

1 **Attachments**

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Appendix A

Educational and Professional Background Al-Azad Iqbal

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

I received my Bachelor degree in Architecture (B. Arch) from Bangladesh University of Engineering and Technology. Later, I received my Masters (MS) in Environmental Management from Asian Institute of Technology and another Masters in City and Regional Planning (MCRP) from the Ohio State University. I was a Doctoral Candidate at the City and Regional Planning Department at the Ohio State University. After joining the PUC in 2007, I participated in several utility related training courses including Marginal cost training by NERA, Advanced Regulatory Studies at Institute of Public Utilities, Michigan State University, Depreciation Training by Society of Depreciation Professionals.

Prior to joining the PUC, I was involved in teaching and research activities in different academic and research organizations. Most of my research work was related to quantitative analysis of regional and environmental issues.

Attachment AI-DEP-1

Depreciation and Amortization Adjustments

Depreciation and Amortization	Proposed	Staff Recommendation	Difference
Depreciation Expenses ²⁵	\$15,616,951	\$15,001,931	(\$615,020)
Amortization of Reserve Variance ²⁶	\$3,315,593	\$828,898	(\$2,486,695)
Total	\$18,932,544	\$15,830,829	(\$3,101,715)

25 Based on updated number included in revenue requirement testimony of Laflamme and Mullinax (Adjustment 14), attachment Schedule 3.14 and 3.14 Depr WP

26 This amount will change with updated reserve variance as suggested in the testimony.

Attachment AI-DEP-2²⁷
 Staff recommendation of Depreciation

FERC	Description	Plant balance	Proposed				Staff Proposal				Difference Between
			ASL	NET SALVAGE	ANNUAL ACCRUAL RATES	DEPREC. ACCRUAL	ASL	NET SALVAGE	ANNUAL ACCRUAL RATES	DEPREC. ACCRUAL	
			%				%				
303.00	Capitalized Software	14,745,889	6.2	0	16.13	2,378,512	7	0	14.29	2,106,556	-271,956
	<u>Production Plant</u>										
305.00	Structures And Improvements	1,975,163	35.0	0	2.86	56,490	35	0	2.86	56,433	-56
311.00	Lp Gas Equipment	258,481	35.0	0	2.86	7,393	35	0	2.86	7,385	-7
320.00	Other Equipment-Lng	2,556,209	35.0	0	2.86	73,108	35	0	2.86	73,035	-73
320.10	Other Equipment-Production	<u>8,777,306</u>	35.0	0	2.86	<u>251,031</u>	<u>35</u>	0	2.86	250,780	-251
	<u>Total Deprec. Production Plant</u>	13,567,159	35.0		2.86	388,021				387,633	-388
	<u>Storage Plant</u>										
361.00	Structures And Improvements-Lng	57,345	35.0	0	2.86	1,640	35	0	2.86	1,638	-2
363.50	Other Equipment-Lng	<u>7,646</u>	35.0	0	2.86	<u>219</u>	<u>35</u>	0	2.86	218	0

27 It is based on original Depreciation Schedule A. Updated numbers with same accrual rates are included in revenue requirement testimony of Laflamme and Mullinax.

	<u>Total Deprec. Storage Plant</u>	64,991	35.0		2.86	1,859	35			1,857	-2	
	<u>Transmission Plant</u>											
366.20	Structures And Improvements	269,809	35.0	0	2.86	7,717	35	0	2.86	7,709	-8	
366.30	Structures And Improvements-Other	353,851	35.0	0	2.86	10,120	35	0	2.86	10,110	-10	
367.00	Mains	234,672,697	60.0	-15	1.92	4,505,716	60	-15	1.92	4,497,893	-7,822	
369.00	Measuring And Regulating Station Equip.	<u>4,909,208</u>	35.0	0	2.86	<u>140,403</u>	<u>35</u>	0	2.86	140,263	-140	
	<u>Total Deprec. Transmission Plant</u>	240,205,565	59.0		1.94	4,663,956				4,655,975	-7,980	
	<u>Distribution Plant</u>											
380.00	Services	146,720,226	45.0	-60	3.55	5,208,568	45	-60	3.56	5,216,719	8,151	
381.00	Meters	14,628,345	32.0	0	3.13	457,867	35	0	2.86	417,953	-39,914	
381.10	Meters-Instrument	188,398	32.0	0	3.13	5,897	35	0	2.86	5,383	-514	
381.20	Meters-Erts	5,647,769	32.0	0	6.67	376,706	25	0	4.00	225,911	-150,795	
382.00	Meter Installations	14,360,005	32.0	0	3.13	449,468	35	0	2.86	410,286	-39,182	
387.00	Other Equipment	<u>908,013</u>	19.0	0	5.26	<u>47,761</u>	<u>19</u>	0	<u>5.26</u>	<u>47,790</u>	29	
	<u>Total Deprec. Distribution Plant</u>	182,452,756	41.5		3.59	6,546,268	42			6,324,041	-222,226	
	<u>General Plant</u>											
390.00	Structures And Improvements	22,070,702	35.0	0	2.86	631,222	35	0	2.86	630,591	-631	

391.00	Office Furniture And Equip.	285,566	18.0	5	5.28	15,078	18	5	5.28	15,072	-6
391.10	Office Furniture And Equip.- Computers	1,840,911	10.0	0	10.00	184,091	11	0	9.09	167,356	-16,736
391.20	Office Furniture And Equip.-Laptop Comp.	679,916	5.0	0	20.00	135,983	5	0	20.00	135,983	0
393.00	Stores Equipment	99,421	30.0	0	3.33	3,311	30	0	3.33	3,314	3
394.00	Tools, Shop & Garage Equipment	825,963	19.0	0	5.26	43,446	19	0	5.26	43,472	26
394.10	Tools, Shop & Garage Equipment- Cng Station	221,199	19.0	0	5.26	11,635	19	0	5.26	11,642	7
397.00	Communication Equipment	443,965	10.0	0	10.00	44,397	15	0	6.67	29,598	-14,799
398.00	Miscellaneous General Equipment	<u>348,302</u>	15.0	0	6.67	<u>23,232</u>	12	0	8.33	29,025	5,793
	<u>Total Deprec. General Plant</u>	26,815,945	24.5		4.07	1,092,394	25			1,066,052	-26,342
	<u>Total Deprec. Gas Plant</u>	477,852,305				15,071,009				14,542,115	-528,894

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-048
Distribution Service Rate Case

Staff Data Requests – Technical Session Set 1

Date Request Received: 8/29/17
Request No. Staff Tech 1-45

Date of Response: 9/13/17
Respondent: Steven Mullen

REQUEST:

Reference Staff 5-48. Mr. Normand discusses the recommendation that the depreciation reserve variance be amortized over 12 years. On Schedule RR-EN-3-6 (Bates 052), the Company proposes to amortize the variance over 3 years. In the technical session Liberty referred to additional considerations outside of the depreciation study that gave rise to the 3 year amortization proposal. Please describe these considerations in more detail.

RESPONSE:

There are many considerations that must be taken into account when any amount is either to be recovered from customers or flowed back to customers over a period of years. Those considerations include such things as: the length of time over which the amount accumulated, the total duration of time from the first creation of the item until its planned disposition using the proposed amortization period, the magnitude of the amount, inter-generational equity issues, and the expected period of time between rate cases.

In this case, we are dealing with an approximate \$10 million depreciation reserve deficit that started as a \$12.4 million depreciation reserve surplus in an earlier rate case docket, DG 08-009. Per agreement among the settling parties in that docket, that surplus has been flowed back to customers at an annual rate of \$933,588 since July 1, 2009. That agreed amortization period was a little over 13 years. However, seven-and-a-half years later (i.e., through December 31, 2016), the reserve variance is now a deficit of approximately \$10 million, meaning that the Company has under-recorded depreciation expense for a number of years, with a significant portion due to the amount that has annually been flowed back to customers (approximately \$7 million). Although the depreciation reserve surplus of \$12.4 million was an agreed upon amount in DG 08-009, it is clear that a significant correction is now needed. Since the current depreciation reserve deficit has been incurred over seven-and-a-half years, extending the period of time by another 12 years to address the existing imbalance would lead to a situation where significant inter-generational equity issues would exist for an extended period of time rather than being addressed in the near future. Although inter-generational equity issues are inherent in ratemaking, an extended amortization period would exacerbate those issues. Assuming a three-year rate case cycle, the Company's proposed amortization period would address the current reserve imbalance by the time of the next rate case and the Company would consider performing

Docket No. DG 17-048 Request No. Staff Tech 1-45

an updated comparison of the theoretical-versus-actual depreciation reserves at that time without the necessity and expense of filing a new depreciation study. Revisiting the status of the depreciation reserves in that relatively short period of time would help avoid the accumulation of a large reserve imbalance, either a surplus or a deficit, which could otherwise accumulate over an extended amortization period.

STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION

DE 16-383

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

Request for Change in Rates

DIRECT TESTIMONY OF

AL-AZAD IQBAL

December 16, 2016

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1 **Q. Please state your name, current position, and business address.**

2 A. My name is Al-Azad Iqbal, and I am employed by the New Hampshire Public
3 Utilities Commission (Commission) as Utility Analyst. My business address is 21 South
4 Fruit Street, Suite 10, Concord, New Hampshire, 03301.

5 **Q. Please summarize your educational and professional background.**

6 A. My educational and professional backgrounds are summarized in Appendix A.

7 **Q. What is the purpose of your testimony?**

8 A. The purpose of my testimony is to provide Staff's recommendation as to whether
9 the costs associated with the Company's Concord Training Center costs should be
10 recovered through the rates proposed in this proceeding. This recommendation impacts a
11 larger question concerning whether the construction of the Training Center was a prudent
12 investment for Liberty as a whole (Granite State Electric and EnergyNorth) as compared
13 to other alternatives available for training. In addition to providing information on
14 Training Center costs, cost allocation, cost recovery and utilization, my testimony also
15 examines the methodology and underlying assumptions used by Liberty to evaluate the
16 cost and benefits of building the Training Center.

17 **Q. Please summarize your finding and recommendations regarding on these issues.**

18 A. The Commission should deny recovery of the Training Center costs in this
19 proceeding and address the issue of cost recovery in the next Liberty Utilities
20 (EnergyNorth Natural Gas) Corp., d/b/a Liberty Utilities ("EnergyNorth") rate filing,
21 where a full prudence review can be conducted. In this proceeding (and in Docket DA
22 16- 560 where Liberty has requested approval of the lease of the facility by EnergyNorth
23 to Granite State as an transaction between a utility and an affiliated party), Liberty failed

1 to provide a cost/benefit analysis on which the decision to build, maintain and operate a
2 training center justified the decision to go forward with the project. Furthermore, the
3 information provided in this case and the Affiliate Transaction docket does not
4 demonstrate that building the Training Center was the least cost alternative. Finally, in
5 the event that the Commission includes the costs associated with the Training Center in
6 rates, Staff recommends that the Training Center costs be allocated between the gas and
7 electric utilities based on actual training hours, rather than number of employees as is
8 currently being done.

9 **Q. Briefly describe Liberty's filings that address the Training Center.**

10 A. In DG 14-180, EnergyNorth's last rate filing, Liberty identified the Training
11 Center as a future capital investment that it would be seeking to recover in rates after it
12 was placed into service.

13 In DA 16-560, Liberty provided a lease agreement between EnergyNorth and
14 Granite State whereby Granite State is leasing the non-exclusive right to occupy and use
15 the land and building known as the Training Center. The lease provides that "Granite
16 State's Proportionate Share" shall be twenty-five percent (25%) and will be recalculated
17 based on the ratio of EnergyNorth's and Granite State's union employees as of end of the
18 immediately preceding calendar year.

19 In DE 16-383, this Granite State rate case, Granite State seeks to recover
20 \$146,559 (Schedule RR-3-12(CU)) of lease costs for the Training Center.

21 In none of these dockets has Liberty provided sufficient support to demonstrate the
22 reasonableness of building the Training Center.

23 **Q. Please summarize the Training Center capital costs and annual operating expenses.**

1 A. See Table 1, below, for the original projected cost, actual cost, operating and
 2 maintenance costs.

Table 1: Concord Training Center Estimated Annual Operating Costs¹

Original Estimated Cost ²	1,450,000
Cost of building on books	4,109,880
Accum Depr thru 3/31/16	(118,365)
	3,991,515
Return @ EnergyNorth WACC of 7.05%	281,402
Annual Book Depreciation	118,364
Estimated Insurance on Bldg.	1,500
Utilities	39,762
Property Taxes	30,210
Routine Maintenance	115,000
Total	586,238
Percentage to GSE based on use @ 25%	146,559

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4 **Q. Please briefly describe Liberty's supporting analysis.**

5 A. In response to data request Staff 2-3 in DA 16-560, Granite State provided a
 6 cost/benefit analysis and its rationale for building the Training Center. Granite State
 7 examined only the incremental cost of training personnel at the National Grid training
 8 facility at Millbury, Massachusetts based on six months of training use by gas employees
 9 and 12 months of training by electric employees during 2013. Basically, these
 10 incremental costs involved travel costs and overtime for attendees and, where
 11 appropriate, cost of instructors. Liberty referenced some minor benefits (scheduling
 12 efficiency, optional basic training for non-field employees, training for other
 13 stakeholders, etc.) associated with building the Training Center but did not provide any

¹ Attachment AI-1 (DA 16-560 Staff 1-2)

² Attachment AI-2 (DG 14-180, Brouillard testimony, Bates page 0175)

1 cost or savings estimates for those items. In response to data request Staff 1-1 in DA 16-
2 560, Granite State stated that it included training hours projected in 2016 as its rational
3 for the 25% allocation of costs to Granite State.

4 Regarding alternatives for training sources, Liberty mentioned that it searched the
5 local area for another source of training and found no available gas or electric training. It
6 also considered utilizing an existing Liberty facility in the Manchester yard but ruled it
7 out because of environmental and permitting issues.

8 **Q. What is your opinion of the analysis provided?**

9 A. Staff believes that the analysis is inadequate, especially considering that the
10 Training Center was budgeted to cost \$1.5 million, and, ultimately, cost over \$4 million.
11 First, Granite State analyzed only one year's incremental cost of training at the National
12 Grid facility at Millbury, MA. The Company provided no evidence that during its
13 decision making process it evaluated the cost of training options other than using existing
14 Liberty facilities (such as the Manchester yard) or the cost of building a new training
15 center. A comparative economic analysis of training options should have been done at or
16 before the time when the decision was made to build and operate the Training Center.
17 Based on the information provided by the Company in its filings and through discovery,
18 it appears the decision to build the Training Center was not a prudent decision, as it has
19 resulted in a significant increase in annual training costs. A more thorough analysis prior
20 to making that decision most likely would have resulted in a different outcome, one that
21 would have been less costly, therefore, the costs associated with the Training Center
22 should not be allowed in rates in this proceeding.

23 **Q. Please elaborate on your concerns about Liberty's analysis?**

1 A. Staff has concerns about the accuracy and usefulness of Liberty's incremental
2 cost analysis. As mentioned earlier, using only one year's cost for analysis to analyze an
3 investment of \$4 million is far too simplistic. Staff believes that a long term economic
4 analysis (i.e. discounted cash flow analysis etc.) should have been done for this project.

5 Liberty calculated an annual incremental cost \$374,490 (combined Granite State
6 and EnergyNorth) of using National Grid for training. Incremental costs included travel
7 time, overtime where applicable and instructor costs, all of which could be avoided or
8 reduced if training were done locally.³ The estimated cost savings are significantly less
9 than the combined Granite State and EnergyNorth annual cost of \$586,238 (revenue
10 requirement to recover the capital cost and operating and maintenance expenses) for the
11 Training Center.⁴ This limited analysis indicates that building the Training Center
12 increased combined company annual training costs by \$211,748.

13 Furthermore, Staff has concerns about the hours and costs Liberty used to
14 calculate the incremental cost of training using National Grid. The incremental cost is
15 based on an analysis of employees who trained at National Grid during periods of time in
16 2013. According to Liberty, the incremental travel time was approximately 3,000 hours
17 (combined Granite State and EnergyNorth for both Management and Union trainees for
18 the year 2013. (DA 16-650 Staff 2-3). Staff compared these estimated hours with 2013
19 actual training data (Staff Tech 1-3⁵), which shows total actual hours of 3,699 for all
20 Management and Union related training hours, including travel. If the estimated
21 incremental hours (travel to Milford MA) is correct, only 699 hours were for actual

³ Attachment AI-3 (Staff 2-3, in DA 16-560)

⁴ Attachment AI-1 (DA 16-560 Staff 1-2)

⁵ Staff questioned the accuracy of the data in Staff 2-3 at a technical the technical session which prompted Liberty to update the response in Staff Tech 1-3.

1 training. Liberty also stated that the incremental cost figure was derived from a
 2 conservative estimate.⁶ These figures raise concerns regarding the accuracy of Liberty’s
 3 incremental cost estimates and its justification for the Training Center.

4 A comparison of actual Management and Union related training cost and
 5 incremental cost for 2013 shows a similar anomaly. See Table-2 and Table-3, below.
 6 The total payroll cost for actual training was \$194,811 whereas Liberty’s estimated
 7 incremental cost saving is \$157,770. Inexplicably, for Granite State the estimated hours
 8 saved are higher than the actuals (1,692 hours of estimated travel savings versus 1,008
 9 hours of total actual training). Liberty mentioned (Tech 1-3) that the actual costs do not
 10 include National Grid instructor costs because Liberty was not billed for these costs. No
 11 analysis has been provided comparing the cost for a National Grid instructor(s) with the
 12 cost of the Liberty instructor(s), so it is undetermined as to whether instructor training
 13 would differ.

14
 15 Table 2: 2013 Actual Training Hours (Source: Staff Tech 1-3⁷)

	Energy North		Granite State		
	No. Of trainee	Hours	No. Of trainee	Hours	Total Hours
Management:	7	168	14	336	504
Union:	87	2523	24	672	3195
Total		2691		1008	3699
Payroll		\$126,037		\$68,774	\$194,811

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⁶ Attachment AI-3 (DG 16-560, Staff 2-3) “As the cost estimate was based on the number of employees who attended training during that time period, the cost estimate is significantly less than the amount that would be calculated based on the amount of training that has been conducted and will be conducted going forward at the Liberty training center...”

⁷ Attachment AI-4

1 Table 3: 2013 Incremental Hours (Source: DA 16-560, Staff 2-3⁸)

	Energy North		Granite State		Total
	No. Of trainee	Hours	No. Of trainee	Hours	
Management:	1	80	16	288	368
Union:	15	1200	52	1404	2604
Total		1280		1692	2972
Overtime Payroll		\$63,000		\$94,770	\$157,770

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 3 Staff also compared 2015 training costs, the first year the Training Center was
 4 used, with previous years' training costs to see if any savings were achieved, but Staff
 5 could not identify any savings.

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 7 Table 4: Yearly Management and Union Training cost – actual per Staff Tech 1-3⁹

Year	Energy North		Granite State	
	No. of trainee	Cost	No. of trainee	Cost
2013	94	\$249,656	38	\$237,994
2014	101	\$305,821	42	\$328,543
2015	101	\$273,285	42	\$299,480

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 9 Other witnesses in this case present testimony concerning deficiencies in
 10 Liberty's capital budgeting process, specifically, that projects have been undertaken
 11 without appropriate analysis of alternatives and that cost estimates have varied
 12 significantly from actual construction costs. These conclusions apply to the Training
 13 Center as well.

⁸ Attachment AI-3

⁹ In this Table, the training costs include the cost technical training staff, travel time to the training centers and training hours multiplied by times employee hourly pay. Attachment AI-4

1 **Q. What is your opinion about Liberty's assertion that it could not find local training**
2 **resources?**

3 A. It is not clear what steps Liberty took in its search for an alternate provider for
4 training. Liberty stated that “Utilization of third party training facilities and instructors
5 causes limited availability and often times conflicts with operational requirements.”¹⁰
6 Yet, the other combined gas and electric utility in New Hampshire ¹¹ does not own a
7 training center. UES relies on contracted instructors and local technical institutions for
8 its training needs, including hands-on training. Staff is not aware of any instance where
9 UES could not meet its training requirements because of unavailability of such services
10 in New Hampshire or elsewhere.

11 **Q. What is your opinion on the method used by the Company to allocate the costs of**
12 **the Training Center between EnergyNorth and Granite State?**

13 A. The lease provides that the annual costs of the training center be allocated using
14 the ratio of EnergyNorth's and Granite State's union employee. There are different
15 training requirements for gas and electric employees, and thus the number of employees
16 might not reflect actual usage of the Training Center. Staff believes that a more
17 consistent and reasonable allocation could be made using the proportion of training hours
18 for management and union trainees of Granite State and EnergyNorth, on average over
19 the immediate past 3 years. Given that the rationale for building the Training Center is to
20 meet training needs of management and union employees, and given that environmental
21 and safety training does not require a special training center, Staff believes that it is

¹⁰ Attachment AI-5 (DG 14-180, Staff 2-6)

¹¹ Unital Energy Systems (“UES”), which serves 103,500 electric customers and 78,700, natural gas customers in Maine, Massachusetts and New Hampshire, and employs 500 employees of which 159 are union employees. (Source : Annual Report 2015)

1 reasonable to exclude environmental and safety inputs from the cost allocation method.
2 Using the 3-year average proportion of management and union employees, Granite State
3 would bear 36.5% of the Training Center cost instead of the 25% proposed by Liberty.

4 **Q. Do you have any other comments?**

5 A. The installed cost of the Training Center increased substantially from the
6 estimated figure submitted in DG 14-180 (Brouillard testimony from DG 14-180, Bates
7 page 0175, line 16). The estimate was \$1.45 million and the actual, installed cost is
8 \$4.10 million (DA 16-560 Staff 1-6). This suggests that Liberty did not adequately
9 research the cost to build, equip and furnish the Training Center prior to making the
10 decision to build it. The disparity between the original estimate and the actual cost of the
11 Training Center raises questions about the adequacy of the Liberty review of other
12 options available to meet its training requirements and the cost of those options. Without
13 accurate data, the results of any cost/benefit analysis cannot be relied upon. Table-5,
14 below, shows the cost of training in the two years prior to the opening of the Training
15 Center and training costs after the training center commenced operations in March
16 2015.¹² This Table shows no reduction in Granite State's training costs after the Center
17 was opened.

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¹² These costs do not include National Grid Instructor costs, and Staff Tech 1-3 does not show any incremental instructor cost for training in-house at the training center.

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Table 5: Annual Training Cost¹³

	Energy North			Granite State			Safety/Symposium	Grand Total
	Actual Cost (Man+Union+Env)	Training Center Cost	Total	Actual Cost (Man+Union+Env)	Training Center Cost	Total		
2013	\$288,163	\$0	\$288,163	\$291,485	\$0	\$291,485	\$98,131	\$677,779
2014	\$325,724	\$0	\$325,724	\$346,394	\$0	\$346,394	\$107,476	\$779,595
2015	\$305,302	\$439,678	\$744,980	\$325,787	\$146,559	\$472,346	\$116,822	\$1,334,148

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4 **Q. What is your recommendation for the Commission?**

5 **A.** The lack of reliable analysis and support provided in this docket for the Training
 6 Center limits Staff's ability to sufficiently analyze and quantify the impact of this
 7 investment. The analyses that were submitted do not indicate that building the Training
 8 Center produced savings to Granite State or will result in future savings, but rather
 9 increased training costs. There is also a concern as to how Training Center costs are
 10 being allocated between Granite State and EnergyNorth. Therefore, Staff recommends
 11 that the Commission not allow recovery of the Training Center expenses of \$146,559
 12 included in RR-3-12 (CU) (Bates page 040). Given that 75% of the costs are allocated to
 13 EnergyNorth, and Liberty expects to petition the Commission for an increase in delivery
 14 rates in 2017, the Commission will be able to revisit this issue in that docket if it so
 15 chooses.

16 **Q. What information does Staff recommend Liberty provide to assist in the evaluation**
 17 **of the decision to build the Training Center?**

¹³ Based on Attachment AI- 4 (Staff Tech 1-3)

1 **A.** To be able to analyze and quantify the incremental cost of the Training Center,
2 and allocate costs, Staff believes that the following information is essential:

- 3 • Training requirements by position and number of positions (Qualification
4 vs. Training);
- 5 • Training options available and cost of each option (Q vs T);
- 6 • RFPs issued for training services (Q vs T);
- 7 • Consideration and efforts to provide training to others for profit;
- 8 • Business case provided corporate to support proposed training center;
- 9 • Revenue requirement related to the training center (capital & operating);
- 10 • Long term Cost/Benefit analysis comparing annual revenue requirement
11 to cost of alternative options;
- 12 • Training Center calendar from March 1, 2015 to present that includes all
13 scheduled events, event hours and attendees.

14 **Q.** **Does that conclude your testimony?**

15 **A.** Yes.



Liberty UtilitiesSM
WATER | GAS | ELECTRIC

B U S I N E S S C A S E

PROJECT TITLE: LIBERTY UTILITIES TRAINING CENTER

PROJECT SPONSOR: MICHAEL KNOTT

PROJECT LEAD: STEPHEN SZCZECURA

DATE: 1/24/2014

PROJECT ID: 8840-C18772

BUSINESS PLAN NUMBER:

(Assigned by Corporate Finance)

Business Case

RECOMMENDATION:

To build a training center on company owned property in Concord, NH. This facility will provide training to our gas and electric employees, contractors and local first responders. There is the potential for providing training to other utilities on a fee basis.

OBJECTIVE(S)

To build a training center to serve Liberty Utilities employees that will be located in New Hampshire. Currently employees are sent to other utilities training sites out of state to complete mandated yearly training.

BACKGROUND

The project will consist of ground up construct of the Liberty Utilities Training Center building to be located at 10 Broken Bridge Rd in Concord NH. There will be site work for a foundation, septic system and asphalt parking area. The masonry building will consist of office space, first and second floor classroom space, high bay lab / training area with a mezzanine, lunch room, standard and ADA compliant restrooms. A well for potable water and fire suppression will also be installed.

ALTERNATIVES/OPTIONS

Training can be provided at National Grid's Training Facility in Millbury, MA. The estimated cost for having an outside agency provide training is \$400,000/year.

FINANCIAL ASSESSMENT

Simple ROI for the project has payback in less than 3 years.

RISK ASSESSMENT AND QUALITATIVE EVALUATION

No risks foreseen if construction schedule is met.

IMPLEMENTATION/ACTION PLAN

Upon completion of architectural redesign the project will be sent to competitive bid. Anticipate a June start for construction with completion in November.

REVIEWED BY:

PROJECT LEADER:
STEPHEN SZCZETCHURA

DIRECTOR/VP:

FINANCE:

Business Case



LIBERTY UTILITIES - CAPITAL PROJECT EXPENDITURE APPLICATION

DIVISION/COMPANY: LU- New Hampshire ENI	HOME OFFICE REF #:
PROJECT TITLE: Liberty Utilities Training Center	EXPECTED PROJECT TOTAL: \$1,028,100
PROJECT TYPE (circle one): System Maint / System Project / Growth / LXA	
PROJECT START DATE: June, 2014	PROJECT END DATE: November, 2014
CURRENT UTILITY EARNINGS STATUS:	JOB COST/FWO #:
Type of Capital Project: <div style="border: 1px solid black; padding: 5px;"> <input checked="" type="checkbox"/> Growth <input type="checkbox"/> Improvement Upgrades <input type="checkbox"/> Infrastructure Replacement </div>	
PROJECT DESCRIPTION & LOCATION: The project will consist of ground up construct of the Liberty Utilities Training Center building to be located at 10 Broken Bridge Rd in Concord NH. There will be site work for a foundation, septic system and asphalt parking area. The masonry building will consist of office space, first and second floor classroom space, high bay lab / training area with a mezzanine, lunch room, standard and ADA compliant restrooms. A well for potable water and fire suppression will also be installed.	
IS THIS PROJECT GROWTH RELATED? IF "YES", DESCRIBE THE SPECIFIC LOCATION (MAP) AND LIST APPLICABLE DEVELOPERS WHERE GROWTH WILL OCCUR (CONSULT WITH DEVELOPMENT SERVICES REGARDING FUNDING). Not Operation related	
PERMITTING REQUIREMENTS, INCLUDING POTENTIAL IMPACT ON EXISTING PERMITS, AND TIMING OF AND RISKS ASSOCIATED WITH OBTAINING APPROPRIATE PERMITS FOR PROJECT. Building permits will need to be secured from the City of Concord. Wetland permits will be needed from NHDES. Delays in permits will impact a December completion.	
COST ESTIMATE FOR TOTAL PROJECT, NATURE OF ESTIMATE (FIRM FIXED PRICE, INTERNALLY OR EXTERNALLY GENERATED), TIMING OF SPENDING BY QUARTER, AND RISKS ASSOCIATED WITH COST ESTIMATES. Cost estimate for total project provided by CMK Architects.	
WILL THERE BE ASSETS GREATER THAN \$5,000 THAT ARE CURRENTLY IN SERVICE REMOVED AS A RESULT OF THIS PROJECT? NO.	
IF YES, PLEASE DETAIL THE SPECIFIC ASSETS THAT WILL BE REMOVED: <ol style="list-style-type: none"> 1. Original Cost of Plant to be removed (if known): 2. What is the replacement cost of the plant being removed (if original cost not known)? 3. Original Work Order of Plant to be removed (if known): 4. Is the Plant being removed reusable? 5. What is the year of original installation of the plant being removed? 	



Liberty UtilitiesSM
WATER | GAS | ELECTRIC

B U S I N E S S
C A S E

PROJECT TITLE : **EN INSTALL TRAINING CENTER / CONCORD NH SPECIFIC**

PROJECT SPONSOR: **CHRIS BROUILLARD**

PROJECT LEAD: **STEVEN SZCZUCHURA**

DATE: **5/1/2014**

PROJECT ID: **8840-C18772**

BUSINESS PLAN NUMBER:

Business Case

RECOMMENDATION:

Install training center at Broken Bridge in Concord, NH.

BACKGROUND

This specific project will provide Liberty Utilities a training center in Concord NH; implementing our business strategy / transitioning from National Grid's training facility.

ALTERNATIVES/OPTIONS

None

FINANCIAL ASSESSMENT

None.

RISK ASSESSMENT AND QUALITATIVE EVALUATION

None

IMPLEMENTATION/ACTION PLAN

The construction will take place during 2014.

REVIEWED BY:

DIRECTOR/VP:



FINANCE:

Business Case



Liberty UtilitiesSM
WATER | GAS | ELECTRIC

LIBERTY UTILITIES - CAPITAL PROJECT EXPENDITURE APPLICATION

DIVISION/COMPANY: Capital / Energy North Co.	HOME OFFICE REF #: 8840-C18772
PROJECT TITLE: EN-Install Training Facility Concord NH Specific	EXPECTED PROJECT TOTAL: \$1,053,100
PROJECT TYPE (circle one): System Maint / System Project / Growth /	
PROJECT START DATE: 1/1/2014	PROJECT END DATE: 12/31/2014
CURRENT UTILITY EARNINGS STATUS:	JOB COST/FWO #:
Type of Capital Project: <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <input type="checkbox"/> Growth <input checked="" type="checkbox"/> Improvement Upgrades <input type="checkbox"/> Infrastructure Replacement </div>	
PROJECT DESCRIPTION & LOCATION: Specific project will provide Liberty Utilities a training center in Concord NH. We are transitioning from National Grid's training center and implementing our business strategy.	
IS THIS PROJECT GROWTH RELATED? IF "YES", DESCRIBE THE SPECIFIC LOCATION (MAP) AND LIST APPLICABLE DEVELOPERS WHERE GROWTH WILL OCCUR (CONSULT WITH DEVELOPMENT SERVICES REGARDING FUNDING). No	
PERMITTING REQUIREMENTS, INCLUDING POTENTIAL IMPACT ON EXISTING PERMITS, AND TIMING OF AND RISKS ASSOCIATED WITH OBTAINING APPROPRIATE PERMITS FOR PROJECT. Licensing and Environmental Permitting as required.	
COST ESTIMATE FOR TOTAL PROJECT, NATURE OF ESTIMATE (FIRM FIXED PRICE, INTERNALLY OR EXTERNALLY GENERATED), TIMING OF SPENDING BY QUARTER, AND RISKS ASSOCIATED WITH COST ESTIMATES. Cost estimates will be calculated on an individual job basis.	
WILL THERE BE ASSETS GREATER THAN \$5,000 THAT ARE CURRENTLY IN SERVICE REMOVED AS A RESULT OF THIS PROJECT? None	

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DA 16-560

Affiliate Agreement with Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
related to Concord Training Center

Staff Data Requests - Set 2

Date Request Received: 6/21/16
Request No. Staff 2-3

Date of Response: 7/1/16
Respondent: Mark Smith

REQUEST:

Ref. Response of Staff 1-4. Did Liberty perform any cost-benefit analysis concerning use of the training center? Identify and quantify all major and minor benefits and costs analyzed. Provide details with supporting analysis and work papers.

RESPONSE:

Yes, Liberty performed a cost benefit analysis concerning the use of the training center. The analysis was based on economic factors as well as non-economic factors. A cost estimate of utilizing the National Grid training facility in Millbury, Massachusetts was approximately \$375,000 per year, which included an analysis of six months of use by gas employees and 12 months of use by electric employees during 2013. See Attachment Staff 2-3.xlsx. That cost estimate includes incremental travel time and instructor's charges combined for electric and gas employees. It does not include the employee's basic hourly pay rate which would have been incurred regardless of where the training was held. As the cost estimate was based on the number of employees who attended training during that time period, the cost estimate is significantly less than the amount that would be calculated based on the amount of training that has been conducted and will be conducted going forward at the Liberty training center, as discussed below.

In addition to cost, other factors played a major role in the decision process. The arrangement with National Grid was temporary, like the Transition Service Agreements (TSAs) between Liberty and National Grid. Liberty did not have a written TSA with National Grid for training but did have a verbal commitment from National Grid to provide training services for a reasonable period of time until Liberty was ready to assume this obligation. When training in Millbury, Liberty employees were part of classes which included National Grid employees from Massachusetts and/or Rhode Island. Consequently the training they received was not specific to New Hampshire and in some cases conflicted with New Hampshire practices and procedures. Also, scheduling New Hampshire employees for this training was becoming increasingly difficult as Liberty employees were slotted into classes based on when openings were available. Priority was given to the National Grid employees. In many cases, the timing of available openings was in conflict with operational needs. Liberty also searched the local area for another

Docket No. DA 16-560 Request No. Staff 2-3

source of training and found no gas or electric training available that would in any way come close to meeting our needs. Consideration was given to utilizing an existing Liberty facility. The only facility reasonably centrally located and of sufficient size was a building in the Manchester yard. However, due to environmental and permitting issues, it was ruled out. For all of the above reasons the decision was made to build a training center.

Operator Qualifications (OQs) testing is also performed at the training center. Prior to construction of the training center, OQ testing was done using site visits to the various operating yards with testing logistics and conditions varying from site to site. Gas OQ testing criteria have also recently changed. As OQs expire, there is a new requirement to demonstrate proficiency by physically performing the respective task in addition to the current requirement to pass the written test. This requires even greater use of the training center as it allows the instructor to assess the individual's ability to perform the tasks in a controlled environment rather than in the field which is more difficult as logistics and conditions at the yards varied. There are approximately eighty-five OQ tasks. While every employee is not required to pass them all, each employee does have to pass a number of them. Specific OQ tasks vary by job function. Since it now controls the scheduling of training, Liberty is able to train and test more employees more efficiently than when Liberty relied on National Grid for training. In addition, local training keeps employees in the area and able to respond to an emergency situation if needed. The training center is also being used for basic gas and electric training for all non-field employees to provide them with a better understanding of the business. Such training would not have been possible with National Grid's facility given the constraints on use of that facility. To date, approximately 110 employees have been through this basic training. Liberty also plans to use the training center for public awareness training with first responders such as fire departments and police. It will also be used in our outreach efforts with technical high schools and colleges to educate students in careers in the utility industry. For all these reasons having a Liberty training facility provides many quantifiable and non-quantifiable benefits to the Company, its employees, customers and the communities served by Liberty.

GAS and ELECTRIC OPERATIONS National Grid BASED VS. IN-HOUSE TRAINING ANALYSIS

GAS OPERATIONS National Grid						
TRAINING IF PERFORMED BY National Grid:	# TRAINEES	HOURLY O.T. EXP.	AVE. DAILY TRAVEL HRS.	REQ. DAYS	INCURRED O.T. TRAVEL COST	INCURRED National Grid Instructor COST: \$360/DAY per Student
MANAGEMENT (new):	1	\$0.00	4	20	\$0.00	\$7,200.00
UNION (new):	7	\$52.50	4	20	\$29,400.00	\$50,400.00
<i>Changing Positions / Departments</i>						
MANAGEMENT:	0	\$0.00	0	0		\$0.00
UNION:	8	\$52.50	4	20	\$33,600.00	\$57,600.00
ANNUAL SUB-TOTALS:					\$63,000.00	\$115,200.00
TOTAL ANNUAL ESTIMATED TRAINING EXPENSES BY National Grid - O.T. + Instructor Cost:						\$178,200.00

ELECTRIC OPERATIONS National Grid						
MANDATORY ANNUAL EXPERT & SAFETY COMPLIANCE TRAINING IF PERFORMED BY National Grid:	# TRAINEES	HOURLY O.T. EXP.	AVE. DAILY TRAVEL HRS.	REQ. DAYS	INCURRED O.T. TRAVEL COST	INCURRED National Grid Instructor COST: \$360/DAY per Student
MANAGEMENT:	16	\$0.00	6	3	\$0.00	\$17,280.00
UNION:	26	\$67.50	6	3	\$31,590.00	\$28,080.00
<i>REQUIRED PROFICIENCY / REFRESHER IF PERFORMED BY National Grid for existing employees:</i>						
MANAGEMENT:	0	\$0.00	0	0		\$0.00
UNION:	26	\$67.50	6	6	\$63,180.00	\$56,160.00
ANNUAL SUB-TOTALS:					\$94,770.00	\$101,520.00
TOTAL ANNUAL ESTIMATED TRAINING EXPENSES BY National Grid - O.T. + Instructor Cost:						\$196,290.00
ANTICIPATED Annual Incremental training expenses for a replacement Lineworker if replaced with a rated Lineworker:						
UNION:	1	\$67.50	6	30	\$12,150.00	\$10,800.00
ADDITIONAL TOTAL O.T. + Instructor Cost:						\$22,950.00

Total Cost For Gas and Electric \$374,490.00

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-048
Distribution Service Rate Case

Staff Data Requests - Set 4

Date Request Received: 7/7/17
Request No. Staff 4-24

Date of Response: 7/21/17
Respondent: Steven Mullen

REQUEST:

Reference Docket DE 16-383, Rebuttal Testimony of Mr. Smith & Mr. Mullen, Bates page 227-228. Please provide list of organizations Liberty reached out to explore possible alternatives to National Grid's training arrangement. Please provide supporting documents of such efforts.

RESPONSE:

As stated in that section of testimony, training through National Grid is "no longer available," so Liberty was not seeking an alternative to that training, it was determining a replacement for that training.

Based on information provided to me by Liberty's trainers, Company personnel contacted management employees at Unutil Energy Systems (UES), New Hampshire Electric Cooperative (NHEC), and Green Mountain Power (GMP) and discussed their current training methods. UES and NHEC train on the job with the training conducted by supervisors rather than dedicated trainers. GMP has a dedicated trainer who performs classroom and field based training. Based on the contact at that time, GMP's trainer had no ability to perform training for additional people.

As stated on Bates 229 of the referenced rebuttal testimony, Liberty also reached out to Eversource and conducted a few training sessions in 2014 at Eversource's Pittsfield training facility. Eversource subsequently closed that facility.

Attachment Staff 4-24 is a copy of an invoice for some of the training sessions conducted in June 2014 at the Eversource facility. I am not aware of any documentation regarding the other entities that were contacted as discussed above.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-048
Distribution Service Rate Case

Staff Data Requests - Set 2

Date Request Received: 6/16/17
Request No. Staff 2-26

Date of Response: 6/30/17
Respondent: Daniel Dane

REQUEST:

Reference Attachment DBS/DSD-2, Schedule RR-EN-3-10, Page 1 of 1 (Bates 057), Lines 28-32 – Concord Training Center: The pro-forma adjustment appears to indicate there was an effective decrease in the annual rental expense intercompany credit amount from \$146,559 (5/1/16 – 4/30/17) to \$95,930 (5/1/17 – 4/30/18). (See also RR-EN-3-10 WP). Please explain.

RESPONSE:

The rental expense for the Concord Training Center is to be updated on May 1 of each year, per the Training Center Lease Agreement. The amount of the expense is based on EnergyNorth's annual costs of ownership of the Concord Training Center. Per the Company's calculation of EnergyNorth's costs of ownership for the period May 1, 2017 to April 30, 2018, the costs will decrease from the prior year, resulting in the *pro forma* reduction shown in DBS/DSD-2, Schedule RR-EN-3-10.

As indicated in both Docket No. DA 16-560 and Docket No. DE 16-383, the \$146,559 was derived using a combination of actual and estimated amounts as it was for the initial year of the lease and a full year of actual costs had not yet been experienced. The \$95,930 was calculated in advance of the rate case filing and involved some estimated costs as actual costs for the lease year ended April 30, 2017, were not yet fully available. Following the completion of the lease year and after submittal of the rate case filing, the lease amount was recalculated using actual amounts as well as an updated count of union employees to determine Granite State's Proportionate Share (as defined in the Lease Agreement). The updated count of union employees was 37 for Granite State and 147 for EnergyNorth, resulting in Granite State's Proportional Share to be 20.11% versus EnergyNorth's at 79.89%. The recalculated lease amount for Granite State is \$96,764. The amount of lease revenue to be received by EnergyNorth will be adjusted by \$834 as part of the Corrections and Updates filing.

Please see Attachment Staff 2-26 for a comparison of the calculation of the \$146,559 and the \$96,764.

**Concord Training Center
Annual Determination of Lease Payment**

	Year 2 (Commencing May 1, 2017)	Initial Year Estimate	Difference	Comments
Cost of building on books, 4/30/2017	\$ 3,824,673.56	\$ 4,109,880	\$ (285,206.44)	Mostly reclassified expenditures to another job; see tab FA 106<->0317
Accum Depr thru 4/30/2017	\$ (261,669.64)	\$ (118,365)	\$ (143,304.64)	Depreciated more months
NBV as of 4/30/2017	\$ 3,563,003.92	\$ 3,991,515	\$ (428,511.08)	
Return @ EnergyNorth WACC of 7.05%	\$ 251,191.78	\$ 281,401.81	\$ (30,210.03)	
Annual Book Depreciation	\$ 129,788.49	\$ 118,364	\$ 11,424.49	EN rate case utilized various depreciation rates by FERC code. Initial year used a blended rate
Annual Property and Liability Insurance	\$ 349.55	\$ 1,500	\$ (1,150.45)	EN Rate Case based on gross book value allocation; Intial year was an estimate
Utilities (gas, electric, communications)	\$ 20,031.11	\$ 39,762	\$ (19,730.89)	EN Rate Case based on actual; Initial year based on annualized 4 months of actuals
Property Taxes	\$ 28,516.33	\$ 30,210	\$ (1,693.67)	Both from tax bills
All other Admin and O&M	\$ 51,328.69	\$ 115,000	\$ (63,671.31)	Initial year based on estimates; EN Rate Case based on actuals
Total	<u>\$ 481,205.95</u>	<u>\$ 586,238</u>	<u>\$ (105,031.86)</u>	
Percentage to GSE - Annual (Monthly GSE)	<u>\$ 96,764.24</u> \$ 8,063.69	20.11% \$ 146,559	25% \$ (49,795.21)	
Percentage to EN - Annual (Monthly EN)	<u>\$ 384,441.71</u> \$ 32,036.81	79.89% \$ 439,678	75% \$ (55,236.65)	Higher allocation to EN but lower total costs for EN Rate Case

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-048
Distribution Service Rate Case

Staff Data Requests - Set 4

Date Request Received: 7/7/17
Request No. Staff 4-26

Date of Response: 7/21/17
Respondent: Steven Mullen

REQUEST:

Reference Docket DE 16-383, Rebuttal Testimony of Mr. Smith & Mr. Mullen, Bates page 229-230. Did Liberty perform any financial/economic analysis of the efficiency gain described here? If yes, please provide the analysis. If not, please explain why not?

RESPONSE:

The referenced section of the DE 16-383 rebuttal testimony discusses the efficiencies obtained from use of the training center by not having to rely solely on on-the-job training, by not having the gas and electric trainers traveling to multiple work locations to train small groups of employees, and by not requiring supervisors to provide training rather than dedicated training personnel. Even without any financial analysis, it is clear that each of those training conditions offers efficiencies in terms of consistency of training, scheduling, planning, travel time, and controlled training conditions, among other things.

While the cost of training is always a consideration, it is vital to keep in mind that the timing and adequacy of training for employees is a top priority. The Company must ensure that it has field trained, knowledgeable employees who can perform their jobs safely and competently. This is the primary consideration in ensuring the safety of our workers as well as providing safe and reliable service.

Regarding the efficiency gains referenced in the testimony, a financial/economic analysis was not performed as attempting to quantify the gains would have involved complex analyses of a number of variable factors including travel distances, number of employees who could be trained at each job location, ability of supervisors to take time from other job tasks to perform training, variability in training among supervisors, potential follow-up training due to that variability, ability to train specific tasks due to job site conditions, ability of training personnel to effectively schedule training at numerous locations, etc. Thus, the results of any financial/economic analysis would be highly variable, subject to a range of challenges, and thus of questionable value.

APPENDIX B: Business Case Template



B U S I N E S S C A S E

PROJECT TITLE
PROJECT SPONSOR:
PROJECT LEAD:
DATE:
PROJECT ID
BUSINESS PLAN NUMBER: (Assigned by Corporate Finance)

Business Case

RECOMMENDATION:

- Brief Description of what is being recommended and why. What problem are we trying to resolve?
- Indicate if it is for:
 - Release of Funds (approval to spend) under a previously approved business case or budget.
 - Approval of a Budgeted Project
 - Approval of a New Project not in current budget
- Under all scenarios outline the total dollar value of the plan, the amount of funds to be released now, and the amount(s) and timing of future funds to be released.
- Amount of funds allotted to OM&A and amount of funds allotted to Capital.
- Scope of project (What work activities, equipment needed, man hours, customer interruptions, etc)
- Expected start date and finish date.

OBJECTIVE(S)

Describe the major measurable result that is to be achieved. Do not state the recommendation as the required result.

BACKGROUND

- Describe the current situation and the background leading up to it. (Answer the question of why do we need to do anything?)
- Describe any related project previously approved for this project and any funds previously spent that are related to this proposal.
- Describe the decision criteria used in evaluating the alternatives. i.e. Work process improvement, system improvement, etc.
- Describe any restrictions or conditions, which must be satisfied and would affect the decision or restrict the acceptance of some alternatives. i.e., safety, minimum service level, etc.

ALTERNATIVE #/OPTION

Describe all reasonably viable alternatives. Discuss the viability of each and provide reasons if rejected. Discuss Status Quo, Postponement, Buy vs Rent vs Build options.

- Pros, Cons, & Risks of each alternative Tables.

FINANCIAL ASSESSMENT

- Corporate Finance Division can provide support in completing this section, as required.
- Brief description of financial assessment for each option

Business Case

- Table or Chart ideal for summarizing data, with any spreadsheets used attached as an appendix.
- NPV should be used for all projects, unless there is only one viable alternative, the recommendation is based on non-economic criteria, or it is obvious that one alternative is much more economically viable than the others. (Provide details of reason)
- Discuss the results of the evaluation, indicating which alternative is best, and any relevant financial issues.
- Identify whether adequate funds are available in the budget. If funds are not available, identify tradeoffs to accommodate the work, or rationale for increasing the budget.
- If expenditures are incurred for more than one year, show annual cash flows for the controlling unit(s).
- Identify any staff level impacts.

RISK ASSESSMENT AND QUALITATIVE EVALUATION

- Not all decisions will be based on lowest cost – qualitative factors can drive the decision.
- Discuss any risks and uncertainties associated with the recommended alternative. Including: Safety, Economic, Operational, Technical, Environmental, Social/Political, Customer Impact, and Regulatory Issues.
- Discuss any other qualitative factors, which may affect this decision.

IMPLEMENTATION/ACTION PLAN

Bullet points of implementation time line, including major hurdles such as approval, work start, cash flows, completion date.

REVIEWED BY:

PROJECT LEADER

DIRECTOR/VP:

FINANCE:

APPENDIX C: Capital Project Expenditure Application Form



Capital Expenditure Application | 2015

Requesting Region or Group:		Date of Request (MM/DD/YY):	Click to select date
Project Name:			
Requesting Region:		Sponsor (Name):	
Project Start Date:	Click to select date	Project Completion Date:	Click to select date
Requested Capital (\$)		Expenditure Included in Approved Budget?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Project Type: (Click appropriate box)	<input type="checkbox"/> Safety <input type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input type="checkbox"/> Discretionary	Nature of Estimate: (Click appropriate box)	<input type="checkbox"/> Fixed or Firm Price <input type="checkbox"/> Estimate - Internal <input type="checkbox"/> Estimate - External <input type="checkbox"/> Other (specify details)

Details of Request

Project description

Is this project growth or customer connection related? If "yes", list the specific locations and how expenditure aligns with customer expansion objectives.

Please describe any permitting requirements, environmental impacts, or resulting performance obligations that may or may not result from this expenditure?

Will there be assets, greater than \$5,000, currently in service removed as a result of this expenditure?
<small>If yes, please detail the specific assets that will be removed:</small>
<ol style="list-style-type: none"> 1. Original Cost of Plant to be removed (if known): 2. What is the replacement cost of the plant being removed (if original cost not known)? 3. Original Work Order of Plant to be removed (if known): 4. Is the Plant being removed reusable? 5. What is the year of original installation of the plant being removed

What alternatives were evaluated and why were they rejected?

Capital Expenditure Application | 2015

What are the risks and consequences of not approving this expenditure?

Please describe how Health, Safety and Security concerns and impacts as a result of this expenditure been addressed.

Please describe the Regulator's perspective on this expenditure and the necessity to complete related projects?

Are there other pertinent details that may affect the decision making process?

Financial Summary

Next Anticipated Test Year	Click to select a date	Will this add material rate shock?	
Rate Recovery (Click appropriate box)	<input type="checkbox"/> Immediate <input type="checkbox"/> 3 to 6 months <input type="checkbox"/> 6 to 12 months <input type="checkbox"/> 12 to 18 months <input type="checkbox"/> Over 18 months		
	Current Year	Future Years	Authorized Amount (to be filled in by Corporate)
Cost of Design & Engineering (\$)			
Cost of Materials (\$)			
Cost of Construction (\$)			
External Costs (\$)			
Internal Costs (\$)			
Contingency (\$)			
Other (\$)			
Total (\$)			

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-048
Distribution Service Rate Case

Staff Data Requests - Set 4

Date Request Received: 7/7/17
Request No. Staff 4-32

Date of Response: 7/21/17
Respondent: Steven Mullen

REQUEST:

Reference Docket DG 17-048, Testimony of Mr. Mullen, Bates page 023-027. Did Liberty perform any financial/economic analysis related to the benefits described here? If yes, please provide the analysis with supporting work papers.

RESPONSE:

Bates 023-027 of my testimony include descriptions of various topics such as the types of gas and electric training infrastructure installed at the Training Center, the different types of training available at the facility, flexibility of scheduling, the ability to train non-field employees on gas and electric utility topics, and the ability to make the facility available at times to accommodate training-related events including outside parties. While some of those items may involve quantifiable benefits, the majority involve non-quantifiable benefits. Hence, there is no analysis responsive to this request.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-048
Distribution Service Rate Case

Staff Data Requests - Set 5

Date Request Received: 7/27/17
Request No. Staff 5-40

Date of Response: 8/10/17
Respondent: Steven Mullen

REQUEST:

Reference Docket DE16-383, Rebuttal Testimony of Mr. Smith & Mr. Mullen, Bates 229, lines 19-20. Please explain the basis of the conclusion that “exclusive reliance of on-the-job training is insufficient to ensure employees are able to fully learn and safely perform their function.” Please provide analyses, rules/standards, studies etc. which supports this conclusion.

RESPONSE:

The full sentence from the cited rebuttal testimony which begins on line 17 is as follows:

“The Company also considered on-the-job training, without any classroom or controlled environment, but ruled it out for several reasons, mostly because reliance o[n] (sic) on-the-job training is insufficient to ensure employees are able to fully learn and safely perform their functions.”

Classroom instruction and controlled environment training are necessary aspects of a well-rounded training experience as they introduce efficiency and consistency which benefits employees, the Company and, ultimately, customers. By conducting classroom training, multiple employees simultaneously receive identical training. Such training is not only efficient from a scheduling perspective, it is also cost efficient. Controlled environment training ensures that employees receive training on certain techniques and procedures under the same conditions, thus ensuring that the training received is standardized from employee to employee. While certainly on-the-job training is vital to an employee’s job knowledge and experience, it is the Company’s view that “exclusive” reliance on that training method would not provide the optimal training experience. That position is the result of the collective experience of numerous Company personnel who have been involved in the gas and electric utilities for many, many years. Thus, no particular analyses or studies were necessary.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-048
Distribution Service Rate Case

Staff Data Requests - Set 5

Date Request Received: 7/27/17
Request No. Staff 5-42

Date of Response: 8/10/17
Respondent: Steven Mullen

REQUEST:

Reference Docket DE16-383, Rebuttal testimony of Mr. Smith & Mr. Mullen, Bates 228, lines 1-2, DG 17-048 response Staff 4-24.

- a. Please explain why the UES method (on the job training by supervisors) was not and still is not a viable option for Liberty?
- b. Did Liberty issue RFPs (or take other similar steps) for training services before deciding to build Training Center? Please provide supporting documentation.

RESPONSE:

- a. As explained in the response to Staff 4-26, in the Company's view, on-the-job training performed by supervisors, while a possible method of providing training, has inherent inefficiencies that are avoided through the use of a centralized training facility. Those inefficiencies include:
 - Diverting the actions of supervisors from the additional tasks they are required to perform in the course of their normal duties;
 - Potential inconsistency in the training provided by individual supervisors;
 - Potential inconsistency in the training provided from job site to job site based on particular conditions experienced at each site; and
 - Scheduling and planning concerns.

In addition, please see the response to Staff 5-40 for a discussion of the Company's decision to not rely on the exclusive use of on-the-job training.

- b. As explained in the response to Staff 4-24, although Liberty did not issue RFPs, Liberty did reach out to other regional utilities to explore training alternatives. Please also see Bates 228-230 of the Smith/Mullen rebuttal testimony in Docket No. DE 16-383 for other alternatives explored, including potential use of other existing Company property or acquiring a new piece of property. Please also refer to Attachment SEM-1 to my testimony for further discussion of factors taken into account in the decision making process and avenues explored.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-048
Distribution Service Rate Case

Staff Data Requests - Set 5

Date Request Received: 7/27/17
Request No. Staff 5-43

Date of Response: 8/10/17
Respondent: Steven Mullen

REQUEST:

Reference Docket DE16-383, Rebuttal testimony of Mr. Smith & Mr. Mullen, Bates 231, lines 6-8 and DG 17-048 response of Staff 4-24 and Staff 4-33. Please explain why Liberty did not perform a comparative financial/economic analysis between the option it ultimately selected (training center) and an alternative option (e.g. UES method of on the job training by supervisors, or use of IBEW facility, or others)?

RESPONSE:

None of the referenced sources discussed the performance of a financial/economic analysis. The cited portion of the DE 16-383 rebuttal testimony discussed Staff's lack of support for a position taken in its DE 16-383 testimony, the response to Staff 4-24 discussed Liberty's outreach efforts to other utilities, and the response to Staff 4-33 discussed training methods used by contractors.

None of the topics discussed in the cited references were viable alternatives for providing the range of gas and electric training needs required by Liberty, so no financial/economic analysis of those options was warranted. With respect to on-the-job training, please see the responses to Staff 5-40, Staff 5-42, Bates 229-230 of the Smith/Mullen DE 16-383 rebuttal testimony, and Bates 021 of my testimony in the current docket.

Please see Attachment SEM-1 to my testimony for a discussion of a financial analysis that was performed.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-048
Distribution Service Rate Case

Staff Data Requests - Set 5

Date Request Received: 7/27/17
Request No. Staff 5-44

Date of Response: 8/10/17
Respondent: Steven Mullen

REQUEST:

Reference Docket DE16-383, Rebuttal testimony of Mr. Smith & Mr. Mullen, Bates 232, lines 13-19 and DG 17-048 response of Staff 4-28. In the context of these cost increases, did Liberty explore any alternatives? Please explain why or why not in detail.

RESPONSE:

Alternatives explored and the reasons for not pursuing those alternatives are discussed in the Smith/Mullen DE 16-383 rebuttal testimony, the Mullen DG 17-048 testimony, and the responses in DG 17-048 to Staff 4-24, Staff 4-25, Staff 4-30, Staff 5-40, Staff 5-42, and Staff 5-43.

As explained in the DE 16-383 rebuttal testimony as well as the testimony in the current docket, building a local gas and electric training facility was determined to be the best solution to the long-term training needs for Liberty's employees. As construction conditions for the Training Center changed, cost increases were analyzed based on change orders, information received from contractors, and other relevant documentation. Cost increases were reviewed, analyzed, and approved as they arose. Note that the Audit Division also reviewed the Training Center capital costs as part of its audit in this proceeding.

Despite the increases in cost from the original estimate, the Training Center still makes sense from an economic, business, and employee perspective as it is a long-term investment in furthering the technical skills, knowledge, and safety of not only the gas and electric field workers, but also of Liberty's employees as a whole. Such an investment also allows Liberty to better serve customer needs. As training requirements continue to increase and evolve, it is beneficial to have a facility that allows us to adapt to those changes and schedule new training as the need arises. Liberty is aware of other utilities that have invested \$10 million and \$20 million for gas training facilities whereas Liberty's facility services both gas and electric training requirements at a significantly lower cost.

Further, given the number of non-quantifiable benefits associated with the Training Center (see the Smith/Mullen DE 16-383 rebuttal testimony, the DG 17-048 Mullen testimony including Attachment SEM-1, and the responses to Staff 4-26, Staff 4-32, and Staff 5-40), a simple

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spreadsheet analysis would not provide a complete picture of this overall value. For instance, one benefit not mentioned in my testimony is that, effective in September 2017, the Training Center will serve as the backup contingency site for Liberty's call center. Using an existing facility that will be ready to serve contingency needs is sensible from both logistical and economic perspectives, particularly given that such contingency needs can and will occur unexpectedly.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-048
Distribution Service Rate Case

Staff Data Requests - Set 5

Date Request Received: 7/27/17
Request No. Staff 5-45

Date of Response: 8/10/17
Respondent: Steven Mullen

REQUEST:

Reference Docket DG 17-048, Response Staff 4-32. Does Liberty have any policy or guideline etc. related to using non-quantifiable costs or benefits in its decision making? Please explain in detail and provide any supporting documents.

RESPONSE:

Yes. Included in Liberty's "Capital Expenditures – Planning and Management" policy are templates for preparing a Business Case and a Capital Expenditure Application. Sections of each of those documents instruct the preparer to address non-quantifiable cost and benefit items:

- Alternatives – Pros, cons and risks;
- Qualitative factors;
- Risks and uncertainties including safety, economic, operational, technical, environmental, social/political, customer impact, and regulatory issues;
- Risks and consequences of not approving the expenditure;
- Health, safety, and security concerns and impacts; and
- Other pertinent details that may affect the decision making process.

The Business Case template includes the statement, "Not all decisions will be based on lowest cost – qualitative factors can drive the decision." Please see Attachment Staff 5-45.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-048
Distribution Service Rate Case

Staff Data Requests – Set 7

Date Request Received: 9/21/17
Request No. Staff 7-12

Date of Response: 10/5/17
Respondent: Steven Mullen

REQUEST:

Reference Staff 5-44 response: The response states “Cost increases were reviewed, analyzed, and approved as they arose.” Please provide all analyses referenced in this statement.

RESPONSE:

The full relevant portion of the response to Staff 5-44 reads as follows:

As construction conditions for the Training Center changed, cost increases were analyzed based on change orders, information received from contractors, and other relevant documentation. Cost increases were reviewed, analyzed, and approved as they arose.

“Analyze” means to study or examine an issue, but does not necessarily involve the preparation of documents or spreadsheet analyses. With respect to construction projects, analysis involves examining issues, changed conditions, and additional requirements as they arise to determine whether they are necessary, whether something can be done in another manner to address the changes, and the extent to which the new conditions will impact costs, schedule, and other considerations.

As discussed on Bates 015 and 016 of my June 30, 2017, prefiled testimony, many cost increases resulted from requirements imposed by the City of Concord and were not included in the original project cost estimate. Attachment Staff 7-12 is a copy of a document included in the project file that provides a narrative summary of the changes, and resulting cost increases, required by the City of Concord. (This information was previously provided to Liberty Consulting Group as Attachment PB-13.2.) Those requirements significantly increased the project costs and delayed the construction schedule.

In addition to the requirements of the City of Concord, many of the cost increases were fairly inconsequential, thus not warranting extensive analysis. For example, the installation of items such as a landline phone for security and safety contingencies, a manhole cover and guard that allows for manhole rescue training, and a roof hatch safety rail and grip tape on the stairs for

Docket No. DG 17-048 Request No. Staff 7-12

added safety measures all are minor cost items that, while not included in the original pricing, were practical measures that required little analysis.

As stated in the response to Staff 5-44, analysis was performed by review of the change proposals, change orders, and supporting documentation for each cost increase. As with any major construction project, there were many changes to the costs of the Training Center project following the initial estimate; therefore, the Company suggests that Staff identify specific costs and the Company will provide the available supporting documentation.

Summarization of additional project costs imposed by City of Concord fees, inspection services, and scope of work changes.

In order to approve construction of the new Training Center and CNG facility on Broken Bridge Road in Concord, NH, the City of Concord (City) imposed certain required project conditions that added significant costs to the initial estimated costs of building the facilities. Due to the fact that the Training Center was being constructed first and in order to meet deadlines associated with completion of the Training Center, these costs were passed on to Training Center project. Specifically, the City required off-site improvements consisting of installation of a new municipal waterline and hydrants down the entire length of Broken Bridge Road, widening of certain sections of Broken Bridge Road, and complete resurfacing of the road. In order to be able to move forward with both projects, we moved forward with obtaining pricing to complete the off-site road improvements and added the costs to the Training Center contract (\$488,905). Prior to the pre-construction conference with the City, the City notified us that traffic impact fees (\$19,015), City inspection fees (\$33,300), and water investment fee (\$2,595) would need to be paid prior to the City giving approval to start work on-site. Due to schedule constraints these fees were paid and not contested through the City's appeal process. During installation of the waterline, unsuitable materials (organics) were encountered in the roadway within the waterline trench. The City required that these unsuitable materials be removed and replaced with imported structural fill including crushed stone below the waterline (\$26,279). Due to the fact that the waterline was installed below the water table in certain areas and the placement of stone in the trench, water began seeping out of the road way in an area below a steep incline in the road. Due to the seepage, the City is requiring that an underdrain be installed (\$15,073) in the section of roadway with seepage in order to direct water flow from below the road away from the road. An additional cost not associated with the roadway, but required by the City prior to receiving a temporary occupancy permit was the addition of a gas detection system within the building (\$15,435). The gas detection was not included in the original plan set approved by the City, but the fire department required a gas detection system when they completed their final plan review for permit approval.