

Liberty Utilities (Granite State Electric) d/b/a Liberty Utilities
Benefit/Cost Analysis
Option 1 - Manual Reads of AMR Meters

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	
1 Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
2 Units Installed	1,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3 #Units with Upfront Contribution	100															
4 #Units with Monthly Contribution	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	
																Total
5 Regional Network System (RNS) Charges	\$640,000	\$665,000	\$685,000	\$705,550	\$726,717	\$748,518	\$770,974	\$794,103	\$817,926	\$793,388	\$769,586	\$746,499	\$724,104	\$702,381	\$681,309	\$10,971,054
6 Local Network System (LNS) Charges	\$126,148	\$129,932	\$133,830	\$137,845	\$141,980	\$146,240	\$150,627	\$155,146	\$159,800	\$155,006	\$150,356	\$145,845	\$141,470	\$137,226	\$133,109	\$2,144,558
7 Distribution Circuit Upgrades (Rev Req)	\$0	\$95,633	\$92,428	\$89,342	\$86,367	\$83,494	\$80,716	\$78,025	\$75,415	\$72,819	\$70,223	\$67,626	\$65,030	\$62,434	\$59,837	\$1,079,388
8 Customer Contribution	\$208,000	\$108,000	\$108,000	\$108,000	\$108,000	\$108,000	\$108,000	\$108,000	\$108,000	\$108,000	\$0	\$0	\$0	\$0	\$0	\$1,180,000
9 Total Benefits	\$974,148	\$998,565	\$1,019,258	\$1,040,737	\$1,063,063	\$1,086,251	\$1,110,316	\$1,135,273	\$1,161,141	\$1,129,213	\$990,165	\$959,970	\$930,604	\$902,040	\$874,256	\$15,375,000
Costs																
10 Revenue Requirement - Batteries	(\$1,196,020)	(\$1,396,442)	(\$1,228,536)	(\$1,085,830)	(\$962,780)	(\$849,382)	(\$764,735)	(\$714,935)	(\$676,876)	(\$637,444)	(\$599,385)	(\$559,953)	(\$521,894)	(\$482,462)	(\$444,403)	(\$12,121,079)
11 Cogsdale Programming Costs	(\$100,000)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$100,000)
12 O&M Cost to read meters each month	(\$129,600)	(\$129,600)	(\$129,600)	(\$129,600)	(\$129,600)	(\$129,600)	(\$129,600)	(\$129,600)	(\$129,600)	(\$129,600)	(\$129,600)	(\$129,600)	(\$129,600)	(\$129,600)	(\$129,600)	(\$1,944,000)
13 Total Costs	(\$1,425,620)	(\$1,526,042)	(\$1,358,136)	(\$1,215,430)	(\$1,092,380)	(\$978,982)	(\$894,335)	(\$844,535)	(\$806,476)	(\$767,044)	(\$728,985)	(\$689,553)	(\$651,494)	(\$612,062)	(\$574,003)	(\$14,165,079)
14 Net Benefit to All Customers	(\$451,473)	(\$527,477)	(\$338,879)	(\$174,693)	(\$29,317)	\$107,269	\$215,981	\$290,739	\$354,665	\$362,169	\$261,180	\$270,417	\$279,109	\$289,978	\$300,252	\$1,209,921
Net Present Value Calculation																
15 Required Rate of Return		9.42%														
16 Net Present Value		(\$193,039)														

- 1 Year of installation
- 2 Total units in pilot
- 3 Based on Green Mountain Power's experience of 10% paying upfront
- 4 (2) - (3)
- 5 Calculation as described in testimony
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- 7 Page 7
- 8 Customer contribution of \$1000 upfront (100) plus \$10 per month (900)
- 9 Sum of lines 5-8
- 10 Page 3
- 11 Estimated programming costs associated with billing TOU rates
- 12 Based on average cost to read a meter
- 13 Sum of lines 10-12
- 14 (9) - (13)
- 15 As approved in Docket No. DE 16-383