

Statewide EV Registrations as of 01/02/2021  
 Exhibit CSV-2

Town	# of BEV	# of PHEV	# of Unknown	Total EVs 2021
ACWORTH	2	1	0	3
ALBANY	1	2	0	3
ALEXANDRIA	0	3	1	4
ALLENSTOWN	2	3	1	6
ALSTEAD	5	7	1	13
ALTON	13	7	1	21
AMHERST	53	33	2	88
ANDOVER	4	6	1	11
ANTRIM	3	3	0	6
ASHLAND	1	2	1	4
ATKINSON	7	7	4	18
AUBURN	23	7	0	30
BARNSTEAD	1	1	0	2
BARRINGTON	11	11	3	25
BARTLETT	8	1	0	9
BATH	0	1	0	1
BEDFORD	110	48	17	175
BELMONT	5	4	4	13
BENNINGTON	0	2	0	2
BERLIN	0	5	3	8
BETHLEHEM	3	2	1	6
BOSCAWEN	1	5	0	6
BOW	24	20	3	47
BRADFORD	3	0	1	4
BRENTWOOD	15	10	4	29
BRIDGEWATER	6	2	1	9
BRISTOL	2	3	2	7
BROOKLINE	13	10	1	24
CAMPTON	4	10	0	14
CANAAN	3	6	1	10
CANDIA	2	5	0	7
CANTERBURY	5	15	1	21
CARROLL	1	0	1	2
CENTER HARBOR	1	0	0	1
CHARLESTOWN	3	4	1	8
CHESTER	16	4	1	21
CHESTERFIELD	6	10	3	19
CHICHESTER	2	6	1	9
CLAREMONT	4	11	1	16
COLEBROOK	1	0	0	1
CONCORD	51	69	5	125
CONWAY	9	6	2	17
COOS COUNTY TREASU	0	0	1	1

Town	# of BEV	# of PHEV	# of Unknown	Total EVs 2021
CORNISH	1	4	1	6
CROYDON	2	2	1	5
DALTON	2	2	0	4
DANVILLE	6	3	1	10
DEERFIELD	3	9	3	15
DEERING	2	2	0	4
DERRY	36	34	3	73
DORCHESTER	0	1	0	1
DOVER	52	44	5	101
DUBLIN	3	9	0	12
DUMMER	2	1	0	3
DUNBARTON	6	5	0	11
DURHAM	45	39	3	87
EAST KINGSTON	5	7	2	14
EASTON	1	0	0	1
EATON	1	1	1	3
EFFINGHAM	2	1	1	4
ELLSWORTH	1	0	0	1
ENFIELD	11	15	1	27
EPPING	12	8	1	21
EPSOM	3	8	1	12
ERROL	0	0	1	1
EXETER	45	38	5	88
FARMINGTON	3	5	1	9
FITZWILLIAM	2	6	1	9
FRANCESTOWN	1	4	0	5
FRANCONIA	2	2	0	4
FRANKLIN	5	10	0	15
FREEDOM	0	1	0	1
FREMONT	3	6	0	9
GILFORD	19	8	9	36
GILMANTON	2	3	0	5
GILSUM	1	7	1	9
GOFFSTOWN	19	23	4	46
GORHAM	3	1	1	5
GRAFTON	1	0	0	1
GRANTHAM	11	13	1	25
GREENFIELD	3	4	0	7
GREENLAND	11	8	0	19
GREENVILLE	3	1	0	4
GROTON	0	1	0	1
HAMPSTEAD	10	7	1	18
HAMPTON	23	28	2	53
HANCOCK	4	4	0	8
HANOVER	64	43	13	120
HARRISVILLE	1	11	0	12

Town	# of BEV	# of PHEV	# of Unknown	Total EVs 2021
HARTS LOCATION	0	1	0	1
HAVERHILL	0	1	0	1
HEBRON	1	1	3	5
HENNIKER	11	4	0	15
HILL	0	0	1	1
HILLSBORO	0	1	0	1
HINSDALE	1	17	0	18
HOLDERNESS	5	6	0	11
HOLLIS	61	39	1	101
HOOKSETT	21	21	6	48
HOPKINTON	14	16	1	31
HUDSON	45	36	8	89
JACKSON	5	3	0	8
JAFFREY	10	16	3	29
JEFFERSON	0	3	0	3
KEENE	28	84	3	115
KENSINGTON	7	4	1	12
KINGSTON	10	5	0	15
LACONIA	11	16	7	34
LANCASTER	5	7	2	14
LANDAFF	1	0	0	1
LANGDON	2	3	0	5
LEBANON	18	37	1	56
LEE	11	13	2	26
LEMPSTER	1	3	0	4
LINCOLN	5	2	1	8
LISBON	1	5	0	6
LITCHFIELD	6	11	3	20
LITTLETON	3	10	1	14
LONDONDERRY	44	36	5	85
LOUDON	4	5	3	12
LYMAN	0	2	0	2
LYME	18	12	1	31
LYNDEBOROUGH	2	4	0	6
MADBURY	8	6	1	15
MADISON	3	4	0	7
MANCHESTER	95	91	12	198
MARLBOROUGH	0	11	0	11
MARLOW	1	5	0	6
MASON	1	4	0	5
MEREDITH	16	4	0	20
MERRIMACK	50	37	5	92
MIDDLETON	1	2	0	3
MILAN	1	0	0	1
MILFORD	20	18	1	39
MILTON	4	9	0	13

<b>Town</b>	<b># of BEV</b>	<b># of PHEV</b>	<b># of Unknown</b>	<b>Total EVs 2021</b>
MONROE	2	6	0	8
MONT VERNON	9	7	1	17
MOULTONBORO	12	7	5	24
NASHUA	173	137	24	334
NELSON	7	4	0	11
NEW BOSTON	11	5	0	16
NEW CASTLE	16	4	4	24
NEW DURHAM	5	3	0	8
NEW HAMPTON	2	3	4	9
NEW IPSWICH	2	10	1	13
NEW LONDON	22	13	3	38
NEWBURY	7	7	1	15
NEWFIELDS	9	2	1	12
NEWINGTON	3	8	2	13
NEWMARKET	12	17	0	29
NEWPORT	1	8	2	11
NEWTON	4	5	0	9
NORTH HAMPTON	9	5	2	16
NORTHFIELD	4	1	1	6
NORTHUMBERLAND	1	0	0	1
NORTHWOOD	5	10	1	16
NOTTINGHAM	9	5	2	16
ORANGE	1	2	0	3
ORFORD	6	6	0	12
OSSIPEE	1	1	1	3
PELHAM	31	30	9	70
PEMBROKE	9	10	1	20
PETERBOROUGH	21	27	1	49
PIERMONT	1	1	0	2
PITTSBURG	0	1	0	1
PITTSFIELD	1	0	0	1
PLAINFIELD	11	9	3	23
PLAISTOW	7	7	1	15
PLYMOUTH	8	11	1	20
PORTSMOUTH	82	72	9	163
RANDOLPH	2	1	0	3
RAYMOND	9	4	1	14
RICHMOND	0	5	0	5
RINDGE	8	8	1	17
ROCHESTER	21	26	3	50
ROLLINSFORD	8	2	0	10
ROXBURY	1	1	0	2
RUMNEY	0	7	0	7
RYE	40	13	4	57
SALEM	55	32	7	94
SALISBURY	0	2	0	2

<b>Town</b>	<b># of BEV</b>	<b># of PHEV</b>	<b># of Unknown</b>	<b>Total EVs 2021</b>
SANBORNTON	5	7	2	14
SANDOWN	5	2	1	8
SANDWICH	5	2	0	7
SEABROOK	19	10	5	34
SHELBURNE	0	1	0	1
SOMERSWORTH	9	12	1	22
SOUTH HAMPTON	4	4	0	8
SPRINGFIELD	4	6	0	10
STEWARTSTOWN	1	0	0	1
STODDARD	2	4	1	7
STRAFFORD	2	6	0	8
STRATHAM	27	16	2	45
SUGAR HILL	2	4	0	6
SULLIVAN	0	2	0	2
SULLIVAN COUNTY	110	102	22	234
SUNAPEE	9	8	1	18
SURRY	0	1	0	1
SUTTON	2	2	0	4
SWANZEY	6	27	1	34
TAMWORTH	5	5	1	11
TEMPLE	3	2	2	7
THORNTON	2	4	0	6
TILTON	1	3	1	5
TROY	1	4	0	5
TUFTONBORO	4	3	2	9
UNITY	0	1	0	1
WAKEFIELD	3	7	0	10
WALPOLE	9	14	0	23
WARNER	2	8	1	11
WARREN	0	1	0	1
WASHINGTON	3	2	2	7
WATERVILLE VALLEY	5	1	0	6
WEARE	9	8	1	18
WEBSTER	2	1	0	3
WENTWORTH	0	1	0	1
WESTMORELAND	2	6	0	8
WHITEFIELD	1	3	0	4
WILMOT	10	5	1	16
WILTON	14	7	0	21
WINCHESTER	0	10	1	11
WINDHAM	57	35	6	98
WINDSOR	1	0	0	1
WOLFEBORO	8	9	2	19
WOODSTOCK	1	1	4	6
Statewide Totals	2410	2298	362	5070

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UES EV Adoption Model 2020-2031  
 Exhibit CSV-3

Total Registered EV Through 2020	
Capital	248
Seacoast	332
<b>UES Total</b>	<b>580</b>

Customer Count	
UES-Capital	30654
UES-Seacoast	47713

General Assumption	
Aggressiveness applied to EEI Projection	100%

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
EEI EV Projection (National)	1,947,370	2,554,186	3,278,421	4,115,521	5,185,763	6,529,197	8,192,743	10,194,411	12,600,697	15,423,574	18,719,480	22,719,697

<b>Town</b>	<b>Total EVs</b>
<b>Capital-Region</b>	
BOSCAWEN	6
BOW	47
CANTERBURY	21
CHICHESTER	9
CONCORD	125
DUNBARTON	11
EPSOM	12
LOUDON	12
SALISBURY	2
WEBSTER	3
Capital-Region Total	<b>248</b>
<b>Seacoast-Region</b>	
ATKINSON	18
DANVILLE	10
EAST KINGSTON	14
EXETER	88
HAMPTON	53
HAMPTON FALLS	11
KENSINGTON	12
KINGSTON	15
NEWTON	9
PLAISTOW	15
SEABROOK	34
SOUTH HAMPTON	8
STRATHAM	45
Seacoast-Region Total	<b>332</b>
<b>UES Total:</b>	<b>580</b>

Note - No Data for Hampton Falls - assumed total based on customer served of seacoast towns

Note - Did not include towns that Unitil serves less than 100 customers



Aggressiveness applied to EEI Projection	100%
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EEI EV Projection	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
EVs Nationally	1,947,370	2,554,186	3,278,421	4,115,521	5,185,763	6,529,197	8,192,743	10,194,411	12,600,697	15,423,574	18,719,480	22,719,697
Growth Rate		0.31	0.28	0.26	0.26	0.26	0.25	0.24	0.24	0.22	0.21	0.21

	Registered EVs (baseline)	UES Projected EV by Year										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
<b>Capital</b>	248	325	418	524	660	832	1,043	1,298	1,605	1,964	2,384	2,893
<b>Seacoast</b>	332	435	559	702	884	1,113	1,397	1,738	2,148	2,630	3,191	3,873
<b>UES Total</b>	580	761	976	1,226	1,545	1,945	2,440	3,036	3,753	4,594	5,575	6,767

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Exhibit CSV-4  
NHPUC No. 3 - Electricity Delivery  
Unitil Energy Systems, Inc.

Original Page XX

FOR ILLUSTRATIVE PURPOSES ONLY  
DOMESTIC DELIVERY SERVICE  
SCHEDULE TOU-D

AVAILABILITY

Service is available under this schedule for all domestic purposes, subject to the conditions contained herein at individual private dwellings and farms connected herewith, and in individual apartments, and includes the operation of single phase motors having such characteristics and so operated as not to impair service to other Customers. Single phase motors exceeding five (5) horsepower will be allowed only upon approval by the Company in each instance.

This schedule is available to domestic Customers having uncontrolled (quick recovery) electric water heating equipment only if such equipment has two (2) thermostatically operated heating elements, each with a rating of no more than 5,500 watts, so connected and interlocked that they cannot operate simultaneously.

When service is delivered through one meter and used for both domestic and non-domestic purposes, billing shall be under this Schedule when the predominate use of demand, as determined by the Company, is for domestic purposes.

If electricity is delivered through more than one meter, the charge for electricity delivered through each meter shall be computed separately under this rate. The availability of this rate will be subject to the Company's ability to obtain the necessary meters and to render such service.

This Schedule is not available for service furnished for commercial or business purposes, farms where the maximum demand exceeds 15 kW, motels, hotels and boarding or lodging houses or residences in which three (3) or more rooms are rented, except as specifically provided for under Special Provisions below, or for any other non-residential purposes. This Schedule is not available to net metered customers.

The actual delivery of service and the rendering of bills under this rate is contingent upon the installation of the necessary time-of-use metering equipment by the Company; subject to both the availability of such meters from the Company's supplier and the conversion or installation procedures as established by the Company

CHARACTER OF SERVICE

Electricity will normally be delivered at 120/240 volts using three wire, single phase service. In some areas service may be 120/208 volts, single phase, three wire.

Authorized by NHPUC Order No. \_\_\_\_\_ in Case No. DE \_\_\_\_\_ dated \_\_\_\_\_

Issued: April 2, 2021  
Effective: May 2, 2021

Issued by: Robert Hevert  
Senior Vice President

000703

NHPUC No. 3 - Electricity Delivery  
Unitil Energy Systems, Inc.

FOR ILLUSTRATIVE PURPOSES ONLY  
DOMESTIC DELIVERY SERVICE  
SCHEDULE D-TOU (continued)

CHARGES - MONTHLY

The Delivery Service Charges shall include Distribution Charges and Adjustments, set forth below. The rates for energy (kWh) based charges are seasonal with a winter period from November 1 to April 30 and a summer period from May 1 to October 31.

Rates for Retail Delivery Service Effective May 1, 2021 through October 31, 2021

Customer Charge: \$21.07 per meter

Distribution Charge:

Off Peak kWh	4.622¢ per kWh
Mid Peak kWh	4.622¢ per kWh
On Peak kWh	4.622¢ per kWh

External Delivery Charge - Transmission:

Off Peak kWh	0.408¢ per kWh
Mid Peak kWh	4.683¢ per kWh
On Peak kWh	11.567¢ per kWh

Default Service Charge:

Off Peak kWh	6.304¢ per kWh
Mid Peak kWh	7.003¢ per kWh
On Peak kWh	8.594¢ per kWh

Off peak hours will be from 12AM to 6AM and all day holidays and weekends.  
Mid peak hours will be from 6AM to 3PM daily Monday through Friday, except holidays.  
Peak hours will be from 3PM to 8PM daily Monday through Friday, except holidays.

Authorized by NHPUC Order No. \_\_\_\_\_ in Case No. DE \_\_\_\_\_ dated \_\_\_\_\_

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Effective: May 2, 2021

Issued by: Robert Hevert  
Senior Vice President

000704

NHPUC No. 3 - Electricity Delivery  
Unitil Energy Systems, Inc.

FOR ILLUSTRATIVE PURPOSES ONLY  
DOMESTIC DELIVERY SERVICE  
SCHEDULE D-TOU (continued)

ADJUSTMENTS

These Adjustments, included in the Delivery Service Charges, shall be adjusted from time to time.

External Delivery Charge (non-transmission): All energy delivered under this Schedule shall be subject to the External Delivery Charge, non-transmission as provided in Schedule EDC of the Tariff of which this is a part.

Stranded Cost Charge: All energy delivered under this Schedule shall be subject to the Stranded Cost Charge as provided in Schedule SCC of the Tariff of which this is a part.

Storm Recovery Adjustment Factor: All energy delivered under this Schedule shall be subject to the Storm Recovery Adjustment Factor as provided in Schedule SRAF of the Tariff of which this is a part.

System Benefits Charge: All energy delivered under this Schedule shall be subject to the System Benefits Charge as provided in Schedule SBC of the Tariff of which this is a part.

Revenue Decoupling Adjustment Charge: All energy delivered under this Schedule shall be subject to the Revenue Decoupling Adjustment Charge as provided in Schedule RDAC of the Tariff of which this is a part.

TERMS OF PAYMENT

The charges for service hereunder are net, billed monthly and due within 25 days following the date postmarked on the bill, as specified in the Terms and Conditions for Distribution Service, which is a part of this Tariff. Amounts not paid prior to the due date shall be subject to interest on past due accounts, as provided in Appendix A of the Terms and Conditions for Distribution Service, and will apply to the unpaid balance. When billing on the OL Schedule is combined with billing on this rate, the interest on past due accounts shall apply to the total bill. The Company will waive the residential late payment fee if the Customer can provide evidence of their eligibility in any of the following programs: Statewide Low-Income Electric Assistance Program (NHPUC Order No. 23,980), Fuel Assistance, Temporary Assistance for Needy Families (TANF), Supplemental Security Income (SSI), Aid to the Permanently and Totally Disabled (APTD), Aid to the Needy Blind (ANB), Old Age Assistance (OAA), Subsidized School Lunch Programs, Title XX Day Care Program, Food Stamps, Medicaid, Subsidized Housing, or Women, Infant and Children Program (WIC).

Authorized by NHPUC Order No. \_\_\_\_\_ in Case No. DE \_\_\_\_\_ dated \_\_\_\_\_

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Effective: May 2, 2021

Issued by: Robert Hevert  
Senior Vice President

000705

NHPUC No. 3 - Electricity Delivery  
Unitil Energy Systems, Inc.

FOR ILLUSTRATIVE PURPOSES ONLY  
DOMESTIC DELIVERY SERVICE  
SCHEDULE D-TOU (continued)

TERM OF CONTRACT

A customer is eligible to take service on this Schedule upon meeting the qualifications for this Schedule to the satisfaction of the utility and with the consent of the utility. A customer receiving service under this schedule may elect to change to another applicable rate schedule but only after receiving service on this schedule for at least 12 consecutive months. If a customer elects to discontinue service on this schedule, the customer will not be permitted to return to this schedule for a period of one year.

EXTRA SERVICE CHARGES

In addition to the charges for electric service herein specified, additional charges for extra services rendered will be made in accordance with the Tariff which this Schedule is a part.

TARIFF PROVISIONS

The Company's complete Tariff where not inconsistent with any specific provisions hereof, is part of this Schedule.

Authorized by NHPUC Order No. \_\_\_\_\_ in Case No. DE \_\_\_\_\_ dated \_\_\_\_\_

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Issued by: Robert Hevert  
Senior Vice President

000706

NHPUC No. 3 - Electricity Delivery  
Unitil Energy Systems, Inc.

FOR ILLUSTRATIVE PURPOSES ONLY  
SCHEDULE TOU-EV-D

AVAILABILITY

Service under this schedule is specifically limited to residential customers who require service restricted to charging a battery electric vehicle (BEV) or plug-in hybrid electric vehicle (PHEV) via a recharging outlet at the customer's premises. This schedule is not available to customers with a conventional charge sustaining (battery recharged solely from the vehicle's on-board generator) hybrid electric vehicle (HEV). This Schedule is available for all customers currently taking service or eligible to receive service from Schedule D or Schedule TOU-D.

CHARACTER OF SERVICE

The charging station shall be connected by means of an approved circuit to a separate charging meter for electric vehicles. Electricity will normally be delivered at 120/240 volts using three wire, single phase service. In some areas service may be 120/208 volts, single phase, three wire.

CHARGES – MONTHLY

The Delivery Service Charges shall include Distribution Charges and Adjustments, set forth below. The rates for energy (kWh) based charges are seasonal with a winter period from November 1 to April 30 and a summer period from May 1 to October 31.

Rates for Retail Delivery Service Effective May 1, 2021 through October 31, 2021

Customer Charge \$5.26 per meter

Distribution Charge

Off Peak kWh	2.941¢ per kWh
Mid Peak kWh	4.941¢ per kWh
Peak kWh	8.797¢ per kWh

External Delivery Charge - Transmission:

Off Peak kWh	0.408¢ per kWh
Mid Peak kWh	4.683¢ per kWh
Peak kWh	11.567¢ per kWh

Authorized by NHPUC Order No. \_\_\_\_\_ in Case No. DE \_\_\_\_\_ dated \_\_\_\_\_

Issued: April 2, 2021  
Effective: May 2, 2021

Issued by: Robert Hevert  
Senior Vice President  
000707

NHPUC No. 3 - Electricity Delivery  
Unitil Energy Systems, Inc.

FOR ILLUSTRATIVE PURPOSES ONLY  
SCHEDULE TOU-EV-D (Continued)

Default Service Charge:

Off Peak kWh:	6.304¢ per kWh
Mid Peak kWh	7.003¢ per kWh
Peak kWh	8.594¢ per kWh

Off peak hours will be from 12AM to 6AM and all day holidays and weekends.  
Mid peak hours will be from 6AM to 3PM daily Monday through Friday, except holidays.  
Peak hours will be from 3PM to 8PM daily Monday through Friday, except holidays.

ADJUSTMENTS

These Adjustments, included in the Delivery Service Charges, shall be adjusted from time to time.

External Delivery Charge (non-transmission): All energy delivered under this Schedule shall be subject to the External Delivery Charge, non-transmission as provided in Schedule EDC of the Tariff of which this is a part.

Stranded Cost Charge: All energy delivered under this Schedule shall be subject to the Stranded Cost Charge as provided in Schedule SCC of the Tariff of which this is a part.

Storm Recovery Adjustment Factor: All energy delivered under this Schedule shall be subject to the Storm Recovery Adjustment Factor as provided in Schedule SRAF of the Tariff of which this is a part.

System Benefits Charge: All energy delivered under this Schedule shall be subject to the System Benefits Charge as provided in Schedule SBC of the Tariff of which this is a part

Authorized by NHPUC Order No. \_\_\_\_\_ in Case No. DE \_\_\_\_\_ dated \_\_\_\_\_

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Effective: May 2, 2021

Issued by: Robert Hevert  
Senior Vice President

000708



NHPUC No. 3 - Electricity Delivery  
Unitil Energy Systems, Inc.

FOR ILLUSTRATIVE PURPOSES ONLY  
SCHEDULE TOU-EV-D (Continued)

TERMS OF PAYMENT

The charges for service hereunder are net, billed monthly and due within 25 days following the date postmarked on the bill, as specified in the Terms and Conditions for Distribution Service, which is a part of this Tariff. Amounts not paid prior to the due date shall be subject to interest on past due accounts, as provided in Appendix A of the Terms and Conditions for Distribution Service, and will apply to the unpaid balance. When billing on the OL Schedule is combined with billing on this rate, the interest on past due accounts shall apply to the total bill. The Company will waive the residential late payment fee if the Customer can provide evidence of their eligibility in any of the following programs: Statewide Low-Income Electric Assistance Program (NHPUC Order No. 23,980), Fuel Assistance, Temporary Assistance for Needy Families (TANF), Supplemental Security Income (SSI), Aid to the Permanently and Totally Disabled (APTD), Aid to the Needy Blind (ANB), Old Age Assistance (OAA), Subsidized School Lunch Programs, Title XX Day Care Program, Food Stamps, Medicaid, Subsidized Housing, or Women, Infant and Children Program (WIC).

TERM OF CONTRACT

A customer is eligible to take service on this Schedule upon meeting the qualifications for this Schedule to the satisfaction of the utility and with the consent of the utility. A customer receiving service under this schedule may elect to change to another applicable rate schedule but only after receiving service on this schedule for at least 12 consecutive months. If a customer elects to discontinue service on this schedule, the customer will not be permitted to return to this schedule for a period of one year.

TARIFF PROVISIONS

The Company's complete Tariff where not inconsistent with any specific provisions hereof, is part of this Schedule.

Authorized by NHPUC Order No. \_\_\_\_\_ in Case No. DE \_\_\_\_\_ dated \_\_\_\_\_

Issued: April 2, 2021  
Effective: May 2, 2021

Issued by: Robert Hevert  
Senior Vice President

000709

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FOR ILLUSTRATIVE PURPOSES ONLY  
SCHEDULE TOU-EV-G2

AVAILABILITY

Service under this schedule is specifically limited to customers who require service for charging a battery electric vehicle (BEV) or plug-in hybrid electric vehicle (PHEV) via a recharging outlet at the customer’s premises. This Schedule is available for use at business locations or commercially owned electric vehicle charging stations with average use consistently below two-hundred (200) kilovolt-ampere (kVA) of demand and generally less than one-hundred thousand (100,000) kilowatt-hours per month, as measured by the Company.

CHARACTER OF SERVICE

The charging station shall be connected by means of an approved circuit to a separate charging meter for the electric vehicle charging station. Electric service of the following description is available, depending upon the location of the Customer: (1) 120/240 volts, single phase, three wire; (2) 120/208 volts, single phase, three wire; (3) 208Y/120 volts, three phase, four wire; (4) 480Y/277 volts, three phase, four wire; (5) 4160 volts, three phase, four wire or such higher primary distribution voltage as may be available, the voltage to be designated by the Company.

CHARGES - MONTHLY

The Delivery Service Charges shall include Distribution Charges and Adjustments, set forth below. The rates for energy (kWh) based charges are seasonal with a winter period from November 1 to April 30 and a summer period from May 1 to October 31.

Rates for Retail Delivery Service Effective May 1, 2021 through October 31, 2021

Customer Charge                      \$32.20 per meter

Distribution Demand Charge      \$11.59 per kW

External Delivery Charge - Transmission:

Off Peak       0.408¢ per kWh  
Mid Peak      3.717¢ per kWh  
Peak          14.354¢ per kWh

Default Service Charge

Off Peak       5.278¢ per kWh  
Mid Peak      6.035¢ per kWh  
Peak          7.378¢ per kWh

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Effective: May 2, 2021

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Senior Vice President

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Unitil Energy Systems, Inc.

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SCHEDULE TOU-EV-G2 (continued)

Off peak hours will be from 12AM to 6AM and all day holidays and weekends.  
Mid peak hours will be from 6AM to 3PM daily Monday through Friday, except holidays.  
Peak hours will be from 3PM to 8PM daily Monday through Friday, except holidays.

DEMAND CHARGE DISCOUNT

During the first three years of service, Demand Charges for any new customer will be discounted each year in accordance with the table below.

	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year
Demand Charge Discount	75%	50%	25%	0%

ADJUSTMENTS

These Adjustments, included in the Delivery Service Charges, shall be adjusted from time to time.

External Delivery Charge (non-transmission): All energy delivered under this Schedule shall be subject to the External Delivery Charge as provided in Schedule EDC of the Tariff of which this is a part.

Stranded Cost Charge: All energy delivered under this Schedule shall be subject to the Stranded Cost Charge as provided in Schedule SCC of the Tariff of which this is a part.

Storm Recovery Adjustment Factor: All energy delivered under this Schedule shall be subject to the Storm Recovery Adjustment Factor as provided in Schedule SRAF of the Tariff of which this is a part.

System Benefits Charge: All energy delivered under this Schedule shall be subject to the System Benefits Charge as provided in Schedule SBC of the Tariff of which this is a part.

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SCHEDULE TOU-EV-G2 (continued)

DETERMINATION OF DEMAND

The metered demand used for billing shall be the maximum fifteen-minute kilowatt (kW) demand determined during the current month, but in no case less than one kW or the minimum available demand capacity specified by an agreement between the Customer and the Company. The billing demand shall be taken in 0.1 kW intervals, and those demands falling between the intervals shall be billed on the next lower 0.1 kW.

If the Customer's average use is consistently equal to or in excess of two-hundred (200) kilovolt-ampere (kVA) of demand and is generally greater than one-hundred thousand (100,000) kilowatt-hours per month, as measured by the Company, the Customer may be placed on rate TOU-EV-G1.

The Company reserves the right to install kilovolt-ampere meters, and in such case the monthly demand shall not be less than 90% of the measured kVA.

TERMS OF PAYMENT

The charges for service hereunder are net, billed monthly and due within 25 days following the date postmarked on the bill, as specified in the Terms and Conditions for Distribution Service, which is a part of this Tariff.

TERM OF CONTRACT

A customer is eligible to take service on this Schedule upon meeting the qualifications for this Schedule to the satisfaction of the utility and with the consent of the utility. A customer receiving service under this schedule may elect to change to another applicable rate schedule but only after receiving service on this schedule for at least 12 consecutive months. If a customer elects to discontinue service on this schedule, the customer will not be permitted to return to this schedule for a period of one year.

METERING

The Company may at its option meter at the Customer's utilization voltage or on the high tension side of the transformer through which service is furnished.

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Effective: May 2, 2021 Senior Vice President

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SCHEDULE TOU-EV-G2 (continued)

In the later case, or if the Customer's utilization voltage requires no transformation, and if the Company meters service at 4,160 volts or over, a compensating deduction of 2.0% will be made from the metered kilowatt or kilovolt-ampere demand and metered kilowatt-hour usage to determine billing amounts. If the Company meters service at 34,500 volts or over, a compensating deduction of 3.5% will be made from the metered kilowatt or kilovolt-ampere demand and metered kilowatt-hour usage to determine billing amounts. Demands for these purposes will be as determined under the Determination of Demand provision of this Schedule.

CREDIT FOR TRANSFORMER OWNERSHIP

If the Customer furnishes all transformers which may be required so that the Company is not required to furnish any transformers, there will be credited, against the amount established under the Determination of Demand and Metering provisions of this Schedule, 50 cents for each kilowatt of monthly billing demand, or 50 cents for each kilovolt-ampere of monthly billing demand

MINIMUM CHARGE

The Minimum Charge per month shall be no less than the Customer Charge for each type of service installed plus a capacity charge based upon a minimum demand as defined under the Determination of Demand provision of this Schedule.

TARIFF PROVISIONS

The Company's complete Tariff where not inconsistent with any specific provisions hereof, is part of this Schedule.

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NHPUC No. 3 - Electricity Delivery  
Unitil Energy Systems, Inc.

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FOR ILLUSTRATIVE PURPOSES ONLY  
SCHEDULE TOU-EV-G1

AVAILABILITY

Service under this schedule is specifically limited to customers who require service for charging a battery electric vehicle (BEV) or plug-in hybrid electric vehicle (PHEV) via a recharging outlet. This Schedule is available for use at business locations or commercially owned electric vehicle charging stations with average use consistently equal to or in excess of two-hundred (200) kilovolt-ampere (kVA) of demand and is generally greater than one-hundred thousand (100,000) kilowatt-hours per month, as measured by the Company.

CHARACTER OF SERVICE

The charging station shall be connected by means of an approved circuit to a separate charging meter for the electric vehicle charging station. Electric service of the following description is available, depending upon the location of the Customer: (1) 120/240 volts, single phase, three wire; (2) 120/208 volts, single phase, three wire; (3) 208Y/120 volts, three phase, four wire; (4) 480Y/277 volts, three phase, four wire; (5) 4160 volts, three phase, four wire or such higher primary distribution voltage as may be available, the voltage to be designated by the Company.

CHARGES - MONTHLY

The Delivery Service Charges shall include Distribution Charges and Adjustments, set forth below. The rates for energy (kWh) based charges are seasonal with a winter period from November 1 to April 30 and a summer period from May 1 to October 31.

Rates for Retail Delivery Service Effective May 1, 2021 through October 31, 2021

Customer Charge

Secondary Voltage \$178.93 per meter  
Primary Voltage \$95.42 per meter

Distribution Demand Charge \$8.37 per kVa

External Delivery Charge - Transmission:

Off Peak 0.408¢ per kWh  
Mid Peak 3.867¢ per kWh  
Peak 14.117¢ per kWh

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Unitil Energy Systems, Inc.

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SCHEDULE TOU-EV-G1 (continued)

Off peak hours will be from 12AM to 6AM and all day holidays and weekends.  
Mid peak hours will be from 6AM to 3PM daily Monday through Friday.  
Peak hours will be from 3PM to 8PM daily Monday through Friday, except holidays.

DEMAND CHARGE DISCOUNT

During the first three years of service, Demand Charges for any new customer will be discounted each year in accordance with the table below.

	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year
Demand Charge Discount	75%	50%	25%	0%

ADJUSTMENTS

These Adjustments, included in the Delivery Service Charges, shall be adjusted from time to time.

External Delivery Charge (non-transmission): All energy delivered under this Schedule shall be subject to the External Delivery Charge as provided in Schedule EDC of the Tariff of which this is a part.

Stranded Cost Charge: All energy delivered under this Schedule shall be subject to the Stranded Cost Charge as provided in Schedule SCC of the Tariff of which this is a part.

Storm Recovery Adjustment Factor: All energy delivered under this Schedule shall be subject to the Storm Recovery Adjustment Factor as provided in Schedule SRAF of the Tariff of which this is a part.

System Benefits Charge: All energy delivered under this Schedule shall be subject to the System Benefits Charge as provided in Schedule SBC of the Tariff of which this is a part.

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SCHEDULE TOU-EV-G1 (continued)

DETERMINATION OF DEMAND

For the purpose of demand billing under the Large General Service Schedule G1, metered demands shall be measured as the highest 15-minute integrated kilovolt-ampere (kVA) demand determined during the current month for which the bill is rendered. The monthly billing demand charge shall be based upon this metered demand except that it shall not be less than 80% of the highest demand in any of the immediately preceding eleven months, and in no event shall such demand be taken or considered as being less than 50 kVA.

MINIMUM CHARGE

The Minimum Charge per month shall be no less than the Customer Charge for each type of service installed plus a capacity charge based upon a minimum demand and/or demand ratchet as defined under the Determination of Demand provision of this Schedule.

TERMS OF PAYMENT

The charges for service hereunder are net, billed monthly and due within 25 days following the date postmarked on the bill, as specified in the Terms and Conditions for Distribution Service, which is a part of this Tariff. Amounts not paid prior to the due date shall be subject to interest on past due accounts, as provided in Appendix A of the Terms and Conditions for Distribution Service, and will apply to the unpaid balance. When billing on the OL Schedule is combined with billing on this rate, the interest on past due accounts shall apply to the total bill.

TERM OF CONTRACT

A customer is eligible to take service on this Schedule upon meeting the qualifications for this Schedule to the satisfaction of the utility and with the consent of the utility. A customer receiving service under this schedule may elect to change to another applicable rate schedule but only after receiving service on this schedule for at least 12 consecutive months. If a customer elects to discontinue service on this schedule, the customer will not be permitted to return to this schedule for a period of one year.

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SCHEDULE TOU-EV-G1 (continued)

METERING

The Company may at its option meter at the Customer's utilization voltage or on the high tension side of the transformer through which service is furnished.

In the later case, or if the Customer's utilization voltage requires no transformation, and if the Company meters service at 4,160 volts or over, a compensating deduction of 2.0% will be made from the metered kilowatt or kilovolt-ampere demand and metered kilowatt-hour usage to determine billing amounts. If the Company meters service at 34,500 volts or over, a compensating deduction of 3.5% will be made from the metered kilowatt or kilovolt-ampere demand and metered kilowatt-hour usage to determine billing amounts. Demands for these purposes will be as determined under the Determination of Demand provision of this Schedule.

CREDIT FOR TRANSFORMER OWNERSHIP

If the Customer furnishes all transformers which may be required so that the Company is not required to furnish any transformers, there will be credited, against the amount established under the Determination of Demand and Metering provisions of this Schedule, 50 cents for each kilowatt of monthly billing demand, or 50 cents for each kilovolt-ampere of monthly billing demand

TARIFF PROVISIONS

The Company's complete Tariff where not inconsistent with any specific provisions hereof, is part of this Schedule.

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Senior Vice President

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**UES EV TOU Service Requirements**

**Domestic EV TOU (TOU-EV-D)**

Residential customers, who request to participate in the electric vehicle (EV) time of use (TOU) rate program (TOU-EV-D), will have their current load and service conditions reviewed and evaluated by UES (or “the Company”) to determine if the existing utility facilities can accommodate the addition of the proposed EV charging.

The field review will determine whether the capability of the existing service is rated for a minimum of 200 amps from the pole to the weather head where overhead (“OH”), or to the meter where underground (“URD”).

In the event the existing service is rated for the additional load, the customer will coordinate with the Company for an additional customer-supplied and installed meter socket to accommodate the required UES-provided metering for EV charging. Depending on the installation, the customer may be required to provide and install a multi-gang meter socket. All equipment, installation and methodology of the meter socket installation shall meet Company and National Electric Code (“NEC”) standards and specifications in affect at the time of the EV charger installation.

Should the customer’s existing service not meet the threshold requirements outlined above and a service upgrade is required, such upgrades will be coordinated in accordance with existing service terms and conditions for distribution service. For an OH service installation, the Company will provide, at no direct cost, a new appropriately sized service drop. Where the existing installation is a URD service connected by a conduit system or a URD service fed with direct buried cable, the Company would replace the cable in accordance with existing terms and conditions for distribution service.

The Customer shall be responsible for the provision, installation, excavation and grading required to facilitate the installation as well as any associated structures that may be required to complete the installation.

For any of the above scenarios, should the utility transformer serving the impacted property require additional capacity, the Company will provide an appropriately sized transformer, ancillary equipment and associated labor to complete the service.

For all underground services, the customer will also be required to provide and install a multi-gang meter socket to accommodate the Company supplied meter. All equipment, installation and methodology of the conduit systems and meter socket installation shall meet both Company and NEC standards and specifications in affect at the time of the installation.

Once the meter socket and associated equipment installation is complete and approved by the local authorities having jurisdiction, the Company will install the metering required to monitor the EV charger and the customer will then be eligible for the TOU-EV-D rate.

**Small General Service EV TOU (TOU-EV-G2)**

Commercial and industrial customers who routinely consume less than 200 kVa and 100,000 kWh per billing month for EV charging only will be eligible for the TOU-EV-G2 rate. Their services, termed

Exhibit CSV-8

secondary services, may be delivered from single, banked or networked transformers that may or may not require current transformers (CTs) to meter their accounts. The methodology of service delivery may vary considerably within this customer class.

Eligible customers who request to participate in TOU-EV-G2 rate program will have their load and service conditions reviewed and evaluated by UES to determine if the existing utility facilities can accommodate the addition of the proposed EV charging.

Due to the range of equipment and installations to provide services to these customers, the Company anticipates working closely with customers to coordinate the installation of the customer-supplied meter socket required to accommodate the Company-supplied metering equipment. The installation, equipment and methodology must meet Company and NEC requirements that are in effect at the time of the installation or service modifications.

Once the metering installation is completed, providing a dedicated meter socket to monitor the EV charging equipment, the customer will then be eligible for TOU-EV-G2 rate.

Large General Service EV TOU (TOU-EV-G1)

Commercial and industrial customers that have a monthly demand in excess of 200 kVa and 100,000 kWh per billing month for EV charging only will be eligible for the TOU-EV-G1 rate. Typically, such customers are served from individual transformers and are classified as “transformer-rated,” equipped with CT cabinets which provide for remote metering equipment. The installation of such stand-alone EV charging shall require the installation of a separate, individual meter socket for monitoring the EV charging equipment by a Company-supplied meter.

Eligible customers who request to participate in the TOU-EV-G1 rate program will have their current load and service conditions reviewed and evaluated by UES to determine if the existing utility facilities can accommodate the addition of the proposed EV charging.

Due to the range of equipment and installations to provide services to these customers, the Company anticipates working closely with customers to coordinate the installation of the customer-supplied meter socket required to accommodate the Company-supplied metering equipment. The installation, equipment and methodology must meet Company and NEC requirements that are in effect at the time of the installation or service modifications.

Once the metering installation is completed, providing a dedicated meter socket to monitor the EV charging equipment, the customer will then be eligible for TOU-EV-G1 rate.

Exhibit CSV-9

EERS Granite State Test BCR for Behind-the-Meter EVSE Installation and Incentive Program (Illustrative Model)

**Program Cost-Effectiveness - 2021 PLAN**

	Benefit/Cost Ratio		Benefits (\$000)		Utility Costs (\$000 - 2021\$) <sup>2</sup>	Customer Costs (\$000 - 2021\$) <sup>2</sup>	Annual MWh Savings	Lifetime MWh Savings	Winter kW Savings	Summer kW Savings
	Granite State Test	Granite State Test	Granite State Test	Granite State Test						
<b>Residential Programs</b>										
B1 - Home Energy Assistance	-	-	-	-	-	-	-	-	-	-
A1 - Energy Star Homes	-	-	-	-	-	-	-	-	-	-
A2 - Home Performance with Energy Star	-	-	-	-	-	-	-	-	-	-
A3 - Energy Star Products	2.18	-	653.975	-	300.000	-	25.0	250.0	250.0	250.0
A4 - Residential Behavior	-	-	-	-	-	-	-	-	-	-
A5 - Residential Active Demand Response	-	-	-	-	-	-	-	-	-	-
A6b - Res ISO Forward Capacity Market Expenses	-	-	-	-	-	-	-	-	-	-
A6c - Res Education	-	-	-	-	-	-	-	-	-	-
A6d - Energy Optimization Pilot	-	-	-	-	-	-	-	-	-	-
<b>Sub-Total Residential</b>	<b>2.18</b>	<b>-</b>	<b>653.975</b>	<b>-</b>	<b>300.000</b>	<b>-</b>	<b>25.0</b>	<b>250.0</b>	<b>250.0</b>	<b>250.0</b>
<b>Commercial, Industrial &amp; Municipal</b>										
C1 - Large Business Energy Solutions	-	-	-	-	-	-	-	-	-	-
C2 - Small Business Energy Solutions	-	-	-	-	-	-	-	-	-	-
C3 - Municipal Energy Solutions	-	-	-	-	-	-	-	-	-	-
C5 - C&I Active Demand Response	-	-	-	-	-	-	-	-	-	-
C6b - C&I ISO Forward Capacity Market Expenses	-	-	-	-	-	-	-	-	-	-
C6c - C&I Education	-	-	-	-	-	-	-	-	-	-
<b>Sub-Total Commercial &amp; Industrial</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total</b>	<b>2.18</b>	<b>-</b>	<b>653.975</b>	<b>-</b>	<b>300.000</b>	<b>-</b>	<b>25.0</b>	<b>250.0</b>	<b>250.0</b>	<b>250.0</b>

Notes:

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## **Description of Electric Vehicle (EV) Make-Ready Service Requirements**

The UES Make-Ready Public EV Infrastructure Program is designed to reduce or remove barriers to initiating and installing EV charging stations at publically-available locations. The program consists of utility-supported facilities that will provide the appropriate alternating current (“AC”) infrastructure for the installation of charging stations and supporting equipment. Though the make-ready program is generally foreseen to be implemented in three primary scenarios as discussed below, the Company will engage with customers to evaluate other potential installations and deployment of EV charging infrastructure. Electric vehicle supply equipment (EVSE) and any direct current (DC) equipment, as applicable, will be provided by participating customers.

### **Installation Scenarios**

There are principally two major types of equipment for charging – Level 2 chargers which AC output at 240 volts up to 19.2 kW and DC fast chargers (“DCFC”) which provide a DC output directly to EVs.

The proposed facilities are designed to support both types of chargers in various configurations. Each description provides an outline of equipment, materials and services from the relative primary utility facilities into the location of the EVSE. All equipment, whether provided by the Company or customer, shall be installed according to Company standards.

#### **Scenario 1 - Level 2 Chargers (up to 10) Served from Overhead (OH) Utility Facilities**

This service design would provide for a three phase, 120/208 volt electric service that begins with the replacement of the mainline street pole or the installation of a mid-span street pole to facilitate a tap on the Company’s primary system. The tap will consist of overcurrent protective devices (cutouts) and the appropriately sized conductor to extend one span, not to exceed 200’, to a service pole which will be equipped with three pole-mounted transformers of the appropriate size.

An underground (“URD”) service will be installed from the transformers to a specifically-designed weather resistant cabinet, mounted on a concrete footing. Traditional utility services would end at this point; however, the program will provide the cabinet to accept the URD service lateral and contain the required utility metering, a service-rated distribution panel equipped with a main breaker/disconnect and the necessary size and quantity of circuit breakers to serve the charging facilities.

The program provides for the installation of the required conduits to each of the pedestal locations where concrete footings will be provided for the installation of the EVSE. The appropriate branch circuit wiring will also be provided from the service cabinet to the individual kiosk locations for the connection of the EVSE. All excavation and rough grading will be provided as part of the program.

#### **Scenario 2 - Level 2 Chargers (up to 10) Served from URD Utility Facilities**

This installation, designed to provide a three phase 120/208 volt service, includes replacement of the mainline pole or installation of a mid-span pole to facilitate a tap from the utility primary system, equipped with “cutouts”, to a utility pole located no more than 175’ from the mainline/mid-span pole. A primary voltage loop cable system with cutouts will be installed to provide the transition from OH facilities to underground and extended underground, no more than 750’ to a transformer pad located within 200’ of the location of the charging facility location. A pull box will be installed no more than 250’ away from the riser pole to facilitate the installation of the cabling in the primary underground conduit

Exhibit CSV-10

system. The appropriately-sized transformer will be installed on a supplied pad and the secondary conductors will be run in conduit to the service cabinet providing metering, the distribution panel with a main breaker and the appropriately sized branch circuit breakers for the charging facility. The branch circuit conduits and wiring will be installed to the individual charging facility pads to facilitate the wiring of the EVSE. Excavation, footings and grading will be provided.

Scenario 3 - DCFC Served from URD Utility Facilities

Due to the capacity required to serve the DCFC, URD is the only option provided. Installation will provide a pad mounted transformer with 277/480 volt secondary appropriately sized. OH construction will include: 175' from mainline to riser pole, a primary loop feed with cable and conduit not to exceed 750' from riser pole to transformer pad and pull box no more than 250' from riser pole, supplied transformer pad, secondary conduit and cabling, the switchgear, branch circuit conduit and wiring, excavation, grading, and footings/pads. The applicable customer will be responsible for the procurement and installation of all items on the DC-side of the installation including but not limited to the AC/DC converters, conduit, wiring, footings/pads, excavation, grading etc.



Exhibit CSV-11

U.S. Department of Energy EVI-Pro Calculation of EVSE Ports Required to Support EVs in 2028

**Your Results**

In New Hampshire, to support 3,753 plug-in electric vehicles you would need:

- 419** Workplace Level 2 Charging Plugs
- 338** Public Level 2 Charging Plugs  
*There are currently 197 plugs with an average of 1.7 plugs per charging station per the Department of Energy's [Alternative Fuels Data Center Station Locator](#).*
- 51** Public DC Fast Charging Plugs  
*There are currently 79 plugs with an average of 5.3 plugs per charging station per the Department of Energy's [Alternative Fuels Data Center Station Locator](#).*

**Where Do I Start?**

Planners may want to prioritize installation of fast charging infrastructure above Level 2 charging.

**Build DC Fast First:** Establishing fast charging networks that enable long-distance travel, serve as charging safety nets, and provide charging for drivers without home charging is critical to support all-electric vehicles that have no other alternative for quickly extending their driving range.

**Build Level 2 Second:** EVI-Pro typically simulates the majority of Level 2 charging demand coming from plug-in hybrid electric vehicles, which have the ability to use gasoline as necessary for quickly extending driving range.

**Change Assumptions**

Plug-in Electric Vehicles (as of 2016): 1,400  
Light Duty Vehicles (as of 2016): 1,256,000  
Number of vehicles to support:

**Vehicle Mix**

Plug-in Hybrids 20-mile electric range	<input type="text" value="15"/> %
Plug-in Hybrids 50-mile electric range	<input type="text" value="35"/> %
All-Electric Vehicles 100-mile electric range	<input type="text" value="15"/> %
All-Electric Vehicles 250-mile electric range	<input type="text" value="35"/> %
<b>Total</b>	<b>100%</b>

How much support do you want to provide for plug-in hybrid electric vehicles (PHEVs)?

- Full Support**  
*Most PHEV drivers wouldn't need to use gasoline on a typical day.*
- Partial Support**  
*Calculate using half of full support assumption.*
- Do not count PHEVs in charging demand estimates.**

Percent of drivers with access to home charging:  %

**Recalculate**

[See all assumptions.](#)

U.S. Department of Energy, Alternative Fuels Data Center, Electric Vehicle Infrastructure Projection Tool (EVI-Pro) Lite

<https://afdc.energy.gov/evi-pro-lite>

NH owner-occupied housing rate 2015-2019, U.S. Census Bureau = 71%

<https://www.census.gov/quickfacts/fact/table/NH/PST045219>

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Exhibit CSV-12

UES Budgetary Model for Make-Ready

**Level 2 - 19.2 kW EV chargers, 5 chargers for 96 kW total connected load**

Equipment	Quantity(ft)	Cost/Unit(\$/ft)	Cost/Item(\$)
120/208V distribution enclosure	1		\$6,000
4" PVC Conduit	100	3	300
2" PVC Conduit	460	1.45	667
500KCMIL Copper	900	8.52	7668
#2 GND Copper	120	1.6	192
#6 Copper	2400	0.65	1560
#8 GND Copper	1200	0.4	480
Civil Foundation( Xfmr, distribution Panel, chargers)( Materials Include Concrete, Rebar and backfill)			2000
Total Equipment Cost			\$16,867

Labor	Description
\$3,000.00	Install all Electrical equipment and Cable
\$2,500.00	Excavate and install Conduit (\$25.00 PF)
\$6,900.00	Excavate and install Conduit (\$15.00 PF)
\$2,000.00	Excavate, form and pour concrete
<hr/>	
\$14,400.00	Site Work Total
\$45,876.00	Unitil Primary Line Work
\$16,867.00	Total Equipment Cost
<hr/>	
<b>\$77,143.00 Level 2 Total</b>	

**DCFC - 50 kW EV chargers, 6 chargers for 300 kW total connected load**

Equipment	Quantity(ft)	Cost/Unit(\$/ft)	Cost/Item(\$)
120/208V distribution enclosure	1		\$11,000
4" PVC Conduit	200	3	600
2" PVC Conduit	720	1.45	1044
500KCMIL Copper	1800	8.52	15336
#2 GND Copper	900	1.6	1440
#6 Copper	2800	0.65	1820
#8 GND Copper	1400	0.4	560
Civil Foundation( Xfmr, distribution Panel, chargers)( Materials Include Concrete, Rebar and backfill)			3000
Precast Transformer vault & pad		1	4000
5"Primary Conduit	500	10	5000
Total Equipment Cost			\$43,800

Labor	Description
\$5,000.00	Install all Electrical equipment and Cable
\$6,000.00	Excavate and install Conduit (\$25.00 PF)
\$10,800.00	Excavate and install Conduit (\$15.00 PF)
	Excavate, form and pour concrete. Install
\$4,000.00	precast Transformer vault and pad
\$12,500.00	Primary conduit installation
<hr/>	
\$38,300.00	Site Work Total
\$61,294.00	Unitil Primary Line Work
\$43,800.00	Total Equipment Cost
<hr/>	
<b>\$143,394.00 DCFC Total</b>	

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Unitil - UES

Customer Project Evaluation & Determination of Non-Refundable Customer Contribution

Note: User Inputs are within Blue highlight cells

yes  
no

Exhibit CSV-13: UES Make-Ready DCF Analysis		
Public Level 2 - 5 Chargers / 10 plugs (\$77k) per site	77,000	37x10=370
Public DCFC - 6 Chargers / 6 plugs (\$143k) per site	143,000	8x6=48
Load per charger = 19.2 kW for Level 2 and 50kW for DCFC		

Project Inputs:

Relative Year	-	1	2	3	4	5	6	7	8	9	
Absolute Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total

Total Project Cost (before any customer contrib)											
<i>Model accepts multi-year phase-in of capital project costs; Enter as Positive Amounts.</i>											
<i>(on incremental basis = excl Gen Constr OH's)</i>											
	\$ 231,000	\$ 748,000	\$ 902,000	\$ 979,000	\$ 1,133,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,993,000

Incremental Number of Meters by Year:											Total
<i>(1) Primary Class/Meters added per Year</i>											
<i>(2) Add'l Class/Meters added per Year</i>											
<i>(3) Add'l Class/Meters added per Year</i>											
Class											
03 G2	3	6	8	9	11						37
07 G1	-	2	2	2	2						8
01 D											-
											45

Average Consumption & Demand						
<i>(1) Primary Class/Meters added per Year</i>						
<i>(2) Add'l Class/Meters added per Year</i>						
<i>(3) Add'l Class/Meters added per Year</i>						
	Hi-Volt Metering Discount?	Transform Ownership Credit?	Historical Average Billed kWh	Historical Average Billed Demand	Annual Average Billed kWh	Annual Average Billed Demand
03 G2	no	no	31,384	122	67,277	1,152
07 G1	no	no	2,154,514	6,409	341,640	3,600
01 D	no	no	7,475	-	-	-

(As a 'default', model provides - by class - avg consumption and demand per meter based on prior five years)  
If known, actual project estimates should be substituted for these historic averages  
Model accepts up to three different classes within one 'project'.

Optional Calculation of Consumption and Demands

If this module is utilized, manually input these calculated demand/kwh values into input table above

	Connected Load kW	Utilization Factor %	Avg Peak Demand kW (mth)	Annual Demand kW	Power Factor %	Avg Peak Demand kVa (mth)	Annual Demand kVa	Load Factor %	Annual Consumpt kWh
(1) Primary Class/Meters added per Year	96	100%	96	1,152	100%	96	1,152	8%	67,277
(2) Add'l Class/Meters added per Year	300	100%	300	3,600	100%	300	3,600	13%	341,640
(3) Add'l Class/Meters added per Year			-	-	100%	-	-		-

Solve for Required Customer Contribution

Run the Model with No Customer Contribution  
(for 'benchmark' dynamic analytic periods ending 10 or 20 years beyond year of last capital expenditure)

Run Dynamic 10-Yr Analysis with No Customer Contribution	Run Dynamic 20-Yr Analysis with No Customer Contribution
--	--

If IRR/NPV results are below benchmarks:  
Re-Run the model to determine the required non-refundable customer contribution

Run Dynamic 10-Yr Analysis Solve for Customer Contribution	Run Dynamic 20-Yr Analysis Solve for Customer Contribution
--	--

Dynamic 10-Yr (C&I) Analysis			Dynamic 20-Yr (Res) Analysis		
Results	Benchmark	Flag	Results	Benchmark	Flag

Total Analysis Years	14
Non-Refundable Customer Contribution	\$ -

Total Analysis Years	24
Non-Refundable Customer Contribution	\$ -

Customer Contribution Payment Plan Option		
<i>Select Payment Plan Length (Months)</i>		
0 Months		
Monthly Payment Required	\$ -	

Customer Contribution Payment Plan Option		
<i>Select Payment Plan Length (Months)</i>		
0 Months		
Monthly Payment Required	\$ -	

IRR on Net Cash Flow (Excl Financing)	8.86%	7.18%	OK	13.30%	7.18%	OK
Net Present Value - at AfTax WACC	\$ 243,869		OK	\$ 1,522,146		OK
Net Company Capital Expenditure	\$ 3,993,000			\$ 3,993,000		
Simple Payback within relative year ==>	10			10		

Customer Contribution Requirements via Alternative Static Analysis Periods

Time periods reflect relative years identified above and do not begin with the year after the last capital expenditure

	Static 5 yr	Static 10 yr	Static 15 yr	Static 20 yr	Static 25 yr
Non-Refundable Customer Contrib	\$ -	\$ -	\$ -	\$ -	\$ -
IRR on Net Cash Flow (Excl Financing)		1.39%	9.81%	12.44%	13.44%
Net Present Value - at AfTax WACC	\$ (1,889,012)	\$ (549,856)	\$ 413,106	\$ 1,116,476	\$ 1,604,401
Net Company Capital Expenditure	\$ 3,993,000	\$ 3,993,000	\$ 3,993,000	\$ 3,993,000	\$ 3,993,000
Simple Payback within year==>	10	10	10	10	10

(Note: Project acceptance using analysis period other than dynamic 10-year for C&I or 20-year for Residential requires CFO approval)

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Exhibit CSV-13  
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UES MC&E Plan Cost Analysis  
Exhibit CSV-14

<b><u>Cost Category</u></b>	<b><u>Estimated Cost</u></b>
Market Research/Survey	\$30,000.00
Messaging/Design - Integrated Campaign	\$15,000.00
Website - Micro site w/ embedded cost calculator tool	\$15,000.00
Video/animation	\$12,500.00
Rate comparison tool w/ shadow billing	\$169,000.00
Social Advertising	\$25,000.00
Direct Mail - print + postage	\$85,000.00
Bill Insert(s) - print	\$15,000.00
Flyers - production	\$3,500.00
	<hr/>
	<b>\$370,000.00</b>

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