

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
Proposed Calculation of Discount Purchase Rate (DPR) for Purchase of Receivables (POR) Program

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3		<u>2021</u>	Reference
4	Uncollectible Percentage (UP)		
5	Uncollectible Expense	\$ 281,647	2021 Company records
6	Customer Revenues	\$ 107,899,134	2021 Company records
7	Uncollectible Percentage	0.261%	Line 5 / Line 6
8			
9	Administrative Cost Percentage (ACP)		
10			
11	<u>System Modification/Implementation Costs</u>		
12	O&M Expense associated with implementation of POR program	\$ -	Company estimate
13			
14	Capital cost to modify billing systems (estimate)	\$ 477,550	Company estimate
15	Amortization period in years	5	Company proposal
16	One year amortization	\$ 95,510	Line 14 / Line 15
17			
18	Total Implementation Costs	\$ 95,510	Line 12 + Line 16
19			
20	<u>Working Capital</u>		
21	Working Capital Impact	\$ -	Company estimate
22			
23	<u>Ongoing Administration Costs</u>		
24	Forecasted cost of administering collection efforts	\$ -	Company estimate
25			
26	Total POR Program Administration Costs	\$ 95,510	Line 18 + Line 21 + Line 24
27	2021 Actual Supplier billings	\$ 13,012,115	Company records
28	Administrative Cost Percentage (ACP)	0.734%	Line 26 / Line 27
29			
30	Past Period Reconciliation Percentage (PPRP)		
31	Prior Period Estimated Uncollectible Percentage	0.00%	
32	Prior Period Actual Uncollectible Percentage	0.00%	
33	Difference	0.00%	Line 32 - Line 31
34			
35	Total Discount Purchase Rate (DPR)	0.995%	Line 7 + Line 28 + Line 33
36			
37	Monthly Supplier Billing (Hypothetical)	\$ 1,000,000	
38	POR Discount Rate	0.995%	Line 35
39	Reduction of Supplier Payment	\$ 9,950	Line 37 * Line 38
40			
41	Approved Weighted Average Cost of Capital per Docket No. DE 19-064		

Description	Capital Structure	Cost of Capital	Post-Tax Weighted Cost of Capital	Pre-Tax Weighted Cost of Capital
42				
43	Common stock	52.00%	9.10%	4.73%
44	Long-term debt	48.00%	5.97%	2.87%
45		<u>100.00%</u>	<u>7.60%</u>	<u>9.35%</u>
46				
47			Fed Tax Rate	21.00%
48			State Tax Rate (After 12/31/22)	7.60%
49			Effective Tax Rate	27.00%

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
Proposed Second Year Calculation of Discount Purchase Rate (DPR) for Purchase of Receivables (POR) Program
Illustrative Example

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	202X		Reference
	Small	Large	
Uncollectible Percentage (UP)			
Customer Class			
Net Write-Offs	\$ 150,000	\$ 168,000	Page 2
Customer Revenues	\$ 25,356,296	\$ 28,593,271	Company record
Uncollectible Percentage	0.592%	0.588%	Line 6 / Line 7
Administrative Cost Percentage (ACP)			
System Modification/Implementation Costs			
O&M Expense associated with implementation of POR program	\$ -		Company estimate
Capital cost to modify billing systems (estimate)	\$ 477,550		Company estimate
Amortization period in years	5		Company proposal
One year amortization	\$ 95,510		Line 15 / Line 16
Return at WACC	\$ 29,035		Page 4, Line 20
Total Implementation Costs	\$ 124,545		Line 13 + Line 17 + Line 19
Ongoing Administration Costs			
Forecasted cost of administering collection efforts	\$ -		Company estimate
Total POR Program Administration Costs	\$ 124,545		Line 21 + Line 24
202X Actual Supplier Billings	\$ 53,949,567		Company records
Administrative Cost Percentage (ACP)	0.231%		Line 26 / Line 27
Past Period Reconciliation Percentage (PPRP)			
PPRP	-0.03%	-0.02%	Page 3
Total Discount Purchase Rate (DPR)	0.792%	0.797%	Line 8 + Line 28 + Line 33

Approved Weighted Average Cost of Capital per Docket No. DE 19-064

Description	Capital Structure	Cost of Capital	Post-Tax Weighted Cost of Capital	Pre-Tax Weighted Cost of Capital
Common stock	52.00%	9.10%	4.73%	6.48%
Long-term debt	48.00%	5.97%	2.87%	2.87%
	100.00%		7.60%	9.35%
			Fed Tax Rate	21.00%
			State Tax Rate (After 12/31/22)	7.60%
			Effective Tax Rate	27.00%

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
 Proposed Second Year Calculation of Discount Purchase Rate (DPR) for Purchase of Receivables (POR) Program

Class Net W/Os	1/1/202X	2/1/202X	3/1/202X	4/1/202X	5/1/202X	6/1/202X	7/1/202X	8/1/202X	9/1/202X	10/1/202X	11/1/202X	12/1/202X	Total
1 Small	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$150,000
2 Large	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$168,000
3 Total	\$26,500	\$26,500	\$26,500	\$26,500	\$26,500	\$26,500	\$26,500	\$26,500	\$26,500	\$26,500	\$26,500	\$26,500	\$318,000

Small Customers														
	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Total
Actual Uncollectible Costs:														
Actual Supplier Net Write-offs		\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	150,000
Actual Total Administrative Costs Incurred		-	-	-	-	-	-	-	-	-	-	-	-	-
Actual Total Incremental Capital Expenditures Amortized		10,379	10,379	10,379	10,379	10,379	10,379	10,379	10,379	10,379	10,379	10,379	10,379	124,545
Monthly Small % of Total Actual Supplier Billings		47%	47%	47%	47%	47%	47%	47%	47%	47%	47%	47%	47%	
Total Uncollectible Costs		17,378	17,378	17,378	17,378	17,378	17,378	17,378	17,378	17,378	17,378	17,378	17,378	208,536
Actual Supplier Discounts Applied														
Under / (Over) Discount		(622)	(622)	(622)	(622)	(622)	(622)	(622)	(622)	(622)	(622)	(622)	(622)	(7,464)
Cumulative Variance to Discount Rate	-	(622)	(1,244)	(1,866)	(2,488)	(3,110)	(3,732)	(4,354)	(4,976)	(5,598)	(6,220)	(6,842)	(7,464)	(7,464)
Cumulative Variance to Discount Rate subject to Interest		(311)	(933)	(1,555)	(2,177)	(2,799)	(3,421)	(4,043)	(4,665)	(5,287)	(5,909)	(6,531)	(7,153)	
Monthly Interest Rate		7.50%	7.75%	7.75%	8.00%	8.00%	8.25%	8.25%	8.50%	8.50%	8.50%	8.50%	8.50%	
Days per Month		31	28	31	30	31	30	31	31	30	31	30	31	
Monthly Interest Accrued	-	(2)	(6)	(10)	(14)	(19)	(23)	(28)	(34)	(37)	(43)	(46)	(52)	(313)
Total Past Period Reconciliation	\$ -	\$ (624)	\$ (628)	\$ (632)	\$ (636)	\$ (641)	\$ (645)	\$ (650)	\$ (656)	\$ (659)	\$ (665)	\$ (668)	\$ (674)	\$ (7,777)
Actual Supplier Billings														25,356,296
Past Period Reconciliation Percentage - Small														-0.0307%

Large Customers														
	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Total
Actual Uncollectible Costs:														
Actual Supplier Net Write-offs		\$ 14,000	\$ 14,000	\$ 14,000	\$ 14,000	\$ 14,000	\$ 14,000	\$ 14,000	\$ 14,000	\$ 14,000	\$ 14,000	\$ 14,000	\$ 14,000	168,000
Actual Administrative Costs Incurred		-	-	-	-	-	-	-	-	-	-	-	-	-
Actual Incremental Capital Expenditures Amortized		10,379	10,379	10,379	10,379	10,379	10,379	10,379	10,379	10,379	10,379	10,379	10,379	124,545
Monthly Large % of Total Actual Supplier Billings		53%	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%	
Total Uncollectible Costs		19,501	19,501	19,501	19,501	19,501	19,501	19,501	19,501	19,501	19,501	19,501	19,501	234,009
Actual Supplier Discounts Applied														
Under / (Over) Discount		(499)	(499)	(499)	(499)	(499)	(499)	(499)	(499)	(499)	(499)	(499)	(499)	(5,991)
Cumulative Variance to Discount Rate	-	(499)	(999)	(1,498)	(1,997)	(2,496)	(2,996)	(3,495)	(3,994)	(4,493)	(4,993)	(5,492)	(5,991)	(5,991)
Cumulative Variance to Discount Rate subject to Interest		(250)	(749)	(1,248)	(1,747)	(2,247)	(2,746)	(3,245)	(3,744)	(4,244)	(4,743)	(5,242)	(5,741)	
Monthly Interest Rate		7.50%	7.75%	7.75%	8.00%	8.00%	8.25%	8.25%	8.50%	8.50%	8.50%	8.50%	8.50%	
Days per Month		31	28	31	30	31	30	31	31	30	31	30	31	
Monthly Interest Accrued	-	(2)	(4)	(8)	(11)	(15)	(19)	(23)	(27)	(30)	(34)	(37)	(41)	(251)
Total Past Period Reconciliation	\$ -	\$ (501)	\$ (504)	\$ (507)	\$ (511)	\$ (515)	\$ (518)	\$ (522)	\$ (526)	\$ (529)	\$ (534)	\$ (536)	\$ (541)	\$ (6,242)
Actual Supplier Billings														28,593,271
Past Period Reconciliation Percentage - Large														-0.0218%

	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Total
Actual Supplier Billings - Small	\$ 2,113,025	\$ 2,113,025	\$ 2,113,025	\$ 2,113,025	\$ 2,113,025	\$ 2,113,025	\$ 2,113,025	\$ 2,113,025	\$ 2,113,025	\$ 2,113,025	\$ 2,113,025	\$ 2,113,025	\$ 25,356,296
Actual Supplier Billings - Large	\$ 2,382,773	\$ 2,382,773	\$ 2,382,773	\$ 2,382,773	\$ 2,382,773	\$ 2,382,773	\$ 2,382,773	\$ 2,382,773	\$ 2,382,773	\$ 2,382,773	\$ 2,382,773	\$ 2,382,773	\$ 28,593,271
Total Supplier Billings	\$ 4,495,797	\$ 4,495,797	\$ 4,495,797	\$ 4,495,797	\$ 4,495,797	\$ 4,495,797	\$ 4,495,797	\$ 4,495,797	\$ 4,495,797	\$ 4,495,797	\$ 4,495,797	\$ 4,495,797	\$ 53,949,567

Monthly Small % of Total Actual Supplier Billings	47%	47%	47%	47%	47%	47%	47%	47%	47%	47%	47%	47%	47%
Monthly Large % of Total Actual Supplier Billings	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%	53%

POR
Return at WACC - Billing System Upgrade

Line No.	Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Cost of Service						
1	Depreciation	\$ 95,510	\$ 95,510	\$ 95,510	\$ 95,510	\$ 95,510	
2	Income Taxes	\$ 10,391	\$ 7,374	\$ 4,804	\$ 2,503	\$ 201	
3	Return Requirement	\$ 29,035	\$ 20,604	\$ 13,423	\$ 6,993	\$ 563	
4	Total	\$ 134,936	\$ 123,488	\$ 113,737	\$ 105,006	\$ 96,274	
5							
6	Present Value COS	\$ 468,450					
7	5 Year Average PV	\$ (468,450)					
8							
9	Capital Investment	\$ 477,550					
10							
11							
12	Plant	\$ 477,550	\$ 477,550	\$ 477,550	\$ 477,550	\$ 477,550	
13	Less: Accumulated Depreciation	\$ 95,510	\$ 191,020	\$ 286,530	\$ 382,040	\$ 477,550	
14	Net Plant	\$ 382,040	\$ 286,530	\$ 191,020	\$ 95,510	\$ -	
15							
16	Less: Accumulated Deferred Taxes	\$ -	\$ 15,430	\$ 14,401	\$ 3,497	\$ (7,406)	
17	Rate Base	\$ 382,040	\$ 271,100	\$ 176,619	\$ 92,013	\$ 7,406	
18							
19	WACC	7.60%					
20	Return Requirement	\$ 29,035	\$ 20,604	\$ 13,423	\$ 6,993	\$ 563	
21							
22	Income Taxes						
23	Weighted Cost of Debt	2.87%					
24	Interest Expense	\$ 833	\$ 591	\$ 385	\$ 201	\$ 16	
25	Net Income	\$ 28,202	\$ 20,012	\$ 13,038	\$ 6,792	\$ 547	
26	Taxable Income Base Factor	1.3685					
27	Taxable Income	\$ 38,594	\$ 27,387	\$ 17,842	\$ 9,295	\$ 748	
28	Income Taxes	\$ 10,391	\$ 7,374	\$ 4,804	\$ 2,503	\$ 201	
29							
30	Book Depreciation						
31	Rate (5 Yr. Life)	20.00%					
32	Book Depreciation	\$ 95,510	\$ 95,510	\$ 95,510	\$ 95,510	\$ 95,510	
33							
34	Tax Depreciation						
35	MACRS 5 Yr. Rates	20.00%	32.00%	19.20%	11.52%	11.52%	5.76%
36	Tax Depreciation	\$ 95,510	\$ 152,816	\$ 91,690	\$ 55,014	\$ 55,014	\$ 27,507
37							
38	Deferred Taxes	\$ -	\$ 15,430	\$ (1,029)	\$ (10,904)	\$ (10,904)	\$ 7,406
39	Accumulated Deferred Taxes	\$ -	\$ 15,430	\$ 14,401	\$ 3,497	\$ (7,406)	\$ -