

Appendix A

Educational and Professional Background

James J. Cunningham, Jr.

I am employed by the New Hampshire Public Utilities Commission (Commission) as a Utility Analyst. My business address is 21 S. Fruit Street, Suite 10, Concord New Hampshire, 03301.

I am a graduate of Bentley University, Waltham, Massachusetts, and I hold a Bachelor of Science-Accounting Degree. Prior to joining the Commission I was employed by the General Electric Company (GE). While at GE, I graduated from the Corporate Financial Management Training Program and held assignments in General Accounting, Government Accounting & Contracts and Financial Analysis.

In 1988, I joined the staff of the NHPUC. I have provided expert testimony pertaining to depreciation studies, actuarial studies for pension and retirement benefits, energy efficiency programs and other topics pertaining to NH electric, natural gas, water, and steam utilities. In 1995, I completed the NARUC Annual Regulatory Studies Program at Michigan State University, sponsored by the National Association of Regulatory Utility Commissioners. In 1998, I completed the Depreciation Studies Program, sponsored by the Society of Depreciation Professionals, Washington, D.C. I am a member of the Society of Depreciation Professionals (SDP). In 2008, I was promoted to my current position of Utility Analyst.

Appendix B
Relevant Pages of Current C&I Tariffs

<u>Utility</u>	<u>Tariff Rate</u>
Eversource	Rate G, Rate GV, Rate LG
Liberty	Rate G-1, Rate G-2, Rate G-3
Unitil	Rate G-1, Rate G-2

NHPUC NO. 9 - ELECTRICITY DELIVERY
 PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
 DBA EVERSOURCE ENERGY

3rd Revised Page 50
 Superseding 2nd Revised Page 50
 Rate G

GENERAL DELIVERY SERVICE RATE G

AVAILABILITY

Subject to the Terms and Conditions of the Tariff of which it is a part, this rate is for Delivery Service for any use. It is available to (1) those Customers at existing delivery points who were receiving service hereunder on General Service Rate G on January 1, 1983, and who have continuously received service under that rate and this successor since that date, and (2) all other Customers whose loads as defined for billing purposes do not exceed 100 kilowatts. Service rendered hereunder shall exclude all backup and standby service provided under Backup Delivery Service Rate B.

Customers taking service under this rate shall provide any necessary transforming and regulating devices on the Customer's side of the meter. Controlled electric service for thermal storage devices is available under Load Controlled Service Rate LCS and outdoor area lighting is available under Outdoor Lighting Delivery Service Rate OL.

CHARACTER OF SERVICE

Delivery Service supplied under this rate will be 60 hertz, alternating current, either (a) single-phase, normally three-wire at a nominal voltage of 120/240 volts, or (b) three-phase, normally at a nominal voltage of 120/208 or 277/480 volts. Three-phase, three-wire service at a nominal voltage of 240, 480 or 600 volts is available only to those Customers at existing locations who were receiving such service on February 1, 1986, and who have continuously received such service since that date. In underground secondary network areas, Delivery Service will be supplied only at a nominal voltage of 120/208 volts.

RATE PER MONTH

	<u>Single-Phase Service</u>	<u>Three-Phase Service</u>
Customer Charge	\$14.83 per month	\$29.64 per month
Customer's Load Charges:	<u>Per Kilowatt of Customer Load in Excess of 5.0 Kilowatts</u>	
Distribution Charge.....	\$8.69	
Transmission Charge	\$6.56	
Stranded Cost Recovery.....	-\$0.02	

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Energy Charges:

	<u>Per Kilowatt-Hour</u>
Distribution Charges:	
First 500 kilowatt-hours	6.959¢
Next 1,000 kilowatt-hours	1.724¢
All additional kilowatt-hours	0.610¢
Transmission Charge	
First 500 kilowatt-hours	2.369¢
Next 1,000 kilowatt-hours	0.891¢
All additional kilowatt-hours	0.478¢
Stranded Cost Recovery	-0.088¢

WATER HEATING - UNCONTROLLED

Uncontrolled water heating service is available under this rate when such service is supplied to approved water heaters equipped with either (a) two thermostatically-operated heating elements, each with a rating of no more than 5,500 watts, so connected or interlocked that they cannot operate simultaneously, or (b) a single thermostatically-operated heating element with a rating of no more than 5,500 watts. The heating elements or element shall be connected by means of an approved circuit to a separate water heating meter. Service measured by this meter will be billed monthly as follows:

Meter Charge \$4.45 per month

Energy Charges:

Distribution Charge.....	2.022¢ per kilowatt-hour
Transmission Charge	1.967¢ per kilowatt-hour
Stranded Cost Recovery	-0.094¢ per kilowatt-hour

WATER HEATING - CONTROLLED

Controlled off-peak water heating is available under this rate for a limited period of time at those locations which were receiving controlled off-peak water heating service hereunder on Customer Choice Date and which have continuously received such service hereunder since that

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date. Service under this rate at such locations shall continue to be available only for the remaining life of the presently-installed water heating equipment. No replacement water heaters shall be permitted to be installed for service under this rate at locations which otherwise would qualify for this service.

For those locations which qualify under the preceding paragraph, controlled off-peak water heating service is available under this rate when such service is supplied to approved storage type electric water heaters having an off-peak heating element with a rating of no more than 1,000 watts, or 20 watts per gallon of tank capacity, whichever is greater. The off-peak element shall be connected by means of an approved circuit to a separate water heating meter. Electricity used will be billed monthly as follows:

Meter Charge.....	\$7.85 per month
Energy Charges:	
Distribution Charge.....	0.120¢ per kilowatt-hour
Transmission Charge	1.967¢ per kilowatt-hour
Stranded Cost Recovery.....	-0.082¢ per kilowatt-hour

SPACE HEATING SERVICE

Space heating service is available under this rate at those locations which were receiving space heating service under the Transitional Space Heating Service Rate TSH prior to Customer Choice Date and which have continuously received such service since that date. Customers at such locations who have elected this rate shall have the electricity for such service billed separately on a monthly basis as follows:

Meter Charge.....	\$2.97 per month
Energy Charges:	
Distribution Charge.....	3.413¢ per kilowatt-hour
Transmission Charge	2.369¢ per kilowatt-hour
Stranded Cost Recovery.....	-0.101¢ per kilowatt-hour

Space heating equipment served under this rate, including heat pumps and associated air circulating equipment, shall be wired by means of approved circuits to permit measurement of such equipment's additional demand and energy use.

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Rate G

Customers taking space heating service under this rate at locations where the regular power and lighting service is delivered at primary voltage level or above shall be required to provide at the Customers' expense suitable transforming, controlling and regulating apparatus, acceptable to and approved by the Company, for the space heating service in the same manner as for the power and lighting service, so that deliveries of all electric service may be made by the Company at the same voltage level.

CUSTOMER'S LOAD

Customer's load is defined as the greatest rate of taking Delivery Service in kilowatts for any thirty (30) minute interval during the current monthly billing period.

Customer's load shall be measured whenever (a) such load is known or estimated to be 5.0 kilowatts or more, or (b) the Customer's use of service is 750 kilowatt-hours or more per month for three (3) consecutive months. However, any Customer's load may be measured at the Company's option. When measured, Customer's load shall be determined to the nearest one-tenth (0.1) kilowatt for billing purposes.

SERVICE CHARGE

When the Company establishes or re-establishes a Delivery Service account for a Customer at a meter location, the Company will be entitled to assess a service charge in addition to all other charges under this rate. The service charge will be \$14.00 if the Company does not have to send an employee to the meter location to establish or re-establish Delivery Service. When it is necessary for the Company to send an employee to the meter location to establish or re-establish Delivery Service, the service charge will be \$35.00. When it is necessary for the Company to send an employee to the meter location outside of normal working hours to establish or re-establish Delivery Service, the service charge will be \$70.00. The Company will be entitled to assess an \$18.00 service charge when it is necessary to send an employee to the Customer location to collect a delinquent bill. This charge shall apply regardless of any action taken by the Company including accepting a payment, making a deferred payment arrangement or leaving a collection notice at the Customer's premises.

Short-term, seasonal or transient Customers who take service at temporary locations shall pay for the cost of installing and removing the necessary poles, wires, transformers, cable and other equipment in addition to the foregoing service charge.

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Rate G-OTOD

GENERAL TIME-OF-DAY DELIVERY SERVICE RATE G-OTOD

AVAILABILITY

Subject to the Terms and Conditions of the Tariff of which it is a part, this rate is for Delivery Service to Customers who utilize electric thermal storage devices and other applications approved by the Company. It is available to Customers whose loads as defined for billing purposes do not exceed 100 kilowatts. Service is available at the Customer's option to those Customers who have completed a written Application for Service and signed a Service Agreement, and who receive all of their Delivery Service requirements hereunder, except that outdoor area lighting is available under Outdoor Lighting Service Rate OL.

Customers taking service under this rate shall provide any necessary transforming and regulating devices on the Customer's side of the meter.

LIMITATIONS ON AVAILABILITY

The availability of this rate to particular Customers is contingent upon the availability of time-of-use meters and personnel to administer the rate, all as determined by the Company.

Because the Company's distribution system and Customer service facilities have a limited electrical capacity, large and/or intermittent and irregular electrical loads can result in the overloading and damaging of said facilities and can adversely affect the quality of service to other Customers of the Company. Therefore, service under this rate shall not be available where, in the Company's judgment, sufficient distribution system capacity and Customer service facilities do not exist in order to supply the electrical requirements of the applicant unless the Service Agreement provides for a suitable cash payment or a satisfactory revenue guarantee to the Company, or both. Further, in the event that a Customer receiving service under this rate shall propose to materially increase the amount of Delivery Service required, the Customer shall give the Company prior written notice of this fact, thereby allowing the Company to ascertain whether sufficient distribution system capacity and Customer service facilities exist to serve the proposed increased requirement. Where the capacity or facilities do not exist, the Customer will not make the proposed increase until the Service Agreement shall be amended to provide for a suitable cash payment or a satisfactory revenue guarantee to the Company, or both.

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SERVICE AGREEMENT

The term of the Service Agreement shall be one year, and shall continue thereafter until canceled by one month's notice to the Company by the Customer. The Customer will not be permitted to change from this rate to any other rate until the Customer has taken service under this rate for at least twelve months. However, upon payment by the Customer of a suitable termination charge, the Company may, at its option, waive this provision where a substantial hardship to the Customer would otherwise result.

CHARACTER OF SERVICE

Service supplied under this rate will be 60 hertz, alternating current, either (a) single-phase, normally three-wire at a nominal voltage of 120/240 volts or (b) three-phase, normally at a nominal voltage of 120/208 or 277/480 volts. Three-phase, three-wire service at a nominal voltage of 240, 480 or 600 volts is available only to those Customers at existing locations who were receiving such service on February 1, 1986, and who have continuously received such service since that date. In underground secondary network areas, service will be supplied only at a nominal voltage of 120/208 volts.

RATE PER MONTH

	<u>Single-Phase Service</u>	<u>Three-Phase Service</u>
Customer Charge	\$38.42 per month	\$54.90 per month

Customer's Load Charges:

Per Kilowatt of Customer Load

Distribution Charge.....	\$12.10
Transmission Charge	\$ 4.33
Stranded Cost Recovery	-\$0.01

Energy Charges:

Per Kilowatt-Hour

Distribution Charges:

On-Peak Hours (7:00 a.m. to 8:00 p.m. weekdays excluding Holidays).....	4.882¢
Off-Peak Hours (all other hours)	0.765¢

Stranded Cost Recovery..... -0.082¢

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Rate G-OTOD

CUSTOMER'S LOAD

Customer's load is defined as the greatest rate of taking service in kilowatts for any thirty (30) minute interval during on-peak hours of the current monthly billing period. On-peak hours shall be the hours of 7:00 a.m. through 8:00 p.m. weekdays excluding Holidays as defined in this Tariff.

SERVICE CHARGE

When the Company establishes or re-establishes a Delivery Service account for a Customer at a meter location, the Company will be entitled to assess a service charge in addition to all other charges under this rate. The service charge will be \$14.00 if the Company does not have to send an employee to the meter location to establish or re-establish Delivery Service. When it is necessary for the Company to send an employee to the meter location to establish or re-establish Delivery Service, the service charge will be \$35.00. When it is necessary for the Company to send an employee to the meter location outside of normal working hours to establish or re-establish Delivery Service, the service charge will be \$70.00. The Company will be entitled to assess an \$18.00 service charge when it is necessary to send an employee to the Customer location to collect a delinquent bill. This charge shall apply regardless of any action taken by the Company including accepting a payment, making a deferred payment arrangement or leaving a collection notice at the Customer's premises.

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Rate LCS

LOAD CONTROLLED DELIVERY SERVICE RATE LCS

AVAILABILITY

Subject to the Terms and Conditions of the Tariff of which it is a part and as provided hereinafter, the radio-controlled option of this rate is available for separately metered and controlled Delivery Service to electric thermal storage devices and to conventional electric space heating when a dynamic electric thermal storage system or a wood stove or coal stove is available for use as a backup during times when service is interrupted by the Company and other applications approved by the Company. Service under the 8-hour, 10-hour and 11-hour options is available only at those locations which were receiving service under one of these options under Load Controlled Service Rate LCS or Controlled Off-Peak Electric Water Heating Service Rate COPE on October 1, 2004 and which have continuously received such service since that date.

The availability of the radio-controlled option in conjunction with a wood stove or coal stove shall be limited to those premises which have electric space heating equipment as the sole source of space heating, excluding the wood stove or coal stove. Such wood stove or coal stove must be permanently installed and sized to adequately heat the main living area of the premises.

Service under this rate is available at the Customer's option to those Customers whose electric thermal storage or other equipment has been approved by the Company for load control as provided hereinafter. Such equipment must be connected to a separate circuit to which no other electrical load shall be connected.

Radio-Controlled Option - Delivery service will be subject to interruptions of up to eight (8) hours during each twenty-four (24) hour day between 7:00 a.m. and 11:00 p.m. Each interruption will not exceed four (4) hours and the time between two consecutive interruptions will be no less than two (2) hours.

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Rate LCS

This rate is intended as a rider applicable to Residential Delivery Service Rate R or General Delivery Service Rate G. Therefore, service under this rate must be taken in conjunction with service provided under either Rate R or Rate G in accordance with the terms and conditions therein as now or hereafter effective except as may be specifically provided otherwise in this rate.

LIMITATIONS ON AVAILABILITY

Service under this rate shall not be available where, in the Company's judgment, sufficient distribution system capacity does not exist in order to supply the electrical requirements of the applicant unless the Customer provides for a suitable cash payment or a satisfactory revenue guarantee to the Company, or both.

The availability of this rate is also contingent upon the availability to the Company of personnel and/or other resources necessary to provide service under this rate.

TERM

The term of service under this rate shall be one year, and shall continue thereafter until canceled by one month's notice to the Company by the Customer. The Customer will not be permitted to change from this rate to any other rate until the Customer has taken service under this rate for at least twelve months. However, upon payment by the Customer of a suitable termination charge, the Company may, at its option, waive this provision where a substantial hardship to the Customer would otherwise result.

RATE PER MONTH

Customer Charges:

Radio-Controlled Option\$9.07 per month
8-Hour, 10-Hour or 11-Hour Option.....\$7.85 per month

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Rate LCS

Energy Charges:

Per Kilowatt-Hour

Distribution Charges:

Radio-Controlled Option or 8-Hour Option	0.120¢
10-Hour or 11-Hour Option	2.438¢
Transmission Charge	1.967¢
Stranded Cost Recovery	-0.082¢

METERS

Under this rate, the Company will install one meter with appropriate load control devices.

ELECTRIC THERMAL STORAGE EQUIPMENT APPROVED FOR LOAD CONTROL

Load Controlled Service is available under this rate to electric thermal storage installations meeting the Company's specifications as to type, size and electrical characteristics in accordance with the following guidelines.

I. Electric Thermal Storage Space Heating Equipment

Adequate control and switching equipment must be installed to provide capability for staggering the commencement of the charging period with respect to other electric thermal storage devices and for permitting partial charging on warmer days, and for controlling service to the thermal storage devices.

The storage capability of the electric thermal storage device must be adequate to heat the Customer's whole premises under design conditions and must be properly sized to ensure a constant rate of charging during the period which service under this rate is available as determined by the Company in accordance with its customary procedures. A smaller-sized electric thermal storage device may be approved by the Company for use in the Customer's premises under the Radio-Controlled Option.

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Rate LCS

II. Electric Thermal Storage Water Heating

Load Controlled Service for electric thermal storage water heating is available under this rate when service is taken in conjunction with electric thermal storage space heating and at those locations which were receiving service under the Controlled Off-Peak Electric Water Heating Service Rate COPE on October 1, 2004 and which have continuously received such service since that date.

Service shall be supplied to electric thermal storage water heaters having either (i) two thermostatically-operated top and bottom heating elements, each with a rating of no more than 4,500 watts or forty (40) watts per gallon of storage capacity, whichever is greater, or (ii) a single thermostatically-operated heating element with a rating of 4,500 watts or forty (40) watts per gallon of storage capacity, whichever is greater. When there are two elements, both top and bottom elements must be connected and wired for Load Controlled Service, and must be connected or interlocked so that they cannot operate simultaneously.

The storage capacity of all electric thermal water heaters installed under the Radio-Controlled Option shall be forty (40) gallons or more. The storage capacity of all electric thermal water heaters installed under the 8-Hour, 10-Hour and 11-Hour Options shall be eighty (80) gallons or more. At the Company's option, smaller tanks may be installed for use in an individual apartment of a multi-family building under the 8-Hour, 10-Hour and 11-Hour Options.

INCREASED WATER HEATING CAPABILITY

Electric thermal storage water heating with switching capabilities for increasing the capability of the Customer's water heating equipment is available under this rate at those locations which had switching capability installed on or before January 1, 1994 and which have continuously received such service since that date. The element or elements must be connected and wired such that increased water heating capability is provided under Rate R or Rate G. Customers with installed switching capability will be billed an additional \$1.22 per month as a Customer charge. Switching capability is not available under the Radio-Controlled Option.

FEE FOR EMERGENCY CHARGING

If, due to an electrical outage or equipment malfunction, emergency charging of electric thermal storage devices is required at any time during which Delivery Service under this rate is not normally available, the Company will perform such charging upon sufficient notification. If charging is necessitated as a result of a malfunction of the Customer's equipment, the Company may assess the Customer a fee for such charging.

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Rate GV

PRIMARY GENERAL DELIVERY SERVICE RATE GV

AVAILABILITY

Subject to the Terms and Conditions of the Tariff of which it is a part, this rate is for high voltage Delivery Service. It is available upon the signing of a Service Agreement for such service at specified delivery points to Customers whose maximum demand shall not exceed 1,000 kilowatts. Service rendered hereunder shall exclude backup and standby service provided under Backup Delivery Service Rate B. Outdoor area lighting is available under Outdoor Lighting Delivery Service Rate OL.

Suitable transforming, controlling and regulating apparatus, acceptable to and approved by the Company, shall be provided at the expense of the Customer. In locations in which space limitations or other factors make it impossible or inadvisable, in the opinion of the Company, for the Customer to have transforming apparatus devoted to its exclusive use, and in secondary network areas in which primary service is not made available by the Company at its option, Delivery Service shall be supplied from Company-owned transforming apparatus which also supplies other Customers. In such cases, this rate is available provided the Customer pays an annual rental charge equal to eighteen percent (18.0%) of the cost of the equivalent transformer capacity the Customer would furnish or rent to serve the load if exclusive use of a transformer bank by him were possible or if primary, three-phase service were available and provided the Customer pays in full the estimated cost of installing such equivalent transformer capacity at the time Delivery Service is initiated.

CHARACTER OF SERVICE

Delivery Service supplied under this rate will be three-phase, 60 hertz, alternating current, at a nominal voltage determined by the Company, generally 2,400/4,160, 4,800/8,320, 7,200/12,470, or 19,920/34,500 volts. A reasonably balanced load between phases shall be maintained by the Customer.

RATE PER MONTH

Customer Charge\$193.27 per month

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Rate GV

Demand Charges:

Per Kilowatt of Maximum Demand

Distribution Charges:

First 100 kilowatts.....	\$5.56
Excess Over 100 kilowatts.....	\$5.32
Transmission Charge	\$8.78
Stranded Cost Recovery.....	-\$0.02

Energy Charges:

Per Kilowatt-Hour

Distribution Charges:

First 200,000 kilowatt-hours.....	0.604¢
All additional kilowatt-hours	0.507¢
Stranded Cost Recovery.....	-0.087¢

SPACE HEATING SERVICE

Space heating service is available under this rate at those locations which were receiving space heating service under the space heating provisions of Transitional Space Heating Service Rate TSH prior to Customer Choice Date and which have continuously received such service since that date. Customers at such locations who have elected this rate shall have the electricity for such service billed separately on a monthly basis as follows:

Meter Charge\$2.97 per month

Energy Charges:

Distribution Charge.....	3.413¢ per kilowatt-hour
Transmission Charge	2.369¢ per kilowatt-hour
Stranded Cost Recovery.....	-0.101¢ per kilowatt-hour

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Rate GV

Space heating equipment served under this rate, including heat pumps and associated air circulating equipment, shall be wired by means of approved circuits to permit measurement of such equipment's additional demand and energy use.

Customers taking space heating service under this rate at locations where the regular power and lighting service is delivered at primary voltage level or above shall be required to provide at the Customers' expense suitable transforming, controlling and regulating apparatus, acceptable to and approved by the Company, for the space heating service in the same manner as for the power and lighting service, so that deliveries of all electric service may be made by the Company at the same voltage level.

PRIMARY METERING LOSS ADJUSTMENT

When at the Company's option Delivery Service is metered at delivery voltage (2,400 volts nominal and above), all demand and energy meter readings shall be reduced by one and three-quarters percent (1.75%). Where feasible and at the Company's option, a value other than one and three-quarters percent (1.75%) may be used when specific data is available and this value is a more accurate representation of electrical losses.

MAXIMUM DEMAND

The kilowatt (KW) demand and, at the Company's option, the kilovolt-ampere (KVA) demand during each thirty-minute interval of the current monthly billing period shall be determined by measurement. Maximum demand shall be determined to the nearest whole (1.0) kilowatt (KW) or kilovolt-ampere (KVA) for billing purposes and shall be defined as the greater of:

- (1) the highest kilowatt (KW) demand registered during the on-peak hours of said period or if kilovolt-ampere (KVA) demand is measured, the greater of (a) the highest kilowatt (KW) demand during said period or, (b) 80 percent of the highest kilovolt-ampere (KVA) demand measured of said period or,
- (2) fifty percent (50%) of the maximum demand, as defined above, occurring during off-peak hours.

OFF-PEAK PERIODS

The off-peak period shall be the period including the hours after 8:00 p.m. and before 7:00 a.m. Monday through Friday, and the entire day on Saturdays, Sundays, and Holidays as defined in this Tariff. The on-peak period shall be all hours not included in the off-peak period.

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Rate GV

CONTRACT TERM

The contract term shall be for not less than one year and for such longer periods as maybe determined by the operation of the sections in this rate entitled "Guarantees" and "Apparatus".

GUARANTEES

- (a) When the estimated expenditure necessary to deliver electrical energy properly to a Customer's premises shall be of such an amount that the income to be derived from the delivery of such energy at the rate herein established, including the monthly minimum charge, will be insufficient to warrant such expenditure, the Company may require the Customer to guarantee a minimum annual payment for a term of years and/or to pay the whole or a part of the cost of extending, enlarging, or rebuilding its facilities to supply the Customer's premises or other reasonable payments in addition to the payments otherwise provided herein.
- (b) Except as provided by the Terms and Conditions and as modified by the provisions of Paragraph (a) of this section, and exclusive of any charges made under the provisions of the section in this rate entitled "Apparatus" and if applicable, for Default Energy Service, the minimum charge shall be \$890 per month.

APPARATUS

Substation foundations, structures, and all necessary controlling, regulating, transforming, and protective apparatus shall be furnished, owned, and maintained by the Customer at the Customer's expense. However, controlling, regulating, and transforming apparatus may be rented from the Company at a charge of eighteen percent (18.0%) per year of the equipment cost. The cost of installing such equipment shall be paid in full at the time service is initiated. In no event shall the Company be required to rent apparatus to the Customer the total cost of which shall exceed \$10,000. The Company may refuse to rent pole-mounted apparatus based on environmental and other immediate hazards that are present. In the event the Company refuses to rent a pole-mounted apparatus, the Company shall inform the Customer of the environmental and other immediate hazards that are present and shall provide the Customer with the opportunity to remove the hazards. In the event the environmental and the other immediate hazards are removed by the Customer, the Company shall agree to rent pole-mounted apparatus to the Customer. If a Customer-owned structure supporting a Company owned pole-mounted transformer is deemed insufficient or threatened by trees or other hazards, the Company shall inform the Customer of the hazards and shall provide the Customer with the opportunity to repair or remove the hazard. In the event the Customer refuses to repair or remove the hazard or does not repair or remove the hazard in a timely manner, the Company is authorized to terminate the existing rental agreement and to remove the transformer upon 90 days written notice to the Customer. In cases where the Customer elects to rent apparatus from the Company, the Customer shall guarantee, in addition to any other guarantees, to continue to pay rental therefor for a period of not less than four (4) years. Should the Customer discontinue service before four (4) years shall have elapsed, the guaranteed rental then unpaid shall immediately become due and payable.

Issued: July 7, 2017

Issued by: /s/ William J. Quinlan
William J. Quinlan

Effective: July 1, 2017

Title: President and Chief Operating Officer

NHPUC NO. 9 - ELECTRICITY DELIVERY
PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
DBA EVERSOURCE ENERGY

Original Page 65
Rate GV

METERING

The Company may install one or more meters at its option. Metering shall be located on the low voltage side of the Customer's transforming apparatus provided, however, that metering may be at delivery voltage at the option of the Company.

Issued: March 24, 2016

Issued by: William J. Quinlan

Effective: May 1, 2016

Title: President and Chief Operating Officer

NHPUC NO. 9 - ELECTRICITY DELIVERY
PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
DBA EVERSOURCE ENERGY

3rd Revised Page 66
Superseding 2nd Revised Page 66
Rate LG

LARGE GENERAL DELIVERY SERVICE RATE LG

AVAILABILITY

Subject to the Terms and Conditions of the Tariff of which it is a part, this rate is for high voltage Delivery Service. It is available upon the signing of a Service Agreement for such service at specified delivery points to Customers whose loads are larger than those that would be permitted under Rate GV of this Tariff. Service rendered hereunder shall exclude all backup and standby service provided under Backup Delivery Service Rate B. Outdoor area lighting is available under Outdoor Lighting Delivery Service Rate OL. Substation foundations and structures, and suitable controlling, regulating, and transforming apparatus, all of which shall be acceptable to and approved by the Company, together with such protective equipment as the Company shall deem necessary for the protection and safe operation of its system, shall be provided at the expense of the Customer.

CHARACTER OF SERVICE

Delivery Service supplied under this rate will be three-phase, 60 hertz, alternating current, at a nominal delivery voltage determined by the Company, generally 34,500 volts or higher. A reasonably balanced load between phases shall be maintained by the Customer.

RATE PER MONTH

Customer Charge \$604.10 per month

Demand Charges:

Per Kilovolt-Ampere of Maximum Demand

Distribution Charge..... \$4.73

Transmission Charge \$8.64

Stranded Cost Recovery..... -\$0.02

Energy Charges:

Per Kilowatt-Hour

Distribution Charges:

On-Peak Hours.....0.506¢

Off-Peak Hours0.427¢

Issued: July 7, 2017

Issued by: /s/ William J. Quinlan
William J. Quinlan

Effective: July 1, 2017

Title: President and Chief Operating Officer

Authorized by NHPUC Order No. 26,034 in Docket No. DE 17-076; NHPUC Order No. 26,031 in Docket No. DE 17-081; and NHPUC Order No. 26,032 in Docket No. DE 16-823; all dated June 28, 2017.

NHPUC NO. 9 - ELECTRICITY DELIVERY
PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
DBA EVERSOURCE ENERGY

3rd Revised Page 67
Superseding 2nd Revised Page 67
Rate LG

Energy Charges (Continued...)

Per Kilowatt-Hour

Stranded Cost Recovery:

On-Peak Hours.....	-0.089¢
Off-Peak Hours	-0.083¢

MAXIMUM DEMAND

The kilovolt-ampere (KVA) demand during each thirty-minute interval of the current monthly billing period shall be determined by measurement. Maximum demand shall be determined for billing purposes to the nearest whole (1.0) kilovolt-ampere and shall be defined as the greater of:

- (1) the highest kilovolt-ampere demand registered during the on-peak hours of said period, or
- (2) fifty percent (50%) of the highest kilovolt-ampere demand registered during the off-peak hours of said period, except that for any portion of the Customer's highest off-peak kilovolt-ampere demand in excess of 30,000 kilovolt-amperes the multiplier applicable to the amount of such demand within each successive 10,000 kilovolt-ampere block of such excess portion shall be increased from fifty percent (50%) by successive ten percent (10%) increments, up to a maximum multiplier of one hundred percent (100%) for that portion of demand in excess of 70,000 kilovolt amperes, or
- (3) eighty percent (80%) of the amount by which the greatest amount defined in (1) and (2) above during the eleven (11) preceding months exceeds 1,000 kilovolt-amperes.

OFF-PEAK PERIOD

The off-peak period shall be the period including the hours after 8:00 p.m. and before 7:00 a.m., Monday through Friday, and the entire day on Saturdays, Sundays, and Holidays. The on-peak period shall be all hours not included in the off-peak period.

CONTRACT TERM

The contract term shall be for not less than one year and for such longer periods as maybe determined by the operation of the sections in this rate entitled "Guarantees" and "Apparatus".

Issued: July 7, 2017

Issued by: /s/ William J. Quinlan
William J. Quinlan

Effective: July 1, 2017

Title: President and Chief Operating Officer

NHPUC NO. 9 - ELECTRICITY DELIVERY
PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
DBA EVERSOURCE ENERGY

2nd Revised Page 68
Superseding 1st Revised Page 68
Rate LG

DISCOUNT FOR SERVICE AT 115,000 VOLTS

A monthly discount of forty-three cents (\$0.43) per kilovolt-ampere (KVA) of maximum demand shall be given to Customers who contract to take service under this rate at a delivery voltage of 115,000 volts and to pay charges based on a monthly maximum demand of at least 10,000 kilovolt-amperes. Except as provided in the last sentence of this paragraph, this discount is available only at specified delivery points on the 115,000 volt transmission system of the Company as it exists from time to time where, in the opinion of the Company, there is sufficient capacity in facilities to supply the Customer's requirement and where system integrity and operating flexibility will not be impaired by the addition of the Customer's load. The discount is available also at other delivery points, provided the Customer satisfies the Company's requirements determined under Paragraph (a) of the section of this rate entitled "Guarantees".

In the event that any Customer qualifying for and receiving the discount provided in this section shall require a substantially larger or substantially smaller amount of capacity, the Customer shall so notify the Company in writing at least two (2) years prior to the date when such larger or smaller amount shall be required.

GUARANTEES

- (a) When the estimated expenditure necessary to deliver electrical energy properly to a Customer's premises shall be of such an amount that the income to be derived from the delivery of such energy at the rate herein established, including the monthly minimum charge, will be insufficient to warrant such expenditure, the Company may require the Customer to guarantee a minimum annual payment for a term of years and/or to pay the whole or a part of the cost of extending, enlarging, or rebuilding its facilities to deliver electrical energy properly to the Customer's point of delivery or other reasonable payments in addition to the payments otherwise provided herein.
- (b) Except as provided by the Terms and Conditions and as modified by the provisions of Paragraph (a) of this section, and exclusive of any charges made under the provisions of the section in this rate entitled "Apparatus" and if applicable, for Default Energy Service, the minimum monthly charge shall be \$943 per month.

Issued: July 7, 2017

Issued by: /s/ William J. Quinlan
William J. Quinlan

Effective: July 1, 2017

Title: President and Chief Operating Officer

NHPUC NO. 9 - ELECTRICITY DELIVERY
PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
DBA EVERSOURCE ENERGY

Original Page 69
Rate LG

APPARATUS

Substation foundations, structures, and all necessary controlling, regulating, transforming, and protective apparatus shall be furnished, owned, and maintained by the Customer at the Customer's expense. However, controlling, regulating, and transforming apparatus may be rented from the Company at a charge of eighteen percent (18.0%) per year of the equipment cost. The cost of installing such equipment shall be paid in full at the time service is initiated. In no event shall the Company be required to rent apparatus to the Customer the total cost of which shall exceed \$10,000. The Company may refuse to rent pole-mounted apparatus based on environmental and other immediate hazards that are present. In the event the Company refuses to rent a pole-mounted apparatus, the Company shall inform the Customer of the environmental and other immediate hazards that are present and shall provide the Customer with the opportunity to remove the hazards. In the event the environmental and the other immediate hazards are removed by the Customer, the Company shall agree to rent pole-mounted apparatus to the Customer. If a Customer-owned structure supporting a Company owned pole-mounted transformer is deemed insufficient or threatened by trees or other hazards, the Company shall inform the Customer of the hazards and shall provide the Customer with the opportunity to repair or remove the hazard. In the event the Customer refuses to repair or remove the hazard or does not repair or remove the hazard in a timely manner, the Company is authorized to terminate the existing rental agreement and to remove the transformer upon 90 days written notice to the Customer. In cases where the Customer elects to rent apparatus from the Company, the Customer shall guarantee, in addition to any other guarantees, to continue to pay rental therefor for a period of not less than four (4) years. Should the Customer discontinue service before four (4) years shall have elapsed, the guaranteed rental then unpaid shall immediately become due and payable.

METERING

The Company may install one or more meters at its option. Metering shall be at delivery voltage, provided, however, that metering may be at a lower voltage at the option of the Company, in which case the maximum demand and kilowatt-hour energy use shall include the losses imposed by transformers between the delivery and metering points. In the latter case, the Company may at its option correct for the transformer losses by compensated metering or estimate such losses by another suitable method.

Issued: March 24, 2016

Issued by: William J. Quinlan

Effective: May 1, 2016

Title: President and Chief Operating Officer

NHPUC NO. 20 - ELECTRICITY DELIVERY
LIBERTY UTILITIES

General Service Time-of-Use Rate G-1

Availability

Retail Delivery Service under this rate is available for all purposes except resale, subject to the provisions of this section. The sale of electric vehicle charging services to a third party from an electric vehicle charging station shall not be considered resale of electricity. A Customer will take delivery service on this rate if the Company estimates that its average use will be greater than or equal to 200 kW of Demand. A Customer may be transferred from rate G-1 at its request or at the option of the Company if the customer's 12 month average monthly demand is less than 180 kW of Demand for 3 consecutive months.

If electricity is delivered through more than one meter, except at the Company's option, the charge for electricity delivered through each meter shall be computed separately under this rate. If any electricity is delivered hereunder at a given location, then all electricity delivered by the Company at such location shall be furnished hereunder, except such electricity as may be delivered under the provisions of the Limited Commercial Space Heating Rate V.

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 established by the Company.

All customers served on this rate must elect to take their total electric service under the time-of-use metering installation as approved by the Company. If delivery is through more than one meter, except at the Company's option, the Monthly Charge for service through each meter shall be computed separately under this rate.

Character of Service

Service supplied under this rate will be 60 cycle, three-phase alternating current normally at a nominal voltage of 120/208, 277/480, 2400, 4160, 4800, 7200, 13,200 and 13,800 volts. All voltages are not available in every area.

Rate Per Month

The Rate Per Month will be the sum of the applicable Customer, Demand and Energy Charges subject to the adjustments in this tariff.

Issued: April 27, 2017

Issued by: /s/ James M. Sweeney

Effective: May 1, 2017

James M. Sweeney
Title: President

Authorized by NHPUC Order No. 26,005 in Docket No. DE 16-383, dated April 12, 2017

NHPUC NO. 20 - ELECTRICITY DELIVERY
LIBERTY UTILITIES

Original Page 98
Rate G-1

Rates for Retail Delivery Service

Customer Charge	\$378.73 per month
<u>Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)</u>	
Distribution Charge On Peak	0.520
Distribution Charge Off Peak	0.156
Reliability Enhancement/Vegetation Management	(0.004)
Total Distribution Charge On Peak	0.516
Total Distribution Charge Off Peak	0.152
Transmission Service Cost Adjustment	1.406
Stranded Cost Adjustment Factor	0.049
Storm Recovery Adjustment Factor	0.000

Demand Charges Per Kilowatt

Distribution	\$8.07
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Distribution Energy Charges Peak Periods

Peak hours will be from 8:00 a.m. to 9:00 p.m. daily on Monday through Friday excluding holidays.

Off-Peak hours will be from 9:00 p.m. to 8:00 a.m. daily Monday through Friday, and all day on Saturdays, Sundays, and holidays.

Demand

The Demand for each month under ordinary load conditions shall be the greatest of the following:

- a) The greatest fifteen-minute peak during the peak hours which occurs during such month as measured in kilowatts,
- b) 90% of the greatest fifteen-minute peak during the peak hours occurring during such month as measured in kilovolt-amperes where the Customer's kilowatt Demand exceeds 75 kilowatts, or
- c) 80% of the greatest Demand as so determined above during the preceding eleven months.

Any Demands established during the eleven (11) months prior to the application of this rate shall be considered as having been established under this rate.

Issued: April 27, 2017

Issued by: /s/ James M. Sweeney

James M. Sweeney

Effective: May 1, 2017

Title: President

Authorized by NHPUC Order No. 26,005 in Docket No. DE 16-383, dated April 12, 2017; NHPUC Order No. 26,009 in Docket No. DE 17-043, dated April 20, 2017; NHPUC Order No. 26,010 in Docket No. DE 17-049 dated April 25, 2017

NHPUC NO. 20 - ELECTRICITY DELIVERY
LIBERTY UTILITIES

Optional Determination of Demand

However, a Customer who has been served hereunder for one year or more may upon written request have the Demand for each month, beginning with the next month after such request and running for a period of not less than two consecutive months, be based upon the greatest of items a) or b) above. In such case, the Demand Charge and the Energy Charge will be increased by 20% during such period.

High Voltage Metering Adjustment

The Company reserves the right to determine the metering installation. Where service is metered at the Company's supply line voltage, in no case less than 2400 volts, thereby saving the Company transformer losses, a discount of 1% will be allowed from the amount determined under the preceding provisions.

Credit for High Voltage Delivery

If the Customer accepts delivery at the Company's supply line voltage, not less than 2400 volts and the Company is saved the cost of installing any transformer and associated equipment, a credit of billing demand for such month shall be allowed against the amount determined under the preceding provisions.

High Voltage Delivery Credit (\$0.44) per kW

Terms of Agreement

A Customer served under this rate must provide the Company with one-year prior written notice before installing additional on-site, non-emergency generation for its own use. This notice provision shall be waived with respect to the installation of on-site non-emergency generation from renewable energy resources. Renewable energy resources shall mean fuel cells (including natural gas powered fuel cells), and emerging power technologies that produce electricity from wind energy, solar energy, small-scale hydro power, ocean power, landfill gas, sustainably managed biomass, and future clean renewable technologies.

Issued: April 27, 2017

Issued by: /s/ James M. Sweeney

Effective: May 1, 2017

Title: James M. Sweeney
President

Authorized by NHPUC Order No. 26,005 in Docket No. DE 16-383, dated April 12, 2017; NHPUC Order No. 26,009 in Docket No. DE 17-043 dated April 20, 2017

General Long Hour Service Rate G-2

Availability

Retail Delivery Service under this rate is available for all purposes except resale subject to the provisions of this section. The sale of electric vehicle charging services to a third party from an electric vehicle charging station shall not be considered resale of electricity. A Customer will take delivery service on this rate if the Company estimates that its average use will be greater than or equal to 20 kW of Demand but is less than 200 kW of Demand. If electricity is delivered through more than one meter, except at the Company's option, the charge for electricity delivered through each meter shall be computed separately under this rate. A customer may be transferred from rate G-2 at its request or at the option of the Company if the customer's twelve (12) month average monthly demand is less than 18 kW of demand for three consecutive months.

If any electricity is delivered hereunder at a given location, then all electricity delivered by the Company at such location shall be furnished hereunder, except such electricity as may be delivered under the provisions of the Limited Commercial Space Heating Rate V.

Character of Service

Service supplied under this rate will be 60 cycle, three-phase alternating current normally at a nominal voltage of 120/208, 277/480, 2400, 4160, 4800, 7200, 13,200 and 13,800 volts. All voltages are not available in every area.

Rate Per Month

The Rate Per Month will be the sum of the applicable Customer, Demand and Energy Charges subject to the adjustments in this tariff.

Rates for Retail Delivery Service

Customer Charge \$63.15 per month

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge	0.204
Reliability Enhancement/Vegetation Management	(0.004)
<hr/> Total Distribution Charge	<hr/> 0.200

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Issued by: /s/ James M. Sweeney

James M. Sweeney

Effective: May 1, 2017

Title: President

Authorized by NHPUC Order No. 26,005 in Docket No. DE 16-383, dated April 12, 2017; NHPUC Order No. 26,009 in Docket No. DE 17-043 dated April 20, 2017

NHPUC NO. 20 - ELECTRICITY DELIVERY
LIBERTY UTILITIES

Original Page 101
Rate G-2

Transmission Service Cost Adjustment	1.739
Stranded Cost Adjustment Factor	0.049
Storm Recovery Adjustment Factor	0.000

Demand Charges Per Kilowatt

Distribution	\$8.12
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Demand

The Demand for each month under ordinary load conditions shall be the greatest of the following:

- a) The greatest fifteen-minute peak during the peak hours which occurs during such month as measured in kilowatts,
- b) 90% of the greatest fifteen-minute peak occurring during such month as measured in kilovolt-amperes where the Customer's kilowatt Demand exceeds 75 kilowatts, or
- c) 80% of the greatest Demand as so determined above during the preceding eleven months.

Any Demands established during the eleven months prior to the application of this rate shall be considered as having been established under this rate.

Optional Determination of Demand

However, a Customer who has been served hereunder for one year or more may upon written request have the Demand for each month, beginning with the next month after such request and running for a period of not less than two consecutive months, be based upon the greatest of items a) or b) above. In such case, the Demand Charge and the Energy Charge will be increased by 20% during such period.

High Voltage Metering Adjustment

The Company reserves the right to determine the metering installation. Where service is metered at the Company's supply line voltage, in no case less than 2400 volts, thereby saving the Company transformer losses, a discount of 1% will be allowed from the amount determined under the preceding provisions.

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Issued by: /s/ James M. Sweeney

Effective: May 1, 2017

James M. Sweeney
Title: President

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NHPUC NO. 20 - ELECTRICITY DELIVERY
LIBERTY UTILITIES

Original Page 102
Rate G-2

Credit for High Voltage Delivery

If the Customer accepts delivery at the Company's supply line voltage, not less than 2400 volts, and the Company is saved the cost of installing any transformer and associated equipment, a credit of the peak hours billing demand for such month shall be allowed against the amount determined under the preceding provisions.

High Voltage Delivery Credit

(\$0.44) per kWh

Terms of Agreement

A Customer served under this rate must provide the Company with one-year prior written notice before installing additional on-site, non-emergency generation for its own use. This notice provision shall be waived with respect to the installation of on-site non-emergency generation from renewable energy resources. Renewable energy resources shall mean fuel cells (including natural gas powered fuel cells), and emerging power technologies that produce electricity from wind energy, solar energy, small-scale hydro power, ocean power, landfill gas, sustainably managed biomass, and future clean renewable technologies.

Issued: April 27, 2017

Issued by: /s/ James M. Sweeney

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Effective: May 1, 2017

Title: President

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NHPUC NO. 20 - ELECTRICITY DELIVERY
 LIBERTY UTILITIES

General Service Rate G-3

Availability

Retail Delivery Service under this rate is available for all purposes except resale. The sale of electric vehicle charging services to a third party from an electric vehicle charging station shall not be considered resale of electricity. A Customer will take delivery service on this rate if the Company estimates that its average use will be less than 20 kW of demand. If electricity is delivered through more than one meter, except at the Company's option, the charge for electricity delivered through each meter shall be computed separately under this rate.

Character of Service

Service supplied under this rate will be 60 cycle, alternating current either:

- a) Single-phase normally three-wire at a nominal voltage of 120/240 volts.
- b) Three-phase secondary normally at a nominal voltage of 120/208, or 277/480 volts.
- c) Three-phase primary normally at a nominal voltage of 2400, 4160, 4800, 7200, 13,200 or 13,800 volts.

All voltages are not available in every area.

Rate Per Month

The rate per month will be the sum of the Customer and Energy Charges subject to the adjustments in this tariff:

Rates for Retail Delivery Service

Customer Charge \$14.54 per month

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge	4.607
Reliability Enhancement/Vegetation Management	(0.004)
<hr/>	
Total Distribution Charge	4.603
Transmission Service Cost Adjustment	1.789
Stranded Cost Adjustment Factor	0.049
Storm Recovery Adjustment Factor	0.000

Issued: April 27, 2017

Issued by: /s/ James M. Sweeney

James M. Sweeney

Effective: May 1, 2017

Title: President

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NHPUC NO. 20 - ELECTRICITY DELIVERY
LIBERTY UTILITIES

Original Page 104
Rate G-3

Terms of Agreement

A Customer served under this rate must provide the Company with one-year prior written notice before installing additional on-site, non-emergency generation for its own use. This notice provision shall be waived with respect to the installation of on-site non-emergency generation from renewable energy resources. Renewable energy resources shall mean fuel cells (including natural gas powered fuel cells), and emerging power generation technologies that produce electricity from wind energy, solar energy, small-scale hydro power, ocean power, landfill gas, sustainably managed biomass, and future clean renewable technologies.

Reliability Enhancement Program and Vegetation Management Plan Adjustment

All energy billed under this rate is subject to a Reliability Enhancement Program and Vegetation Management Plan Adjustment Factor which shall be adjusted from time to time.

Reliability Enhancement Program Capital Investment Allowance

Distribution base rates are subject to adjustment on an annual basis for a Reliability Enhancement Program Capital Investment Allowance.

Issued: April 27, 2017

Issued by: /s/ James M. Sweeney

Effective: May 1, 2017

James M. Sweeney
Title: President

Authorized by NHPUC Order No. 26,005 in Docket No. DE 16-383, dated April 12, 2017

GENERAL DELIVERY SERVICE
SCHEDULE G

AVAILABILITY

Service is available under this Schedule to non-domestic Customers for all general purposes 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. Unmetered traffic and flashing signal lights existing immediately prior to the effective date of this Schedule shall also be billed under this Schedule.

This Schedule is for delivery service only. Customers are required to obtain an energy supply from a Competitive Supplier, self-supply (available to Market Participant End Users as described in NHPUC Order No. 24,172), or may be eligible for Default Service from the Company pursuant to Schedule DS as amended from time to time.

CHARACTER OF SERVICE

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.

DELIVERY SERVICE CHARGES – MONTHLY

The Delivery Service Charges shall include Distribution Charges and Adjustments, set forth below. The Distribution Charges are subject to annual adjustment as approved in DE 16-384.

Large General Service Schedule G1: for any industrial or commercial Customer with its average use consistently equal to or in excess of two hundred (200) kilovolt-amperes of demand and generally greater than or equal to one-hundred thousand (100,000) kilowatt-hours per month.

DISTRIBUTION CHARGES - MONTHLY

Customer Charge:	Secondary Voltage	\$152.40 per meter
	Primary Voltage	\$81.28 per meter
Distribution Charges:	\$7.42 per kVA	
	0.116¢ per kWh	

Regular General Service Schedule G2: for any industrial or commercial Customer with its average use consistently below two-hundred (200) kilovolt-amperes of demand and generally less than one-hundred thousand (100,000) kilowatt-hours per month.

Authorized by NHPUC Order No. 26,007 in Case No. DE 16-384 dated April 20, 2017.

Issued: May 5, 2017
Effective: May 1, 2017

Issued by: Mark H. Collin
Sr. Vice President

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

Tenth Revised Page 52
Issued in lieu of Ninth Revised Page 52

GENERAL DELIVERY SERVICE
SCHEDULE G (continued)

DISTRIBUTION CHARGES - MONTHLY

Customer Charge: \$27.43 per meter
Distribution Charges: \$10.35 per kW
0.116¢ per kWh

Regular General Service Schedule G2 kWh meter: Service is available under this Schedule only to Customers at locations which were receiving service under Unitil Energy Systems, Inc.'s NHPUC No. 1 and are presently receiving service under this Schedule. New Customers at existing locations and new locations shall not be eligible for this rate, but the Company will install a demand meter and the location shall be served under Schedule G2. Customers who have installed distributed generation shall not be eligible for this rate but shall be served under Schedule G2.

DISTRIBUTION CHARGES - MONTHLY

Customer Charge: \$17.27 per meter
Distribution Charge: 1.556¢ per kWh

Uncontrolled (Quick Recovery) Water Heating: Uncontrolled (Quick Recovery) Water Heating is available under this Schedule at those locations which were receiving uncontrolled (Quick Recovery) water heating service under Unitil Energy Systems, Inc.'s NHPUC No. 1 and are presently receiving service under this Schedule.

For those locations which qualify under the preceding paragraph, uncontrolled quick recovery water heating service is available under this Schedule if the Customer has installed and in regular operation throughout the entire year an electric water heater of the quick recovery type, equipped with two thermostatically operated heating elements, each with a rating of no more than 4,500 watts, so connected and interlocked that they cannot operate simultaneously and if the water heater supplies the Customer's entire water heating requirements, all electricity supplied thereto under this provision will be metered separately and billed as follows:

DISTRIBUTION CHARGES - MONTHLY

Customer Charge: \$9.14 per meter
Distribution Charge: 3.265¢ per kWh

Authorized by NHPUC Order No. 26,007 in Case No. DE 16-384 dated April 20, 2017.

Issued: May 5, 2017
Effective: May 1, 2017

Issued by: Mark H. Collin
Sr. Vice President

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

Tenth Revised Page 53
Issued in lieu of Ninth Revised Page 53

GENERAL DELIVERY SERVICE
SCHEDULE G (continued)

Space Heating: Space Heating is available under this Schedule at those locations which were receiving space heating service under Unitil Energy Systems, Inc.'s NHPUC No. 1 and are presently receiving service under this Schedule. Customers who qualify for service under this Schedule for five (5) kilowatts or more of permanently-installed space heating equipment under this provision may elect to have such service metered separately and billed as follows:

DISTRIBUTION CHARGES - MONTHLY

Customer Charge:	\$9.14 per meter
Distribution Charge:	3.265¢ per kWh

DETERMINATION OF DEMAND

Large General Service Schedule G1

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.

Regular General Service Schedule G2

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 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.

Authorized by NHPUC Order No. 26,007 in Case No. DE 16-384 dated April 20, 2017.

Issued: May 5, 2017
Effective: May 1, 2017

Issued by: Mark H. Collin
Sr. Vice President

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

Fourth Revised Page 54
Issued in lieu of Third Revised Page 54

GENERAL DELIVERY SERVICE
SCHEDULE G (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.

MINIMUM CHARGE

The Minimum Charge per month or fraction thereof will be as follows:

Large General Service Schedule G1:

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.

Regular General Service Rates G2:

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.

G2 kWh meter, Uncontrolled (Quick Recovery) Water Heating, and Space Heating:

The Minimum Charge per month shall be the Customer Charge for each type of service installed.

Authorized by NHPUC Order No. 26,007 in Case No. DE 16-384 dated April 20, 2017.

Issued: May 5, 2017
Effective: May 1, 2017

Issued by: Mark H. Collin
Sr. Vice President

GENERAL DELIVERY SERVICE
SCHEDULE G (continued)

ADJUSTMENTS

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

External Delivery Charge: 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.

Default Service Charge: For Customers receiving Default Service from the Company, all energy delivered under this Schedule shall be subject to the Default Service Charge as provided in Schedule DS of the Tariff of which this is a part.

ELECTRICITY CONSUMPTION TAX

All Customers shall be obligated to pay the Electricity Consumption Tax in accordance with New Hampshire Statute RSA Chapter 83-E, which may be revised from time to time, in addition to all other applicable rates and charges under this Tariff. The Electricity Consumption Tax shall appear separately on all Customer bills.

Authorized by NHPUC Order No. 26,007 in Case No. DE 16-384 dated April 20, 2017.

Issued: May 5, 2017
Effective: May 1, 2017

Issued by: Mark H. Collin
Sr. Vice President

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

Second Revised Page 56
Issued in lieu of First Revised Page 56

GENERAL DELIVERY SERVICE
SCHEDULE G (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.

TERM OF CONTRACT

The term of contract under this Schedule shall be for an initial period of at least one year, and shall continue in effect thereafter until cancelled by either party upon at least 30 days' written notice. The Company may require longer initial and renewal contract terms whenever, in its opinion, the estimated annual revenue is insufficient to warrant the Company making the necessary commitments to render service.

SPECIAL PROVISIONS

(a) 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.

GUARANTEE

When the estimated expenditure necessary to deliver electrical energy properly to a Customer's premises shall be of such an amount that the income to be derived from the delivery of such energy at the rate herein established, including the monthly Minimum Charge, will be insufficient to warrant such expenditure, the Company may require the Customer to guarantee a minimum annual payment for a term of years and/or to pay the whole or a part of the cost of extending, enlarging or rebuilding its facilities to supply the Customer's premises or other reasonable payments in addition to the payments otherwise provided herein.

AUXILIARY SERVICE

(a) Definitions

Auxiliary Service, also referred to as Standby or Breakdown Service, shall be defined as delivery service available at all times to a Customer taking service from the Company under this

Authorized by NHPUC Order No. 26,007 in Case No. DE 16-384 dated April 20, 2017.

Issued: May 5, 2017
Effective: May 1, 2017

Issued by: Mark H. Collin
Sr. Vice President

GENERAL DELIVERY SERVICE
SCHEDULE G (continued)

Schedule and having another source of power from which to supply the Customer's electrical requirements, or a portion thereof, without using the Company's distribution system.

Delivery service provided hereunder shall not be considered as Auxiliary Service where such other source of power is subject to the Commission's Net Energy Metering rules, Chapter Puc 900, Qualifying Facilities metering using net metering method, or used only in case of failure of the Company's delivery service.

Auxiliary Service shall be divided into two types: Segregated Auxiliary Service and Non-Segregated Auxiliary Service.

Segregated Auxiliary Service shall be defined as delivery service furnished by the Company to a Customer for such portion of the Customer's electrical requirements as cannot be supplied directly or indirectly via any source other than the Company's distribution system.

Non-Segregated Auxiliary Service shall be defined as delivery service furnished by the Company to a Customer where any portion of the Customer's electrical requirements can, at the Customer's option, be supplied directly or indirectly via the Company's distribution system or by the Customer's other source of power.

(b) Service and Transformer Capacity

For Segregated Auxiliary Service the Company will install such service and transformer capacity as is required for that portion of the Customer's electrical requirements as is to be supplied via the Company's distribution system.

For Non-Segregated Auxiliary Service the Company will install such service and transformer capacity as the Customer may request; provided, however, that the service and transformer capacity installed shall not be less than the Customer's total electrical requirements up to twenty five kilowatts, and if the total Customer's requirements are in excess of twenty five kilowatts, the Company shall not install transformers of less than twenty five kilowatts.

(c) Determination of Demand

For Segregated Auxiliary Service the Customer's demand for billing purposes will be determined as for Customers taking standard delivery service under this Schedule.

For Non-Segregated Auxiliary Service the Customer's demand will be determined as for Customers taking standard delivery service under this Schedule. In no event shall the demand so

Authorized by NHPUC Order No. 26,007 in Case No. DE 16-384 dated April 20, 2017.

Issued: May 5, 2017
Effective: May 1, 2017

Issued by: Mark H. Collin
Sr. Vice President

GENERAL DELIVERY SERVICE
SCHEDULE G (continued)

determined be less than the capacity installed by the Company on a network system or 80% of the kilovolt-ampere rating of the transformers installed for supplying service to the Customer.

(d) Minimum Charge

An amount equal to the total of the Customer Charge and the Distribution Demand Charge as provided for Customers taking standard delivery service under this Schedule.

(e) Parallel Operation

The Customer shall at no time operate any other source of electricity supply in parallel with the service furnished by the Company except with the written consent of the Company.

(f) Term of Contract

The initial term of service hereunder shall not be less than five years unless the Customer discontinues Customer's other source of electrical power and takes all Customer's delivery service requirements from the Company.

(g) Auxiliary Energy Supply

Energy supply for Auxiliary Service is available from the Company via Default Service pursuant to Schedule DS as amended from time to time, and may be available from Competitive Suppliers.

(h) Special Provision

If the Customer is supplied from transformers also supplying other Customers, the Company may require the Customer to install a service or main switch or circuit breaker as specified by the Company.

TARIFF PROVISIONS

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

Authorized by NHPUC Order No. 26,007 in Case No. DE 16-384 dated April 20, 2017.

Issued: May 5, 2017
Effective: May 1, 2017

Issued by: Mark H. Collin
Sr. Vice President

Appendix C

Discovery Responses Pertaining to Lost Revenue

<u>Data Request</u>	<u>Description</u>
Staff 1-3	40 Percent Cap
Staff 1-4	Changes to Incentive Levels
Staff 1-37	LED Lighting Measure Life
Staff 1-38	Cessation of LRAM
Staff 1-39	Lost Revenue
Staff 1-40	Lost Revenue Calculations from DE 15-137

Public Service of New Hampshire d/b/a Eversource Energy
Docket No. DE 17-136

Date Request Received: 10/09/2017

Date of Response: 10/23/2017

Request No. STAFF 1-003

Page 1 of 1

Request from: New Hampshire Public Utilities Commission Staff

Witness: Katherine W. Peters

Request:

Reference page 180. The filing indicates that the Utilities are proposing to remove the 40 percent cap for customer commitments in future years. Please explain why the Utilities are proposing this change.

Response:

The current 40 percent cap that exists currently is not as applicable for the 2018-2020 Plan. The 2018-2020 plan has program budgets and energy savings goals that ramp up significantly each year and longer-term commitments for energy savings is a key approach for working with customers to achieve the increased energy savings goals. The existing cap refers to not committing an amount equal to 40 percent of the current year's budget in future years. That cap based on a current year budget is less relevant in a new paradigm where the program budgets and targets are increasing during each of the three years, rather than remaining relatively flat as they had in the past.

Joint Utility Response

Public Service of New Hampshire d/b/a Eversource Energy
Docket No. DE 17-136

Date Request Received: 10/09/2017

Date of Response: 10/23/2017

Request No. STAFF 1-004

Page 1 of 1

Request from: New Hampshire Public Utilities Commission Staff

Witness: Katherine W. Peters

Request:

Reference Bates 36. With respect to changes to incentives levels for certain programs or measure categories, please explain further what is intended.

Response:

The approach and changes made to incentive levels for purposes of program continuity would depend on the particular program or measure. The LED light bulb incentives in 2014 provide an illustrative example. Incentives for LED bulbs started at \$10 per bulb in 2014. The lighting market went through significant changes during that year as LED bulb pricing dropped. In order to keep pace with these changes and maintain an offering for as long as possible, LED incentive levels were reduced from \$10 to \$5 per bulb and then reduced again to \$3 per bulb during the course of the year. Any decisions to make changes in incentive levels would be made in a way that looks at the program as a whole, in line with best practices in the region and taking incremental costs into account, in order to maximize the effectiveness of the program offerings.

Joint Utility Response

Public Service of New Hampshire d/b/a Eversource Energy
Docket No. DE 17-136

Date Request Received: 10/09/2017

Date of Response: 10/23/2017

Request No. STAFF 1-037

Page 1 of 1

Request from: New Hampshire Public Utilities Commission Staff

Witness: Christopher J. Goulding, Heather Tebbetts, Karen Asbury

Request:

Reference Bates 178 and 233. With respect to measure lives, the service life for LED measures changed from 8 years in the 2017 filing to 5 years in 2018. Will LED installations in the prior 2017 program year be retired in 5 years, consistent with the updated service life? How will the Utilities track the expiration of measures to ensure that they are removed from the calculation of lost revenues in a timely manner?

Response:

Consistent with Section B of the Settlement Agreement in DE 15-137, the Utilities will use any updated assumption regarding the service life for of a measure, whether it is an increase or decrease, for all measures installed beginning in the following calendar year corresponding to the planned change. As with changes to the energy efficiency B/C model, all adjustments to assumptions are prospective or forward-looking, not retroactive. As a result, LED measures installed in 2017 will be deemed to have a measure life of 8 years, and LED measures installed in 2018 will be deemed to have a measure life of 5 years. Please refer to Staff 2-010 in DE 15-137 as well as the Commission Order No. 25,932 for further review.

Utilities will track the expiration of measures in a spreadsheet, with a calculated date of expiration based on the date of installation and the measure life that applies at the time the measure was installed. As of the date of expiration, measures will drop out of the calculation of lost revenue.

Joint Utility Response

Public Service of New Hampshire d/b/a Eversource Energy
Docket No. DE 17-136

Date Request Received: 10/09/2017

Date of Response: 10/23/2017

Request No. STAFF 1-038

Page 1 of 1

Request from: New Hampshire Public Utilities Commission Staff

Witness: Heather Tebbetts

Request:

Reference Bates 430, line 8. Given that lost revenue will cease at the time Energy North's decoupling mechanism begins, what is the proposed date of cessation of the lost revenue mechanism – i.e., will it be July 1, 2017, the effective date of temporary rates in Docket DG 17-048, or some other date? Please explain.

Response:

The lost revenue adjustment mechanism (LRAM) for EnergyNorth will cease on the date that the proposed revenue decoupling mechanism becomes effective, other than any required reconciliation of accrued lost revenue with amounts recovered through the LRAM. That date is anticipated to be the date that permanent rates become effective following EnergyNorth's distribution rate case, on or about May 1, 2018.

Energy North Response

**Public Service of New Hampshire d/b/a Eversource Energy
Docket No. DE 17-136**

Date Request Received: 10/09/2017

Date of Response: 10/23/2017

Request No. STAFF 1-039

Page 1 of 1

Request from: New Hampshire Public Utilities Commission Staff

Witness: Christopher J. Goulding, Heather Tebbetts, Karen Asbury

Request:

- a. Please explain why the calculation of C&I average distribution rates combines the revenue related to kW billing demand and the revenue related to kWh for purposes of calculating C&I lost revenue.
- b. At the technical session on October 4, 2017, it was indicated that it would be possible, albeit complicated, to calculate lost revenue by its two component parts, i.e., (1) lost revenue related to kW billing demand and (2) lost revenue related to kWh. Please provide this calculation, for Eversource, Unitil and Liberty and include details and live excel spreadsheets and schedules that support the calculation.

Response:

- a. The calculation of the C&I average distribution rates is consistent with the methodology agreed upon as part of the Settlement Agreement reached in DE 15-137 and the subsequent Settlement Agreement reached in DE 14-216 for program year 2017, which both include Staff as a signatory party.
- b. Please see the response to (a.) and the response to Staff 1-040. The calculation requested is not consistent with the methodology agreed to in the settlement in DE 15-137 or DE 14-216.

Eversource, Liberty and Unitil Response

Public Service of New Hampshire d/b/a Eversource Energy
Docket No. DE 17-136

Date Request Received: 10/09/2017

Date of Response: 10/23/2017

Request No. STAFF 1-040

Page 1 of 1

Request from: New Hampshire Public Utilities Commission Staff

Witness: Christopher J. Goulding, Heather Tebbetts, Karen Asbury

Request:

Reference Bates 217, Bates 255 and Bates 314. The proposal indicates that the C&I Summer kW savings is as follows: Eversource - 6,213.0 kW (Bates 217), Liberty - 652.8 kW (Bates 255) and Unitil 647.0 kW (Bates 314). In Staff's view, there does not appear to be a nexus between these kW savings and the calculation of lost revenue. Please explain how Eversource, Liberty and Unitil plan to address this lack of nexus.

Response:

The Utilities do not intend to alter the calculation to address the Staff's perception that there is a lack of a nexus. Several ways of calculating lost revenue were discussed in DE 15-137, and the methodology summarized in the Settlement was agreed upon by the settling parties and ultimately approved by the Commission. The present calculation for lost revenue included in this filing is in accordance with that Settlement Agreement. LBR has been settled and approved to be calculated as the kWh savings multiplied by each Company's average Distribution rate, excluding customer, meter, and luminaire charges.

Please refer to the response to Staff 2-013 in docket DE 15-137 (attached below), Staff 1-012 in the 2017 update for DE 14-216, Term B of the Settlement Agreement in DE 15-137, and Section II: Settlement Terms within the Settlement Agreement in DE 14-216 for the program year 2017, as well as any applicable attachments and Commission Orders approving the referenced Settlement Agreements for further review.

Eversource, Liberty and Unitil Response

Public Service of New Hampshire d/b/a Eversource Energy
Docket No. DE 15-137

Date Request Received: 03/09/2016

Date of Response: 03/23/2016

Request No. STAFF 2-013

Page 1 of 5

Request from: New Hampshire Public Utilities Commission Staff

Witness: Edward A. Davis

Request:

Page 21, line 5-6. The Electric and Gas Utilities Rebuttal Testimony refers to an LRAM that, with the exception of NHEC, is specific to each Utility.

The LRAM rate is specific to each utility since it depends both on savings measures implemented by each utility and on that utility's distribution rates.

If we assume that an EERS were in effect as of January 1, 2016, please provide the following utility specific information pertaining to distribution rates:

- a. What would be the distribution rate included for each utility?
- b. Please provide the derivation of the distribution rate for each utility showing the following:
 - Distribution rate before exclusion of customer charges and variable/avoided distribution expenses
 - Adjustment to exclude customer charges from the distribution rate
 - Adjustment to exclude variable/avoided distribution expenses
- c. Please provide all analyses, schedules and work papers showing the derivation of the above distribution rates and associated adjustments for customer charges and variable/ avoided distribution expenses.

Response:

a., b. and c.

The distribution rates, and derivation of distribution rates before and after exclusion of customer charges for each utility are provided in the attachments to this response, as listed below. The Utilities have not proposed and there have not calculated a distribution expense adjustment.

Attachments 1 and 2: Public Service Company of New Hampshire dba Eversource Energy

Attachment 3: Energy North Natural Gas Corp. and Granite State Electric Corp., dba Liberty Utilities

Attachment 4: Unitil Energy Systems, Inc.

Attachment 5: Northern Utilities Inc.

(Joint Utility Response)

Public Service Company of New Hampshire dba Eversource Energy
 Calculation of Average Distribution Rates at the Rate Level Effective July 1, 2015
 Based on Billing Determinants for the Twelve Months Ending December 2014

Distribution rates before exclusion of customer charges

<u>Rate Class</u>	<u>Delivery kWh</u>		<u>Total Distribution Revenue</u>	<u>\$/kWh</u>
Residential Rate R	3,183,054,832	\$	197,120,937	\$ 0.06193
General Service Rate G	1,714,139,426	\$	82,375,190	\$ 0.04806
Primary General Service Rate GV	1,661,784,325	\$	36,544,132	\$ 0.02199
Large General Service Rate LG	1,308,837,521	\$	21,562,775	\$ 0.01647
Commercial and Industrial subtotal	4,684,761,272	\$	140,482,097	\$ 0.02999
Outdoor Lighting Rate OL	18,724,374	\$	4,901,716	\$ 0.26178
Outdoor Lighting Rate EOL	20,016,896	\$	4,513,484	\$ 0.22548
Total Retail	7,906,557,374	\$	347,018,234	\$ 0.04389

Distribution rates excluding customer, meter, and per luminaire charges

<u>Rate Class</u>	<u>Delivery kWh</u>		<u>Distribution Revenue Excluding Fixed Charges</u>	<u>\$/kWh</u>
Residential Rate R	3,183,054,832	\$	128,683,279	\$ 0.04043
General Service Rate G	1,714,139,426	\$	65,472,449	\$ 0.03820
Primary General Service Rate GV	1,661,784,325	\$	33,265,381	\$ 0.02002
Large General Service Rate LG	1,308,837,521	\$	20,703,855	\$ 0.01582
Commercial and Industrial subtotal	4,684,761,272	\$	119,441,685	\$ 0.02550
Outdoor Lighting Rate OL		\$	-	
Outdoor Lighting Rate EOL		\$	-	
Total Retail	7,867,816,104	\$	248,124,964	\$ 0.03154

Public Service Company of New Hampshire dba Eversource Energy
Calculation of Distribution Revenue at the Rate Level Effective July 1, 2015
Based on Billing Determinants for the Twelve Months Ending December 2014

<u>Rate Class</u>	<u>Customer Group</u>		(a) 07/01/2015 Monthly Distribution Charge	(b) Annual Billing Determinants	(c) Adjustment Factor	(d) Calculated Revenue (a) x (b) x (c)
Residential Rate R	Standard Rate	Customer charge	\$ 12.75	5,123,836		
		All KWH	\$ 0.04161	3,033,432,546	1.00137487	\$ 191,813,394.55
	Standard Rate - Elderly	Customer charge	\$ 12.75	1,208		
		All KWH	\$ 0.04161	538,105	1.00073073	32,684.36
	Time of Day R-OTOD	Customer charge	\$ 29.61	429		
		On-peak KWH	\$ 0.13299	167,497		
		Off-peak KWH	\$ 0.00194	287,547	1.00481551	35,707.08
	QR Water Heating	Meter charge	\$ 4.49	558,454		
		All KWH	\$ 0.02040	107,049,084	1.00217649	4,701,470.26
	QR Water Heating (Elderly Discount)	Meter charge	\$ 4.49	334		
		All KWH	\$ 0.02040	49,851	1.00838224	2,179.84
	Controlled Water Heating	Meter charge	\$ 7.92	5,465		
		All KWH	\$ 0.00121	949,644	1.01622366	45,152.72
	Controlled Water Heating (Elderly Discount)	Meter charge	\$ 7.92	8		
		All KWH	\$ 0.00121	1,429	0.99854392	55.71
	Load Controlled Rate LCS	Radio-controlled option (56)	\$ 9.15	43,988		
		8, 10 or 11-hour option (47, 49)	\$ 7.92	2,907		
		Switch option (48, 50)	\$ 9.15	217		
		Radio-controlled option (56)	\$ 0.00121	39,720,877		
	8-hour option (47, 48)	\$ 0.00121	459,327			
	10 or 11-hour option (49, 50)	\$ 0.02459	355,615	1.01066909	490,034.84	
Load Controlled Rate LCS (Elderly Discount)	Radio-controlled option (56)	\$ 9.15	36			
	8, 10 or 11-hour option (47, 49)	\$ 7.92	-			
	Switch option (48, 50)	\$ 9.15	-			
	Radio-controlled option (56)	\$ 0.00121	43,310			
	8-hour option (47, 48)	\$ 0.00121	-			
	10 or 11-hour option (49, 50)	\$ 0.02459	-	0.99300037	257.23	
Total Rate R		Customers		5,125,473		
		Meters		611,409		
		KWH		3,183,054,832		
		Revenue				\$ 197,120,936.59

Docket DE 17-136
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Public Service Company of New Hampshire dba Eversource Energy
Calculation of Distribution Revenue at the Rate Level Effective July 1, 2015
 Based on Billing Determinants for the Twelve Months Ending December 2014

Rate Class	Customer Group		(a) 07/01/2015 Monthly Distribution Charge	(b) Annual Billing Determinants	(c) Adjustment Factor	(d) Calculated Revenue (a) x (b) x (c)
General Rate G	Standard Rate	Single phase customer charge	\$ 14.96	662,560		
		Three phase customer charge	\$ 29.90	229,955		
		Load charge (over 5 KW)	\$ 8.76	3,909,799		
		First 500 KWH	\$ 0.07020	267,996,315		
		Next 1,000 KWH	\$ 0.01739	290,122,864		
		All additional KWH	\$ 0.00615	1,137,401,763	0.99834275	81,755,273.99
	Time of Day G-OTOD	Single phase customer charge	\$ 38.76	163		
		Three phase customer charge	\$ 55.37	263		
		Load charge	\$ 12.21	11,677		
		On-peak KWH	\$ 0.04924	507,017		
		Off-peak KWH	\$ 0.00772	856,520	1.00051298	195,129.37
	Space Heating	Meter charge	\$ 3.00	6,157		
		All KWH	\$ 0.03442	6,119,129	1.00094149	229,307.11
	QR Water Heating	Meter charge	\$ 4.49	17,417		
		All KWH	\$ 0.02040	4,036,445	1.00050258	160,626.49
	Controlled Water Heating	Meter charge	\$ 7.92	74		
		All KWH	\$ 0.00121	15,429	0.98776928	597.35
	Load Controlled Rate LCS	Radio-controlled option (56)	\$ 9.15	2,594		
		8, 10 or 11-hour option (47, 49)	\$ 7.92	107		
		Switch option (48, 50)	\$ 9.15	-		
Radio-controlled option (56)		\$ 0.00121	6,890,552			
8-hour option (47, 48)		\$ 0.00121	159,712			
10 or 11-hour option (49, 50)		\$ 0.02459	33,680	1.00926246	34,255.93	
Total Rate G	Customers			892,941		
	Meters			26,349		
	Billing demand			3,921,475		
	KWH			1,714,139,426		
	Revenue					\$ 82,375,190.25

Public Service Company of New Hampshire dba Eversource Energy
Calculation of Distribution Revenue at the Rate Level Effective July 1, 2015
Based on Billing Determinants for the Twelve Months Ending December 2014

<u>Rate Class</u>	<u>Customer Group</u>		(a) 07/01/2015 Monthly Distribution Charge	(b) Annual Billing Determinants	(c) Adjustment Factor	(d) Calculated Revenue (a) x (b) x (c)
Primary General Rate GV	Standard Rate	Customer charge	\$ 194.96	16,590		
		First 100 KW	\$ 5.61	1,599,789		
		All additional KW	\$ 5.37	2,619,553		
		First 200,000 KWH	\$ 0.00609	1,460,676,483		
		All additional KWH	\$ 0.00511	199,628,529	1.00277890	36,292,397.40
	Space Heating	Meter charge	\$ 3.00	12		
		All KWH	\$ 0.03442	31,900	0.99999744	1,134.00
	Rate B	Administrative charge	\$ 343.47	97		
		Translation charge	\$ 57.62	36		
		Demand charge	\$ 4.50	45,945		
First 200,000 KWH		\$ 0.00609	1,447,413			
All additional KWH		\$ 0.00511	-	0.99857594	250,600.78	
Total Rate GV						
	Customers			16,687		
	Meters			12		
	Billing demand			4,265,287		
	KWH			1,661,784,325		
	Revenue				\$ 36,544,132.17	

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Public Service Company of New Hampshire dba Eversource Energy
Calculation of Distribution Revenue at the Rate Level Effective July 1, 2015
 Based on Billing Determinants for the Twelve Months Ending December 2014

<u>Rate Class</u>	<u>Customer Group</u>		(a) 07/01/2015 Monthly Distribution Charge	(b) Annual Billing Determinants	(c) Adjustment Factor	(d) Calculated Revenue (a) x (b) x (c)
Large General Rate LG	Standard Rate	Customer charge	\$ 609.38	1,312		
		Demand charge	\$ 4.77	2,824,944		
		On-peak KWH	\$ 0.00510	547,247,680		
		Off-peak KWH	\$ 0.00430	708,698,789	0.99997369	20,112,328.17
	Rate B - customers served at 115kV	Administrative charge	\$ 343.47	59		
		Translation charge	\$ 57.62	-		
		Demand charge	\$ -	838,696		
		On-peak KWH	\$ -	11,289,561		
	Rate B - all other customers	Off-peak KWH	\$ -	28,340,802	0.99999892	20,264.71
		Administrative charge	\$ 343.47	108		
		Translation charge	\$ 57.62	36		
		Demand charge	\$ 4.50	295,568		
Total Rate LG	On-peak KWH	\$ 0.00510	4,919,715			
	Off-peak KWH	\$ 0.00430	8,340,974	1.00000008	1,430,181.93	
	Customers			1,479		
	Meters			-		
	Billing demand			3,959,208		
	KWH			1,308,837,521		
	Revenue				\$ 21,562,774.80	

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Public Service Company of New Hampshire dba Eversource Energy
Calculation of Distribution Revenue at the Rate Level Effective July 1, 2015
Based on Billing Determinants for the Twelve Months Ending December 2014

Rate Class	Customer Group	(a) 07/01/2015 Monthly Distribution Charge	(b) Annual Billing Determinants	(c) Adjustment Factor	(d) Calculated Revenue (a) x (b) x (c)	
Outdoor Lighting Rate OL	High Pressure Sodium	4,000 (CHID 010) \$	15.91	42,065	669,683.29	
		5,800 (CHID 020)	15.91	7,442	118,478.62	
		9,500 (CHID 030)	21.15	11,459	242,508.35	
		16,000 (CHID 040)	29.91	10,530	315,139.37	
		30,000 (CHID 050)	30.65	16,886	517,897.34	
		50,000 (CHID 060)	31.00	23,862	740,184.49	
		130,000 (CHID 070)	49.75	4,141	206,139.74	
		12,000 (CHID 080)	21.87	144	3,145.46	
		34,200 (CHID 090)	28.00	75	2,113.49	
		Mercury	3,500 (CHID 100)	14.03	72,694	1,020,553.32
			7,000 (CHID 105)	16.88	13,380	226,002.62
			11,000 (CHID 125)	20.87	1,335	27,888.33
	20,000 (CHID 130)		25.77	6,018	155,192.80	
	56,000 (CHID 135)		40.96	1,771	72,605.82	
	15,000 (CHID 155)		23.88	73	1,744.36	
	Metal Halide	5,000 (CHID 156)	16.60	2,097	34,825.32	
		8,000 (CHID 157)	22.70	1,291	29,316.14	
		13,000 (CHID 158)	31.16	-	-	
		13,500 (CHID 159)	31.82	1,237	39,382.37	
		20,000 (CHID 161)	31.82	3,304	105,187.32	
		36,000 (CHID 162)	32.11	4,980	160,004.04	
	Incandescent	100,000 (CHID 160)	48.13	3,458	166,524.27	
		600 (CHID 165)	9.16	1,336	12,245.58	
		1,000 (CHID 170)	10.23	3,271	33,483.72	
		2,500 (CHID 175)	13.13	48	630.64	
		6,000 (CHID 185)	22.54	-	-	
	Fluorescent	20,000 (CHID 195)	34.95	24	839.34	
				1.00063903	\$ 4,901,716.15	
Total Rate OL			Luminaires	232,921		
			Customers	8,667		
			Meters	122,707		
			KWH	18,724,374		

Public Service Company of New Hampshire dba Eversource Energy
Calculation of Distribution Revenue at the Rate Level Effective July 1, 2015
 Based on Billing Determinants for the Twelve Months Ending December 2014

Rate Class	Customer Group	(a) 07/01/2015 Monthly Distribution Charge	(b) Annual Billing Determinants	(c) Adjustment Factor	(d) Calculated Revenue (a) x (b) x (c)	
Outdoor Lighting Rate EOL	High Pressure Sodium	4,000 (CHID 010) \$	8.47	296,429	2,510,437.96	
		5,800 (CHID 020)	8.47	27,051	229,093.16	
		9,500 (CHID 030)	10.41	41,766	434,729.40	
		16,000 (CHID 040)	11.44	34,254	391,816.49	
		30,000 (CHID 050)	11.44	48,768	557,835.78	
		50,000 (CHID 060)	11.81	6,927	81,797.58	
	Metal Halide	130,000 (CHID 070)	22.42	1,416	31,742.73	
		5,000 (CHID 156)	8.79	19,668	172,859.98	
		8,000 (CHID 157)	11.62	1,914	22,237.88	
		13,000 (CHID 158)	12.40	72	892.69	
		13,500 (CHID 159)	13.07	1,868	24,411.69	
		20,000 (CHID 161)	13.28	1,032	13,703.24	
	LED's and other technologies	36,000 (CHID 162)	13.66	804	10,981.26	
		100,000 (CHID 160)	24.33	1,272	30,943.87	
		Per fixture	3.39		-	
		Per watt	0.0515		-	
Total Rate EOL				0.99987427	\$ 4,513,483.72	
	Luminaires		483,241			
	Customers		2,990			
	Meters		-			
	KWH		20,016,896			
Total Retail	Customers		6,048,237			
	Meters		760,477			
	Luminaires		716,162			
	Billing Demand		12,145,970			
	KWH		7,906,557,373			
	Revenue				\$ 347,018,233.67	

Public Service Company of New Hampshire dba Eversource Energy
Calculation of Distribution Revenue at the Rate Level Effective July 1, 2015 (Demand and kWh-based Charges Only)
 Based on Billing Determinants for the Twelve Months Ending December 2014

Rate Class	Customer Group		(a) 07/01/2015 Monthly Distribution Charge	(b) Annual Billing Determinants	(c) Adjustment Factor	(d) Calculated Revenue (a) x (b) x (c)	
Residential Rate R	Standard Rate	Customer charge All KWH	\$ 0.04161	5,123,836 3,033,432,546	1.00137487	\$ 126,394,666.48	
	Standard Rate - (Elderly Discount)	Customer charge All KWH	\$ 0.04161	1,208 538,105	1.00073073	17,366.96	
	Time of Day R-OTOD	Customer charge On-peak KWH Off-peak KWH	\$ 0.13299 \$ 0.00194	429 167,497 287,547	1.00481551	22,943.22	
	QR Water Heating	Meter charge All KWH	\$ 0.02040	558,454 107,049,084	1.00217649	2,188,554.33	
	QR Water Heating (Elderly Discount)	Meter charge All KWH	\$ 0.02040	334 49,851	1.00838224	676.55	
	Controlled Water Heating	Meter charge All KWH	\$ 0.00121	5,465 949,644	1.01622366	1,167.71	
	Controlled Water Heating (Elderly Discount)	Meter charge All KWH	\$ 0.00121	8 1,429	0.99854392	(7.36)	
	Load Controlled Rate LCS	Radio-controlled option (56) 8, 10 or 11-hour option (47, 49) Switch option (48, 50) Radio-controlled option (56) 8-hour option (47, 48) 10 or 11-hour option (49, 50)	\$ 0.00121 \$ 0.00121 \$ 0.02459	43,988 2,907 217 39,720,877 459,327 355,615	1.01066909	57,974.63	
	Load Controlled Rate LCS (Elderly Discount)	Radio-controlled option (56) 8, 10 or 11-hour option (47, 49) Switch option (48, 50) Radio-controlled option (56) 8-hour option (47, 48) 10 or 11-hour option (49, 50)	\$ 0.00121 \$ 0.00121 \$ 0.02459	36 - - 43,310 - -	0.99300037	(63.72)	
	Total Rate R	Customers			5,125,473		
		Meters			611,409		
		KWH			3,183,054,832		
		Revenue					\$ 128,683,278.82

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Public Service Company of New Hampshire dba Eversource Energy
Calculation of Distribution Revenue at the Rate Level Effective July 1, 2015 (Demand and kWh-based Charges Only)
 Based on Billing Determinants for the Twelve Months Ending December 2014

Rate Class	Customer Group		(a) 07/01/2015 Monthly Distribution Charge	(b) Annual Billing Determinants	(c) Adjustment Factor	(d) Calculated Revenue (a) x (b) x (c)	
General Rate G	Standard Rate	Single phase customer charge		662,560			
		Three phase customer charge		229,955			
		Load charge (over 5 KW)	\$ 8.76	3,909,799			
		First 500 KWH	\$ 0.07020	267,996,315			
		Next 1,000 KWH	\$ 0.01739	290,122,864			
		All additional KWH	\$ 0.00615	1,137,401,763	0.99834275	64,995,543.00	
	Time of Day G-OTOD		Single phase customer charge		163		
			Three phase customer charge		263		
			Load charge	\$ 12.21	11,677		
			On-peak KWH	\$ 0.04924	507,017		
			Off-peak KWH	\$ 0.00772	856,520	1.00051298	174,238.47
	Space Heating		Meter charge		6,157		
			All KWH	\$ 0.03442	6,119,129	1.00094149	210,818.72
	QR Water Heating		Meter charge		17,417		
All KWH			\$ 0.02040	4,036,445	1.00050258	82,384.85	
Controlled Water Heating		Meter charge		74			
		All KWH	\$ 0.00121	15,429	0.98776928	18.44	
Load Controlled Rate LCS		Radio-controlled option (56)		2,594			
		8, 10 or 11-hour option (47, 49)		107			
		Switch option (48, 50)		-			
		Radio-controlled option (56)	\$ 0.00121	6,890,552			
		8-hour option (47, 48)	\$ 0.00121	159,712			
		10 or 11-hour option (49, 50)	\$ 0.02459	33,680	1.00926246	9,445.70	
Total Rate G		Customers		892,941			
		Meters		26,349			
		Billing demand		3,921,475			
		KWH		1,714,139,426			
		Revenue				\$ 65,472,449.18	

Public Service Company of New Hampshire dba Eversource Energy
Calculation of Distribution Revenue at the Rate Level Effective July 1, 2015 (Demand and kWh-based Charges Only)
Based on Billing Determinants for the Twelve Months Ending December 2014

<u>Rate Class</u>	<u>Customer Group</u>		(a) 07/01/2015 Monthly Distribution Charge	(b) Annual Billing Determinants	(c) Adjustment Factor	(d) Calculated Revenue (a) x (b) x (c)
Primary General Rate GV	Standard Rate	Customer charge		16,590		
		First 100 KW	\$ 5.61	1,599,789		
		All additional KW	\$ 5.37	2,619,553		
		First 200,000 KWH	\$ 0.00609	1,460,676,483		
		All additional KWH	\$ 0.00511	199,628,529	1.00277890	33,049,022.96
	Space Heating	Meter charge		12		
		All KWH	\$ 0.03442	31,900	0.99999744	1,098.00
	Rate B	Administrative charge		97		
		Translation charge		36		
		Demand charge	\$ 4.50	45,945		
First 200,000 KWH		\$ 0.00609	1,447,413			
All additional KWH		\$ 0.00511	-	0.99857594	215,260.26	
Total Rate GV	Customers		16,687			
	Meters		12			
	Billing demand		4,265,287			
	KWH		1,661,784,325			
	Revenue				\$ 33,265,381.22	

Public Service Company of New Hampshire dba Eversource Energy
Calculation of Distribution Revenue at the Rate Level Effective July 1, 2015 (Demand and kWh-based Charges Only)
 Based on Billing Determinants for the Twelve Months Ending December 2014

Rate Class	Customer Group		(a) 07/01/2015 Monthly Distribution Charge	(b) Annual Billing Determinants	(c) Adjustment Factor	(d) Calculated Revenue (a) x (b) x (c)	
Large General Rate LG	Standard Rate	Customer charge		1,312			
		Demand charge	\$ 4.77	2,824,944			
		On-peak KWH	\$ 0.00510	547,247,680			
		Off-peak KWH	\$ 0.00430	708,698,789	0.99997369	19,312,842.64	
	Rate B - customers served at 115kV	Administrative charge			59		
		Translation charge			-		
		Demand charge	\$ -	838,696			
		On-peak KWH	\$ -	11,289,561			
	Rate B - all other customers	Off-peak KWH	\$ -	28,340,802	0.99999892	-	
		Administrative charge			108		
		Translation charge			36		
		Demand charge	\$ 4.50	295,568			
Total Rate LG	On-peak KWH	\$ 0.00510	4,919,715				
	Off-peak KWH	\$ 0.00430	8,340,974	1.00000008	1,391,012.84		
	Customers			1,479			
	Meters			-			
	Billing demand			3,959,208			
	KWH		1,308,837,521				
	Revenue				\$ 20,703,855.49		

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Public Service Company of New Hampshire dba Eversource Energy
Calculation of Distribution Revenue at the Rate Level Effective July 1, 2015 (Demand and kWh-based Charges Only)
 Based on Billing Determinants for the Twelve Months Ending December 2014

Rate Class	Customer Group	(a) 07/01/2015 Monthly Distribution Charge	(b) Annual Billing Determinants	(c) Adjustment Factor	(d) Calculated Revenue (a) x (b) x (c)	
Outdoor Lighting Rate OL	High Pressure Sodium	4,000 (CHID 010)	42,065	-	-	
		5,800 (CHID 020)	7,442	-	-	
		9,500 (CHID 030)	11,459	-	-	
		16,000 (CHID 040)	10,530	-	-	
		30,000 (CHID 050)	16,886	-	-	
		50,000 (CHID 060)	23,862	-	-	
	Mercury	130,000 (CHID 070)	4,141	-	-	-
		12,000 (CHID 080)	144	-	-	-
		34,200 (CHID 090)	75	-	-	-
		3,500 (CHID 100)	72,694	-	-	-
		7,000 (CHID 105)	13,380	-	-	-
		11,000 (CHID 125)	1,335	-	-	-
		20,000 (CHID 130)	6,018	-	-	-
		56,000 (CHID 135)	1,771	-	-	-
		15,000 (CHID 155)	73	-	-	-
		Metal Halide	5,000 (CHID 156)	2,097	-	-
	8,000 (CHID 157)		1,291	-	-	-
	13,000 (CHID 158)		-	-	-	-
	13,500 (CHID 159)		1,237	-	-	-
	20,000 (CHID 161)		3,304	-	-	-
	36,000 (CHID 162)		4,980	-	-	-
	Incandescent	100,000 (CHID 160)	3,458	-	-	-
		600 (CHID 165)	1,336	-	-	-
		1,000 (CHID 170)	3,271	-	-	-
		2,500 (CHID 175)	48	-	-	-
		6,000 (CHID 185)	-	-	-	-
Fluorescent	20,000 (CHID 195)	24	-	-	-	
				1.00063903	\$ -	
Total Rate OL						
	Luminaires		232,921			
	Customers		8,667			
	Meters		122,707			
	KWH		18,724,374			

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Public Service Company of New Hampshire dba Eversource Energy
Calculation of Distribution Revenue at the Rate Level Effective July 1, 2015 (Demand and kWh-based Charges Only)
 Based on Billing Determinants for the Twelve Months Ending December 2014

Rate Class	Customer Group	(a) 07/01/2015 Monthly Distribution Charge	(b) Annual Billing Determinants	(c) Adjustment Factor	(d) Calculated Revenue (a) x (b) x (c)	
Outdoor Lighting Rate EOL	High Pressure Sodium	4,000 (CHID 010)	296,429		-	
		5,800 (CHID 020)	27,051		-	
		9,500 (CHID 030)	41,766		-	
		16,000 (CHID 040)	34,254		-	
		30,000 (CHID 050)	48,768		-	
		50,000 (CHID 060)	6,927		-	
		130,000 (CHID 070)	1,416		-	
	Metal Halide	5,000 (CHID 156)	19,668		-	
		8,000 (CHID 157)	1,914		-	
		13,000 (CHID 158)	72		-	
		13,500 (CHID 159)	1,868		-	
		20,000 (CHID 161)	1,032		-	
		36,000 (CHID 162)	804		-	
	LED's and other technologies	100,000 (CHID 160)	1,272		-	
		Per fixture Per watt	0.0515		-	
				0.99987427	\$	-
	Total Rate EOL			Luminaires Customers Meters KWH		483,241 2,990 - 20,016,896
Total Retail			Customers Meters Luminaires Billing Demand KWH Revenue		6,048,237 760,477 716,162 12,145,970 7,906,557,373 \$ 248,124,964.70	

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
 Calculation of Average Distribution Rates at the Rate Level Effective May 1, 2015
 Based on DE 13-063 Settlement Agreement and DE 15-087 REP/VMP Step Increase

<u>Rate Class</u>	<u>Delivery</u> kWh	<u>Total Distribution</u> Revenue		<u>\$/kWh</u>
D	290,756,999	\$17,075,921	\$	0.05873
D-10	5,119,351	\$219,227	\$	0.04282
G-1	397,761,761	\$7,653,872	\$	0.01924
G-2	159,024,014	\$4,416,479	\$	0.02777
G-3	94,676,694	\$4,488,610	\$	0.04741
M	4,545,039	\$915,896	\$	0.20152
T	17,204,110	\$742,078	\$	0.04313
V	<u>280,275</u>	<u>\$11,155</u>	\$	0.03980
Total Retail	969,368,243	\$35,523,239	\$	0.03665

Distribution rates excluding customer, meter, and per luminaire charges

<u>Rate Class</u>	<u>Delivery</u> kWh	<u>Total Distribution Revenue</u> <u>Excluding Fixed Charges</u>		<u>\$/kWh</u>
D	290,756,999	\$12,256,720		\$0.04215
D-10	5,119,351	\$160,384		\$0.03133
G-1	397,761,761	\$7,174,277		\$0.01804
G-2	159,024,014	\$3,847,664		\$0.02420
G-3	94,676,694	\$3,715,113		\$0.03924
M	4,545,039	\$915,896		\$0.20152
T	17,204,110	\$577,861		\$0.03359
V	<u>280,275</u>	<u>\$11,155</u>		<u>\$0.03980</u>
Total Retail	969,368,243	\$28,659,071	\$	0.02956

Unitil Energy Systems, Inc.
 Calculation of Average Distribution Rate for Lost Base Revenue At the Rate Level Effective May 1, 2014
 Based on Actual Billing Determinants for 2015

	Billing Determinants	Distribution Rate	Distribution Revenue	Average Distribution Rate (Including Customer Charge) \$/kWh	Average Distribution Rate (Excluding Customer Charge) \$/kWh	Average Distribution Rate for LRAM \$/kWh
Residential						
Residential, D	Customer Charge	785,306	\$10.27	\$8,065,095		
	<u>kWh</u>					
	First 250 kWh	177,320,752	\$0.03404	\$6,035,998		
	Excess 250 kWh	<u>320,555,076</u>	\$0.03904	<u>\$12,514,470</u>		
	Subtotal	497,875,828		\$18,550,469		
Total Residential	497,875,828 kWh		\$26,615,564	\$0.05346	\$0.03726	\$0.03726
General Service						
kWh Meter, G-2	Customer Charge	5,238	\$13.94	\$73,023		
	kWh	607,397	\$0.03211	\$19,504	\$0.15233	\$0.03211
Quick Recovery Water Heating and/or Space Heating, G-2	Customer Charge	3,454	\$6.25	\$21,587		
	kWh	5,742,223	\$0.03073	\$176,459	\$0.03449	\$0.03073
Regular General, G-2	Customer Charge	123,180	\$18.41	\$2,267,743		
	kWh	347,811,789	\$0.00000	\$0		
	kW	1,348,556	\$10.31	\$13,903,613		
Transformer Ownership Credit, G-2				(\$19,605)	\$0.04644	\$0.03992
Total General Service	354,161,409 kWh		\$16,442,322	\$0.04643	\$0.03976	\$0.03976
Large General Service						
Large General Service, G-1	Customer Charge - Primary	381	\$57.58	\$21,938		
	Customer Charge - Secondary	1,497	\$97.16	\$145,449		
	kWh	353,924,392	\$0.00000	\$0		
	<u>kVa</u>	1,022,850	<u>\$6.95</u>	<u>\$7,108,808</u>		
Transformer Ownership Credit, G-1				(\$162,033)		
Total Large General Service	353,924,392 kWh		\$7,114,161	\$0.02010	\$0.01963	\$0.01963

Northern Utilities Inc. - New Hampshire Division
 Calculation of Average Distribution Rate for Lost Base Revenue At the Rate Level Effective May 1, 2015
 Based on DG 15-083 Step Adjustment Filing

	Customer Charge Revenue	Distribution Charge Revenue	Total Distribution Revenue	Including Customer Charge \$/therm	Excluding Customer Charge \$/therm	Average Distribution Rate for LRAM \$/therm
R-5 Residential, Heating	\$5,187,540	\$8,402,285	\$13,589,826	\$ 0.8993	\$ 0.5560	
R-10 Residential Heating, Low Income	\$299,332	\$432,974	\$732,306	\$ 0.9575	\$ 0.5661	
R-6 Residential, Non-Heating	\$372,893	\$146,210	\$519,103	\$ 1.4962	\$ 0.4214	
R-11 Residential Non-Heating, Low Income	\$4,610	\$1,867	\$6,477	\$ 1.4621	\$ 0.4214	
Total Residential Service	\$5,864,376	\$8,983,337	\$14,847,713	\$ 0.9150	\$ 0.5536	\$ 0.5536
G-40/T-40 Low Annual, High Winter Use	\$3,784,603	\$1,472,512	\$5,257,115	\$ 0.5767	\$ 0.1615	
G-50/T-50 Low Annual, Low Winter Use	\$759,289	\$356,943	\$1,116,231	\$ 0.5052	\$ 0.1615	
G-41/T-41 Medium Annual, High Winter Use	\$1,324,868	\$2,236,447	\$3,561,315	\$ 0.3192	\$ 0.2004	
G-51/T-51 Medium Annual, Low Winter Use	\$565,219	\$536,472	\$1,101,691	\$ 0.2633	\$ 0.1282	
G-42/T-42 High Annual, High Winter Use	\$341,752	\$638,752	\$980,504	\$ 0.2363	\$ 0.1539	
G-52/T-52 High Annual, Low Winter Use	\$418,272	\$1,492,001	\$1,910,273	\$ 0.1531	\$ 0.1196	
Total General Service	\$7,194,003	\$6,733,127	\$13,927,130	\$ 0.3217	\$ 0.1555	\$ 0.1555
Total Company	\$13,058,379	\$15,716,464	\$28,774,843	\$ 0.4834	\$ 0.2640	

Data from DG 15-083, February 26, 2015 Rate Case Settlement Step Adjustment Filing, Attachment 3

Billing Determinants - 2012 Test Year		Annual Customers	Winter Blocks		Summer Blocks		Total Therms
Rate Class			First Therms	Excess Therms	First Therms	Excess Therms	
R-5 Residential, Heating		242,818	5,200,624	7,025,576	2,586,330	298,307	15,110,838
R-10 Residential Heating, Low Income		14,011	332,822	291,390	130,105	10,467	764,785
R-6 Residential, Non-Heating		17,454	64,911	173,368	60,444	48,235	346,958
R-11 Residential Non-Heating, Low Income		216	1,108	2,107	704	511	4,430
Total Residential		274,499	5,599,466	7,492,442	2,777,584	357,520	16,227,012
G-40/T-40 Low Annual, High Winter Use		56,106	1,685,725	6,061,205	656,308	712,371	9,115,609
G-50/T-50 Low Annual, Low Winter Use		11,256	263,707	1,068,508	242,840	634,605	2,209,660
G-41/T-41 Medium Annual, High Winter Use		6,735	8,963,471		2,194,797		11,158,267
G-51/T-51 Medium Annual, Low Winter Use		2,873	1,482,895	990,163	1,085,861	625,821	4,184,741
G-42/T-42 High Annual, High Winter Use		304	2,814,928		1,335,117		4,150,045
G-52/T-52 High Annual, Low Winter Use		372	7,315,701		5,162,991		12,478,692
Total General Service		77,646	22,526,426	8,119,877	10,677,914	1,972,797	43,297,014
Total		352,144	28,125,892	15,612,319	13,455,498	2,330,317	59,524,026
Distribution Rates Effective May 1, 2015		Customers Charge	Winter Blocks First Therms \$/thm	Excess Therms \$/thm	Summer Blocks First Therms \$/thm	Excess Therms \$/thm	Distribution Revenue
R-5 Residential, Heating		\$21.36	\$0.6239	\$0.5103	\$0.5449	\$0.5449	\$13,589,826
R-10 Residential Heating, Low Income		\$21.36	\$0.6239	\$0.5103	\$0.5449	\$0.5449	\$732,306
Discount		-\$12.81	-\$0.3743	-\$0.3062	-\$0.3269	-\$0.3269	
Total Residential Heating, Low Income		\$8.54	\$0.2496	\$0.2041	\$0.2179	\$0.2179	
R-6 Residential, Non-Heating		\$21.36	\$0.4214	\$0.4214	\$0.4214	\$0.4214	\$519,103
R-11 Residential Non-Heating, Low Income		\$21.36	\$0.4214	\$0.4214	\$0.4214	\$0.4214	\$6,477
Discount		-\$5.83	-\$0.1020	-\$0.1020	-\$0.1020	-\$0.1020	
Total Residential Non-Heating, Low Income		\$15.52	\$0.3196	\$0.3196	\$0.3196	\$0.3196	
Total Residential Service							\$14,847,713
G-40/T-40 Low Annual, High Winter Use		\$67.45	\$0.1615	\$0.1615	\$0.1615	\$0.1615	\$5,257,115
G-50/T-50 Low Annual, Low Winter Use		\$67.45	\$0.1615	\$0.1615	\$0.1615	\$0.1615	\$1,116,231
G-41/T-41 Medium Annual, High Winter Use		\$196.73	\$0.2098		\$0.1622		\$3,561,315
G-51/T-51 Medium Annual, Low Winter Use		\$196.73	\$0.1520	\$0.1238	\$0.1183	\$0.0958	\$1,101,691
G-42/T-42 High Annual, High Winter Use		\$1,124.19	\$0.1764		\$0.1066		\$980,504
G-52/T-52 High Annual, Low Winter Use		\$1,124.19	\$0.1541		\$0.0707		\$1,910,273
Total General Service							\$13,927,130
Total Company							\$28,774,843