from EVSE	1%	0%	1%	
Average number of charging events started per EVSE per day	0.09	0.07	0.09	

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: Chattanooga, TN Metropolitan Area Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	57%	10%	33%
Percent of electricity consumed	58%	10%	32%
Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	2.4	1.8	2.2
Average length of time with vehicle drawing power per charging event (hr)	1.6	1.5	1.6
Average electricity consumed per charging event (AC kWh)	5.7	5.2	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





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EV Project Electric Vehicle Charging Infrastructure Summary Report

Region: Knoxville, TN Metropolitan Area

U.S. DEPARTMENT OF

Report period: July 2012 through September 2012

Number of EV Project vehicles in region: 88

Charging Unit Usage		Residential Level 2	Nonresidential Level 2	Available Level 2	Available DC Fast	Total
Number of charging units ¹		88	0	113	1	202
Number of charging events ²		5,488	0	1,439	4	6,931
Electricity consumed (AC MWh)		44.87	0.00	11.96	0.05	56.87
Percent of time with a vehicle connected to char	ging unit	35%	0%	4%	0%	18%
Percent of time with a vehicle drawing power fro	m charging unit	7%	0%	2%	0%	4%
Number of Charge Events	Electricity (Consumed		Charging L	Init Utilization	



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³





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

Project

Publicly

Charging Demand: Range of Aggregate Electricity Demand versus Time of Day⁴



Max electricity demand across all days

Inner-quartile range of electricity demand across all days

Median electricity demand across all days

Min electricity demand across all days

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

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

³ Considers the connection status of all charging units every minute

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.





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Region: Knoxville, TN Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall	
Number of charging events	4,096	1,392	5,488	
Electricity consumed (AC MWh)	34.97	9.90	44.87	
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	0.75	0.62	0.71	

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: Knoxville, TN Metropolitan Area Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	84%	16%	0%
Percent of electricity consumed	88%	12%	0%
Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	12.1	11.7	12.0
Average length of time with vehicle drawing power per charging event (hr)	2.4	2.0	2.3
Average electricity consumed per charging event (AC kWh)	8.5	7.1	8.2

WD

WE

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







Region: Knoxville, TN Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	1,281	158	1,439
Electricity consumed (AC MWh)	11.08	0.88	11.96
Percent of time with a vehicle connected to EVSE	5%	2%	4%
Percent of time with a vehicle drawing power from EVSE	2%	0%	2%
Average number of charging events started per EVSE per day	0.20	0.06	0.16

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: Knoxville, TN Metropolitan Area Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	38%	1%	61%
Percent of electricity consumed	32%	1%	67%
Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	6.5	7.9	6.7
Average length of time with vehicle drawing power per charging event (hr)	2.4	1.6	2.3
Average electricity consumed per charging event (AC kWh)	8.6	5.6	8.3

WD

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









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EV Project Electric Vehicle Charging Infrastructure Summary Report

Region: Memphis, TN Metropolitan Area

U.S. DEPARTMENT OF

Report period: July 2012 through September 2012

Number of EV Project vehicles in region: 37

Number of EV Troject vehicles in region. 37		Private	Publicly	Publicly	
Charging Unit Usage	Residential Level 2	Nonresidential Level 2	Available Level 2	Available DC Fast	Total
Number of charging units ¹	36	0	12	0	48
Number of charging events ²	2,228	0	152	0	2,380
Electricity consumed (AC MWh)	16.20	0.00	1.48	0.00	17.68
Percent of time with a vehicle connected to charging unit	41%	0%	5%	0%	30%
Percent of time with a vehicle drawing power from charging unit	8%	0%	2%	0%	6%



Charging Unit Utilization



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³







Project

Charging Demand: Range of Aggregate Electricity Demand versus Time of Day⁴



Max electricity demand across

Inner-quartile range of electricity demand across all days

Median electricity demand across all days

Min electricity demand across

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

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

Considers the connection status of all charging units every minute

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.





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Region: Memphis, TN Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall	
Number of charging events	1,625	603	2,228	
Electricity consumed (AC MWh)	12.19	4.02	16.20	
Percent of time with a vehicle connected to EVSE	41%	42%	41%	
Percent of time with a vehicle drawing power from EVSE	8%	7%	8%	
Average number of charging events started per EVSE per day	0.92	0.82	0.89	

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: Memphis, TN Metropolitan Area Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	69%	31%	0%
Percent of electricity consumed	76%	24%	0%
Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	11.6	10.5	11.3
Average length of time with vehicle drawing power per charging event (hr)	2.1	1.9	2.1
Average electricity consumed per charging event (AC kWh)	7.5	6.7	7.3

WD

WE

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







Region: Memphis, TN Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall	
Number of charging events	113	39	152	
Electricity consumed (AC MWh)	1.10	0.37	1.48	
Percent of time with a vehicle connected to EVSE	5%	4%	5%	
Percent of time with a vehicle drawing power from EVSE	2%	1%	2%	
Average number of charging events started per EVSE per day	0.15	0.12	0.14	

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: Memphis, TN Metropolitan Area Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	53%	3%	43%
Percent of electricity consumed	61%	1%	38%
Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	8.0	10.6	8.6
Average length of time with vehicle drawing power per charging event (hr)	2.7	2.7	2.7
Average electricity consumed per charging event (AC kWh)	9.8	9.6	9.7

WD

WE

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

U.S. DEPARTMENT OF

Report period: July 2012 through September 2012

Number of EV Project vehicles in region: 310

Charging Unit Usage		Residential Level 2	Nonresidential Level 2	Available Level 2	Available DC Fast	Total
Number of charging units ¹		307	0	156	4	467
Number of charging events ²		19,815	0	1,631	21	21,467
Electricity consumed (AC MWh)		163.02	0.00	10.58	0.17	173.77
Percent of time with a vehicle connected to charging	ig unit	36%	0%	4%	0%	25%
Percent of time with a vehicle drawing power from	charging unit	7%	0%	1%	0%	5%
Number of Charge Events	Electricity (Consumed		Charging L	Jnit Utilization	

Drivato



Dublich



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³

ntial Level 2





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

Project

Publicly

Charging Demand: Range of Aggregate Electricity Demand versus Time of Day⁴



Max electricity demand across

Inner-quartile range of electricity demand across all days

Median electricity demand across all days

Min electricity demand across

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

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

Considers the connection status of all charging units every minute

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.





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Region: Nashville, TN Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall	
Number of charging events	14,351	5,464	19,815	
Electricity consumed (AC MWh)	123.26	39.76	163.02	
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	0.79	0.73	0.77	

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: Nashville, TN Metropolitan Area Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	92%	8%	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)	11.2	11.1	11.2
Average length of time with vehicle drawing power per charging event (hr)	2.4	2.0	2.3
Average electricity consumed per charging event (AC kWh)	8.6	7.3	8.2

WD

WE

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









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Region: Nashville, TN Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall	
Number of charging events	1,316	315	1,631	
Electricity consumed (AC MWh)	9.06	1.52	10.58	
Percent of time with a vehicle connected to EVSE	4%	3%	4%	
Percent of time with a vehicle drawing power from EVSE	1%	0%	1%	
Average number of charging events started per EVSE per day	0.15	0.09	0.13	

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: Nashville, TN Metropolitan Area Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	52%	4%	44%
Percent of electricity consumed	50%	4%	47%
Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	7.7	3.1	6.8
Average length of time with vehicle drawing power per charging event (hr)	2.0	1.4	1.8
Average electricity consumed per charging event (AC kWh)	6.9	4.9	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



Electricity consumed per charging event (AC kWh)





EV Project Electric Vehicle Charging Infrastructure Summary Report

Region: Dallas/Ft. Worth, TX Metropolitan Area Report period: July 2012 through September 2012 Number of EV Project vehicles in region: 109

U.S. DEPARTMENT OF

Charging Unit Usage		Residential Level 2	Private Nonresidential Level 2	Publicly Available Level 2	Publicly Available DC Fast	Total
Number of charging units ¹		110	0	115	0	225
Number of charging events ²		7,735	0	957	0	8,692
Electricity consumed (AC MWh)		49.75	0.00	6.16	0.00	55.91
Percent of time with a vehicle connected to charg	ing unit	49%	0%	3%	0%	24%
Percent of time with a vehicle drawing power from	n charging unit	10%	0%	1%	0%	5%
Number of Charge Events	Electricity	Consumed		Charging L	Jnit Utilization	



Residential Level 2 rivate Nonresid ntial Level 2 Publicly Available Level 2 Publicly Available DC Fast

Charging Unit Utilization



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³





0:00



Project

Charging Demand: Range of Aggregate Electricity Demand versus Time of Day⁴



Max electricity demand across all davs

Inner-quartile range of electricity demand across all days

Median electricity demand across all days

Min electricity demand across all days

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

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

Considers the connection status of all charging units every minute

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.





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Region: Dallas/Ft. Worth, TX Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall	
Number of charging events	5,611	2,124	7,735	
Electricity consumed (AC MWh)	36.78	12.97	49.75	
Percent of time with a vehicle connected to EVSE	46%	54%	49%	
Percent of time with a vehicle drawing power from EVSE	10%	9%	10%	
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 Day³









Region: Dallas/Ft. Worth, TX Metropolitan Area Report period: July 2012 through September 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)	11.1	11.6	11.3
Average length of time with vehicle drawing power per charging event (hr)	2.3	2.1	2.3
Average electricity consumed per charging event (AC kWh)	6.6	6.1	6.4

WD

Distribution of Length of Time with a Vehicle Connected per Charging Event 25% WE 20% 15%



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



Distribution of Electricity Consumed per Charging Event



Electricity consumed per charging event (AC kWh)

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Region: Dallas/Ft. Worth, TX Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall	
Number of charging events	801	156	957	
Electricity consumed (AC MWh)	5.22	0.94	6.16	
Percent of time with a vehicle connected to EVSE	3%	2%	3%	
Percent of time with a vehicle drawing power from EVSE	1%	1%	1%	
Average number of charging events started per EVSE per day	0.13	0.06	0.11	

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: Dallas/Ft. Worth, TX Metropolitan Area Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	0%	25%	75%
Percent of electricity consumed	0%	24%	76%
Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	7.2	3.4	6.6
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)	6.6	5.7	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



Electricity consumed per charging event (AC kWh)





EV Project Electric Vehicle Charging Infrastructure Summary Report

Region: Houston, TX Metropolitan Area

U.S. DEPARTMENT OF

Report period: July 2012 through September 2012

Number of EV Project vehicles in region: 59

Charging Unit Usage		Residential Level 2	Nonresidential Level 2	Available Level 2	Available DC Fast	Total
Number of charging units ¹		59	0	39	0	98
Number of charging events ²		4,629	0	231	0	4,860
Electricity consumed (AC MWh)		31.69	0.00	1.13	0.00	32.82
Percent of time with a vehicle connected to cha	arging unit	47%	0%	1%	0%	29%
Percent of time with a vehicle drawing power for	om charging unit	9%	0%	0%	0%	6%
Number of Charge Events	Electricity	Consumed		Charging L	Init Utilization	

Drivato

Number of Charge Events

Residential Level 2

95%



Charging Unit Utilization

Dublich



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³







Project

Publicly

Charging Demand: Range of Aggregate Electricity Demand versus Time of Day⁴



Weekend 0.100 0.080 0.060 0.040 0.020 0.000 12.00 18:00 0.00 6.00 Time of Day

Max electricity demand across all days

Inner-quartile range of electricity demand across all days

Median electricity demand across all days

Min electricity demand across all days

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

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

Considers the connection status of all charging units every minute

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.





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Region: Houston, TX Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	3,321	1,308	4,629
Electricity consumed (AC MWh)	24.27	7.42	31.69
Percent of time with a vehicle connected to EVSE	45%	54%	47%
Percent of time with a vehicle drawing power from EVSE	10%	7%	9%
Average number of charging events started per EVSE per day	0.96	0.91	0.94

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³









Region: Houston, TX Metropolitan Area Report period: July 2012 through September 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)	12.2	12.1	12.1
Average length of time with vehicle drawing power per charging event (hr)	2.5	1.9	2.3
Average electricity consumed per charging event (AC kWh)	7.3	5.6	6.8

WD

Distribution of Length of Time with a Vehicle Connected per Charging Event 20% WE



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



Distribution of Electricity Consumed per Charging Event



Electricity consumed per charging event (AC kWh)





Region: Houston, TX Metropolitan Area Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall	
Number of charging events	186	45	231	
Electricity consumed (AC MWh)	0.87	0.26	1.13	
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	0.05	0.07	

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³











Region: Houston, TX Metropolitan Area Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	0%	23%	77%
Percent of electricity consumed	0%	30%	70%
Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	1.9	1.9	1.9
Average length of time with vehicle drawing power per charging event (hr)	1.5	1.7	1.5
Average electricity consumed per charging event (AC kWh)	4.8	5.5	4.9

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

949

Region: Washington State

93%

Report period: July 2012 through September 2012

Number of EV Project vehicles in region: 567

Charging Unit Usage		Residential Level 2	Nonresidential Level 2	Available Level 2	Available DC Fast	Total
Number of charging units ¹		569	0	181	3	753
Number of charging events ²		37,542	0	2,850	157	40,549
Electricity consumed (AC MWh)		278.02	0.00	16.77	1.31	296.10
Percent of time with a vehicle connected to charging unit		37%	0%	5%	2%	29%
Percent of time with a vehicle drawing power from charging unit		7%	0%	1%	2%	5%
Number of Charge Events	Electricity	icity Consumed		Charging Unit Utilization		

Drivato



Residential Level 2

Private Nonresidential Level 2

Publicly Available Level 2 Publicly Available DC Fast



Dublich



Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³

ntial Level 2

Residential Level 2

Publicly Available Level 2

Publicly Available DC Fast

rivate Nonresid







Project

Publicly

Charging Demand: Range of Aggregate Electricity Demand versus Time of Day⁴





Max electricity demand across all days

Inner-quartile range of electricity demand across all days

Median electricity demand across all days

Min electricity demand across all days

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

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

Considers the connection status of all charging units every minute

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.





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Region: Washington State

Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	27,625	9,917	37,542
Electricity consumed (AC MWh)	208.93	69.09	278.02
Percent of time with a vehicle connected to EVSE	36%	39%	37%
Percent of time with a vehicle drawing power from EVSE	7%	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 Day³








Residential Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Washington State

Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	86%	14%	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)	11.5	11.5	11.5
Average length of time with vehicle drawing power per charging event (hr)	2.1	2.0	2.1
Average electricity consumed per charging event (AC kWh)	7.6	7.0	7.4

WD

WE





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



Distribution of Electricity Consumed per Charging Event



Electricity consumed per charging event (AC kWh)





Publicly Available Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Washington State

Report period: July 2012 through September 2012

EVSE Usage	Weekday	Weekend	Overall
Number of charging events	2,214	636	2,850
Electricity consumed (AC MWh)	13.39	3.38	16.77
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	0.21	0.14	0.19

Charging Availability: Range of Percent of Charging Units with a Vehicle Connected versus Time of Day³



Charging Demand: Range of Aggregate Electricity Demand versus Time of Day⁴







Publicly Available Level 2 Electric Vehicle Supply Equipment (EVSE)

Region: Washington State

Report period: July 2012 through September 2012

Vehicles Charged	Nissan Leaf	Chevrolet Volt	Unknown
Percent of charging events	31%	4%	65%
Percent of electricity consumed	29%	4%	67%
Individual Charging Event Statistics	Weekday (WD)	Weekend (WE)	Overall
Average length of time with vehicle connected per charging event (hr)	7.7	2.4	6.5
Average length of time with vehicle drawing power per charging event (hr)	1.8	1.5	1.7
Average electricity consumed per charging event (AC kWh)	6.1	5.3	5.9

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





