



STATE OF NEW HAMPSHIRE BEFORE THE PUBLIC UTILITIES COMMISSION

Docket No. DE 16-346XXX

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Annual Retail Rate Filing

REVISED DIRECT TESTIMONY

OF

JOHN D. WARSHAW

April 20 March 17, 2016

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I. Introduction and Qualifications

- 2 Q. Please state your full name and business address.
- 3 A. My name is John D. Warshaw, and my business address is 15 Buttrick Rd, Londonderry,
- 4 NH 03053.

- 5 Q. By whom are you employed and in what capacity?
- 6 A. I am the Manager, Electric Supply for Liberty Utilities Service Corp. which is the sole
- shareholder of Liberty Utilities (Granite State Electric) Corp. ("Granite State" or the
- 8 "Company") and provides services to Granite State. I oversee the procurement of power
- 9 for Energy Service for Granite State as well as the procurement of renewable energy
- 10 certificates ("RECs"). I am also responsible for monitoring costs and activities relative to
- 11 transmission service provided to the Company.
- 12 Q. Please describe your educational background.
- 13 A. I graduated from the State University of New York Maritime College in 1977 with a
- Bachelor of Science in Nuclear Science. I received a Master's in Business
- Administration from Northeastern University in 1986. In 1992, I earned a Master of Arts
- in Energy and Environmental Management from Boston University.
- 17 O. What is your professional background?
- 18 A. In November of 2011, I joined the Company as Manager, Electric Supply for Granite
- State. Prior to my employment at Liberty Utilities Service Corp., I was employed by
- National Grid USA Service Company ("National Grid") as a Principal Analyst in Energy
- 21 Supply New England from 2000 to 2010. In that position I conducted a number of

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1		solicitations for wholesale power to meet the needs of National Grid's New England
2		distribution companies. I also administered both short-term and long-term power
3		purchase agreements for National Grid's New England distribution companies. Prior to
4		my employment at National Grid, I was employed at COM/Energy (now NSTAR) from
5		1992 to 2000. From 1992 to 1997, I was a Rate Analyst in Regulatory Affairs at
6		COM/Energy responsible for supporting state and federal rate filings. In 1997, I
7		transferred to COM/Electric to work in Power Supply Administration.
8	Q.	Have you previously testified before the New Hampshire Public Utilities
9		Commission ("Commission")?
10	A.	Yes. I most recently provided written and oral testimony before the Commission in
11		Docket DE 15-010 on September 22, 2015.
12	Q.	Have you testified before any other state regulatory agencies?
13	A.	Yes. I have testified before both the Massachusetts Department of Public Utilities and
14		the Rhode Island Public Utilities Commission regarding electric supply and renewable
15		portfolio procurement activities.
16	II.	Purpose of Testimony
17	Q.	What is the purpose of your testimony?
18	A.	My testimony addresses the estimated 2016 transmission expenses for Granite State.
19		First, I will summarize the various transmission services provided to Granite State and
20		describe how Granite State pays for such services. Second, I will provide testimony
21		supporting the forecast of transmission expenses that Granite State expects to incur in

Exhibit 6
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	2016. As described more fully in the second part of my testimony, the Company
	forecasts an increase of \$357,272176,233 in prospective transmission expenses compared
	to the forecast provided for calendar year 2015 in Docket No. DE 14-340.
III.	Summary of Transmission Services Provided to Granite State
Q.	Please summarize what transmission services Granite State receives from ISO New
	England Inc. (the "ISO" or "ISO-NE") under rate schedules approved by the
	Federal Energy Regulatory Commission ("FERC").
A.	Granite State receives transmission services under the ISO New England Inc.
	Transmission, Markets and Services Tariff ("ISO Tariff") as follows:
	1. Section II (Schedules 1, 2, 9 and 16) of the ISO Tariff provides for Regional Network Service ("RNS");
	2. Section IV.A – ISO Funding Mechanisms provides for the recovery of ISO's
	Administrative Services and
	3. Section II, Schedule 21 of the ISO Tariff provides for Local Network Service
	("LNS") from the New England Power Company ("NEP").
Q.	Please describe further the types of transmission services that are billed to Granite
	State under the ISO Tariff.
A.	New England's transmission rates utilize a highway/local pricing structure. That is,
	Granite State receives regional transmission service over "highway" transmission
	facilities under Section II of the ISO Tariff (also known as RNS), and receives local
	transmission service over local transmission facilities under Schedule 21 of the ISO
	Q. A.

Tariff (also known as LNS). Additionally, a number of administration services are provided by ISO-NE under Section IV.A of the ISO Tariff.

Explanation of ISO Tariff Services, Rates & Charges

- 4 Q. Please explain the services provided to Granite State under the ISO Tariff.
- 5 A. Section II of the ISO Tariff provides access over New England's looped transmission
- facilities, more commonly known as Pool Transmission Facilities ("PTF") or bulk
- 7 transmission facilities. In addition, the ISO Tariff provides for Ancillary Services (Black
- 8 Start, Reactive Power, and Scheduling, System Control and Dispatch Services) as
- 9 described more fully later in this testimony.

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Q. How are the costs for RNS recovered?

- 11 A. The ISO Tariff RNS Rate ("RNS Rate") (Section II Schedule 9 of the ISO Tariff)
- recovers the RNS costs, and is determined annually based on an aggregation of the
- transmission revenue requirements of each of the Participating Transmission Owners
- 14 ("PTO") in New England, calculated in accordance with a FERC approved formula in a
- single, "postage stamp" rate in New England. Granite State is currently participating in
- the proceeding recently instituted by the FERC in Docket EL 16-19-000 to investigate the
- reasonableness of the formula rate protocols used to develop both RNS and LNS rates.
- Any refunds that may result from this investigation will be included in the next retail rate
- filing for transmission service.

1	Q.	Please describe the ISO-NE System Restoration and Planning Service, Reactive
2		Supply and Voltage Control, and Scheduling, System Control and Dispatch Services
3		that are included in the ISO Tariff.
4	A.	ISO-NE System Restoration and Planning Service (Section II - Schedule 16 of the ISO
5		Tariff), also known as Black Start Service, is necessary to ensure the continued reliable
6		operation of the New England transmission system. This service allows for the payment
7		to generators who have the capability of supplying load and the ability to re-start without
8		an outside electrical supply to re-energize the transmission system following a system-
9		wide blackout.
10		Reactive Supply and Voltage Control (Section II - Schedule 2 of the ISO Tariff), also
11		known as Reactive Power Service, is necessary to maintain transmission voltages within
12		acceptable limits on the ISO-NE transmission system and allows for the payment to
13		generators or other facilities that have the capability to produce or absorb reactive power.
14		Lastly, Scheduling, System Control and Dispatch Service ("Scheduling & Dispatch
15		Service") consists of the services required to schedule the movement of power through,
16		out of, within, or into the ISO-NE Control Area over the PTF and to maintain System
17		Control. Scheduling & Dispatch Service also provides for the recovery of certain charges
18		that reflect expenses incurred in the operation of satellite dispatch centers.

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1	Q.	How are the ISO-NE charges for Black Start and Reactive Power assessed to
2		Granite State?
3	A.	ISO-NE assesses charges for Black Start and Reactive Power Services to Granite State
4		each month based on Granite State's proportionate share of its network load to ISO-NE's
5		total network load.
6	Q.	How are the charges for Scheduling & Dispatch Service assessed to Granite State?
7	A.	Charges for Scheduling & Dispatch Service are assessed to Granite State through three
8		separately charged tariffed services.
9		The first charge is for the expenses incurred by ISO-NE in providing these services and is
10		recovered under Schedule 1 of Section IV.A of the ISO Tariff. These costs are allocated
11		to Granite State each month based on an annually filed FERC-approved fixed rate times
12		Granite State's monthly Network Load.
13		The second charge is for the costs incurred by the individual transmission owners in
14		providing Scheduling & Dispatch Service over PTF facilities, including the costs of
15		operating local control centers, and are recovered under Section II, Schedule 1 of the ISO
16		Tariff. These costs are allocated to Granite State each month based on a formula rate that
17		is determined each year based on the prior year's costs incurred times Granite State's
18		monthly Network Load.
19		The final service is the costs of Scheduling & Dispatch Service for transmission service
20		over transmission facilities other than PTF that are charged under Schedule 21 of the ISO

3	Q.	What additional administrative services and/or charges flow through to Granite
2		to Granite State through three different tariff mechanisms.
1		Tariff. Thus, the three types of Scheduling & Dispatch costs are similar, but are charged

- A. Granite State also incurs charges pursuant to Section IV.A Schedule 5, of the ISO Tariff.

 Schedule 5 provides for the collection of the New England States Committee on

 Electricity's ("NESCOE") annual budget.
- 8 Q. How are the ISO Tariff Administrative Services charges assessed?

State under Section IV.A of the ISO Tariff?

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ISO-NE assesses the charges in Section IV.A based upon stated rates pursuant to the ISO
Tariff. These stated rates are adjusted annually when ISO-NE files a revised budget and
cost allocation proposal to become effective January 1 each year. Granite State is
charged the stated rate for these services as part of ISO-NE's monthly billing process,
based on its Network Load for Section IV.A Schedule 1 and Schedule 5 charges.

Explanation of Schedule 21 NEP Tariff Services, Charges and Credits

- Q. What services are provided to Granite State under Schedule 21 of the ISO Tariff?
 A. Schedule 21 provides service over NEP's local, non-highway transmission facilities,
- 17 considered non-PTF facilities ("Non-PTF"). The service provided over the Non-PTF is 18 referred to as LNS. NEP also provides metering, transformation and certain ancillary 19 services to Granite State to the extent such services are required by Granite State and not 20 otherwise provided under the ISO Tariff.

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1	Λ	Please explain the metering and transformation services provided by NEP.
1	U.	riease explain the metering and transformation services provided by NET.

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- A. NEP separately surcharges the appropriate customers for these services. NEP provides metering service when a customer uses NEP-owned meter equipment to measure the delivery of transmission service. NEP provides transformation service when a customer uses NEP-owned transformation facilities to step down voltages from 69 kV or greater to a distribution voltage.
- Q. Are there any other transmission services for which NEP assesses charges to
 8 Granite State?
- Yes. Granite State relies upon the specific distribution facilities of NEP's affiliate,

 Massachusetts Electric Company ("Mass Electric"), which provides for NEP's use of

 such facilities pursuant to the Integrated Facilities provision of NEP's FERC Electric

 Tariff No. 1 service agreement with Mass Electric. NEP, in turn, uses these specific

 distribution facilities to provide transmission service to Granite State. Therefore, Granite

 State is also subject to a Specific Distribution Surcharge for its use of these facilities.
- 15 Q. What is the credit in Schedule 21 charges that NEP provides to Granite State in its
 16 monthly invoice?
- A. As a result of the sale of Granite State to Liberty Utilities, NEP uses certain distribution
 facilities of Granite State to provide service to generation customers of NEP. An
 Integrated Facilities Supplement to Schedule 21 of the ISO Tariff provides Granite State
 with a credit in exchange for the continued use by NEP of Granite State's facilities to
 serve NEP's generation customers.

IV. I	Estimate of	Granite	State's	Transmission	Expenses
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- Q. Was the forecast for Granite State's transmission and ISO expenses for 2016 prepared by you or under your supervision?
- A. Yes. Granite State estimates the total transmission and ISO-NE expenses (including certain ancillary services) for 2016 to be approximately \$22.97 million, as shown in Schedule JDW-1, Summary Page 1. This equates to an increase of \$357176 thousand as compared to the forecast for 2015 provided in Docket No. DE 14-340.
- 8 Q. How have the ISO Tariff charges for RNS shown on line 3 of Schedule JDW-1 been
 9 forecasted?
- The Company has applied an estimated rate increase to the total RNS rate currently in 10 A. effect to reflect the forecast of PTF plant additions across New England, as estimated by 11 the New England transmission owners, to be included in the annual formula rate effective 12 June 1, 2016. The estimated rate increase was provided by the PTO Rates Group 13 presentation during the 2015 NEPOOL Reliability and Transmission Committees' 14 Summer Meeting. The estimated increase of \$6.28 per kW-year in 2016 to the RNS rate 15 16 is added to the current RNS rate to get an estimated rate of \$104.98 per kW-year. This results in an estimated increase of \$1,713,468535,086 as shown in column 2 of Schedule 17 JDW-1, page 2 of 2. 18
- Q. Given the \$6.28 per kW-year (6.4%) increase in the RNS rate, why is the estimated increase in RNS charges significantly larger (11.210.4%)?
- A. In developing the 2015 RNS costs in DE 14-340, the forecasted RNS rate of \$96.60 per kW-year to be effective June 1, 2015 was used, as provided in the 2014 NEPOOL

Reliability and Transmission Committees' Summer Meeting. The final, approved RNS rate effective June 1, 2015 was \$98.70 per kW-year. As a result, the forecasted RNS charges for 2015 were lower than if the final, approved RNS rate had been used. This resulted in an under-estimate of 2015 RNS costs. Granite State is participating in the recent investigation of ISO-NE's Transmission, Markets and Service Tariff opened by FERC on December 28, 2015 (EL16-19). FERC has found the current formula rate protocols do not provide the transparency and specificity required to ensure them to be understandable and reviewable by transmission customers. At the conclusion of this investigation, the FERC may order refunds which the Company will pass on to its customers at the next applicable transmission retail rate filing.

- Q. Schedule JDW-1 also includes estimated ISO-NE charges for Black Start, Reactive Power, and Scheduling and Dispatch. How were these costs forecasted?
- A. The Black Start costs shown on line 5 of Schedule JDW-1 were derived in two steps.

 First, as shown in Section II of Schedule JDW-3; the Company estimated the cost for Black Start Service by summing Granite State's actual monthly ISO-NE Black Start expenses for 2015 (Line 5). This estimate is divided by Granite State's 2015 Peak Load to calculate an estimated annual rate, as shown on line 7. Granite State then calculated a monthly rate (annual rate divided by 12), as shown on line 8. To obtain the estimate of Black Start costs that would be charged to Granite State, as shown in column 4 of Schedule JDW-2, page 1, the Company multiplied the monthly rate by Granite State's monthly network load, as shown for each month in column 1 of Schedule JDW-2, page 1. Using this methodology, the Company estimates an allocation of \$90,250161 for 2016.

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1	Q.	How have you estimated Reactive Power costs for Granite State?
2	A.	The estimated Reactive Power cost for Granite State was calculated by using actual
3		Granite State costs for 2015 as shown in Section I of Schedule JDW-3. The annual rate
4		was determined by dividing the total Reactive Power costs charged to Granite State (Line
5		1) by Granite State's peak 2015 Network Load. The monthly rate (annual rate divided by
6		12) is then multiplied by Granite State's monthly network load, as shown on column 5 of
7		Schedule JDW-2, page 1 to determine the estimated charges for Reactive Power Service.
8		Using this methodology, the Company estimates an allocation of \$272,823208,006 for
9		2016.
10	Q.	How did you forecast the Scheduling and Dispatch costs shown on line 4 of Schedule
11		JDW-1, page 1?
12	A.	My estimate is shown in column (3) of Schedule JDW-2, page 1. This amount was
13		derived by using the currently effective OATT Schedule 1 rate of \$1.60933 per kW-year,
14		divided by 12, and further multiplied by Granite State's monthly network loads for 2015
15		as shown in column (1) of Schedule JDW-2, page 1.

- Q. Have you included any Reliability Must Run ("RMR") contract charges to Granite
 State for 2016?
- 18 A. No. Reliability Must Run Agreements guarantee payments to generators that are needed
 19 to ensure reliability. To obtain an agreement, a generator must receive verification from
 20 ISO-NE that it is needed for reliability and must demonstrate that it is unable to cover its
 21 operating costs with revenue from other sources. Granite State has not incurred any
 22 RMR contract charges as there have been no RMR contracts for the New Hampshire

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1		reliability region over the past year. Therefore, the Company has not forecasted any
2		RMR contract costs for 2016.
3	Q.	Can you please explain the forecast of the ISO-NE Administrative Charges shown
4		on lines 7 and 8 of Schedule JDW-1 page 1?
5	A.	Yes. Lines 7 and 8 include ISO-NE Administrative charges for Scheduling & Dispatch
6		and NESCOE respectively, and are derived on Schedule JDW-2 page 2. Line 7 on
7		Schedule JDW-1 page 1 shows the 2016 forecast of charges to Granite State under
8		Schedule 1, Scheduling and Load Dispatch Administrative schedules through Section
9		IV.A of the ISO Tariff. The estimate is based on the ISO-NE revenue requirement for
10		Schedule 1 filed each year with FERC. This amount was derived by using the ISO
11		Schedule 1 rate of \$0.19275 per kW-month and multiplied by Granite State's forecasted
12		monthly network load as shown in column 1 of Schedule JDW-2, page 2.
13		Line 8 on page 1 of Schedule JDW-1 shows the estimated 2016 NESCOE charges under
14		Schedule 5 of Section IV.A of the ISO Tariff. This amount was derived by using the ISO
15		Schedule 5 rate of \$0.00296 per kW-month and multiplied by Granite State's forecasted
16		monthly network load as shown in column 1 of Schedule JDW-2, page 2.
17	Q.	What is the sub-total of transmission expenses attributable to charges from the ISO
18		NE?
19	A.	The sub-total of ISO-NE charges is \$\frac{17,081,913}{16,900,874}\$ which is the sum of lines 3
20	I	through 8 on Schedule JDW-1 page 1.

1	Q.	Have you estimated the charges to Granite State under Schedule 21 of the ISO
2		Tariff?
3	A.	Yes. Lines 1 and 2 of Schedule JDW-1 show the amount of forecasted charges from
4		NEP pursuant to the Local Network Service ("LNS") tariff. The total amount of
5		expenses is \$5,839,524 which represents a net decrease of \$1,437,153 in the total NEP
6		expenses NEP will charge to Granite State in 2016 (see Schedule JDW-1, page 2, lines 1
7		and 2). Granite State estimated the PTF and non-PTF expenses based on the average of
8		NEP's actual charges in 2015 and the percent change from 2014 to 2015 as shown on
9		Schedule JDW-4 page 2. Metering, transformation, specific distribution, and ancillary
10		service charges are based on current rates and are assessed to Granite State based on a per
11		meter and peak load basis, respectively. A maintenance service credit, as discussed
12		previously, was also included in the estimate.
13	V.	Explanation of Primary Changes from Last Year's Forecasted Expenses
14	Q.	What are the primary causes of the estimated increase in Granite State's 2016
15		transmission expenses?
16	A.	The estimated 2016 Granite State transmission and ISO-NE expenses of \$22.97 million
17		represent a net increase of \$357,272176,233 from the 2015 forecast of transmission

expenses for Granite State. The largest increase is from Granite State's RNS

offset by the estimated reduction in NEP LNS charges of \$1,437,153.

transmission charges, estimated to increase \$1,794,4251,613,386 as indicated on

Schedule JDW-1 at page 2 when compared to the estimate performed for 2015. This is

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- 1 Q. What is the reason for the decrease in NEP's LNS charges?
- 2 A. Granite State experienced a significant increase in NEP's LNS charges in 2014 as
- compared to the same costs in 2013. As a result there was a significant under recovery of
- 4 these charges in 2014. In estimating the 2015 rate, I assumed a similar increase for 2015
- due to the planned investment by NEP in its transmission system, see Schedule JDW-4,
- page 2. The actual 2015 costs were significantly less than that forecast.
- 7 VI. Conclusion
- 8 Q. Does this conclude your testimony?
- 9 A. Yes.

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Witness: Warshaw

Exhibits

Schedule JDVV-1	Summary of Transmission Expenses Estimated for 2016
Schedule JDW-2	Summary of ISO Tariff Section II Charges Estimated for 2016
Schedule JDW-3	Summary of System Restoration and Reactive Supply Charges Estimated for 2016
Schedule JDW-4	Summary of New England Power Schedule No. 21 Charges Estimated for 2016

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Summary of Transmission Expenses Estimated For the Year 2016

		Original	Revised	Original	Revised
		Filin	g	Filin	g
	ISO-NE Tariff Schedule 21 NEP LNS Tariff Charges		-		
1	Local Network Service (Monthly Demand Charges)	\$4,842,112	\$4,842,112		
2	Other NEP Charges	997,412	997,412		
	Subtotal NEP Charges		-	5,839,524	\$5,839,524
	ISO-NE OATT Tariff Section II Charges				
3	OATT Schedule 9 - Regional Network Service Charges	\$15,985,758	\$16,097,414		
4	OATT Schedule 1 - Scheduling, System Contraol & Dispatch	250,862	252,683		
5	OATT Schedule 16 - System Restoration and Planning Service	90,161	90,250		
6	OATT Schedule 2 - Reactive Supply and Voltage Control Ser_	208,006	272,823		
	Subtotal ISO-NE Tariff Section II Charges		-	\$16,534,787	\$16,713,169
	ISO-NE Tariff Section IV.A - Administrative Charges				
7	ISO-NE Schedule 1 - Scheduling & Dispatch Service	\$360,550	\$363,167		
8	ISO-NE Schedule 5 - NESCOE Budget	5,537	5,577		
	Subtotal ISO-NE Tariff Section IV.A Charges		_	\$366,087	\$368,744
9	Subtotal of ISO-NETariff Charges		_	\$16,900,874	\$17,081,913
10	Total Estimated Expenses Flowing Through Current Rates			\$22,740,398	\$22,921,437

Line 1 = JDW-4: Column (1), Line 13

Line 2 = JDW-4: Sum of Column (2) thru (6), Line 13

Line 3 = JDW-2, page 1: Column (2), Line 13

Line 4 = JDW-2, page 1: Column (3), Line 13

Line 5 = JDW-2, page 1: Column (5), Line 13

Line 6 = JDW-2, page 1: Column (6), Line 13

Line 7 = JDW-2, page 2: Column (2), Line 13 Line 8 = JDW-2, page 2: Column (3), Line 13

Line 9 = Sum of Line 3 thru Line 8

Line 10 = Sum of Line 1 thru Line 8

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Summary of Estimated Transmission Expenses 2015 vs. 2016 Filing Years

		January 2015 Retail Filing	Original January 2016 Estimate	Revised January 2016 Estimate	Original Yr/Yr Incr/(Decr)	Revised Yr/Yr Incr/(Decr)
1	ISO-NE Tariff Schedule 21 NEP LNS Tariff Charges Local Network Service (Monthly Demand Charges) Other NEP Charges	\$ 6,286,834 989,843	4,842,112 997,412	\$ 4,842,112 997,412	\$ (1,444,722) 7,569	\$ (1,444,722) 7,569
	Subtotal	\$ 7,276,677	5,839,524	\$ 5,839,524	\$ (1,437,153)	\$ (1,437,153)
	ISO-NE OATT Tariff Section II Charges					
3	OATT Schedule 9 - Regional Network Service Charges	\$ 14,480,332	- 15,985,758	\$ 16,097,414	\$ 1,505,426	\$ 1,617,082
4	OATT Schedule 1 - Scheduling, System Contraol & Dispatch	261,157	250,862	252,683	(10,294)	(8,474)
5	OATT Schedule 16 - System Restoration and Planning Servi	85,578	90,161	90,250	4,583	4,672
6	OATT Schedule 2 - Reactive Supply and Voltage Control Ser	172,635	208,006	272,823	35,371	100,188
	Subtotal	\$ 14,999,702	— 16,5 34,787	\$ 16,713,169	\$ 1,535,086	\$ 1,713,468
	ISO-NE Tariff Section IV.A - Administrative Charges					
7	ISO-NE Schedule 1 - Scheduling & Dispatch Service	\$ 287,787	360,550	\$ 363,167	\$ 72,764	\$ 75,380
8	ISO-NE Schedule 5 - NESCOE Budget		5,537	5,577	5,537	5,577
	Subtotal	\$ 287,787	\$ 366,087	\$ 368,744	\$ 78,300	\$ 80,957
9	Subtotal of ISO-NETariff Charges	\$ 15,287,488	\$ 16,900,874	\$ 17,081,913	\$ 1,613,386	\$ 1,794,425
10	Total Estimated Expenses	\$ 22,564,165	\$ 22,740,398	\$ 22,921,437	\$ 176,233	\$ 357,272

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Schedule JDW-2

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Summary of ISO-NE Tariff Section II Charges Estimated For the Year 2016

	(1)	(2)	(3)	(4)	(5	i)		(6)	(7	7)	((8)	(9)
	Monthly Lo	PTF kW ad	OATT Schedule Network Serv		OATT Sch Scheduling Contraol &	, System	OATT Sch System Re and Pla Serv	storation inning	OATT Sch Reactive S Voltage Serv	upply and Control		T Tariff Section II harges				Schedule 5 DE Budget	Total ISO-NE Char	
1 January	142.969	156 544	\$1.175.938	\$1,287,594	\$19.174	\$20,994	\$6,891	\$7,498	\$15.898	\$22,668	\$1.217.900	\$1,338,754	\$27.557	\$ 30,174			\$1,245,881	\$ 1.369.391
2 February	147,409		1,212,457	1,212,457	19,769	19,769	7,105	7.061	16,392	21,345	1.255.723		28,413	28,413	436	436	1,284,573	1,289,481
3 March	146,093	,	1,201,633	1,212,437	19,703	19,709	7,042	6.998	16,246	21,154	1,244,513	,,	28,159	28,159	432	432	1,273,105	1,277,969
					16.633	16,633	5.978	5.941	13,792	17.959	1.056.523				367	367	1.080.796	
4 April	,		1,020,121	1,020,121	.,	.,		- , -		,		1,060,654	23,906	23,906			,,	1,084,926
5 May		162,952	1,340,300	1,340,300	21,854	21,854	7,854	7,805	18,120	23,595	1,388,128		31,409	31,409	482	482	1,420,020	1,425,446
6 June	166,099	,	1,453,089	1,453,089	22,276	22,276	8,006	7,956	18,470	24,051	1,501,841	, ,-	32,016	32,016	492	492	1,534,349	1,539,880
7 July	. ,		1,702,942	1,702,942	26,106	26,106	9,383	9,324	21,646	28,187	1,760,076		37,521	37,521	576	576	1,798,173	1,804,655
8 August			1,644,853	1,644,853	25,215	25,215	9,063	9,006	20,908	27,225	1,700,038		36,241	36,241	557	557	1,736,836	1,743,097
9 September	,		1,578,812	1,578,812	24,203	24,203	8,699	8,645	20,068	26,132	1,631,782	,	34,786	34,786	534	534	1,667,101	1,673,111
10 October			1,191,899	1,191,899	18,272	18,272	6,567	6,526	15,150	19,728	1,231,888		26,261	26,261	403	403	1,258,552	1,263,089
11 November			1,191,785	1,191,785	18,270	18,270	6,566	6,525	15,149	19,726	1,231,770	, ,	26,258	26,258	403	403	1,258,432	1,262,968
12 December	145,391	145,391	1,271,929	1,271,929	19,499	19,499	7,008	6,964	16,167	21,053	1,314,603	1,319,444	28,024	28,024	430	430	1,343,057	1,347,899
13 12-Mo Total			\$15,985,758	\$16,097,414	\$250,862	\$252,683	\$90,161	\$90,250	\$208,006	\$272,823	\$16,534,787	\$16,713,169	\$360,550	\$363,167	\$5,537	\$5,577	\$16,900,874	\$17,081,913
Line 1-5: Co Line 6-12: Co Line 1-12: Co Line 1-12: Co Line 1-12: Co	olumn (2) = olumn (2) = olumn (3) = olumn (4) = olumn (4) =	2015 OA Estimated Current C 0 [No Rel JDW-3, L	Monthly Regional ATT Schedule 9 F d 2016 RNS Rate DATT Schedule 1 liability Must Run Line 8 * Column (RNS Rate * Co e * Column (1) Rate * Colum Contracts are 1)	lumn (1) / 12 / 12 n (1) / 12			nire]				2015 RNS Rate= 2016 RNS Rate= Rate =		\$ 98.70 \$ 104.98 \$ 1.60933 \$ 0.05679		/kW-YR /kW-YR /kW-YR		
Line 1-12: Co	olumn (6) =	Sum of C	ine 4 * Column (columns (2) thru (5)	100 0040	O!t-1 D	doot Eilion					Rate =		\$ 0.13592		/kW-Month		
			1) * \$0.19275 pe									Rate =		\$ 0.19275		kW-month		
	olumn (9) =	Sum of C	1) * \$0.00296 pe olumns (6) thru (12		er NESCOE :	2016 Budg	et Filing					Rate =		\$ 0.00296		kW-month		

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities

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Schedule JDW-2

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Summary of ISO Tariff Section IV.A Administrative Charges Estimated For the Year 2016

		(*	1)	(2	2)	(3)		(4)
	Period	Monthly Networ	Regional k Load	ISO-NE So Schedu Dispatch	uling &	ISO-NE So 5 - NES Budg	COE	ISO-NE Tar IV.A - Adm Char	inistrative
1	January	142,969	156.544	27,557	\$30,174	\$423	\$463	\$ 27,980	\$30,637
2	February	147,409	147,409	28,413	28,413	436	436	28,849	28,849
3	March	146,093	146,093	28,159	28,159	432	432	28,592	28,592
4	April	124,025	124,025	23,906	23,906	367	367	24,273	24,273
5	May	162,952	162,952	31,409	31,409	482	482	31,891	31,891
6	June	166,099	166,099	32,016	32,016	492	492	32,507	32,507
7	July	194,659	194,659	37,521	37,521	576	576	38,097	38,097
8	August	188,019	188,019	36,241	36,241	557	557	36,797	36,797
9	September	180,470	180,470	34,786	34,786	534	534	35,320	35,320
10	October	136,243	136,243	26,261	26,261	403	403	26,664	26,664
11	November	136,230	136,230	26,258	26,258	403	403	26,662	26,662
12	December	145,391	145,391	28,024	28,024	430	430	28,454	28,454
13			Totals	\$3 60,55 0	\$363,167	\$ 5,537	\$5,577	\$366,087	\$368,744

Column (1) = Highest Monthly Regional Network Load during the 2014 - 2015 period Column (2) = Column (1) * \$0.19275 per kW-month per ISO 2016 Capital Budget Filing

Column (3) = Column (1) * \$0.00296 per kW-month per NESCOE 2016 Budget Filing

Column (4) = Column (2) + Column (3)

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities

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Schedule JDW-3

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\$0.0482

\$0.0479

Summary of Reactive Power & Black Start Costs Estimated For the Year 2016

Section I: Development of ISO-NE Schedule 2 Costs

Granite Total ISO-NE Schedle 2 Costs 2015 Granite Peak Load (KW)	\$259,693 194,659	\$338,175 194,659
Estimated Rate / KW-Yr	\$1.3341	\$1.7373
Estimated Rate / KW-Mo	\$0.1112	\$0.1448
de la Regional de la Contraction de la Contracti		
tion II: Development of ISO-NE Schedle 16 Costs		
GraniteTotal ISO-NE Schedule 16 Settlement Costs	\$112,542	\$111,788
2015 Granite Peak Load (KW)	194,659	194,659
Estimated Rate / KW-Yr	\$0.5781	\$0.5743
	2015 Granite Peak Load (KW) Estimated Rate / KW-Yr Estimated Rate / KW-Mo Stion II: Development of ISO-NE Schedle 16 Costs GraniteTotal ISO-NE Schedule 16 Settlement Costs 2015 Granite Peak Load (KW)	2015 Granite Peak Load (KW) Estimated Rate / KW-Yr Stion II: Development of ISO-NE Schedle 16 Costs Granite Total ISO-NE Schedule 16 Settlement Costs 2015 Granite Peak Load (KW) 194,659

Line 1 = Granite ISO-NE Schedule 2 costs for the 12 months ending December 2015

Line 2 = Granite Peak Load in 2015

Line 3 = Line 1 / Line 2

8 Estimated Rate / KW-Mo

Line 4 = Line 3 / 12

Line 5 = ISO Schedule 16 Settlement Reports for the 12 months ending December 2015

Line 6 = Line 2

Line 7 = Line 5 / Line 6

Line 8 = Line 7 / 12

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities

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Summary of New England Power - Schedule No. 21 Charges Estimated For the Year 2016

	(1) Net Monthly	(2) Load	(3) Specific	(4)	(5)	(6) Maintenance	(7)
	Demand	Dispatch	Distribution	Transformer	Meter	Service	Total
Period	Charge	Charge		Surcharge	Surcharge	Credit	NEP Costs
1 January	\$403,509	(\$1,225)	\$18,549	\$66,626	\$1,249	(\$2,081)	\$486,627
2 February	403,509	(1,225)	18,549	66,626	1,249	(2,081)	486,627
3 March	403,509	(1,225)	18,549	66,626	1,249	(2,081)	486,627
4 April	403,509	(1,225)	18,549	66,626	1,249	(2,081)	486,627
5 May	403,509	(1,225)	18,549	66,626	1,249	(2,081)	486,627
6 June	403,509	(1,225)	18,549	66,626	1,249	(2,081)	486,627
7 July	403,509	(1,225)	18,549	66,626	1,249	(2,081)	486,627
8 August	403,509	(1,225)	18,549	66,626	1,249	(2,081)	486,627
9 September	403,509	(1,225)	18,549	66,626	1,249	(2,081)	486,627
10 October	403,509	(1,225)	18,549	66,626	1,249	(2,081)	486,627
11 November	403,509	(1,225)	18,549	66,626	1,249	(2,081)	486,627
12 December	403,509	(1,225)	18,549	66,626	1,249	(2,081)	486,627
13 12- Mo Total	\$4,842,112	-\$14,696	\$222,583	\$799,509	\$14,988	-\$24,972	\$5,839,524

Column (1) = Monthly Average of the PTF & Non-PTF Monthly Demand Charges for the 12 month period ending December 2015

Column (2) = Monthly Average of the Load Dispatch Charge for the 12 month period ending December 2015

Column (3) = 26,498 kW & \$0.70 per NEP Tariff as of June 2015

Column (4) = 195,958 kW & \$0.34 per NEP Tariff as of June 2015

Column (5) = 17 meters * \$73.47 per meter per NEP Tariff as of June 2015

Column (6) Per the Integrated Facilities Supplement dated July 3, 2012 between NEP and Granite State

Column (7) = Sum of Columns (1) through (6)

Column (8) = Total NEP Costs adjusted to reflect imapct of capital investments

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities

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Comparison of Actual LNS Transmission Expenses For the Years 2013, 2014 & 2015

[NEP Sche	dule 21 Actua	l Expenses			
						· ·			(1)
			l.					I	
									Non-PTF
	O = i = = i = i = = + N	-4	NIED Marrath	T F	NIED Marratet	. T F			
	Coincident N		NEP Monthly		NEP Monthly Non		Load Dispa	tch Charge	Sch 21-NEP
January-2013	153,530	153,530	(81,188)	(81,188)	200.854	200,854	(14,844)	(14,844)	\$207,676
February-2013	143,680	143,680	161,966	161,966	319,093	319,093	(16,311)	(16,311)	\$568,277
March-2013	136,993	136,993	34,832	34,832	247,082	247,082	28,698	28,698	\$412,652
April-2013	128,011	128,011	(36,498)	(36,498)	215,268	215,268	(7,539)	(7,539)	\$273,341
May-2013	176,816	176,816	155,222	155,222	273,531	273,531	(5,803)	(5,803)	\$525,515
June-2013	182,660	182,660	(90,282)	(90,282)	220,852	220,852	(8,325)	(8,325)	\$220,363
July-2013	197,514	197,514	(242,367)	(242,367)	224,542	224,542	(5,151)	(5,151)	\$75,244
August-2013	177,242	177,242	(380,536)	(380,536)	237,354	237,354	(7,766)	(7,766)	(\$52,891)
September-2013	191,391	191,391	(145,125)	(145,125)	252,250	252,250	(4,019)	(4,019)	\$200,778
October-2013	129,171	129,171	(118,881)	(118,881)	276,216	276,216	(1,188)	(1,188)	\$254,654
November-2013	142,089	142,089	87,941	87,941	259,596	259,596	(631)	(631)	\$445,427
December-2013	155,611	155,611	64,308	64,308	270,331	270,331	(2,927)	(2,927)	\$430,320
	,	,	ĺ	,	,	ŕ	<u> </u>	, , ,	\$3,561,356
January-2014	156,544	156,544	(35,966)	(35,966)	264,068	264,068	(11,712)	(11,712)	\$314,327
February-2014	147,409	147,409	(1,047)	(1,047)	280,545	280,545	3,408	3,408	\$380,351
March-2014	146,093	146,093	252,232	252,232	359,634	359,634	(4,705)	(4,705)	\$704,648
April-2014	124,025	124,025	(28,935)	(28,935)	266,780	266,780	(3,983)	(3,983)	\$332,195
May-2014	129,344	129,344	160,955	160,955	303,489	303,489	1,082	1,082	\$562,304
June-2014	165,249	165,249	234,375	234,375	334,773	334,773	4,104	4,104	\$656,019
July-2014	194,659	194,659	(41,828)	(41,828)	323,742	323,742	(2,162)	(2,162)	\$362,796
August-2014	177,677	177,677	(172,718)	(172,718)	313,768	313,768	(6,540)	(6,540)	\$219,221
September-2014	180,470	180,470	9,345	9,345	314,212	314,212	(4,445)	(4,445)	\$419,264
October-2014	129,171	136,243	(118,881)	(129,907)	276,216	354,455	(1,188)	(4,292)	\$306,082
November-2014	142,089	136,230	87,941	80,415	259,596	322,062	(631)	(1,013)	\$487,196
December-2014	145,391	145,391	(133,976)	(133,976)	254,048	254,048	1,862	1,862	\$155,784
									\$4,900,186
						ncrease in NE		P Expenses	38%
January-2015	150,582	150,582	704	704	355,771	355,771	3,281	3,281	\$449,852
February-2015	146,988	146,988	4,340	4,340	370,132	370,132	2,712	2,712	\$462,152
March-2015	138,190	138,190	297,777	297,777	507,488	507,488	2,670	2,670	\$893,053
April-2015	119,886	119,886	(94,370)	(94,370)	295,358	295,358	3,616	3,616	\$289,586
May-2015	162,952	162,952	158,759	158,759	407,278	407,278	1,304	1,304	\$652,291
June-2015	166,099	166,099	(55,595)	(55,595)	345,761	345,761	(1,618)	(1,618)	\$372,890
July-2015	183,851	183,851	(217,344)	(217,344)	324,928	324,928	(1,877)	(1,877)	\$190,050
August-2015	188,019	188,019	(286,313)	(286,313)	379,671	379,671	(4,750)	(4,750)	\$173,397
September-2015	178,737	178,737	(218,301)	(218,301)	377,491	377,491	(5,363)	(5,363)	\$166,086
October-2015	126,498	126,498	(257,004)	(257,004)	332,121	332,121	(1,129)	(1,129)	\$154,901
November-2015	133,049	133,049	567,934	567,934	515,183	515,183	1,808	1,808	\$1,168,715
December-2015	137,015	137,015	18,132	18,132	298,360	298,360	(15,349)	(15,349)	\$385,169
									\$5,358,141
						% ir	ncrease in NE	P Expenses	9%

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities

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National Grid Local System Investment Plans

NEP LNS 2016 Projects

1121 2110 2010 1 10,000		
•		\$millions
Crystal Lake Sub		3.869
Filed Street		11.808
N Quincey Sub		2.024
Meadowbrook Sub		10.650
3315 Tap ACR (Sub-T)		13.247
4402 ACR (Sub-T)		0.120
3318 ACR (Sub-T)		0.338
Mount Support Sub Trans		3.610
Kilvert Sub		2.333
	Total	47.999

NEP LNS 2015 Projects

110 2010 1 10 0000	
•	\$millions
O-15S ACR	6.026
Read St Sub	2.200
Harrison Blvd Sub	3.000
Hull Lines	1.400
Revere Sub	2.012
S145 & T146 115kv Taps	0.301
T20 Meadow St	3.250
E. Hobrook Breaker	1.950
Norwell Area C3&S9 Lines	15.426
Merrimac Valley North Shore Reli	27.655
E Longmeadow	4.182
Slayton Hill Sub	1.630
Total	69.032

NEP LNS 2014 Projects

	<u>\$millions</u>
	3.277
	4.457
	4.250
	3.900
	2.700
	3.115
	5.300
	1.800
	10.800
Total	39.599

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STATE OF NEW HAMPSHIRE BEFORE THE PUBLIC UTILITIES COMMISSION

Docket No. DE 16-346XXX

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities Annual Retail Rate Filing

DIRECT TESTIMONY

OF

HEATHER M. TEBBETTS

April 20March 18, 2016

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Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities

Docket No. DE 16-346

Direct Testimony of Heather M. Tebbetts

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1 I. Introduction and Qualifications

- 2 Q. Please state your full name, business address and position.
- 3 A. My name is Heather M. Tebbetts and my business address is 15 Buttrick Road,
- 4 Londonderry, NH 03053. I am a Utility Analyst for Liberty Utilities Service Corp.
- 5 ("Liberty") which provides services to Liberty Utilities (Granite State Electric) Corp.
- 6 ("Granite State" or "the Company") and in this capacity, am responsible for providing
- 7 rate-related services for the Company.
- 8 Q. Please describe your educational background and training.
- 9 A. I graduated from Franklin Pierce University in 2004 with a Bachelor of Science degree in
- Finance. I received a Master's of Business Administration from Southern New
- Hampshire University in 2007.
- 12 Q. Please describe your professional background.
- 13 A. In October of 2014, I joined Liberty as a Utility Analyst. Prior to my employment at
- Liberty, I was employed by Public Service Company of New Hampshire ("PSNH") as a
- Senior Analyst in NH Revenue Requirements from 2010 to 2014. Prior to my position in
- NH Revenue Requirements, I was a Staff Accountant in PSNH's Property Tax group
- from 2007 to 2010, and a Customer Service Representative III in PSNH's Customer
- Service Department from 2004 to 2007.
- 19 Q. Have you previously testified before the New Hampshire Public Utilities
- 20 Commission ("the Commission")?
- 21 A. Yes, I have testified on numerous occasions before the Commission.

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities

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Direct Testimony of Heather M. Tebbetts

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1 II. Purpose of Testimony

2	Q.	What is the purpose of your testimony?	
---	----	--	--

- 3 A. The purpose of my testimony is to present Granite State's proposed rate adjustments for
- 4 2016 in accordance with the Company's reconciliation and adjustment provisions of its
- tariff, and the Company's Amended Restructuring Settlement Agreement approved in
- Docket No. DR 98-012 ("Amended Settlement Agreement"). The reconciliations and
- adjustments we describe in our testimony relate to the Stranded Cost Charge and
- 8 Transmission Charges.
- The purpose of the reconciliation analyses is to determine the difference between
- revenues collected under each charge and the Company's actual expenses. For each of
- the charges, the Company calculates an adjustment factor based on the result of each
- reconciliation, which is used to determine whether a refund to or recovery from customers
- is necessary.
- 14 Q. Did you perform your analyses consistent with processes and procedures for similar
- 15 **filings in previous years?**
- 16 A. Yes. I understand past processes and have performed my analysis consistent with past
- methods and practices.
- 18 Q. Are there any changes to the periods reflected in this filing versus previous filings?
- 19 A. Yes. In Docket No. DE 14-340, the Commission ordered the Company to postpone the
- 20 effective date of its changes to transmission and stranded cost rates to May 1, 2015, rather
- 21 than the requested date of January 1, 2015. Because of this change, this reconciliation

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities

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Direct Testimony of Heather M. Tebbetts

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- spans a period of nineteen months. At the time of the reconciliation filing in Docket No.
- DE 14-340, we did not have information for the months of October 2014 through
- December 2014. Therefore, I included those months as part of this reconciliation.
- 4 Q. Are there months in the schedules that do not have actual expenses and revenues?
- 5 A. Yes. To address the fact that the filing is made two months prior to rates going into
- 6 effect, and thus actual expenses and revenues are not available as of the filing date, I
- 7 provided projections for the months of March and April 2016.
- 8 Q. Please summarize the results of the adjustments and reconciliations which Granite
- 9 State proposes to implement in 2016.
- 10 A. The Company proposes to implement the following adjustments to its rates beginning
- May 1, 2016 for usage on and after that date. The table below illustrates the current and
- 12 proposed rates:

13

14

15

			ıncrease
Average charge (¢ / kWh)	Current	Proposed	(Decrease)
Stranded Cost Charge	\$(0.00015)	\$ 0.00040	\$ 0.00055
Transmission Service Charge	\$ 0.03182	\$ 0.02374	\$(0.00808)
Transmission Service Charge	\$ 0.03182	\$ 0.02393	\$(0.00789)
Transmission Adjustment Factor	\$ 0.00239	\$(0.01098)	\$(0.01337)
RGGI Auction Proceeds Refund	\$(0.00053)	\$(0.00213)	\$(0.00160)
Border Sales Remaining Refund	\$(0.00012)	\$(0.00000)	\$ 0.00012

- Schedule HMT-1 Revised presents the proposed stranded cost and the transmission rates.
- III. Stranded Cost Adjustment Factor
- 16 Q. Please discuss, in general terms, the Company's proposed adjustment and
- 17 reconciliation of its Stranded Cost Charge.

Granite State's Stranded Cost Charge is the sum of two components. The first is a

A.

1

14

15

16

2020.

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities

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2		uniform charge per kilowatt-hour ("kWh") that the Company charges all customers,
3		which reflects the Contract Termination Charge ("CTC") assessed by New England
4		Power Company ("NEP") for 2016. The second component is an adjustment factor
5		specific to each rate class. Both of these components are in accordance with the
6		Company's Stranded Cost Adjustment Provision on Page 67 of the Company's tariff.
7	Q.	Please describe the purpose of the CTC assessed by NEP.
8	A.	In 1996, the New Hampshire Legislature enacted RSA 374-F, a statute which directed the
9		Commission to develop a restructuring plan to implement electric retail choice for all
10		customers ("Restructuring"). Prior to Restructuring, Granite State customers were served
11		by generation assets owned by the Company's then affiliate, NEP. During the
12		Restructuring process, Granite State, NEP, and other parties agreed to a divestiture of
13		NEP's generation assets. As part of its Electric Utility Restructuring Offer of Settlement

17 Q. Please describe the changes to the Stranded Cost Charge resulting from the changes 18 in the CTC assessed by NEP for 2016.

in Docket No. DR 96-150 ("Restructuring Settlement"), the CTC was established to

recover stranded costs associated with this divestiture, with such recovery terminating in

A. Granite State is proposing to increase the uniform charge per kWh from (\$0.00015) per kWh to \$0.00040 per kWh for the period beginning May 1, 2016. This is premised upon a rate provided by NEP and is an increase of \$0.00055 per kWh from the uniform charge

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities

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1	that is currently in effect. In the 2015 CTC Reconciliation Report filed in Docket No. DE
2	16-216, NEP provided the reconciliation report to the Commission and the signatories to
3	the Amended Settlement Agreement in accordance with Section 3.5 of the Wholesale
4	Settlement approved by the Federal Energy Regulatory Commission.

- Q. Please describe the Stranded Cost adjustment factors and the reconciliation used to
 determine those factors.
- A. The Company performs an annual reconciliation of its revenues from the Stranded Cost

 Charge billed to customers and recorded in its general ledger with the CTC expenses paid

 to NEP to arrive at adjustment factors for each rate class. Details for the reconciliation

 for the period October 2014 through April 2016 are in Schedule HMT-3.
- 11 Q. Has the Company calculated proposed Stranded Cost adjustment factors for 2015?
- Yes. Schedule HMT-2 calculates a Stranded Cost adjustment factor per kWh for each 12 A. rate class to be applied to all retail delivery service customer bills in that rate class for the 13 period May 1, 2016, through April 30, 2017. A Stranded Cost adjustment factor is 14 indicated for class M (Streetlights). The remaining rate classes (D, D-10, T, G-1, G-2, 15 G-3, and V) have balances so low that their calculated adjustment factor is zero due to 16 rounding to the fifth decimal place. Therefore, the Company proposes that there be no 17 Stranded Cost adjustment factors for these rate classes, and that the balances for these rate 18 classes be carried forward as the beginning balance in the next reconciliation. 19

1	Q.	How does the methodology used for the Company's Stranded Cost adjustment
2		factor determination and reconciliation compare to the other reconciliations
3		presented in your testimony?
4	A.	NEP bills its CTC based on the number of kWh delivered by the Company on a cycle-
5		billed basis. This process eliminates the timing differences between cycle and calendar-
6		month billing that is present for some of the Company's other reconciliations, such as the
7		transmission reconciliation. There is, therefore, a more accurate matching of revenue and
8		expense for stranded cost recovery than there is for the other reconciliations presented in
9		this filing, resulting in correspondingly small Stranded Cost adjustment factors.
10	Q.	Consistent with Order No. 25,745 in Docket No. DE 14-340, did the Company
11		explore a buy-down of its CTC obligations with NEP?
12	A.	Yes. We had preliminary discussions with National Grid but were unable to make
13		progress. One complicating factor is that the Restructuring Settlement was also filed with
14		the Federal Energy Regulatory Commission ("FERC"), so any changes to that agreement
15		would also need to be approved by the FERC.
16	IV.	Transmission Service Cost Adjustment Charge
17	Q.	Please describe the Company's Transmission Service Cost Adjustment ("TSCA").
18	A.	The Company recovers its transmission-related expenses pursuant to the TSCA, which
19		allows the Company to recover costs billed to it by ISO-New England and NEP through
20		the ISO-New England Inc. Transmission, Markets, and Services Tariff ("ISO Tariff").

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1	Q.	Does the TSCA provide for a reconciliation of the Company's transmission revenue
2		and transmission expense?
3	A.	Yes. The Company's TSCA provides for full reconciliation of transmission revenue and
4		expense and rate adjustment for any over or under recovery of transmission costs from the
5		prior year.
6	Q.	Has the Company prepared a reconciliation analysis for transmission revenues?
7	A.	Yes. Schedule HMT-5 Revised presents a reconciliation of actual transmission revenues
8	!	and expenses for the period October 2014 through January 2016 and forecasted
9		transmission revenues and expenses for the period February 2016 through April 2016.
10	Q.	Is the Company proposing a transmission service adjustment factor for 2016?
11	A.	Yes. The Company is proposing a uniform transmission service adjustment factor of
12		(\$0.01098) per kWh as calculated in Schedule HMT-6-Revised.
13	Q.	How was this adjustment factor derived?
14	A.	This factor was calculated by dividing the projected over collection of transmission
15		expense as of April 30, 2016, from Schedule HMT-5 Revised by the forecasted kWh
16	I	deliveries for May 1, 2016, through April 30, 2017.
17	Q.	How would this factor be implemented?
18	A.	The transmission service adjustment factor would become effective for usage on and after
19		May 1, 2016. The proposed adjustment factor would be applied to bills of all customers
20		taking delivery service.

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1 Q. Why is the Company proposing new base transmission rates at this time?

- 2 A. The Company's Transmission Service Cost Adjustment states that the base transmission
- rates shall be calculated annually based on a forecast of transmission costs to be incurred
- by the Company to provide transmission service to its retail delivery service customers.
- 5 The rate at which these costs are collected is to be calculated separately for each of the
- 6 Company's rate classes based on cost incurrence.

Q. What is the forecast of 2016 transmission costs?

8 A. As discussed in the testimony of John D. Warshaw included in this filing, the Company's transmission costs are expected to be approximately \$22.97 million in 2016. This 9 forecast of transmission expense yields an average rate of \$0.0239374 per kWh, which 10 11 compares to the currently effective average transmission rate of \$0.03156 per kWh exclusive of the adjustment factors. Based on these estimates, the Company determined 12 that it should propose new rates effective May 1, 2016, to better match the projected 13 incurrence of transmission costs. The Company is allocating its forecasted transmission 14 15 expense to classes in accordance with the calculations shown in Schedule HMT-4.

Q. Please explain the over recovery for 2015.

16

17 A. The Company expects to over recover \$10,517,396 by April 30, 2016. That over
18 recovery consists of a few components. First, the analysis used to calculate the 2015 rate
19 was based on an estimated 2015 transmission costs of \$22.8 million. The actual costs for
20 2015 were \$20.9 million, \$1.9 million lower than that estimate. Second, the
21 reconciliation includes approximately \$400,000 of over recovery for the months of

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October through December 2014. As explained below, those months were not included in the prior reconciliation. Finally, with the four-month delay of implementation of the rate changes as directed in Docket No. DE 14-340, the additional four months of estimated costs that would accrue over that four-month period were included in the rate to be charged over the twelve-month recovery period. This created a situation where the revenue received in a particular month exceeded the actual costs for that particular month. The entire over recovery will be refunded to customers with interest over the effective twelve-month rate period beginning May 1, 2016.

Why has the Company filed a reconciliation spanning nineteen months? Q.

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- In previous years' filings, revenues and expenses were only included for those months in A. which the Company had actual data. This filing provides for additional months of projected revenues and expenses to better align the filing with the rate recovery period. In the previous reconciliation filing, data for October through December 2014 was not available. Rather than project revenues and expenses, the filing did not include those 15 months. This filing provides the actual data for the following months:
 - October 2014 through December 2014 (using the rates in effect beginning January 1, 2014);
 - January 2015 through April 2015 (using the rates in effect beginning January 1, 2014); and
 - May 2015 through January 2016 (using the rates in effect beginning May 1, 2015).
- The reconciliation also includes projected revenues and expenses for the months of 21 22 February 2016 through April 2016 to further align the rate period with the recovery period. 23

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1	Q.	How does the Company propose to design the base transmission rates effective May
2		1, 2016?

A. Since base transmission rates are unique by rate class, the first step in designing the 3 proposed base transmission rates is to allocate the forecast of transmission costs to each 4 rate class. The Company implemented the same allocation methodology accepted by the 5 Commission in previous Retail Rate filings, which is to allocate based on each rate 6 class's contribution to system peak. The contribution to system peak by class is presented 7 in Schedule HMT-4 on page 2, and the allocation of transmission cost to each class is 8 9 shown on Schedule HMT-4, page 1.

V. **RGGI Auction Proceeds** 10

18

- 0. How does the Company propose to refund RGGI auction proceeds to delivery 11 service customers? 12
- A. Consistent with Order No. 25,664 in Docket No. DE 14-048, the Company will credit the 13 RGGI rebate amount it receives from the allocation on a per kWh basis through its retail 14 rate reconciliation mechanism that is adjusted on an annual basis. The Company has 15 included a credit of \$0.00213 cents per kWh for RGGI auction proceeds in its 16 transmission service charge for 2016 in Schedule HMT-7-Revised. 17

VI. **Borderline Sales Agreement Settlement**

- What is the Borderline Sales Agreement Settlement? 19 Q.
- On April 11, 2014, Granite State and Massachusetts Electric Company ("MECO") 20 A. entered into a borderline sales agreement with respect to customers residing near the New 21

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1		Hampshire border on or near Hampshire Road in Methuen, MA. These customers have
2		received electric service from MECO that was procured by Granite State and delivered
3		over distribution facilities and equipment owned, controlled and/or operated by Granite
4		State for a period of time commencing on or before 2003 through April 2014.
5		The settlement agreement required MECO to pay Granite State \$716,722 plus interest at
6		the prime rate for a total of \$723,890 for transmission and commodity costs incurred by
7		Granite State to provide service to MECO for these customers. The transmission portion
8		of the refund totaled \$107,927 and is included in the current transmission service charge.
9		The commodity portion of the refund was included in the Company's September 21,
10		2015, default service filing (DE 15-010).
11	Q.	Has the Company's customers received the entire amount of the transmission
11 12	Q.	Has the Company's customers received the entire amount of the transmission portion of the refund?
	Q. A.	
12	1	portion of the refund?
12 13	1	portion of the refund? Yes. As shown in Schedule HMT-8-Revised, there is an outstanding amount of \$1,059
12 13 14	1	portion of the refund? Yes. As shown in Schedule HMT-8-Revised, there is an outstanding amount of \$1,059 still required to be refunded to its customers. The balance of \$1,059 is so low that the
12 13 14 15	A.	portion of the refund? Yes. As shown in Schedule HMT-8-Revised, there is an outstanding amount of \$1,059 still required to be refunded to its customers. The balance of \$1,059 is so low that the calculated adjustment factor is zero when rounded to the fifth decimal point.
12 13 14 15	VII.	portion of the refund? Yes. As shown in Schedule HMT-8-Revised, there is an outstanding amount of \$1,059 still required to be refunded to its customers. The balance of \$1,059 is so low that the calculated adjustment factor is zero when rounded to the fifth decimal point. Effective Date and Rate Impacts
12 13 14 15 16	VII.	portion of the refund? Yes. As shown in Schedule HMT-8-Revised, there is an outstanding amount of \$1,059 still required to be refunded to its customers. The balance of \$1,059 is so low that the calculated adjustment factor is zero when rounded to the fifth decimal point. Effective Date and Rate Impacts How and when is the Company proposing that these rate changes be implemented?

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Has the Company proposed a rate change for any other bill components? 1 Yes. On March 15, 2016, the Company filed its annual REP/VMP Reconciliation in 2 which it requested a rate increase to its distribution rates for capital expenditures and 3 vegetation management expenses from calendar year 2015. 4 Has the Company determined the impact of these rate changes on customer bills? Q. 5 A. Yes. A bill comparison for an Energy Service residential customer with an average kWh 6 7 usage of 650, which is the average monthly usage over the twelve month period from 8 January 2015 through December 2015, has also been included in this filing on page 1 of Schedule HMT-9. The net total bill impact of the rates proposed in this filing (including 9 the proposed change associated with REP/VMP), as compared to rates in effect today, is a 10 11 monthly bill decrease of (\$13.0412.65), or (10.5510.23%). VIII. Conclusion 12 Q. Does this conclude your testimony? 13

Yes, it does.

14

A.

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Schedule HMT-1 Revised

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Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities Summary of Proposed Rates

Rate Class	Stranded Cost Charge	Stranded Cost Adjustment Factor	Net Stranded Cost Charge	Transmission Charge	Transmission Charge	Transmission Adjustment Factor	RGGI Auction Proceeds Refund	Bordeline Sales Refund	Net Transmission Charge*	Net Transmission Charge*
	(a)	(b)	(c)	(d)	(d)	(e)	(f)	(g)	(h)	(h)
	DE 16-216	HMT-2	(a) + (b)	HMT-4	HMT-4	HMT-6	HMT-8	HMT-9	(d) + (e) +(f)+(g)	(d) + (e) + (f) + (g)
D	\$0.00040	\$0.00000	\$0.00040	\$0.02651	\$0.02672	(\$0.01098)	(\$0.00213)	(\$0.00000)	\$0.01340	\$0.01361
D-10	\$0.00040	\$0.00000	\$0.00040	\$0.02277	\$0.02296	(\$0.01098)	(\$0.00213)	(\$0.00000)	\$0.00966	\$0.00985
т	\$0.00040	\$0.00000	\$0.00040	\$ 0.02340	\$0.02359	(\$0.01098)	(\$0.00213)	(\$0.00000)	\$0.01029	\$0.01048
G-1	\$0.00040	\$0.00000	\$0.00040	\$ 0.02164	\$0.02182	(\$0.01098)	(\$0.00213)	(\$0.00000)	\$ 0.00853	\$0.00871
G-2	\$0.00040	\$0.00000	\$0.00040	\$0.02479	\$0.02499	(\$0.01098)	(\$0.00213)	(\$0.00000)	\$0.01168	\$0.01188
G-3	\$0.00040	\$0.00000	\$0.00040	\$0.02211	\$0.02229	(\$0.01098)	(\$0.00213)	(\$0.00000)	\$0.00900	\$0.00918
V	\$0.00040	\$0.00000	\$0.00040	\$ 0.02851	\$0.02874	(\$0.01098)	(\$0.00213)	(\$0.00000)	\$0.01540	\$0.01563
Streetlights	\$0.00040	(\$0.00001)	\$0.00039	\$ 0.02262	\$0.02281	(\$0.01098)	(\$0.00213)	(\$0.00000)	\$0.00951	\$0.00970

^{*}May not add due to rounding

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Schedule HMT-2 Revised

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Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities Calculation of Stranded Cost Adjustment Factor May 1, 2016 - April 30, 2017

Rate Class	Total (Over)/Under Collection	Total 2016 Forecasted kWhs	2016 Stranded Cost Adj. Factor Charge/(Credit)			
	(a)	(b)	(c)			
D	\$164	291,381,092	\$0.00000			
D-10	(\$4)	5,446,824	\$0.00000			
Т	\$135	16,561,614	\$0.00000			
G-1	\$1,707	381,577,122	\$0.00000			
G-2	\$372	160,922,307	\$0.00000			
G-3	\$16	97,092,512	\$0.00000			
V	\$2	272,987	\$0.00000			
Streetlights	(\$49)	4,308,627	(\$0.00001)			
	\$2,343	957,563,085	\$0.00000			

⁽a) Schedule HMT-3 Revised, Page 1

⁽b) Company forecast

⁽c) Column (a) ÷ Column (b), truncated after 5 decimal places

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Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities

Summary of Stranded Cost (Over)/Under Collection October 2014 - April 2016 Cumulative Rate Class (Over)/Under

Rate Class	(Over)/Under
D	\$164
D-10	(\$4)
Т	\$135
G-1	\$1,707
G-2	\$372
G-3	\$16
V	\$2
Streetlights	(\$49)
Total Under	\$2,343

Source: Pages 2 and 3

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Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities Stranded Cost Reconciliation October 2014 - April 2016

Rate D	(Over)/ Under Beginning Balance	Stranded Cost Revenue	CTC Expense	Monthly (Over)/ Under	(Over)/ Under Ending Balance	Balance Subject to Interest	Interest Rate	Interest	Total Interest	Rate 1	(Over)/ Under Beginning Balance	Stranded Cost Revenue	CTC Expense	Monthly (Over)/ Under	(Over)/ Under Ending Balance	Balance Subject to Interest	Interest Rate	Interest	Total Interest
Month	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	Month	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Oct-14	156	17,731	17,731	-	156	156	3.25%	0	0	Oct-14	129	985	985	-	129	129	3.25%	0	0
Nov-14	156	16,406	16,406	-	156	156	3.25%	0	1	Nov-1	129	1,040	1,040	-	129	129	3.25%	0	1
Dec-14	157	15,327	15,327	-	157	157	3.25%	0	1	Dec-14		1,083	1,083	-	129	129	3.25%	0	1
Jan-15	157	21,245	21,245	-	157	157	3.25%	0	2	Jan-15	130	1,730	1,730	-	130	130	3.25%	0	1
Feb-15	158	21,618	21,618	-	158	158	3.25%	0	2	Feb-1	130	1,767	1,767	-	130	130	3.25%	0	2
Mar-15	158	22,471	22,471	-	158	158	3.25%	0	3	Mar-1	130	2,248	2,248	-	130	130	3.25%	0	2
Apr-15	159	14,880	14,880	-	159	159	3.25%	0	3	Apr-1	131	1,044	1,044	-	131	131	3.25%	0	2
May-15	159	(26,068)	(26,068)		159	159	3.25%	0	3	May-1		(1,726)	(1,726)	-	131	131	3.25%	0	3
Jun-15	159	(36,910)	(36,910)	-	159	159	3.25%	0	4	Jun-1	132	(565)	(565)	-	132	132	3.25%	0	3
Jul-15	160	(33,934)	(33,934)	-	160	160	3.25%	0	4	Jul-15	132	(1,440)	(1,440)	-	132	132	3.25%	0	4
Aug-15	160	(38,104)	(38,104)	-	160	160	3.25%	0	5	Aug-1	132	(1,581)	(1,581)	-	132	132	3.25%	0	4
Sep-15	161	(37,103)	(37,103)	-	161	161	3.25%	0	5	Sep-1	133	(1,475)	(1,475)	-	133	133	3.25%	0	4
Oct-15	161	(28,240)	(28,240)	-	161	161	3.25%	0	6	Oct-15		(1,391)	(1,391)	-	133	133	3.25%	0	5
Nov-15	162	(22,426)	(22,426)	-	162	162	3.25%	0	6	Nov-1			(1,187)	-	133	133	3.25%	0	5
Dec-15	162	(37,540)	(37,540)		162	162	3.25%	0	6	Dec-1		(2,613)		-	134	134	3.25%	0	5
Jan-16	162	(38,870)	(38,870)	-	162	162	3.25%	0	7	Jan-16		(2,853)	(2,853)	-	134	134	3.25%	0	6
Feb-16	163	(34,474)	(34,474)	-	163	163	3.25%	0	7	Feb-16		(2,649)	(2,649)	-	134	134	3.25%	0	6
Mar-16	163	(36,829)	(36,829)	-	163	163	3.25%	0	8	Mar-16		(2,855)	(2,855)	-	135	135	3.25%	0	6
Apr-16	164	(33,403)	(33,403)	-	164	164	3.50%	0	8	Apr-16	135	(2,282)	(2,282)	-	135	135	3.50%	0	7

Cumulative (Over)/Under Collection of Stranded Cost \$164

Rate D-10	(Over)/ Under Beginning Balance	Stranded Cost Revenue	CTC Expense	Monthly (Over)/ Under	(Over)/ Under Ending Balance	Balance Subject to Interest	Interest Rate	Interest	Total Interest
Month	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Oct-14	(97)	275	275	-	(97)	(97)	3.25%	(0)	(0)
Nov-14	(98)	296	296	-	(98)	(98)	3.25%	(0)	(1)
Dec-14	(98)	368	368	-	(98)	(98)	3.25%	(0)	(1)
Jan-15	(98)	458	458	-	(98)	(98)	3.25%	(0)	(1)
Feb-15	(98)	534	534	-	(98)	(98)	3.25%	(0)	(1)
Mar-15	(99)	553	553	-	(99)	(99)	3.25%	(0)	(2)
Apr-15	(99)	473	473	-	(99)	(99)	3.25%	(0)	(2)
May-15	(99)	(527)	(520)	7	(92)	(96)	3.25%	(0)	(2)
Jun-15	(92)	(624)	(616)	8	(84)	(88)	3.25%	(0)	(2)
Jul-15	(84)	(528)	(521)	7	(78)	(81)	3.25%	(0)	(3)
Aug-15	(78)	(606)	(598)	8	(70)	(74)	3.25%	(0)	(3)
Sep-15	(70)	(595)	(587)	8	(62)	(66)	3.25%	(0)	(3)
Oct-15	(62)	(479)	(473)	6	(56)	(59)	3.25%	(0)	(3)
Nov-15	(56)	(499)	(493)	7	(50)	(53)	3.25%	(0)	(3)
Dec-15	(50)	(774)	(764)	10	(40)	(45)	3.25%	(0)	(3)
Jan-16	(40)	(121)	(120)	2	(38)	(39)	3.25%	(0)	(3)
Feb-16	(38)	(896)	(884)	12	(26)	(32)	3.25%	(0)	(4)
Mar-16	(27)	(945)	(932)	12	(14)	(20)	3.25%	(0)	(4)
Apr-16	(14)	(749)	(739)	10	(4)	(9)	3.50%	(0)	(4)

Cumulative (Over)/Under Collection of Stranded Cost (\$4)

Cumulative (Over)/Under Collection of Stranded Cost \$135

Cumulative (Over)/Under Collection of Stranded Cost

Rate M Streetlight s	(Over)/ Under Beginning Balance	Stranded Cost Revenue	CTC Expense	Monthly (Over)/ Under	(Over)/ Under Ending Balance	Balance Subject to Interest	Interest Rate	Interest	Total Interest
Month	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Oct-14	(47)	-	-	-	(47)	(47)	3.25%	(0)	(0)
Nov-14	(47)	839	839	-	(47)	(47)	3.25%	(0)	(0)
Dec-14	(47)	372	372	-	(47)	(47)	3.25%	(0)	(0)
Jan-15	(48)	311	311	-	(48)	(48)	3.25%	(0)	(1)
Feb-15	(48)	301	301	-	(48)	(48)	3.25%	(0)	(1)
Mar-15	(48)	303	303	-	(48)	(48)	3.25%	(0)	(1)
Apr-15	(48)	312	312	-	(48)	(48)	3.25%	(0)	(1)
May-15	(48)	(557)	(557)	-	(48)	(48)	3.25%	(0)	(1)
Jun-15	(48)	(565)	(565)	-	(48)	(48)	3.25%	(0)	(1)
Jul-15	(48)	(1,134)	(1,134)	-	(48)	(48)	3.25%	(0)	(1)
Aug-15	(48)	2	2	-	(48)	(48)	3.25%	(0)	(1)
Sep-15	(49)	(1,134)	(1,134)	-	(49)	(49)	3.25%	(0)	(2)
Oct-15	(49)	(4)	(4)	-	(49)	(49)	3.25%	(0)	(2)
Nov-15	(49)	(567)	(567)	-	(49)	(49)	3.25%	(0)	(2)
Dec-15	(49)	(1,131)	(1,131)	-	(49)	(49)	3.25%	(0)	(2)
Jan-16	(49)	(564)	(564)	-	(49)	(49)	3.25%	(0)	(2)
Feb-16	(49)	(567)	(567)	-	(49)	(49)	3.25%	(0)	(2)
Mar-16	(49)	(536)	(536)	-	(49)	(49)	3.25%	(0)	(2)
Apr-16	(49)	(544)	(544)	-	(49)	(49)	3.50%	(0)	(2)

(\$49)

- (a) Prior Month Column (f) + Prior Month Column (i)
- (b) Company billing system report; Includes adjustment factor
- (c) DE 16-216
- (d) Column (b) + Column (c) Column (d)
- (e) Column (a) + Column (e)
- (f) [Column (a) + Column (f)] ÷ 2
- (g) No interest is applied
- (h) Column (g) x [Column (h) ÷ 12]
- (i) Column (i) + Prior Month Column (j)

Schedule HMT-3 Revised

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Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities Stranded Cost Reconciliation October 2014 - April 2016

Rate G-1	(Over)/ Under Beginning Balance	Stranded Cost Revenue	CTC Expense	Monthly (Over)/ Under	(Over)/ Under Ending Balance	Balance Subject to Interest	Interest Rate	Interest	Total Interest	Rate G-3	(Over)/ Under Beginning Balance	Stranded Cost Revenue	CTC Expense	Monthly (Over)/ Under	(Over)/ Under Ending Balance	Balance Subject to Interest	Interest Rate	Interest	Total Interest
Month	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	Month	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Oct-14	1,626	22,315	22,315	-	1,626	1,626	3.25%	4	4	Oct-14	3,464	6,161	6,161	-	3,464	3,464	3.25%	9	9
Nov-14	1,630	19,846	19,846	-	1,630	1,630	3.25%	4	9	Nov-14	3,473	5,394	5,394	-	3,473	3,473	3.25%	9	19
Dec-14	1,635	33,497	33,497	-	1,635	1,635	3.25%	4	13	Dec-14	3,483	5,653	5,653	-	3,483	3,483	3.25%	9	28
Jan-15	1,639	21,619	21,619	-	1,639	1,639	3.25%	4	18	Jan-15	3,492	6,310	6,310	-	3,492	3,492	3.25%	9	38
Feb-15	1,644	22,583	22,583	-	1,644	1,644	3.25%	4	22	Feb-15	3,502	6,259	6,259	-	3,502	3,502	3.25%	9	47
Mar-15	1,648	21,713	21,713	-	1,648	1,648	3.25%	4	27	Mar-15	3,511	6,880	6,880	-	3,511	3,511	3.25%	10	57
Apr-15	1,653	18,945	18,945	-	1,653	1,653	3.25%	4	31	Apr-15	3,521	5,816	5,816	-	3,521	3,521	3.25%	10	66
May-15	1,657	(30,768)	(30,768)	-	1,657	1,657	3.25%	4	36	May-15	3,530	(9,085)	(9,334)	(249)	3,281	3,406	3.25%	9	75
Jun-15	1,662	(90,567)	(90,567)	-	1,662	1,662	3.25%	5	40	Jun-15	3,290	(11,626)	(11,944)	(319)	2,972	3,131	3.25%	8	84
Jul-15	1,666	(53,058)	(53,058)	-	1,666	1,666	3.25%	5	45	Jul-15	2,980	(11,017)	(11,318)	(302)	2,679	2,830	3.25%	8	92
Aug-15	1,671	(54,219)	(54,219)	-	1,671	1,671	3.25%	5	49	Aug-15	2,686	(15,925)	(16,362)	(436)	2,250	2,468	3.25%	7	98
Sep-15	1,675	(54,095)	(54,095)	-	1,675	1,675	3.25%	5	54	Sep-15	2,257	(7,728)	(7,940)	(212)	2,045	2,151	3.25%	6	104
Oct-15	1,680	(47,453)	(47,453)	-	1,680	1,680	3.25%	5	58	Oct-15	2,051	(10,248)	(10,529)	(281)	1,770	1,910	3.25%	5	109
Nov-15	1,684	(43,105)	(43,105)	-	1,684	1,684	3.25%	5	63	Nov-15	1,775	(8,919)	(9,163)	(244)	1,531	1,653	3.25%	4	114
Dec-15	1,689	(44,699)	(44,699)	-	1,689	1,689	3.25%	5	67	Dec-15	1,535	(10,768)	(11,063)	(295)	1,240	1,388	3.25%	4	117
Jan-16	1,693	(44,254)	(44,254)	-	1,693	1,693	3.25%	5	72	Jan-16	1,244	(11,090)	(11,394)	(304)	940	1,092	3.25%	3	120
Feb-16	1,698	(41,656)	(41,656)	-	1,698	1,698	3.25%	5	77	Feb-16	943	(11,038)	(11,341)	(302)	641	792	3.25%	2	123
Mar-16	1,702	(43,862)	(43,862)	-	1,702	1,702	3.25%	5	81	Mar-16	643	(11,850)	(12,174)	(325)	318	481	3.25%	1	124
Apr-16	1,707	(43,271)	(43,271)	-	1,707	1,707	3.50%	5	86	Apr-16	320	(11,066)	(11,369)	(303)	16	168	3.50%	0	124

Cumulative (Over)/Under Collection of Stranded Cost \$1,707

Cumulative (Over)/Under Collection of Stranded Cost \$16

Cumulative (Over)/Under Collection of Stranded Cost

\$2

Rate G-2	(Over)/ Under Beginning Balance	Stranded Cost Revenue	CTC Expense	Monthly (Over)/ Under	(Over)/ Under Ending Balance	Balance Subject to Interest	Interest Rate	Interest	Total Interest	Rate V	(Over)/ Under Beginning Balance	Stranded Cost Revenue	CTC Expense	Monthly (Over)/ Under	(Over)/ Under Ending Balance	Balance Subject to Interest	Interest Rate	Interest	Total Interest
Month	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	Month	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Oct-14	(288)	11,198	11,060	(138)	(426)	(357)	3.25%	(1)	(1)	Oct-14	(16)	13	13	-	(16)	(16)	3.25%	(0)	(0)
Nov-14	(427)	10,002	9,878	(123)	(551)	(489)	3.25%	(1)	(2)	Nov-14	(16)	14	14	-	(16)	(16)	3.25%	(0)	(0)
Dec-14	(552)	10,344	10,216	(128)	(680)	(616)	3.25%	(2)	(4)	Dec-14	(16)	19	19	-	(16)	(16)	3.25%	(0)	(0)
Jan-15	(681)	9,333	9,217	(115)	(797)	(739)	3.25%	(2)	(6)	Jan-15	(16)	24	24	-	(16)	(16)	3.25%	(0)	(0)
Feb-15	(799)	9,872	9,751	(122)	(920)	(860)	3.25%	(2)	(8)	Feb-15	(16)	26	26	-	(16)	(16)	3.25%	(0)	(0)
Mar-15	(923)	12,209	12,059	(151)	(1,074)	(998)	3.25%	(3)	(11)	Mar-15	(16)	34	34	-	(16)	(16)	3.25%	(0)	(0)
Apr-15	(1,076)	8,395	8,292	(104)	(1,180)	(1,128)	3.25%	(3)	(14)	Apr-15	(16)	21	21	-	(16)	(16)	3.25%	(0)	(0)
May-15	(1,183)	(16,662)	(16,552)	110	(1,073)	(1,128)	3.25%	(3)	(17)	May-15	(16)	(25)	(24)	1	(15)	(16)	3.25%	(0)	(0)
Jun-15	(1,076)	(22,975)	(22,823)	152	(923)	(1,000)	3.25%	(3)	(20)	Jun-15	(15)	(47)	(45)	2	(13)	(14)	3.25%	(0)	(0)
Jul-15	(926)	(22,636)	(22,486)	150	(776)	(851)	3.25%	(2)	(22)	Jul-15	(13)	(36)	(35)	1	(12)	(13)	3.25%	(0)	(0)
Aug-15	(779)	(20,334)	(20,199)	135	(644)	(711)	3.25%	(2)	(24)	Aug-15	(12)	(43)	(41)	2	(10)	(11)	3.25%	(0)	(0)
Sep-15	(646)	(21,624)	(21,480)	143	(503)	(574)	3.25%	(2)	(26)	Sep-15	(10)	(43)	(41)	2	(9)	(10)	3.25%	(0)	(0)
Oct-15	(504)	(19,985)	(19,853)	132	(372)	(438)	3.25%	(1)	(27)	Oct-15	(9)	(31)	(29)	1	(8)	(8)	3.25%	(0)	(0)
Nov-15	(373)	(16,749)	(16,638)	111	(262)	(318)	3.25%	(1)	(28)	Nov-15	(8)	(27)	(26)	1	(7)	(7)	3.25%	(0)	(0)
Dec-15	(263)	(18,921)	(18,795)	125	(138)	(200)	3.25%	(1)	(28)	Dec-15	(7)	(36)	(35)	1	(5)	(6)	3.25%	(0)	(1)
Jan-16	(138)	(20,088)	(19,955)	133	(5)	(72)	3.25%	(0)	(28)	Jan-16	(5)	(65)	(62)	2	(3)	(4)	3.25%	(0)	(1)
Feb-16	(5)	(18,952)	(18,826)	126	120	57	3.25%	0	(28)	Feb-16	(3)	(46)	(45)	2	(1)	(2)	3.25%	(0)	(1)
Mar-16	120	(19,393)	(19,265)	128	249	184	3.25%	1	(28)	Mar-16	(1)	(45)	(43)	2	1	(0)	3.25%	0	(1)
Apr-16	249	(18,602)	(18,479)	123	372	311	3.50%	1	(27)	Apr-16	1	(35)	(34)	1	2	1	3.50%	0	(1)

(a) Prior Month Column (f) + Prior Month Column (i)

(b) Company billing system report; Includes adjustment factor

Cumulative (Over)/Under Collection of Stranded Cost

\$372

(c) DE 16-216

(d) Column (b) + Column (c) - Column (d)

(e) Column (a) + Column (e)

(f) [Column (a) + Column (f)] ÷ 2

(g) No interest is applied

(h) Column (g) x [Column (h) ÷ 12]

(i) Column (i) + Prior Month Column (j)

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities Docket No. DE 16-346 Schedule HMT-4 Page 1 of 2

Liberty Utilities (Granite State Electric) d/b/a Liberty Utilities **Transmission Charge Calculation**

		Total	Total	D	D-10	T	G-1	G-2	G-3	٧	Streetlights
(1)	Estimate of Transmission Expense	\$ 22,740,39 8	\$22,921,437								
(2)	Coincident Peak (KW)	1,787,700	1,787,700	607,284	9,754	30,477	649,401	313,714	168,793	612	7,665
(3)	Coincident Peak Allocator	100.00%	100.00%	33.97%	0.55%	1.70%	36.33%	17.55%	9.44%	0.03%	0.43%
(4)	Allocated Transmission Expense	\$22,740,398	\$22,921,437	\$7,786,441	\$125,063	\$390,768	\$8,326,455	\$4,022,361	\$2,164,221	\$7,847	\$98,280
(5)	Forecasted kWh Sales	957,563,085	957,563,085	291,381,092	5,446,824	16,561,614	381,577,122	160,922,307	97,092,512	272,987	4,308,627
(6)	Proposed Transmission Charge per kWh	\$ 0.02374	\$0.02393	\$0.02672	\$0.02296	\$0.02359	\$0.02182	\$0.02499	\$0.02229	\$0.02874	\$0.02281
(7)	Current Transmission Charge per kWh	\$0.03156	\$0.03156	\$0.03382	\$0.03383	\$0.03197	\$0.02943	\$0.03249	\$0.03225	\$0.03984	\$0.02184
(8)	Increase (Decrease) in Transmission Charge per kWh	(\$0.00782)	(\$0.00763)	(\$0.00710)	(\$0.01087)	(\$0.00838)	(\$0.00761)	(\$0.00750)	(\$0.00996)	(\$0.01110)	\$0.00097

⁽¹⁾ Schedule JDW-1, Line (10)

⁽²⁾ Page 2 of 2

⁽³⁾ Line (2) as a percent of total Line (2)

⁽⁴⁾ Line (1) x Line (3)

⁽⁵⁾ Per Company Forecast

⁽⁶⁾ Line (4) ÷ Line (5), truncated after 5 decimal places (7) Per Currently Effective Tariffs

⁽⁸⁾ Line (6) - Line (7)

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities

Docket No. DE 16-346

Schedule HMT-4

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Liberty Utilities (Granite State Electric) d/b/a Liberty Utilities 2015 Coincident Peak Data

_	Total	D	D-10	Т	G-1	G-2	G-3	V	Streetlights
January	148,451	58,301	1,461	4,692	44,882	22,671	14,987	63	1,394
February	144,833	60,969	1,170	4,001	39,531	26,656	11,364	57	1,085
March	137,502	51,611	987	3,417	40,584	28,184	11,391	50	1,278
April	111,790	36,311	659	2,129	41,648	19,334	10,501	36	1,172
May	155,654	54,182	516	1,647	64,109	22,758	12,392	42	8
June	161,391	42,985	645	1,795	69,634	30,255	16,019	50	8
July	174,650	58,740	718	1,984	63,194	32,308	17,641	58	7
August	185,404	47,925	802	2,202	74,038	38,684	21,672	73	8
September	177,065	49,930	828	2,262	79,071	30,366	14,549	50	9
October	124,759	48,019	555	1,771	44,589	18,693	10,189	30	913
November	131,181	46,821	779	2,498	44,904	21,000	14,174	46	959
December	<u>135,020</u>	<u>51,490</u>	<u>634</u>	<u>2,079</u>	<u>43,217</u>	<u>22,805</u>	<u>13,914</u>	<u>57</u>	<u>824</u>
Total	1,787,700	607,284	9,754	30,477	649,401	313,714	168,793	612	7,665

Source: Company Load Data

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities Docket No. DE 16-346 Schedule HMT-5 Revised

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Liberty Utilities (Granite State Electric) d/b/a Liberty Utilities Transmission Charge Reconciliation October 2014 Through April 2016

	Month	(Over)/Under Beginning Balance	Transmission Revenue	Transmission Expense	Monthly (Over)/Under	Over/(Under) Ending Balance	Balance Subject to Interest	Interest Rate	Interest	Cumulative Interest
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
	Oct-14	\$0	\$1,441,541	\$1,314,263	(\$127,278)	(\$127,278)	(\$63,639)	3.25%	(\$172)	(\$172)
	Nov-14	(\$127,450)	\$1,322,662	\$1,498,454	\$175,791	\$48,341	(\$39,554)	3.25%	(\$107)	(\$279)
	Dec-14	\$48,234	\$1,638,956	\$1,122,477	(\$516,479)	(\$468,245)	(\$210,006)	3.25%	(\$569)	(\$848)
	Jan-15	(\$468,814)	\$1,500,040	\$1,608,968	\$108,928	(\$359,886)	(\$414,350)	3.25%	(\$1,122)	(\$1,970)
	Feb-15	(\$361,008)	\$1,547,387	\$1,603,334	\$55,948	(\$305,061)	(\$333,034)	3.25%	(\$902)	(\$2,872)
	Mar-15	(\$305,962)	\$1,631,685	\$1,939,715	\$308,030	\$2,068	(\$151,947)	3.25%	(\$412)	(\$3,284)
	Apr-15	\$1,656	\$1,225,907	\$1,483,938	\$258,031	\$259,687	\$130,672	3.25%	\$354	(\$2,930)
	May-15	\$260,041	\$1,936,275	\$1,846,643	(\$89,632)	\$170,409	\$215,225	3.25%	\$583	(\$2,347)
	Jun-15	\$170,992	\$3,712,648	\$1,817,957	(\$1,894,691)	(\$1,723,699)	(\$776,353)	3.25%	(\$2,103)	(\$4,450)
	Jul-15	(\$1,725,802)	\$2,804,843	\$1,779,714	(\$1,025,128)	(\$2,750,930)	(\$2,238,366)	3.25%	(\$6,062)	(\$10,512)
	Aug-15	(\$2,756,992)	\$2,967,286	\$1,798,613	(\$1,168,673)	(\$3,925,665)	(\$3,341,329)	3.25%	(\$9,049)	(\$19,561)
	Sep-15		\$2,803,266	\$1,711,211	(\$1,092,055)	(\$5,026,769)	(\$4,480,742)	3.25%	(\$12,135)	(\$31,697)
	Oct-15	(\$5,038,905)	\$2,443,770	\$1,279,516	(\$1,164,254)	(\$6,203,159)	(\$5,621,032)	3.25%	(\$15,224)	(\$46,920)
	Nov-15	(\$6,218,382)	\$2,118,620	\$2,423,356	\$304,736	(\$5,913,647)	(\$6,066,015)	3.25%	(\$16,429)	(\$63,349)
	Dec-15	(\$5,930,076)	\$2,639,982	\$1,607,982	(\$1,032,001)	(\$6,962,076)	(\$6,446,076)	3.25%	(\$17,458)	(\$80,807)
	Jan-16	(\$6,979,534)	\$2,690,647	\$1,771,166	(\$919,481)	(\$7,899,015)	(\$7,439,275)	3.25%	(\$20,148)	(\$100,955)
k .	Feb-16	(, , , , ,	\$2,481,821	\$1,761,849	(\$719,972)	(\$8,639,135)	(\$8,279,149)		(\$22,423)	(\$123,378)
k .	Mar-16	(\$8,661,558)	\$2,636,702	\$1,759,732	(\$876,970)	(\$9,538,528)	(\$9,100,043)		(\$24,646)	(\$148,024)
ŧ	Apr-16	(\$9,563,174)		\$1,567,423	(\$924,981)	(\$10,488,155)	(\$10,025,665)		(\$29,242)	(\$177,266)

Projected Cumulative (Over)/Under Collection of Transmission Charge: (\$10,517,396)

- (a) Prior Month Column (f) + Prior Month Column (i)
- (b) Company kWh sales multiplied by the approved Transmission Revenue factors

\$42,036,443 \$31,696,312

- (c) GSE Transmission Monthly Bills
- (d) Column (b) + Column (c) Column (d)
- (e) Column (a) + Column (e) (f) [Column (a) + Column (f)] ÷ 2 (g) No interest is applied
- (h) Column (g) x [Column (h) ÷ 12]
- (i) Column (i) + Prior Month Column (j)

 * Projected
- Projected

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities

Docket No. DE 16-346

Schedule HMT-6 Revised

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Liberty Utilities (Granite State Electric) d/b/a Liberty Utilities Calculation of Transmission Service Adjustment Factor Effective May 1, 2016 - April 30, 2017

(1) Transmission Service (Over)/Under Collection

(\$10,517,396)

(2) Forecast kWh Deliveries

957,563,085

(3) Transmission Service Adjustment Factor per kWh

(\$0.01098)

- (1) Schedule HMT-6 Revised
- (2) Per Company forecast
- (3) Line (1) ÷ Line (2), truncated after 5 decimal places

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities

Docket No. DE 16-346

Schedule HMT-7 Revised

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Liberty Utilities (Granite State Electric) d/b/a Liberty Utilities Calculation of RGGI Auction Excess Revenue Adjustment Factor

			Beginning				Balance	Effective		
		Auction	Balance	RGGI	Actual	Ending	Subject to	Interest		Cumulative
_	Month	Number	With Interest	Rebate	Refund	Balance	Interest	Rate	Interest	Interest
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Jun-14	23	\$0	\$105,962		\$105,962	\$52,981	3.25%	\$141	\$141
	Jul-14	24	\$106,103	\$220,151		\$326,254	\$216,179	3.25%	\$577	\$718
	Aug-14	-	\$326,831	\$0		\$326,831	\$326,831	3.25%	\$872	\$1,591
	Sep-14	25	\$327,703	\$212,484		\$540,187	\$433,945	3.25%	\$1,158	\$2,749
	Oct-14	-	\$541,346	\$0		\$541,346	\$541,346	3.25%	\$1,445	\$4,193
	Nov-14	-	\$542,790	\$0		\$542,790	\$542,790	3.25%	\$1,449	\$5,642
	Dec-14	26	\$544,239	\$230,556		\$774,795	\$659,517	3.25%	\$1,760	\$7,402
	Jan-15	-	\$776,555	\$0		\$776,555	\$776,555	3.25%	\$2,072	\$9,475
	Feb-15	-	\$778,628	\$0		\$778,628	\$778,628	3.25%	\$2,078	\$11,553
	Mar-15	27	\$780,706	\$311,199		\$1,091,905	\$936,305	3.25%	\$2,499	\$14,051
	Apr-15	-	\$1,094,404	\$0		\$1,094,404	\$1,094,404	3.25%	\$2,921	\$16,972
	May-15	-	\$1,097,325	\$0	(\$30,228)	\$1,067,097	\$1,082,211	3.25%	\$2,888	\$19,860
	Jun-15	28	\$1,069,985	\$353,083	(\$57,959)	\$1,365,109	\$1,217,547	3.25%	\$3,249	\$23,110
	Jul-15	-	\$1,368,359	\$0	(\$43,787)	\$1,324,572	\$1,346,465	3.25%	\$3,593	\$26,703
	Aug-15	-	\$1,328,165	\$0	(\$46,323)	\$1,281,842	\$1,305,004	3.25%	\$3,483	\$30,186
	Sep-15	29	\$1,285,325	\$572,039	(\$43,762)	\$1,813,601	\$1,549,463	3.25%	\$4,135	\$34,321
	Oct-15	-	\$1,817,737	\$0	(\$38,150)	\$1,779,586	\$1,798,661	3.25%	\$4,800	\$39,122
	Nov-15	-	\$1,784,387	\$0	(\$33,074)	\$1,751,312	\$1,767,850	3.25%	\$4,718	\$43,840
	Dec-15	30	\$1,756,030	\$458,684	(\$41,213)	\$2,173,502	\$1,964,766	3.25%	\$5,244	\$49,083
	Jan-16	-	\$2,178,745	\$0	(\$42,004)	\$2,136,741	\$2,157,743	3.25%	\$5,759	\$54,842
	Feb-16	-	\$2,142,500	\$0	(\$38,744)	\$2,103,755	\$2,123,127	3.25%	\$5,666	\$60,508
*	Mar-16		\$2,109,422		(\$41,162)	\$2,068,260	\$2,088,841	3.25%	\$5,575	\$66,083
*	Apr-16		\$2,073,834		(\$38,909)	\$2,034,925	\$2,054,380	3.50%	\$5,898	\$71,981
				\$2,464,158						

Total Refund Through 4/30/16 (\$495,316) Remaining Refund (\$2,040,823) RGGI Refund Rate 5/1/2016 (\$0.00213)

- (a) Prior month Column (d) + prior month Column (g)
- (b) Actual RGGI Rebates
- (c) Column (a) ÷ number of remaining months in recovery period
- (d) Column (a) + Column (b) + Column (c)
- (e) Average of Column (a) and Column (c)
- (f) Interest rate on customer deposits
- (g) Column (e) x [(1 + Column (f)) ^ (1 ÷ 12) 1]
- (h) Prior month Column (h) + Current month Column (g)
- * Rates will be effective thru April 30, 2016

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities Docket No. DE 16-346 Schedule HMT-8 Revised

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Liberty Utilities (Granite State Electric) d/b/a Liberty Utilities **Calculation of Border Sales Settlement Adjustment Factor**

	Beginning			Balance	Effective		
	Balance		Ending	Subject to	Interest		Cumulative
Month	With Interest	Refund	Balance	Interest	Rate	Interest	Interest
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
May-14	\$107,927		\$107,927	\$107,927	3.25%	\$288	\$288
Jun-14	\$108,215		\$108,215	\$108,215	3.25%	\$289	\$577
Jul-14	\$108,504		\$108,504	\$108,504	3.25%	\$290	\$866
Aug-14	\$108,793		\$108,793	\$108,793	3.25%	\$290	\$1,157
Sep-14	\$109,083		\$109,083	\$109,083	3.25%	\$291	\$1,448
Oct-14	\$109,375		\$109,375	\$109,375	3.25%	\$292	\$1,740
Nov-14	\$109,666		\$109,666	\$109,666	3.25%	\$293	\$2,032
Dec-14	\$109,959		\$109,959	\$109,959	3.25%	\$293	\$2,326
Jan-15	\$110,253		\$110,253	\$110,253	3.25%	\$294	\$2,620
Feb-15	\$110,547		\$110,547	\$110,547	3.25%	\$295	\$2,915
Mar-15	\$110,842		\$110,842	\$110,842	3.25%	\$296	\$3,211
Apr-15	\$111,138		\$111,138	\$111,138	3.25%	\$297	\$3,508
May-15	\$111,434	(\$6,844)	\$104,590	\$108,012	3.25%	\$288	\$3,796
Jun-15	\$104,879	(\$13,123)	\$91,756	\$98,317	3.25%	\$262	\$4,058
Jul-15	\$92,018	(\$9,914)	\$82,104	\$87,061	3.25%	\$232	\$4,291
Aug-15	\$82,337	(\$10,488)	\$71,848	\$77,092	3.25%	\$206	\$4,496
Sep-15	\$72,054	(\$9,908)	\$62,146	\$67,100	3.25%	\$179	\$4,675
Oct-15	\$62,325	(\$8,638)	\$53,687	\$58,006	3.25%	\$155	\$4,830
Nov-15	\$53,842	(\$7,488)	\$46,353	\$50,098	3.25%	\$134	\$4,964
Dec-15	\$46,487	(\$9,331)	\$37,156	\$41,821	3.25%	\$112	\$5,076
Jan-16	\$37,267	(\$9,510)	\$27,757	\$32,512	3.25%	\$87	\$5,162
Feb-16	\$27,844	(\$8,772)	\$19,071	\$23,458	3.25%	\$63	\$5,225
Mar-16	\$19,134	(\$9,320)	\$9,814	\$14,474	3.25%	\$39	\$5,264
Apr-16	\$9,853	(\$8,810)	\$1,043	\$5,448	3.50%	\$16	\$5,279

Total Refund Through 4/30/16: (\$112,147) Remaining Refund: (\$1,059) Approved Refund Rate (\$/kWh): (\$0.00000)

- (a) May 2014 Actual Transmission Border Sales Settlement Amount; all other months = prior month Column (c) + prior month Column (f)
- (b) Column (a) ÷ number of remaining months in recovery period
- (c) Column (a) + Column (b)
- (d) Average of Column (a) and Column (c)
- (e) Interest rate on customer deposits
- (f) Column (d) x [(1 + Column (e)) ^ (1 ÷ 12) 1]
- (g) Prior month Column (g) + Current month Column (f)
- Projected

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities Docket No. DE 16-346 Schedule HMT-9 Revised Page 1 of 1

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities Typical Residential Customer Bill Comparison

Usage 650 kWh

	Current Rates	Proposed Rates	Proposed Rates	Current Bill	Proposed- Bill	Proposed Bill
Customer Charge [1]	\$11.79	\$11.85	\$11.79	\$11.79	\$11.85	\$11.79
Distribution Charge						
1st 250 kWh [1]	\$0.03208	\$0.03275	\$0.03208	\$8.02	\$8.19	\$8.02
excess of 250 kWh [1]	\$0.04807	\$0.04883	\$0.04807	\$19.23	\$19.53	\$19.23
Storm Recovery Adjustment	\$0.00000	\$0.00000	\$0.00000	\$0.00	\$0.00	\$0.00
Transmission Charge	\$0.03557	\$0.01340	\$0.01361	\$23.12	\$8.71	\$8.84
Stranded Cost Charge	-\$0.00150	\$0.00040	\$0.00040	-\$0.98	\$0.26	\$0.26
System Benefits Charge	\$0.00330	\$0.00330	\$0.00330	\$2.15	\$2.15	\$2.15
Electricity Consumption Tax	\$0.00055	\$0.00055	\$0.00055	\$0.36	<u>\$0.36</u>	\$0.36
Subtotal Retail Delivery Services				\$63.69	\$51.04	\$50.65
Default Service Charge	\$0.09221	\$0.09221	\$0.09221	<u>\$59.94</u>	<u>\$59.94</u>	<u>\$59.94</u>
Total Bill				\$123.62	\$110.98	\$110.58
\$ increase in 650 kWh Total Residen % increase in 650 kWh Total Residen				-\$ 12.65 - 10.23%	-\$13.04 -10.55%	

^[1] Proposed rates in Docket No. DE 16-277

DOMESTIC SERVICE RATE D

AVAILABILITY

Retail Delivery Service under this rate is available for all domestic purposes in an individual private dwelling or an individual apartment and for farm purposes. If electricity is delivered through more than one meter, the charge for electricity delivered through each meter shall be computed separately under this rate.

CHARACTER OF SERVICE

Service supplied under this rate will be single phase, 60 cycle, alternating current, normally three-wire service at a nominal voltage of 120/240 volts or three-wire 120/208 volts, whichever is available at the location.

RATE PER MONTH

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

Rates for Retail Delivery Service

Customer Charge.....\$11.79 per month

Energy Charges	Per Kilowatt-Hour
Distribution Charge First 250	3.185
Distribution Charge Excess 250	4.784
Business Profits Tax	0.057
Reliability Enhancement/Vegetation Management	(0.017)
Energy Service Adjustment	(0.017)
Total Distribution First 250	3.208
Total Distribution Excess 250	4.807
Transmission Service Cost Adjustment	1.361
Stranded Cost Adjustment Factor	0.040
Storm Recovery Adjustment Factor	0.00

For customers who received service under the off-peak provisions of the Domestic Service Rate D prior to April 1, 1991, the following rates shall apply:

Off-Peak Use: 16 Hour Control

For all electricity separately metered and delivered between the hours of 11:00 p.m. on each day and 7:00 a.m. on the next day, the price of such electricity shall be:

Energy Charges	Per Kilowatt-Hour
Distribution Charge	3.042
Business Profits Tax	0.057
Reliability Enhancement/Vegetation Management	(0.017)
Energy Service Adjustment	(0.017)
Total Distribution	3.065
Transmission Service Cost Adjustment	1.361
Stranded Cost Adjustment Factor	0.040
Storm Recovery Adjustment Factor	0.00

If a Customer has installed an electric water heater of a type approved by the Company, and electricity delivered to such water heater is supplied only under this rate.

Issued: April 20, 2016

Effective: May 1, 2016

Issued by <u>/s/David R. Swain</u>
David R. Swain

Fifth Revised Page 34 Superseding Fourth Revised Page 34 Rate D

Off-Peak Use: 6 Hour Control

For all electricity separately metered and subject to the Company's right to limit the operation of the bottom water heating element up to 6 hours a day, the price of such electricity shall be:

Energy Charges	Per Kilowatt-Hour
Distribution Charge	3.176
Business Profits Tax	0.057
Reliability Enhancement/Vegetation Management	(0.017)
Energy Service Adjustment	(0.017)
Total Distribution	
Transmission Service Cost Adjustment	1.361
Stranded Cost Adjustment Factor	0.040
Storm Recovery Adjustment Factor.	0.000

If a Customer has installed an electric water heater of a type approved by the Company, and electricity delivered to such water heater is supplied only under this rate.

Farm use

The availability of the Farm Use Section is limited to those locations which were served under the Farm Use Section of Domestic Rate D, N.H.P.U.C. No. 8 - Electricity immediately prior to the effective date of this rate. For such farm customers, where all electricity is supplied by the Company, the RATE PER MONTH is modified as follows:

Energy Charges	Per Kilowatt-Hour
Distribution Charge*	3.984
Business Profits Tax	0.057
Reliability Enhancement/Vegetation Management	(0.017)
Energy Service Adjustment	(0.017)
Total Distribution	
Transmission Service Cost Adjustment	1.361
Stranded Cost Adjustment Factor	0.040
Storm Recovery Adjustment Factor	0.000

^{*}All Regular Use kilowatt-hours in excess of the greater of the following:

i. 500 kilowatt-hours

Effective: May 1, 2016

ii. 100 kilowatt-hours per kilovolt-ampere of transformer capacity needed to serve the Customer

APPROVED TYPES OF WATER HEATERS FOR USE UNDER PROVISIONS OF OFF-PEAK USE CLAUSE OF DOMESTIC RATE D

The specifications for an approved type of water heater for all domestic applications are as follows:

1. It shall be of standard manufacture and have a capacity and corresponding heating elements as specified below:

Approx. Tank Size (gallons)	Rating Top Unit (watts)	Rating Bottom Unit (watts)
80*	4500	3000
100 to 120	4500	4500
150	5000	5000

^{*}Water heaters of less than 80 gallons with top and bottom heating elements of not more than 4500 watts each may be installed at the Company's option, with the permission of the Regional Executive.

Dated: April 20, 2016 Issued by /s/ David R. Swain

David R. Swain

President Title:

DOMESTIC SERVICE RATE D-10 OPTIONAL PEAK LOAD PRICING RATE

AVAILABILITY

Retail Delivery Service under this rate is available for all domestic purposes in an individual private dwelling or an individual apartment and for farm purposes to selected customers presently served under Rate D.

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

CHARACTER OF SERVICE

Service supplied under this rate will be single phase, 60 cycle, alternating current, normally three-wire service at a nominal voltage of 120/240 volts or three-wire 120/208 volts, whichever is available at the location.

RATE PER MONTH

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

Rates for Retail Delivery Service

Customer Charge	\$1	11.9	5	per month
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Energy Charges	Per Kilowatt-Hour
Distribution Charge On Peak	9.007
Distribution Charge Off Peak	0.076
Business Profits Tax	0.057
Reliability Enhancement/Vegetation Management	(0.017)
Energy Service Adjustment	(0.008)
Total Distribution Charge On Peak	9.039
Total Distribution Charge Off Peak	0.108
Transmission Service Cost Adjustment	0.985
Stranded Cost Adjustment Factor	0.040
Storm Recovery Adjustment Factor	0.000

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.

The holidays will be: New Year's Day, President's Day, Memorial Day, Independence Day, Columbus Day, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day. All holidays will be the nationally observed day.

Electric water heating service is available under this rate subject to the conditions specified herein. For such water heating service the Company will provide, own and maintain a suitable switch designed to control the operation of the water heater so that the bottom heating element may operate only during Off-Peak hours.

Dated: April 20, 2016

Effective: May 1, 2016

Issued by <u>/s/David R. Swain</u>

David R. Swain

Rate G-1

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. 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.

Rates for Retail Delivery Service

Customer Charge	\$324.09 per month
Energy Charges	Per Kilowatt-Hour
Distribution Charge On Peak	0.389
Distribution Charge Off Peak	0.076
Business Profits Tax	0.057
Reliability Enhancement/Vegetation Management	(0.017)
Total Distribution Charge On Peak	0.429
Total Distribution Charge Off Peak	0.116
Demand Charge per Kilowatt	\$6.91
Transmission Service Cost Adjustment	0.871
Stranded Cost Adjustment Factor	
Storm Recovery Adjustment Factor	
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Dated: April 20, 2016 Effective: May 1, 2016 Issued by <u>/s/David R. Swain</u>
David R. Swain

Rate G-2

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. 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

\$54.05 per month
Per Kilowatt-Hour
0.116
0.057
(0.017)
\$6.96
1.188
0.040
0.000

TRANSMISSION SERVICE COST ADJUSTMENT

Transmission service is available to all retail Customers taking service under this rate. For those Customers, the Transmission Energy Charge shall be calculated in accordance with the Company's Transmission Service Cost Adjustment Provision as provided on Page 66 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 68 of this Tariff.

Dated: April 20, 2016 Issued by /s/David R. Swain

Effective: May 1, 2016 David R. Swain

GENERAL SERVICE RATE G-3

AVAILABILITY

Retail Delivery Service under this rate is available for all purposes except for resale. 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

att-Hour 58
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57
017)
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18
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TRANSMISSION SERVICE COST ADJUSTMENT

Transmission service is available to all retail Customers taking service under this rate. For those Customers, the Transmission Energy Charge shall be calculated in accordance with the Company's Transmission Service Cost Adjustment Provision as provided on Page 66 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 68 of this Tariff.

STRANDED COST ADJUSTMENT

All energy billed under this rate is subject to a Stranded Cost Energy Charge which shall be adjusted from time to time in accordance with the Company's Stranded Cost Adjustment Provision as provided on Page 67 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 68 of this Tariff.

Dated: April 20, 2016 Issued by /s/David R. Swain Effective: May 1, 2016

David R. Swain

OUTDOOR LIGHTING SERVICE RATE M

AVAILABILITY

Public Lighting

Available for Street or Highways and areas within the public domain for customers designated as governmental entities, inclusive of the state, municipalities, or other public authorities.

Installations on limited access highways, tunnels, bridges and the access and egress ramps thereto are subject to the Special Rate Conditions of this tariff.

Private Lighting

Available to private customers for outdoor lighting of areas on private property where necessary fixtures can be supported on existing poles and where such service can be supplied from existing secondary distribution facilities.

In special circumstances outlined in the pole and accessory section below, the Company will install a wooden pole.

Lighting Services

Service under this rate is for full-night service street lighting whereby the luminaire operates for the entire night time period pursuant to the Hours of Operation provision below. In addition, customers may, at their option, take advantage of part-night service in which the luminaire operates for a portion of the night pursuant to the Hours of Operation provision below. Customers may select the part-night service option at the time of lighting installation or at any time during service. Any request to select the part-time night service option must be made in writing.

RATE

Energy Charges	Per Kilowatt-Hour
Distribution Charge	0.000
Business Profits Tax	0.057
Reliability Enhancement/Vegetation Management	(0.017)
Total Distribution	0.040
Transmission Service Cost Adjustment	0.970
Stranded Cost Adjustment Factor	0.039
Storm Recovery Adjustment Factor	0.000

Luminaire Charge

Size of Street Light Lumens	Lamp Wattage	Description	Annual Distribution Price Per Unit				
Sodium Vapor							
4,000	50	LUM HPS RWY 50W	\$78.26				
9,600	100	LUM HPS RWY 100W	\$94.89				
27,500	250	LUM HPS RWY 250W	\$166.63				
50,000	400	LUM HPS RWY 400W	\$217.12				
9,600 (Post Top)	100	LUM HPS POST 100W	\$109.28				
27,500 (Flood)	250	LUM HPS FLD 250W	\$168.11				
50,000 (Flood)	400	LUM HPS FLD 400W	\$232.07				
Incandescent							
1,000	103	LUM INC RWY 103W	\$104.48				

Dated: April 20, 2016 Effective: May 1, 2016 Issued by /s/David R. Swain
David R. Swain

Title: Free gent

Rate T

LIMITED TOTAL ELECTRICAL LIVING RATE T

AVAILABILITY

The availability of this rate is limited to the following customers: 1) those who immediately prior to the effective date of this rate were served under Total Electric Living Rate T, N.H.P.U.C. No. 8 - Electricity and are presently receiving service under this rate, and (2) those who requested service under this rate prior to May 1, 1982.

To such customers, delivery service under this Limited Total Electric Living Rate T continues to be available to the classifications below, subject to the conditions hereinafter stated:

CLASSIFICATIONS

- 1. An individual residence or individual apartment.
- 2. A building or group of buildings under common ownership and operation, where the principal use of electricity is for living quarters. If the owner does not furnish all the electric requirements to the residential tenants of a building, the balance of these residential requirements may be billed individually to the tenants under this rate.
- A church or school, including adjacent buildings owned and operated by such church or school and used principally for religious or education purposes.

CONDITIONS

- A. Electricity must be the sole source of energy for space heating and water heating.
- B. All electrical space heating equipment must be permanently installed. It is recommended that insulation be permanently installed and conform to the Company's standards.
- C. All water heaters installed shall be of a type and size approved by the Company.
- D. The Customer shall provide a separate circuit for the water heater, of ample capacity and designed for a 240-volt operation, to which no equipment other than the water heater shall be connected.
- E. This rate is not available for resale.

CHARACTER OF SERVICE

Service supplied under this rate will be single phase, 60 cycle, alternating current, normally three-wire service at a nominal voltage of 120/240 volts or three-wire 120/208 volts, whichever is available at the location.

RATE PER MONTH

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

Rates for Retail Delivery Service

Customer Charge	\$11.92 per month
Energy Charges	Per Kilowatt-Hour
Distribution Charge	3.511
Business Profits Tax	0.057
Reliability Enhancement/Vegetation Management	(0.017)
Energy Service Adjustment	(0.007)
Total Distribution Charge	3.544
Transmission Service Cost Adjustment	1.048
Stranded Cost Adjustment Factor	0.040
Storm Recovery Adjustment Factor	0.000

Dated: April 20, 2016 Effective: May 1, 2016 Issued by /s/David R. Swain
David R. Swain

LIMITED COMMERCIAL SPACE HEATING RATE V

AVAILABILITY

The availability of this rate is limited to the following customers: 1) those who immediately prior to the effective date of this rate were served under Commercial Space Heating Rate V, N.H.P.U.C. No. 8 - Electricity and are presently receiving service under this rate, and 2) those who requested service under this rate prior to May 1, 1982.

To such customers, delivery service under this Limited Commercial Space Heating Rate V is available for space heating in buildings other than residences, where the Customer's premises are heated exclusively by electricity.

Air conditioning used in addition to electric space heating at this same location may also be served under this rate, provided that electricity is the sole source of energy, and all the requirements for these purposes are metered hereunder.

Electric space heating equipment shall be permanently installed and be of a type and size approved by the Company.

Service under this rate will be metered separately.

Any other use of electricity must be taken under an applicable general service rate.

This rate is not available to seasonal customers, or for resale or auxiliary service.

CHARACTER OF SERVICE

Service supplied under this rate will be single phase, 60 cycle, alternating current, normally three-wire service at a nominal voltage of 120/240 volts or three-wire 120/208 volts, whichever is available at the location, or other voltages where available by special arrangement with the Company.

RATE PER MONTH

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

Rates for Retail Delivery Service

Customer Charge\$11.	74 p	er month

Energy Charges	Per Kilowatt-Hour
Distribution Charge	4.052
Business Profits Tax	0.057
Reliability Enhancement/Vegetation Management	(0.017)
Energy Service Adjustment	(0.009)
Total Distribution Charge	
Transmission Service Cost Adjustment	1.563
Stranded Cost Adjustment Factor	0.040
Storm Recovery Adjustment Factor	

Dated: April 20, 2016 Issued by /s/ David R. Swain Effective: May 1, 2016

David R. Swain

President Title:

RATES EFFECTIVE MAY 1, 2016 FOR USAGE ON AND AFTER MAY 1, 2016

								J IN TER WITT		Storm					
				Business		Energy	Net		Stranded	Recovery	System	Electricity	Total		
		Di	stribution	Profits	REP/	Service	Distribution	Transmission	Cost	Adjustment	Benefits	Consumption	Delivery	Energy	Total
Rate	Blocks		Charge	Tax	VMP	Adjustment	Charge	Charge	Charge	Factor	Charge	Tax	Service	Service	Rate
	Customer Charge	\$	11.79				11.79						11.79		\$ 11.79
D	1st 250 kWh	\$	0.03185	0.00057	(0.00017)	(0.00017)	0.03208	0.01361	0.00040	-	0.00330	0.00055	0.04994	0.09221	\$ 0.14215
	Excess kWh	\$	0.04784	0.00057	(0.00017)	(0.00017)	0.04807	0.01361	0.00040	-	0.00330	0.00055	0.06593	0.09221	\$ 0.15814
Off Peak Water															
Heating Use 16	All kWh	\$	0.03042	0.00057	(0.00017)	(0.00017)	0.03065	0.01361	0.00040	-	0.00330	0.00055	0.04851	0.09221	\$ 0.14072
Hour Control ¹															
Off Peak Water															
Heating Use 6	All kWh	\$	0.03176	0.00057	(0.00017)	(0.00017)	0.03199	0.01361	0.00040	-	0.00330	0.00055	0.04985	0.09221	\$ 0.14206
Hour Control ¹					, ,										
Farm ¹	All kWh	\$	0.03984	0.00057	(0.00017)	(0.00017)	0.04007	0.01361	0.00040	-	0.00330	0.00055	0.05793	0.09221	\$ 0.15014
1	Customer Charge	\$	11.95		((,	11.95						11.95		\$ 11.95
D-10	On Peak kWh		0.09007	0.00057	(0.00017)	(0.00008)	0.09039	0.00005	0.00040		0.00330	0.00055	0.10449	0.09221	\$ 0.19670
D-10				0.00057		(0.00008)		0.00985		-					
	Off Peak kWh		0.00076	0.00057	(0.00017)	(0.00008)	0.00108	0.00985	0.00040	-	0.00330	0.00055	0.01518	0.09221	\$
	Customer Charge	\$	324.09				324.09						324.09		\$ 324.09
	Demand Charge	\$	6.91				6.91						6.91		\$ 6.91
	On Peak kWh	\$	0.00389	0.00057	(0.00017)	NA	0.00429	0.00871	0.00400	-	0.00330	0.00055	0.02085		
										i	Effective 11	/1/2015, usage o	on or after	0.07770	\$ 0.09855
										i	Effective 12	/1/2015, usage o	on or after	0.09593	\$ 0.11678
											Effective 1	/1/2016, usage o	on or after	0.12037	\$ 0.14122
												/1/2016, usage o	-	0.11824	0.13909
											00	/1/2016, usage (0.09075	\$
												/1/2016, usage 6 /1/2016, usage 6		0.06941	0.09026
											00	, ,	•		
												/1/2016, usage o	-	0.06122	\$ 0.08207
G-1												/1/2016, usage o		0.05541	\$
											Effective 7	/1/2016, usage o	on or after	0.06020	\$ 0.08105
	Off Peak kWh	\$	0.00076	0.00057	(0.00017)	NA	0.00116	0.00871	0.00400	-	0.00330	0.00055	0.01772		
										i	Effective 11	/1/2015, usage o	on or after	0.07770	\$ 0.09542
										i	Effective 12	/1/2015, usage o	on or after	0.09593	\$ 0.11365
											Effective 1	/1/2016, usage o	on or after	0.12037	\$ 0.13809
												/1/2016, usage o	-	0.11824	\$
												/1/2016, usage o		0.09075	0.10847
												/1/2016, usage 6 /1/2016, usage 6		0.06941	\$ 0.08713
													-		
												/1/2016, usage o		0.06122	0.07894
												/1/2016, usage o	-	0.05541	0.07313
											Effective 7	/1/2016, usage o		0.06020	0.07792
	Customer Charge	\$	54.05				54.05						54.05		\$ 54.05
	Demand Charge	\$	6.96				6.96						6.96		\$ 6.96
	All kWh	\$	0.00116	0.00057	(0.00017)	NA	0.00156	0.01188	0.00040	-	0.00330	0.00055	0.01769		\$ 0.01769
										i	Effective 11	/1/2015, usage o	on or after	0.07770	\$ 0.09539
												/1/2015, usage o	-	0.09593	0.11362
_										•	55	/1/2016, usage (0.12037	\$
G-2												/1/2016, usage (0.11824	0.13593
													-		
												/1/2016, usage (-	0.09075	\$ 0.10844
												/1/2016, usage o	-	0.06941	\$
												/1/2016, usage o	-	0.06122	
												/1/2016, usage o		0.05541	0.07310
											Effective 7	/1/2016, usage o	on or after	0.06020	\$ 0.07789
G-3	Customer Charge	\$	11.70				11.70						11.70		\$ 11.70
G-3	All kWh		0.03958	0.00057	(0.00017)	(0.00017)	0.03981	0.00918	0.00040	-	0.00330	0.00055	0.05324	0.09221	\$ 0.14545
M	All kWh	\$	-	0.00057	(0.00017)	NA	0.00040	0.00970	0.00039	-	0.00330	0.00055	0.01434	0.09221	0.10655
	Customer Charge	\$	11.92	0.00007	(0.00017)	11/1	11.92	0.00770	0.00037		0.00000	0.00000	11.92	0.07221	\$
T	All kWh	\$	0.03511	0.00057	(0.00017)	(0.00007)	0.03544	0.01048	0.00040		0.00330	0.00055	0.05017	0.00221	0.14238
				0.00037	(0.00017)	(0.00007)		0.01048	0.00040		0.00530	0.00055		0.09221	
V	Minimum Charge	\$	11.74				11.74						11.74		\$ 11.74
	All kWh	\$	0.04052	0.00057	(0.00017)	(0.00009)	0.04083	0.01563	0.00040	-	0.00330	0.00055	0.06071	0.09221	\$ 0.15292

¹ Rate is a subset of Domestic Rate D

Dated: April 20, 2016 Effective: May 1, 2016 Issued by: /s/David R. Swain
David R. Swain

DOMESTIC SERVICE RATE D

AVAILABILITY

Retail Delivery Service under this rate is available for all domestic purposes in an individual private dwelling or an individual apartment and for farm purposes. If electricity is delivered through more than one meter, the charge for electricity delivered through each meter shall be computed separately under this rate.

CHARACTER OF SERVICE

Service supplied under this rate will be single phase, 60 cycle, alternating current, normally three-wire service at a nominal voltage of 120/240 volts or three-wire 120/208 volts, whichever is available at the location.

RATE PER MONTH

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

Rates for Retail Delivery Service

Customer Charge.	311.79	per month
------------------	--------	-----------

Energy Charges	Per Kilowatt-Hour
Distribution Charge First 250	3.185
Distribution Charge Excess 250	4.784
Business Profits Tax	0.057
Reliability Enhancement/Vegetation Management	(0.017)
Energy Service Adjustment	(0.017)
Total Distribution First 250	3.208
Total Distribution Excess 250	4.807
Transmission Service Cost Adjustment	1.361 3.557

Transmission Service Cost Adjustment	. <u>1.3613.557</u>
Stranded Cost Adjustment Factor	0.040(0.150)
Storm Recovery Adjustment Factor	

For customers who received service under the off-peak provisions of the Domestic Service Rate D prior to April 1, 1991, the following rates shall apply:

Off-Peak Use: 16 Hour Control

For all electricity separately metered and delivered between the hours of 11:00 p.m. on each day and 7:00 a.m. on the next day, the price of such electricity shall be:

Energy Charges	Per Kilowatt-Hour
Distribution Charge	3.042
Business Profits Tax	0.057
Reliability Enhancement/Vegetation Management	(0.017)
Energy Service Adjustment	(0.017)
Total Distribution	3.065
Transmission Service Cost Adjustment	<u>1.361</u> 3.557

Transmission Service Cost Adjustment	1.361 3.557
Stranded Cost Adjustment Factor	
Storm Recovery Adjustment Factor	0.00

If a Customer has installed an electric water heater of a type approved by the Company, and electricity delivered to such water heater is supplied only under this rate.

Issued: <u>April 20, 2016</u>October 6, 2015 Effective: May 1, 2016November 1, 2015 Issued by <u>/s/David R. Swain</u>
David R. Swain

Off-Peak Use: 6 Hour Control

For all electricity separately metered and subject to the Company's right to limit the operation of the bottom water heating element up to 6 hours a day, the price of such electricity shall be:

Energy Charges	Per Kilowatt-Hour
Distribution Charge	3.176
Business Profits Tax	
Reliability Enhancement/Vegetation Management	(0.017)
Energy Service Adjustment	(0.017)
Total Distribution	
Transmission Service Cost Adjustment	<u>1.361</u> 3.557
Stranded Cost Adjustment Factor	<u>0.040(</u> 0.150)

If a Customer has installed an electric water heater of a type approved by the Company, and electricity delivered to such water heater is supplied only under this rate.

Farm use

The availability of the Farm Use Section is limited to those locations which were served under the Farm Use Section of Domestic Rate D, N.H.P.U.C. No. 8 - Electricity immediately prior to the effective date of this rate. For such farm customers, where all electricity is supplied by the Company, the RATE PER MONTH is modified as follows:

Per Kilowatt-Hour
3.984
0.057
(0.017)
(0.017)
4.007
<u>1.361</u> 3.557
<u>0.040(0.150)</u>
0.000

^{*}All Regular Use kilowatt-hours in excess of the greater of the following:

- i. 500 kilowatt-hours
- ii. 100 kilowatt-hours per kilovolt-ampere of transformer capacity needed to serve the Customer

APPROVED TYPES OF WATER HEATERS FOR USE UNDER PROVISIONS OF OFF-PEAK USE CLAUSE OF DOMESTIC RATE D

The specifications for an approved type of water heater for all domestic applications are as follows:

1. It shall be of standard manufacture and have a capacity and corresponding heating elements as specified below:

Approx. Tank Size (gallons)	Rating Top Unit (watts)	Rating Bottom Unit (watts)
80*	4500	3000
100 to 120	4500	4500
150	5000	5000

^{*}Water heaters of less than 80 gallons with top and bottom heating elements of not more than 4500 watts each may be installed at the Company's option, with the permission of the Regional Executive.

Dated: April 20, 2016 October 6, 2015 Effective: May 1, 2016November 1, 2015 Issued by /s/ David R. Swain David R. Swain

DOMESTIC SERVICE RATE D-10 OPTIONAL PEAK LOAD PRICING RATE

AVAILABILITY

Retail Delivery Service under this rate is available for all domestic purposes in an individual private dwelling or an individual apartment and for farm purposes to selected customers presently served under Rate D.

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

CHARACTER OF SERVICE

Service supplied under this rate will be single phase, 60 cycle, alternating current, normally three-wire service at a nominal voltage of 120/240 volts or three-wire 120/208 volts, whichever is available at the location.

RATE PER MONTH

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

Rates for Retail Delivery Service

Customer Charge	\$11.95 per month
Energy Charges	Per Kilowatt-Hour

Distribution Charge On Peak	9.007
Distribution Charge Off Peak	0.076
Business Profits Tax	0.057
Reliability Enhancement/Vegetation Management	(0.017)
Energy Service Adjustment	(0.008)
Total Distribution Charge On Peak	
Total Distribution Charge Off Peak	0.108

Transmission Service Cost Adjustment	<u>0.985</u> 3.558
Stranded Cost Adjustment Factor	<u>0.040(0.154)</u>
Storm Recovery Adjustment Factor	0.000

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.

The holidays will be: New Year's Day, President's Day, Memorial Day, Independence Day, Columbus Day, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day. All holidays will be the nationally observed day.

Electric water heating service is available under this rate subject to the conditions specified herein. For such water heating service the Company will provide, own and maintain a suitable switch designed to control the operation of the water heater so that the bottom heating element may operate only during Off-Peak hours.

Dated: <u>April 20, 2016October 6, 2015</u> Effective: <u>May 1, 2016November 1, 2015</u> Issued by <u>/s/David R. Swain</u>
David R. Swain

Rate G-1

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. 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.

Rates for Retail Delivery Service

Customer Charge	\$324.09 per month
Energy Charges	Per Kilowatt-Hour
Distribution Charge On Peak	0.389
Distribution Charge Off Peak	
Business Profits Tax	0.057
Reliability Enhancement/Vegetation Management	(0.017)
Total Distribution Charge On Peak	0.429
Total Distribution Charge Off Peak	0.116
Demand Charge per Kilowatt	\$6.91
Transmission Service Cost Adjustment	<u>0.871</u> 3.118
Stranded Cost Adjustment Factor	<u>0.040(0.150)</u>
Storm Recovery Adjustment Factor	0.000

Dated: <u>April 20, 2016October 6, 2015</u> Effective: <u>May 1, 2016November 1, 2015</u> Issued by <u>/s/David R. Swain</u>
David R. Swain

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Rate G-2

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. 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	\$54.05 per month
Energy Charges	Per Kilowatt-Hour
Distribution Charge	0.116
Business Profits Tax	0.057
Reliability Enhancement/Vegetation Management	(0.017)
Total Distribution Charge	
Demand Charge per Kilowatt	\$6.96
Transmission Service Cost Adjustment	
Stranded Cost Adjustment Factor	<u>0.040(0.151)</u>
Storm Recovery Adjustment Factor	0.000

TRANSMISSION SERVICE COST ADJUSTMENT

Transmission service is available to all retail Customers taking service under this rate. For those Customers, the Transmission Energy Charge shall be calculated in accordance with the Company's Transmission Service Cost Adjustment Provision as provided on Page 66 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 68 of this Tariff.

Dated: <u>April 20, 2016October 6, 2015</u> Effective: May 1, 2016November 1, 2015 Issued by /s/David R. Swain
David R. Swain

GENERAL SERVICE RATE G-3

AVAILABILITY

Retail Delivery Service under this rate is available for all purposes except for resale. 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	\$11.70 per month
Energy Charges	Per Kilowatt-Hour
Distribution Charge	
Reliability Enhancement/Vegetation Management	, ,
Energy Service Adjustment Total Distribution Charge	
Tome Distribution Charge	
Transmission Service Cost Adjustment	
Stranded Cost Adjustment Factor	
Storm Recovery Adjustment Factor	0.000

TRANSMISSION SERVICE COST ADJUSTMENT

Transmission service is available to all retail Customers taking service under this rate. For those Customers, the Transmission Energy Charge shall be calculated in accordance with the Company's Transmission Service Cost Adjustment Provision as provided on Page 66 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 68 of this Tariff.

STRANDED COST ADJUSTMENT

All energy billed under this rate is subject to a Stranded Cost Energy Charge which shall be adjusted from time to time in accordance with the Company's Stranded Cost Adjustment Provision as provided on Page 67 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 68 of this Tariff.

Dated: April 20, 2016October 6, 2015

Effective: May 1, 2016November 1, 2015

David R. Swain

Rate M

OUTDOOR LIGHTING SERVICE RATE M

AVAILABILITY

Public Lighting

Available for Street or Highways and areas within the public domain for customers designated as governmental entities, inclusive of the state, municipalities, or other public authorities.

Installations on limited access highways, tunnels, bridges and the access and egress ramps thereto are subject to the Special Rate Conditions of this tariff.

Private Lighting

Available to private customers for outdoor lighting of areas on private property where necessary fixtures can be supported on existing poles and where such service can be supplied from existing secondary distribution facilities.

In special circumstances outlined in the pole and accessory section below, the Company will install a wooden pole.

Lighting Services

Service under this rate is for full-night service street lighting whereby the luminaire operates for the entire night time period pursuant to the Hours of Operation provision below. In addition, customers may, at their option, take advantage of part-night service in which the luminaire operates for a portion of the night pursuant to the Hours of Operation provision below. Customers may select the part-night service option at the time of lighting installation or at any time during service. Any request to select the part-time night service option must be made in writing.

RATE

Energy Charges	Per Kilowatt-Hour
Distribution Charge	0.000
Business Profits Tax	0.057
Reliability Enhancement/Vegetation Management	(0.017)
Total Distribution	0.040
Transmission Service Cost Adjustment	<u>0.970</u> 2.359
Stranded Cost Adjustment Factor	<u>0.039(0.150)</u>
Storm Recovery Adjustment Factor	0.000

Luminaire Charge

Size of Street Light Lumens	Lamp Wattage	Description	Annual Distribution Price Per Unit
Sodium Vapor			
4,000	50	LUM HPS RWY 50W	\$78.26
9,600	100	LUM HPS RWY 100W	\$94.89
27,500	250	LUM HPS RWY 250W	\$166.63
50,000	400	LUM HPS RWY 400W	\$217.12
9,600 (Post Top)	100	LUM HPS POST 100W	\$109.28
27,500 (Flood)	250	LUM HPS FLD 250W	\$168.11
50,000 (Flood)	400	LUM HPS FLD 400W	\$232.07
Incandescent			
1,000	103	LUM INC RWY 103W	\$104.48

Dated: <u>April 20, 2016October 6, 2015</u> Effective: May 1, 2016November 1, 2015 Issued by <u>/s/David R. Swain</u>
David R. Swain

Rate T

LIMITED TOTAL ELECTRICAL LIVING RATE T

AVAILABILITY

The availability of this rate is limited to the following customers: 1) those who immediately prior to the effective date of this rate were served under Total Electric Living Rate T, N.H.P.U.C. No. 8 - Electricity and are presently receiving service under this rate, and (2) those who requested service under this rate prior to May 1, 1982.

To such customers, delivery service under this Limited Total Electric Living Rate T continues to be available to the classifications below, subject to the conditions hereinafter stated:

CLASSIFICATIONS

- 1. An individual residence or individual apartment.
- 2. A building or group of buildings under common ownership and operation, where the principal use of electricity is for living quarters. If the owner does not furnish all the electric requirements to the residential tenants of a building, the balance of these residential requirements may be billed individually to the tenants under this rate.
- A church or school, including adjacent buildings owned and operated by such church or school and used principally for religious or education purposes.

CONDITIONS

- A. Electricity must be the sole source of energy for space heating and water heating.
- B. All electrical space heating equipment must be permanently installed. It is recommended that insulation be permanently installed and conform to the Company's standards.
- C. All water heaters installed shall be of a type and size approved by the Company.
- D. The Customer shall provide a separate circuit for the water heater, of ample capacity and designed for a 240-volt operation, to which no equipment other than the water heater shall be connected.
- E. This rate is not available for resale.

CHARACTER OF SERVICE

Service supplied under this rate will be single phase, 60 cycle, alternating current, normally three-wire service at a nominal voltage of 120/240 volts or three-wire 120/208 volts, whichever is available at the location.

RATE PER MONTH

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

Rates for Retail Delivery Service

Customer Charge	\$11.92 per month
Energy Charges	Per Kilowatt-Hour
Distribution Charge	3.511
Business Profits Tax	0.057
Reliability Enhancement/Vegetation Management	(0.017)
Energy Service Adjustment	(0.007)
Total Distribution Charge	3.544
Transmission Service Cost Adjustment	<u>1.048</u> 3.372
Stranded Cost Adjustment Factor	<u>0.040(0.149)</u>
Storm Recovery Adjustment Factor	0.000

Dated: <u>April 20, 2016October 6, 2015</u> Effective: May 1, 2016November 1, 2015 Issued by <u>/s/David R. Swain</u>
David R. Swain

LIMITED COMMERCIAL SPACE HEATING RATE V

AVAILABILITY

The availability of this rate is limited to the following customers: 1) those who immediately prior to the effective date of this rate were served under Commercial Space Heating Rate V, N.H.P.U.C. No. 8 - Electricity and are presently receiving service under this rate, and 2) those who requested service under this rate prior to May 1, 1982.

To such customers, delivery service under this Limited Commercial Space Heating Rate V is available for space heating in buildings other than residences, where the Customer's premises are heated exclusively by electricity.

Air conditioning used in addition to electric space heating at this same location may also be served under this rate, provided that electricity is the sole source of energy, and all the requirements for these purposes are metered hereunder.

Electric space heating equipment shall be permanently installed and be of a type and size approved by the Company.

Service under this rate will be metered separately.

Any other use of electricity must be taken under an applicable general service rate.

This rate is not available to seasonal customers, or for resale or auxiliary service.

CHARACTER OF SERVICE

Service supplied under this rate will be single phase, 60 cycle, alternating current, normally three-wire service at a nominal voltage of 120/240 volts or three-wire 120/208 volts, whichever is available at the location, or other voltages where available by special arrangement with the Company.

RATE PER MONTH

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

Rates for Retail Delivery Service

Customer Charge	\$11.74 per month
Energy Charges	Per Kilowatt-Hour
Distribution Charge	4.052
Business Profits Tax	0.057
Reliability Enhancement/Vegetation Management	(0.017)
Energy Service Adjustment	(0.009)
Total Distribution Charge	
Transmission Service Cost Adjustment	<u>1.563</u> 4 .159
Stranded Cost Adjustment Factor	<u>0.040(0.161)</u>
Storm Recovery Adjustment Factor	0.000

Dated: April 20, 2016October 6, 2015 Effective: May 1, 2016 November 1, 2015 Issued by /s/ David R. Swain David R. Swain

RATES EFFECTIVE MAY 1, 2016 FOR USAGE ON AND AFTER MAY 1, 2016

		Storm													
		Distribution	Business on Profits	REP/	Energy Service	Net Distribution	Transmission	Stranded Cost	Recovery Adjustment	System Benefits	Electricity Consumption	Total Delivery	Energy		Total
Rate	Blocks	Charge	Tax	VMP	Adjustment	Charge	Charge	Charge	Factor	Charge	Tax	Service	Service		Rate
	Customer Charge	\$ 11.7	19			11.79						11.79		\$	11.79
D	1st 250 kWh	\$ 0.0318	35 0.00057	(0.00017)	(0.00017)	0.03208	0.03557	(0.00150)	-	0.00330	0.00055	0.07000	0.09221	\$	0.16221
	Excess kWh	\$ 0.0478	34 0.00057	(0.00017)	(0.00017)	0.04807	0.03557	(0.00150)	-	0.00330	0.00055	0.08599	0.09221	\$	0.17820
Off Peak Water Heating Use 16	All kWh	\$ 0.0304	2 0.00057	(0.00017)	(0.00017)	0.03065	0.03557	(0.00150)	_	0.00330	0.00055	0.06857	0.09221	\$	0.16078
Hour Control ¹ Off Peak Water															
Heating Use 6 Hour Control ¹	All kWh	\$ 0.0317	6 0.00057	(0.00017)	(0.00017)	0.03199	0.03557	(0.00150)	-	0.00330	0.00055	0.06991	0.09221	\$	0.16212
Farm ¹	All kWh	\$ 0.0398	34 0.00057	(0.00017)	(0.00017)	0.04007	0.03557	(0.00150)	-	0.00330	0.00055	0.07799	0.09221	\$	0.17020
	Customer Charge	\$ 11.9				11.95						11.95		\$	11.95
D-10	On Peak kWh	\$ 0.0900	0.00057	(0.00017)	(0.00008)	0.09039	0.03558	(0.00154)		0.00330	0.00055	0.12828	0.09221	\$	0.22049
	Off Peak kWh	\$ 0.0007	6 0.00057	(0.00017)	(0.00008)	0.00108	0.03558	(0.00154)	-	0.00330	0.00055	0.03897	0.09221	\$	0.13118
	Customer Charge	\$ 324.0	19			324.09						324.09		\$	324.09
	Demand Charge	\$ 6.9	1			6.91						6.91		\$	6.91
	On Peak kWh	\$ 0.0038	9 0.00057	(0.00017)	NA	0.00429	0.03118	(0.00150)	-	0.00330	0.00055	0.03782			
									i	Effective 11	/1/2015, usage	on or after	0.07770	\$	0.11552
									i	Effective 12	/1/2015, usage	on or after	0.09593	\$	0.13375
										Effective 1	/1/2016, usage	on or after	0.12037	\$	0.15819
										Effective 2	/1/2016, usage	on or after	0.11824	\$	0.15606
										Effective 3	/1/2016, usage	on or after	0.09075	\$	0.12857
										Effective 4	/1/2016, usage	on or after	0.06941	\$	0.10723
										Effective 5	/1/2016, usage	on or after	0.06122	\$	0.09904
										Effective 6	/1/2016, usage	on or after	0.05541		0.09323
G-1											/1/2016, usage				0.09802
	Off Peak kWh	\$ 0.0007	6 0.00057	(0.00017)	NA	0.00116	0.03118	(0.00150)	-	0.00330	0.00055	0.03469			
									i	Effective 11	/1/2015, usage	on or after	0.07770	\$	0.11239
									i	Effective 12	/1/2015, usage	on or after	0.09593	\$	0.13062
										Effective 1	/1/2016, usage	on or after	0.12037	\$	0.15506
										Effective 2	/1/2016, usage	on or after	0.11824	\$	0.15293
											/1/2016, usage		0.09075		0.12544
											1/1/2016, usage		0.06941	\$	
										Effective 5/1/2016, usage on or after Effective 6/1/2016, usage on or after					0.09591
													0.05541		
											7/1/2016, usage		0.06020		0.09489
	Customer Charge	\$ 54.0)5			54.05				33	,	54.05		\$	54.05
	Demand Charge	\$ 6.9				6.96						6.96		\$	6.96
	All kWh		6 0.00057	(0.00017)	NA	0.00156	0.03424	(0.00151)	_	0.00330	0.00055	0.03814		-	0.03814
				(//				()	i		/1/2015, usage		0.07770		
											/1/2015, usage o		0.09593	,	0.13407
G-2									•		/1/2016, usage (0.12037	\$	
											/1/2016, usage (0.11824		0.15638
											/1/2016, usage (0.09075	\$	
										00	/1/2016, usage (0.06941		0.10755
											/1/2016, usage (/1/2016, usage (0.09936
											/1/2016, usage (/1/2016, usage (0.05541		
											/1/2016, usage (//1/2016, usage (0.09834
	Customer Charge	\$ 11.7	70			11.70				2,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, 1, 2010, usuge	11.70	3.00020	\$	
G-3	All kWh	\$ 0.0395		(0.00017)	(0.00017)	0.03981	0.03400	(0.00144)	_	0.00330	0.00055	0.07622	0.09221		0.16843
M	All kWh	\$ 0.039.	0.00057	(0.00017)	NA	0.00040	0.03400	(0.00144) (0.00150)		0.00330	0.00055	0.02634	0.09221		
	Customer Charge	\$ 11.9		(0.00017)	IVA	11.92	0.02339	(0.00130)		0.00550	0.00033	11.92	0.09441	\$	
T	All kWh	\$ 0.0351		(0.00017)	(0.00007)	0.03544	0.03372	(0.00149)	_	0.00330	0.00055		0.09221		0.16373
	Minimum Charge	\$ 0.035		(0.00017)	(0.00007)	11.74	0.03372	(0.00149)		0.00330	0.00033	11.74	0.03221	\$	11.74
V				(0.00017)	(0.00009)		0.04150	(0.00161)		0.00320	0.00055		0.09221		0.17687
<u> </u>	All kWh	\$ 0.040°	2 0.00057	(0.00017)	(0.00009)	0.04083	0.04159	(0.00161)	-	0.00330	0.00055	U.U8406	0.09221	Þ	U.1/08/

¹ Rate is a subset of Domestic Rate D

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