

Witness: Warshaw

Exhibits

Schedule JDW-1	Summary of Transmission Expenses Estimated for 2017
Schedule JDW-2	Summary of ISO Tariff Section II Charges Estimated for 2017
Schedule JDW-3	Summary of System Restoration and Reactive Supply Charges Estimated for 2017
Schedule JDW-4	Summary of New England Power Schedule No. 21 Charges Estimated for 2017

Summary of Transmission Expenses Estimated For the Year 2017

ISO-NE Tariff Schedule 21 NEP LNS Tariff Charges		
1	Local Network Service (Monthly Demand Charges)	\$3,188,210
2	Other NEP Charges	998,630
Subtotal NEP Charges		\$4,186,841
ISO-NE OATT Tariff Section II Charges		
3	OATT Schedule 9 - Regional Network Service Charges	\$16,253,185
4	OATT Schedule 1 - Scheduling, System Control & Dispatch	270,901
5	OATT Schedule 16 - System Restoration and Planning Service	87,427
6	OATT Schedule 2 - Reactive Supply and Voltage Control Service	153,134
Subtotal ISO-NE Tariff Section II Charges		\$16,764,647
ISO-NE Tariff Section IV.A - Administrative Charges		
7	ISO-NE Schedule 1 - Scheduling & Dispatch Service	\$345,601
8	ISO-NE Schedule 5 - NESCOE Budget	12,272
Subtotal ISO-NE Tariff Section IV.A Charges		\$357,873
9	Subtotal of ISO-NE Tariff Charges	\$17,122,520
10	Total Estimated Expenses Flowing Through Current Rates	\$21,309,361

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

**Summary of Estimated Transmission Expenses
2016 vs. 2017 Filing Years**

		1 2016 Retail Filing	2 2017 Estimate	3 Yr/Yr Incr/(Decr)
ISO-NE Tariff Schedule 21 NEP LNS Tariff Charges				
1	Local Network Service (Monthly Demand Charges)	\$ 4,842,112	\$ 3,188,210	\$ (1,653,902)
2	Other NEP Charges	997,412	998,630	1,219
	Subtotal	\$ 5,839,524	\$ 4,186,841	\$ (1,652,683)
ISO-NE OATT Tariff Section II Charges				
3	OATT Schedule 9 - Regional Network Service Charges	\$ 16,097,414	\$ 16,253,185	\$ 155,771
4	OATT Schedule 1 - Scheduling, System Control & Dispatch	252,683	270,901	18,219
5	OATT Schedule 16 - System Restoration and Planning Service	90,250	87,427	(2,823)
6	OATT Schedule 2 - Reactive Supply and Voltage Control Service	272,823	153,134	(119,689)
	Subtotal	\$ 16,713,169	\$ 16,764,647	\$ 51,478
ISO-NE Tariff Section IV.A - Administrative Charges				
7	ISO-NE Schedule 1 - Scheduling & Dispatch Service	\$ 363,167	\$ 345,601	\$ (17,566)
8	ISO-NE Schedule 5 - NESCOE Budget	5,577	12,272	6,695
	Subtotal	\$ 368,744	\$ 357,873	\$ (10,871)
9	Subtotal of ISO-NETariff Charges	\$ 17,081,913	\$ 17,122,520	\$ 40,607
10	Total Estimated Expenses	\$ 22,921,437	\$ 21,309,361	\$ (1,612,076)

Summary of ISO-NE Tariff Section II Charges Estimated For the Year 2017

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Monthly PTF kW Load	OATT Schedule 9 - Regional Network Service Charges		OATT Schedule 1 - Scheduling, System Control & Dispatch		OATT Schedule 16 - System Restoration and Planning Service		OATT Schedule 2 - Reactive Supply and Voltage Control Service	
	Charges		Charges		Charges		Charges	
1 January	142,969	\$1,240,261	\$21,397	\$6,905	\$12,095	\$1,280,659	\$27,297	\$969
2 February	138,917	1,205,110	20,791	6,710	11,752	1,244,362	26,523	942
3 March	131,167	1,137,878	19,631	6,335	11,097	1,174,941	25,044	889
4 April	126,512	1,097,496	18,934	6,111	10,703	1,133,243	24,155	858
5 May	152,609	1,323,888	22,840	7,371	12,911	1,367,010	29,138	1,035
6 June	163,247	1,496,572	24,432	7,885	13,811	1,542,700	31,169	1,107
7 July	181,922	1,667,776	27,227	8,787	15,391	1,719,180	34,734	1,233
8 August	196,554	1,801,916	29,417	9,494	16,628	1,857,454	37,528	1,333
9 September	176,795	1,620,774	26,459	8,539	14,957	1,670,730	33,755	1,199
10 October	123,554	1,132,686	18,491	5,968	10,453	1,167,597	23,590	838
11 November	130,793	1,199,049	19,575	6,317	11,065	1,236,006	24,972	887
12 December	145,053	1,329,778	21,709	7,006	12,271	1,370,765	27,695	983
13 12-Mo Total		\$16,253,185	\$270,901	\$87,427	\$153,134	\$16,764,647	\$345,601	\$12,272
								\$17,122,520

Line 1-12: Column (1) = Highest Monthly Regional Network Load during the 2014 - 2015 period

Line 1-5: Column (2) = 2016 OATT Schedule 9 RNS Rate * Column (1) / 12

Line 6-12: Column (2) = Estimated 2017 RNS Rate * Column (1) / 12

Line 1-12: Column (3) = Current OATT Schedule 1 Rate * Column (1) / 12

Line 1-12: Column (4) = 0 [No Reliability Must Run Contracts are currently in effect for New Hampshire]

Line 1-12: Column (4) = JDW-3, Line 8 * Column (1)

Line 1-12: Column (5) = JDW-3, Line 4 * Column (1)

Line 1-12: Column (6) = Sum of Columns (2) thru (5)

Line 1-12: Column (7) = Column (1) * \$0.19093 per kW-month per ISO 2017 Capital Budget Filing

Line 1-12: Column (8) = Column (1) * \$0.00678 per kW-month per NESCOE 2017 Budget Filing

Line 1-12: Column (9) = Sum of Columns (6) thru (8)

Line 13 = Sum of Line 1 thru Line 12

2016 RNS Rate= \$ 104.10 /kW-YR \$ 5.91
 2017 RNS Rate= \$ 110.01 /kW-YR 1.056772111
 Rate = \$ 1.79594 /kW-YR

Rate = \$ 0.04830 /kW-Month
 Rate = \$ 0.08460 /kW-Month

Rate = \$ 0.19093 kW-month
 Rate = \$ 0.00678 kW-month

**Summary of ISO Tariff Section IV.A Administrative Charges
Estimated For the Year 2017**

Period	(1) Monthly Regional Network Load	(2) ISO-NE Schedule 1 - Scheduling & Dispatch Service	(3) ISO-NE Schedule 5 - NESCOE Budget	(4) Section IV.A - Administrative Charges
1 January	142,969	\$27,297	\$969	\$28,266
2 February	138,917	26,523	942	27,465
3 March	131,167	25,044	889	25,933
4 April	126,512	24,155	858	25,013
5 May	152,609	29,138	1,035	30,172
6 June	163,247	31,169	1,107	32,276
7 July	181,922	34,734	1,233	35,968
8 August	196,554	37,528	1,333	38,861
9 September	176,795	33,755	1,199	34,954
10 October	123,554	23,590	838	24,428
11 November	130,793	24,972	887	25,859
12 December	145,053	27,695	983	28,678
13 Totals		\$345,601	\$12,272	\$357,873

Column (1) = Monthly Regional Network Load during the 2016 period

Column (2) = Column (1) * \$0.19093 per kW-month per ISO 2017 Capital Budget Filing

Column (3) = Column (1) * \$0.00678 per kW-month per NESCOE 2017 Budget Filing

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

Summary of Reactive Power & Black Start Costs Estimated For the Year 2017

Section I: Development of ISO-NE Schedule 2 Costs

1	Granite Total ISO-NE Schedule 2 Costs	\$199,549
2	2016 Granite Peak Load (KW)	196,554
3	Estimated Rate / KW-Yr	\$1.0152
4	Estimated Rate / KW-Mo	\$0.0846

Section II: Development of ISO-NE Schedule 16 Costs

5	Granite Total ISO-NE Schedule 16 Settlement Costs	\$113,892
6	2016 Granite Peak Load (KW)	196,554
7	Estimated Rate / KW-Yr	\$0.5794
8	Estimated Rate / KW-Mo	\$0.0483

Line 1 = Granite ISO-NE Schedule 2 costs for the 12 months ending December 2016
 Line 2 = Granite Peak Load in 2016
 Line 3 = Line 1 / Line 2
 Line 4 = Line 3 / 12
 Line 5 = ISO Schedule 16 Settlement Reports for the 12 months ending December 2016
 Line 6 = Line 2
 Line 7 = Line 5 / Line 6
 Line 8 = Line 7 / 12

**Summary of New England Power - Schedule No. 21 Charges
Estimated For the Year 2017**

Period	(1) Net Monthly Demand Charge	(2) Load Dispatch Charge	(3) Specific Distribution	(4) Transformer Surcharge	(5) Meter Surcharge	(6) Maintenance Service Credit	(7) Total NEP Costs
1 January	\$265,684	(\$226)	\$17,563	\$66,698	\$1,265	(\$2,081)	\$348,903
2 February	265,684	(226)	17,563	66,698	1,265	(2,081)	348,903
3 March	265,684	(226)	17,563	66,698	1,265	(2,081)	348,903
4 April	265,684	(226)	17,563	66,698	1,265	(2,081)	348,903
5 May	265,684	(226)	17,563	66,698	1,265	(2,081)	348,903
6 June	265,684	(226)	17,563	66,698	1,265	(2,081)	348,903
7 July	265,684	(226)	17,563	66,698	1,265	(2,081)	348,903
8 August	265,684	(226)	17,563	66,698	1,265	(2,081)	348,903
9 September	265,684	(226)	17,563	66,698	1,265	(2,081)	348,903
10 October	265,684	(226)	17,563	66,698	1,265	(2,081)	348,903
11 November	265,684	(226)	17,563	66,698	1,265	(2,081)	348,903
12 December	265,684	(226)	17,563	66,698	1,265	(2,081)	348,903
13 12- Mo Total	\$3,188,210	-\$2,710	\$210,756	\$800,377	\$15,180	-\$24,972	\$4,186,841

Column (1) = Monthly Average of the PTF & Non-PTF Monthly Demand Charges for the 12 month period ending December 20

Column (2) = Monthly Average of the Load Dispatch Charge for the 12 month period ending December 2016

Column (3) = 25,090 kW & \$0.70 per NEP Tariff as of June 1, 2016

Column (4) = 190,566 kW & \$0.35 per NEP Tariff as of June 1, 2016

Column (5) = 17 meters * \$74.41 per meter per NEP Tariff as of June 1, 2016

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

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

**Comparison of Actual LNS Transmission Expenses
For the Years 2013 Through 2016**

NEP Schedule 21 Actual Expenses					
					(1)
	Coincident Network Load - PTF	NEP Monthly Trans Exp - PTF	NEP Monthly Trans Exp - NonPTF	Load Dispatch Charge	Non-PTF Sch 21-NEP
Total				2013	\$3,561,356
Total				2014	\$4,900,186
				% increase in NEP Expenses	
					38%
January-2015	150,582	704	355,771	3,281	\$449,852
February-2015	146,988	4,340	370,132	2,712	\$462,152
March-2015	138,190	297,777	507,488	2,670	\$893,053
April-2015	119,886	(94,370)	295,358	3,616	\$289,586
May-2015	162,952	158,759	407,278	1,304	\$652,291
June-2015	166,099	(55,595)	345,761	(1,618)	\$372,890
July-2015	183,851	(217,344)	324,928	(1,877)	\$190,050
August-2015	188,019	(286,313)	379,671	(4,750)	\$173,397
September-2015	178,737	(218,301)	377,491	(5,363)	\$166,086
October-2015	126,498	(257,004)	332,121	(1,129)	\$154,901
November-2015	133,049	567,934	515,183	1,808	\$1,168,715
December-2015	137,015	18,132	298,360	(15,349)	\$385,169
				2015	\$5,358,141
				% increase in NEP Expenses from previous year	
					9%
January-2016	142,969	89,293	324,598	3,737	\$501,970
February-2016	138,917	(82,187)	261,653	2,897	\$262,811
March-2016	131,167	77,171	337,002	2,130	\$500,908
April-2016	126,512	76,068	290,951	1,325	\$452,935
May-2016	152,609	140,517	332,906	1,666	\$559,432
June-2016	163,247	76,709	348,259	(4,940)	\$503,412
July-2016	181,922	(247,779)	259,709	1,704	\$97,019
August-2016	196,554	(185,990)	363,738	(1,336)	\$259,797
September-2016	176,795	(461,385)	289,904	(5,171)	(\$91,343)
October-2016	123,554	(163,117)	362,456	(3,280)	\$324,245
November-2016	130,793	63,484	326,405	814	\$518,451
December-2016	145,053	(3,584)	311,429	(2,256)	\$433,895
				2016	\$4,323,534
				% increase in NEP Expenses from previous year	
					-19%