

**STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION**

Docket No. DE 19-064

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
Distribution Service Rate Case

**DIRECT TESTIMONY
OF
ANTHONY STRABONE
AND
HEATHER M. TEBBETTS**

April 6, 2022



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1 **I. INTRODUCTION AND BACKGROUND**

2 **Q. Mr. Strabone, please introduce yourself.**

3 A. My name is Anthony Strabone, my business address is 9 Lowell Road, Salem, New
4 Hampshire, and I am employed by Liberty Utilities Service Corp. (“LUSC”). I am the
5 Senior Manager of Electrical Engineering for LUSC and I am responsible for the electric
6 capital work plan of Liberty Utilities (Granite State Electric) Corp. (“Liberty”), whereby I
7 manage engineering and construction resources for capital projects.

8 **Q. Please describe your educational background and training.**

9 A. I graduated from Merrimack College in 2004 with a Bachelor of Science degree in
10 Electrical Engineering. I received a Master’s of Business Administration from Southern
11 New Hampshire University in 2006. I received a Project Management Professional
12 (PMP) Certification in 2017 from the Project Management Institute. In 2019, I received
13 my license as a Professional Engineer in the State of New Hampshire.

14 **Q. Please describe your professional background.**

15 A. I joined Liberty in November 2014. Prior to my employment at Liberty, I was employed
16 by Public Service Company of New Hampshire (“PSNH”) as a Substation Supervisor in
17 Substation Maintenance from 2010 to 2014. Prior to my position in Substation
18 Maintenance, I was a Substation Engineer in Substation Engineering from 2008 to 2010
19 and an Engineer in the System and Planning Strategy department from 2004 to 2008.

20 **Q. Have you previously testified before the Commission?**

21 A. Yes, on numerous occasions.

1 **Q. Ms. Tebbetts, please state your full name, business address, and position.**

2 A. My name is Heather M. Tebbetts, my business address is 15 Buttrick Road, Londonderry,
3 New Hampshire, and I am employed by LUSC. I am the Manager of Rates and
4 Regulatory Affairs and am responsible for providing rate-related services for Liberty.

5 **Q. Please describe your educational background and training.**

6 A. I graduated from Franklin Pierce University in 2004 with a Bachelor of Science degree in
7 Finance. I received a Master's of Business Administration from Southern New
8 Hampshire University in 2007.

9 **Q. Please describe your professional background.**

10 A. I joined Liberty in October 2014. Prior to my employment at Liberty, I was employed by
11 PSNH as a Senior Analyst in NH Revenue Requirements from 2010 to 2014. Prior to my
12 position in NH Revenue Requirements, I was a Staff Accountant in PSNH's Property Tax
13 group from 2007 to 2010 and a Customer Service Representative III in PSNH's Customer
14 Service Department from 2004 to 2007.

15 **Q. Have you previously testified before the Commission?**

16 A. Yes, I have testified on numerous occasions before the Commission.

17 **II. PURPOSE OF TESTIMONY**

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

19 A. The purpose of our testimony is to request a decrease in distribution rates, to be effective
20 July 1, 2022, as approved in Order No. 26,376 (June 30, 2020) in this docket. This is the

1 third approved step adjustment described in the Settlement Agreement in this docket and
2 pertains to certain projects placed in service during the calendar year 2021.

3 **III. CAPITAL PROJECTS**

4 **Q. Please explain each project for which the Company is seeking to commence cost**
5 **recovery in this third step adjustment, as provided for in the Settlement Agreement.**

6 A. The Company seeks recovery for each of the capital projects discussed below that were
7 placed in service during 2021. The breakdown of budget and spending by year is
8 provided on page 1 of each of Attachments 2 through 19.

9 **Q. Before discussing the details of each project, please explain why the proposed**
10 **requests for cost recovery for each project may differ from the figures in the**
11 **respective project close out forms.**

12 A. Project close out forms are one of several types of documents attached to this testimony
13 that support the prudence of the 2021 projects described below, the others being business
14 cases, capital expenditure forms, and change orders, if necessary. Project close out forms
15 are completed on an annual basis and address the spending for that particular project for
16 that calendar year. They do not include any spending on that project from prior years.
17 Therefore, when a project incurs costs during more than one calendar year, its costs will
18 be reflected in more than one project close out form.

19 This annual process occurs because all ongoing projects receive a new project number
20 each year, using the Company's established naming convention. For example, a project

1 opened in 2019 and named “8830¹-19xx XYZ Substation” will receive a new project
2 number in 2020 of “8830-20xx XYZ Substation” for that same substation project. Each
3 year the Company will prepare a project close out form for every open project number
4 that addresses all costs incurred during that calendar year, until a project is completed and
5 put into service. Then, when calculating the full cost of a project to support a request for
6 recovery, the Company will draw from all of the applicable annual close out forms.
7 Therefore, the total amount reflected in a single year’s project close out form may not
8 match the amount for which the Company ultimately seeks recovery.

9 “Blanket” projects follow the same logic. A blanket project number is used for a task
10 that the Company routinely performs every year, such as Meter Replacements or Public
11 Requirements (work requested by municipalities and the state every year to, for example,
12 move poles and wires for road widening projects). Rather than having a separate project
13 number for every one of these municipal and state projects (there are often hundreds),
14 there is a Public Requirements Blanket project number to cover all such jobs, and each
15 specific job within that blanket will be issued a “work order” number, the costs for which
16 will roll up into the overall Public Requirements Blanket project number.

17 Some of the specific tasks, or “work orders” in the Company’s vernacular, are not
18 completed and placed into service in a single calendar year. Those work orders will incur
19 costs during the first calendar year, but since the work is not complete and placed into
20 service during that first calendar year, additional costs will be incurred in subsequent

¹ The “8830” prefix identifies the project as a Granite State Electric matter within the Company’s accounting system. “8840” indicates an EnergyNorth project.

1 calendar years. The spending for that specific work order will thus be reflected in the
2 appropriate blanket project's close out forms for each calendar year during which the
3 specific work order incurred costs.

4 Similar to the substation project example above, when a multi-year work order operating
5 under a blanket project number is placed into service, its costs are summed from each of
6 the applicable blanket project's annual close out forms, and that total is the amount for
7 which the Company will seek recovery.

8 **Q. Attachment 1, page 2, has a column titled Total Spend. Please explain what is**
9 **populated in this column.**

10 A. As noted above, not all work orders taken out under project numbers go into service in
11 the same year they are started. In this proceeding, the Company is seeking cost recovery
12 only for capital projects that were placed into service in 2021 under the listed project
13 numbers in Attachment 1, page 2. Some of these project numbers have actual spending
14 of less than the budget amounts provided in the description of each project below and on
15 page 1 of each project's backup documentation, Attachments 2 through 19. Those
16 projects incurred costs under work orders that started in prior years but did not go into
17 service until 2021. The spending for those prior years was captured in the business cases,
18 change order forms if necessary, and prior-year project close out forms. Any spending
19 for those work orders in 2021 is captured in the 2021 business cases, change order forms
20 if necessary, and project close out forms.

1 **Q. Please explain blanket projects.**

2 A. As discussed above, blanket projects are those projects that have numerous work orders
3 taken out for smaller jobs, sometimes hundreds of them. For example, charges arise from
4 municipal requests for jobs such as relocating poles for road widening (Public
5 Requirements Blanket) and from damage to equipment (Damage Failure Blanket) that
6 were unknown until the request arrives at the Company or the equipment fails. Each year
7 the Company looks at spending from previous years to determine an appropriate spending
8 amount, or budget, for these blankets. For example, in 2017 and 2018, the final spending
9 for the Public Requirements Blanket was \$414,432 and \$441,939, respectively. The 2019
10 budget was set at \$520,000, above the spending for the previous two years, yet the total
11 charges for 2019 came in at \$668,186. These are difficult budgets to set due to the
12 emergent nature of the work and the unknown quantity and cost of those requests when
13 the budget is established. Also, the Company does not have the option to defer these
14 requests due to their nature, as can be done with other types of work orders such as
15 replacing conductors for reliability (Enhanced Bare Conductor project).

16 **Q. Are there projects in this filing that were substituted for projects listed in the**
17 **Settlement Agreement?**

18 A. No. Attachment 2 to the Settlement Agreement listed the 2019 and 2020 projects to be
19 recovered through the 2020 step filing, only. The 2021 list was included in the 2020 Step
20 Adjustment filing on April 6, 2021, Attachment 12. The Settlement Agreement provided
21 flexibility to substitute projects with the following limitations:

1 Liberty reserves the right to substitute projects into Attachment 2 so long
2 as any new projects are not growth projects and are not related to the
3 Rockingham Substation or the 115kV transmission line.

4 Settlement Agreement in Docket No. DE 19-064, Hearing Exhibit 37, at 4.

5 There are seven projects totaling \$2.6 million listed in Attachment 12 to the 2020 Step
6 Adjustment filing that are not included in this filing, with the Company substituting other
7 projects in their place. The added projects are not growth projects and are not related to
8 the Rockingham Substation or the 115kV transmission line, in compliance with the
9 language quoted above.

10 The list of projects being removed from the list filed on April 6, 2021, is provided in the
11 table below and described in detail following the table.

Planned Project	2021 Planned In Service Amount
Battery Pilot	\$600,000
Golden Rock Substation	\$400,000
Golden Rock Underground	\$160,000
Tuscan Village EV Chargers	\$400,000
SCACA & Distribution Automation	\$200,000
Install 9L2 9L3 Tie Line	\$356,405
URD Cable Replacement	\$500,000
Total	\$2,616,405

12

- 1 • Battery Pilot – The total charges for 2021 did not include the final Tesla invoice,
2 but included CIAC, which created negative total charges. The final Tesla invoice
3 was processed in January 2022 and the final costs of Phase One will be included
4 in the Company’s next rate case.
- 5 • Golden Rock Substation – this project was originally scheduled to occur in 2021.
6 The scope of this project was to install a new 19L2 breaker position at the
7 substation. The project was deferred due to project schedule delays associated
8 with the construction of Liberty’s 115 kV supply line, which included
9 coordination with National Grid’s construction of the interconnection point. Due
10 to National Grid’s project delays, Liberty performed an analysis of the electric
11 system in the Salem area and determined that the 19L2 breaker position could not
12 be installed. The 13kV bus at the substation is required to be out of service to
13 accommodate construction of this feeder addition, however, this would have
14 constrained the system in the Salem Area and resulted in planning criteria
15 violations during N-1 contingencies. If a failure had occurred on the supply line
16 with the Golden Rock substation out of service to install the breaker position, the
17 Company would not have been able to isolate load and its contingency planning
18 would be at risk. The Company decided it was best to postpone the substation
19 portion of the project until 2022. All 2021 spending was for engineering only.
- 20 • Golden Rock Underground – The scope of this project was to install the
21 underground distribution cable that would connect the substation to the overhead
22 distribution system. This work coincided with the Golden Rock substation work
23 and as such had to be delayed until 2022.
- 24 • Tuscan Village EV Chargers – The Company purchased the chargers and had the
25 installation ready to go, but the Town of Salem denied the building permit in
26 November 2021. The Planning Board reviewed the request for the installation in
27 February 2022 and approved the request. The stations will be installed in Q2
28 2022.
- 29 • SCADA & Distribution Automation – The scope of this project was to perform
30 engineering design work for the Remote Terminal Unit (RTU) replacement at
31 Spicket River and Mount Support substations. Both of the RTUs at the
32 substations are obsolete and past their useful life. The scope of work also
33 included the actual replacement of the RTU at the Spicket River substation. The
34 replacement of the RTU at Mount Support was always planned for 2022. The
35 Company postponed the project until 2022 due to competing projects with
36 internal crews.

- 1 • Install 9L2 9L3 Tie Line – The total 2021 carryover was \$32,571, not \$350,000 as
2 anticipated, and as such the Company is removing this project from the 2021 step
3 adjustment request and will recover the full amount, including the \$32,571 in its
4 next rate case.
- 5 • URD Cable Replacement – The scope of this project was to replace underground
6 residential development cable (URD) in residential developments that commonly
7 fail. The Company decided to reassess and reprioritize its existing list of URDs
8 needing full replacement. As such, the 2021 project was put on hold and the
9 Company will review the URD projects in 2022.

10 The Company substituted \$2.1 million of investment in other projects as replacement for
11 the projects listed above from the 2020 Step Adjustment filing as shown in the table
12 below:

Replacement Project	Actual 2021 In Service Amount
Lebanon Pole Pile	\$345,099
General Equipment Blanket	\$188,456
Street Light Blanket	\$98,979
IT Systems & Equipment	\$379,187
DTN Weather Upgrade	\$182,483
Meter Test Board	\$248,313
Salem Garage	\$667,641
Total	\$2,110,158

13

1 **Q. Please describe the particular projects for which the Company seeks recovery in this**
2 **second step adjustment.**

3 A. Following are the nineteen projects for which the Company seeks to commence cost
4 recovery on July 1, 2022:

5 **1. 8830-1958 Install Service to Tuscan Village Attachment 2**

6 This project installed a new UG conduit loop system along Tuscan Village Park to supply
7 new growth in the commercial development. The project consisted of providing service
8 to a customer located on the south parcel of Tuscan Village. The scope of work included
9 installation and acceptance testing of approximately 2,000 feet of 1,000 MCM CU EPR
10 15 kV jacketed primary cable and 4/0 neutral, installation and acceptance testing of
11 approximately 200 feet of 3C-4/0 underground cable, and installation of PME-9
12 switchgear. The Company also installed 600 feet of 3C-4/0 underground cable to connect
13 the customer to its 150 kVa transformer for service.

14 The Company also installed and completed acceptance testing of approximately 1,500
15 feet of 3C-4/0 underground cable for the de-watering of the southern parcel of the Tuscan
16 Village.

17 Tuscan cost-sharing for Central Village – the scope of this project was to install
18 necessary infrastructure inside Tuscan Village which consisted of underground conduits,
19 manholes, underground primary and secondary cable, switchgear, and transformers.

20 During the detailed design phase of the underground manhole and duct system for Tuscan
21 Village, the Company identified several areas within the development that would require
22 additional conduits to be installed in the future to provide the necessary underground

1 infrastructure to install distribution feeders to serve area load outside the Tuscan
2 Development in future years. Tuscan and the Company agreed there would be cost
3 savings to install these conduits now prior to the area being developed as opposed to
4 installing the underground infrastructure later and incurring costly pavement restoration
5 fees. Tuscan and the Company also mutually agreed to utilize the same civil contractor
6 and share costs for this work as this would eliminate significant schedule coordination
7 efforts and once again provide cost savings due to economies of scale.

8 The total request for cost recovery for project 8830-1958 is \$1,235,243. Please see the
9 table below for the breakdown of the budget and costs for 2021.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2021 In Service WO</u>	<u>Request for Cost Recovery</u>
2019	\$1,200,000	\$98,244	\$98,244
2020	\$900,000	\$182,634	\$182,634
2021	\$1,000,000	<u>\$954,365</u>	<u>\$954,365</u>
		\$1,235,243	\$1,235,243

10
11 **2. 8830-2069 Golden Rock Feeder 19L2 Attachment 3**

12 The 2376W circuit supplies the Spicket River Substation and originates from Ward Hill,
13 via a pole-mounted recloser located in the Spicket River Massachusetts Right of Way.
14 Approximately 5.2 miles of the 2376W line is exposed to outages without any backup,
15 with 4.3 miles in National Grid maintenance territory and 0.9 miles in Liberty's territory.
16 Liberty relies on National Grid to expedite repairs should an outage-related problem
17 occur. The loss of the 22.8 kV source for an outage on the 5.2-mile section would require
18 the Spicket River circuits to be backed up by existing distribution circuit ties, however,

1 area feeders are not positioned geographically to re-supply the Spicket River distribution
2 feeders. Loss of the 22.8 kV sub-transmission supply circuit to the Spicket River No.13
3 Station could cause Liberty to have up to 226 MWHrs of load at risk after restorative
4 switching occurs and for an assumed repair time of 12 hours. This violates Liberty's
5 planning criteria of 120 MWHrs.

6 The scope of this project was to reconductor approximately 15,300 feet of overhead bare
7 wire with 477 tree wire in Spacer Cable configuration and tie it into the newly installed
8 19L2 breaker position at the Golden Rock substation. The original estimate of \$2.1
9 million was based on average contractor bids received in 2020 for similar reconductor
10 projects. The average contractor cost per foot for all bids received in 2020 was
11 \$68.79/foot. Multiplying this cost/foot by length of project and including all other
12 construction costs such as tree trimming, construction oversight, traffic control, materials,
13 and all associated burdens, resulted in an estimate of \$2.1 million. A local New
14 Hampshire contractor was the successful bidder for this project through a competitive bid
15 process. The project came in under budget due to the contractor bid price coming in less
16 than the original estimate.

17 The total request for cost recovery for project 8830-2069 is \$1,523,493. Please see the
18 table below for the breakdown of the budget and costs for 2021.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2021 In Service</u>	<u>Request for Cost Recovery</u>
2020	\$1,300,000	\$134,456	\$134,456
2021	\$2,100,000	<u>\$1,389,037</u>	<u>\$1,389,037</u>
		\$1,523,493	\$1,523,493

19

1 **3. 8830-2086 Lebanon Pole Pile Attachment 4**

2 This project addressed the severe safety issues regarding the pole pile at the Lebanon
3 work center. Prior to building the new pole pile, employees had to climb onto a single
4 large pile to access the poles they needed for jobs. The danger to employees slipping and
5 falling or some other injury was identified and mitigated by this project, which entailed
6 the building of a number of log bunks for the poles to lay on. The Company originally
7 expected to spend \$652,750 based on the original scope of work. The scope was reduced
8 and as such the Company spent \$345,099, which is the request for cost recovery. Please
9 see the table below for the breakdown of the budget and costs for 2021.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2021 In Service</u>	<u>Request for Cost Recovery</u>
2020	\$652,750	\$26,424	\$26,424
2021	\$652,750	<u>\$318,675</u> \$345,099	<u>\$318,675</u> \$345,099

10
11 **4. 8830-2107 General Equipment Blanket Attachment 5**

12 This blanket project covers general equipment used in execution of work for Liberty
13 Electric operations. The types of tools and equipment purchases included in this project
14 are mobile cable pullers, digital phasing meters, load break tools, and power quality
15 meters, among other items.

16 For projects under \$50,000, the Company's Liberty Way Policy & Procedures Capital
17 Expenditures Planning and Management policy does not require a business case.

18 Therefore, only a capital expenditure form is provided, along with the change order and
19 project close out forms.

1 This project was not included in the original plan and was one of several projects added
2 for 2021. The total request for cost recovery for project 8830-2107 is \$188,546. Please
3 see the table below for the breakdown of the budget and actual spend in service in 2021.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2021 In Service</u>	<u>Request for Cost Recovery</u>
2021	\$50,000	<u>\$188,456</u>	<u>\$188,456</u>
		\$188,456	\$188,456

4

5 **5. 8830-2110 Street Light Blanket Attachment 6**

6 The Street Light blanket provides funding associated with new and/or existing lighting
7 facilities which includes installing new street lights or floodlights, replacing street lights
8 or floodlights due to size, model, or condition, installing conductor service street lights or
9 floodlights, and installing street light poles or standard poles for street lighting.

10 This project was not included in the original plan and was added to the list of 2021
11 projects for recovery in this filing. The total request for cost recovery for project 8830-
12 2110 is \$98,979. Please see the table below for the breakdown of the budget and actual
13 spend for in 2021.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2021 In Service</u>	<u>Request for Cost Recovery</u>
2021	\$125,000	<u>\$98,979</u>	<u>\$98,979</u>
		\$98,979	\$98,979

14

1 **6. 8830-2111 Public Requirements Blanket Attachment 7**

2 Public Requirements Blanket provided funding for projects that arose during the year in
3 response to requests from municipalities and the State of New Hampshire to relocate the
4 Company's poles, associated equipment on the poles, and guy wires to accommodate
5 various state and municipal projects, such as road widening projects. Depending on the
6 scope of the job, Liberty crews or contractors may have performed the work. For work
7 requiring contractors, the Company engaged in a competitive bid process, the bids were
8 analyzed for price, timeline, and qualifications of the contractors, and the Company
9 awarded the project to the bidder with the best solution, which, all things being equal,
10 price was usually the deciding factor.

11 The total request for cost recovery for project 8830-2111 is \$308,503, which is lower
12 than anticipated. Please see the table below for the breakdown of the budget and actual
13 spend for in 2021.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2021 In Service</u>	<u>Request for Cost Recovery</u>
2019	\$630,000	\$14,249	\$14,249
2020	\$1,000,000	\$81,457	\$81,457
2021	\$520,000	<u>\$212,798</u>	<u>\$212,798</u>
		\$308,503	\$308,503

14
15 **7. 8830-2112 Damage/Failure Blanket Attachment 8**

16 The purpose of the Damage/Failure Blanket is to provide funding to repair damage to the
17 Company's equipment arising from unplanned, but regularly occurring, instances such as
18 poles beyond their useful life, failed transformers, lightning strikes, animal contacts, and

1 motor vehicle accidents. Depending on the scope of the job, Liberty crews or contractors
2 may have performed the work. For work requiring contractors, the Company engaged in
3 a competitive bid process, the bids were analyzed for price, timeline, and qualifications of
4 the contractors, and the Company awarded the project to the bidder with the best solution,
5 which, all things being equal, price was usually the deciding factor.

6 The total request for cost recovery for project 8830-2112 is \$2,022,586, which is higher
7 than originally planned due to a significant amount of equipment that was found to be
8 damaged or failed during 2021. The costs span 315 work orders. Please see the table
9 below for the breakdown of the budget and actual spend for in 2021.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2021 In Service</u>	<u>Request for Cost Recovery</u>
2020	\$1,000,000	\$66,895	\$66,895
2021	\$1,500,000	<u>\$1,955,691</u>	<u>\$1,955,691</u>
		\$2,022,586	\$2,022,586

10
11 **8. 8830-2113 Distribution Asset Replacement Blanket Attachment 9**

12 This project is associated with the replacement of line or substation assets based upon
13 inspection, and asset condition information. The costs associated with 2021 relate to the
14 replacement of poles that were condemned, undersized, and/or beyond their useful lives.
15 The Company also replaced old and failure-prone underground cable under this project.

16 The total request for cost recovery for project 8830-2113 is \$296,406, which is slightly
17 above the original plan. Please see the table below for the breakdown of the budget and
18 actual spend for in 2021.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2021 In Service</u>	<u>Request for Cost Recovery</u>
2020	\$400,000	\$10,705	\$10,705
2021	\$200,000	<u>\$285,702</u>	<u>\$285,702</u>
		\$296,406	\$296,406

1

2 **9. 8830-2114 Third Party Attachments Blanket Attachment 10**

3 This blanket project provides funding for make-ready work associated with Third Party
4 Attachments. Re-working of electrical pole-mounted equipment is required at times to
5 accommodate requests from third party companies (e.g., Comcast) to attach to Liberty’s
6 poles. This project funds those requests and any other requests from third parties for
7 attachments.

8 The total request for cost recovery for project 8830-2114 is \$164,315, which is slightly
9 above the planned amount. Please see the table below for the breakdown of the budget
10 and actual spend for in 2021.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2021 In Service</u>	<u>Request for Cost Recovery</u>
2020	\$100,000	(\$19,384)	(\$19,384)
2021	\$125,000	<u>\$183,699</u>	<u>\$183,699</u>
		\$164,315	\$164,315

11

12 **10. 8830-2121 Distribution Reliability Blanket Attachment 11**

13 This project provides funding for resolutions and improvements to system reliability
14 performance. The types of work completed under this project are reconditioning due to
15 mechanical capacity, replacing bare conductors to minimize tree-related interruptions,
16 replacing open wire secondary with cable, replacing customer overhead service wire due

1 to condition, installing sectionalizing equipment, and increasing pole sizes for proper
2 spacing and/or road clearance.

3 The total request for cost recovery for project 8830-2121 is \$174,854, which is slightly
4 above the planned amount. Please see the table below for the breakdown of the budget
5 and actual spend for in 2021.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2021 In Service</u>	<u>Request for Cost Recovery</u>
2020	\$218,000	\$42,176	\$42,176
2021	\$161,000	<u>\$132,678</u>	<u>\$132,678</u>
		\$174,854	\$174,854

6

7 **11. 8830-2124 LED Street Light Conversion Attachment 12**

8 This project provides funding to respond to Town/Municipality requests to convert
9 existing Street Lighting to LED Street Lighting. The towns of Salem and Charlestown
10 converted portions of their streetlights to LED. The costs include installing street or
11 floodlights, replacing street or floodlights due to size, model, or condition, installing
12 conductor serving the street or floodlights, and installing streetlight poles or standard
13 poles.

14 The total request for cost recovery for project 8830-2124 is \$387,666, which is above the
15 planned amount for 2021 as the projects spanned 2020 and 2021 but the lights were not in
16 service until 2021. Please see the table below for the breakdown of the budget and actual
17 spend for in 2021.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2021 In Service WO</u>	<u>Request for Cost Recovery</u>
2020	\$200,000	\$114,064	\$114,064
2021	\$125,000	<u>\$273,602</u>	<u>\$273,602</u>
		\$387,666	\$387,666

1

2

12. 8830-2125 IT Systems & Equipment Blanket Attachment 13

3

As the Company transitions to SAP, it is beginning to streamline the operation of various payment vendors. Since the payment vendors operate independently of each other, there are challenges in delivering a consistent customer experience and payment product offerings across the enterprise. By serving customers through a single channel, the Company can expect to see operational efficiencies through call reduction, vendor cost reduction, and business process improvements. With the current technological innovation in the payments industry and the regulations that contribute to its evolution, there is a significant shift in customer expectations of doing business with the Company. Customers now expect and/or demand not only consistent and robust self-service payment options but also a smoother user experience in a manner that balances security and convenience.

13

14

The Company completed the Payment Processing Project delivering the foundation for a single payment processing platform for the enterprise. The enterprise-wide cost of the project was \$3,329,840 with approximately 11 percent allocated to the Company. The following table provides the scope of work completed. Attachment 13 includes further details of the scope.

18

#	Payment Channels	Tender types		
		E-Check	Credit card	Debit card
1	<u>libertyutilities.com</u> . One-time payment for non-registered customers	✓	✓	✓
2	<u>IVR</u> . Payments via LU's Toll-Free Number	✓	✓	✓
3	<u>Point of Sale (card readers)</u> . Customers walking into the local office with their credit/debit cards	✗	✓	✓
4	<u>Auto-Pay</u> . Customers with banking info setup at LU.	✓	✓	✓

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5

This project was not included in the original plan and was one of several projects substituted into the 2021 list. The total request for cost recovery for project 8830-2125 is \$379,187. Please see the table below for the breakdown of the budget and actual spend for in 2021.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2021 In Service</u>	<u>Request for Cost Recovery</u>
2021	\$3,329,840	\$379,187	\$379,187
		\$379,187	\$379,187

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13. 8830-2146 Bare Conductor Replacement Program Attachment 14

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The scope of this project was to reconnector approximately 7,920 feet of overhead bare wire with 477 tree wire in Spacer Cable configuration. The original estimate of \$1 million was based on average contractor bids received in 2019 for similar reconnector projects. The average contractor cost per foot for all bids received in 2019 was \$74/foot. Multiplying this cost/foot by length of the project and including all other construction costs such as tree trimming, construction oversight, traffic control, materials, and all associated burdens, resulted in an estimate of \$1 million. A local New Hampshire contractor was the successful bidder for this project through a competitive bid process.

1 The project came in under budget due to the contractor bid price coming in less than the
2 original estimate.

3 The total request for cost recovery for project 8830-2146 is \$691,575. Please see the
4 table below for the breakdown of the budget and actual spend for in 2021.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2021 In Service</u>	<u>Request for Cost Recovery</u>
2020	\$875,000	\$23,483	\$23,483
2021	\$1,000,000	<u>\$668,092</u>	<u>\$668,092</u>
		\$691,575	\$691,575

5

6 **14. 8830-2180 DTN Weather Upgrade Attachment 15**

7 The Company updated its storm tool from DTN, the subscription weather service that
8 provides the Company with weather forecasts to assist in storm restoration planning
9 efforts and providing the necessary support for determining whether an event qualifies as
10 a major storm for cost recovery purposes. Prior to the upgrade, the Company only
11 received static data provided by the meteorologists each day without any prediction of
12 hazards to our distribution system. The upgrade provides storm event modeling through
13 artificial intelligence (AI). The AI provides machine learning applied to outage
14 prediction, meteorologist-enhanced artificial intelligence, and probabilistic outcomes and
15 risk communication. Modeling hazards have provided greater detail and allowed us to
16 make better, potentially less expensive, decisions on how to respond to the storm event.

17 This project was not included in the original plan and was one of several projects
18 substituted in 2021. The total request for cost recovery for project 8830-2180 is

1 \$182,483. Please see the table below for the breakdown of the budget and actual spend
2 for in 2021.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2021 In Service</u>	<u>Request for Cost Recovery</u>
2021	\$226,250	\$182,483	\$182,483
		\$182,483	\$182,483

3

4 **15. 8830-2185 Meter Test Board Attachment 16**

5 Liberty's meter test board is used to test its electric meters in compliance with state and
6 federal guidelines. The board is used to test new meters purchased from the
7 manufacturer as well as meters returned from the field. The new meter board allows the
8 Company's meter workers to be more efficient as the board is sized appropriately for the
9 meters going in and out of the meter shop. The current test board has four-meter sockets
10 and has reached its end of life. The new test board is larger and has the additional
11 functionality to test remote disconnect/reconnect functionality of the meters.

12 This project was not included in the original plan and was one of several projects added
13 to the 2021 list. The total request for cost recovery for project 8830-2185 is \$248,313.

14 Please see the table below for the breakdown of the budget and actual spend for in 2021.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2021 In Service</u>	<u>Request for Cost Recovery</u>
2021	\$300,000	\$248,313	\$248,313
		\$248,313	\$248,313

15

1 **16. 8830-2190 Transportation Attachment 17**

2 The scope of this project provides for annual purchases of vehicles required for the
3 Company. A review and assessment of the fleet is performed in conjunction with
4 operations to determine if any fleet additions and replacements are needed based on the
5 current condition (mileage and age) of the fleet as determined in the corporate fleet
6 policy.

7 The total request for cost recovery for project 8830-2190 is \$253,649. The project is
8 underspent due to the vehicle orders not being placed in service by December 31, 2021.
9 Please see the table below for the breakdown of the budget and actual spend for in 2021.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2021 In Service WO</u>	<u>Request for Cost Recovery</u>
2021	\$1,000,000	\$253,649 \$253,649	\$253,649 \$253,649

10
11 **17. 8830-2191 Meter Purchases Attachment 18**

12 This project provided funding for the purchase of electric meters. These meters were
13 required to replace units that had failed in the field and for meters required to serve new
14 customers requesting service. The Company purchased 1,208 meters along with other
15 devices such as current transformers to meet the metering needs for 2021.

16 The total request for cost recovery for project 8830-2191 is \$379,368, which was over
17 budget due to the need to purchase more meters than anticipated. Please see the table
18 below for the breakdown of the budget and actual spend for in 2021.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2021 In Service</u>	<u>Request for Cost Recovery</u>
2021	\$250,000	\$379,368	\$379,368
		\$379,368	\$379,368

1

2

18. 8830-2192 Transformer Purchases Attachment 19

3

The transformer purchases project provided funding for the purchase of electric

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transformers to replace units that had failed in the field and for transformers required to

5

support electric reliability and new construction.

6

The total request for cost recovery for project 8830-2192 is \$639,262, which is over

7

budget due to the need to purchase more transformers than anticipated. Please see the

8

table below for the breakdown of the budget and actual spend for in 2021.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2021 In Service</u>	<u>Request for Cost Recovery</u>
2021	\$420,000	\$639,262	\$639,262
		\$639,262	\$639,262

9

10

19. 8830-2197 Salem Garage Attachment 20

11

The Salem Garage project is the expansion of the back garage at the Salem operations

12

center to house a substation repair and testing facility. The purpose of the expansion is to

13

provide a dedicated, secure, and safe site for substation employees to perform repairs and

14

testing. The prior testing location at the Lebanon operations center was not adequate.

15

This project was not included in the original plan and was one of several projects

16

substituted in 2021. The total request for cost recovery for project 8830-2197 is

1 \$639,262. Please see the table below for the breakdown of the budget and actual spend
2 for in 2021.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2021 In Service</u>	<u>Request for Cost Recovery</u>
2021	\$700,000	\$667,641	\$667,641
		\$667,641	\$667,641

3

4 **IV. PBR & ADVANCED RATE DESIGN ROADMAP**

5 **Q. As part of the Settlement Agreement in DE 19-064 was the Company required to**
6 **present performance-based ratemaking (PBR) opportunities for its next rate case to**
7 **parties?**

8 A. Yes. The Company met with parties in 2021 and presented various performance-based
9 ratemaking ideas with performance incentive mechanisms.

10 **Q. Have parties provided feedback since the presentation in September 2021?**

11 A. No, they have not. The Company has reached out to parties requesting feedback more
12 than once but has not received it as of the date of this filing. Liberty is committed to
13 continuing the discussion with parties to further refine performance-based ratemaking
14 options to be presented as part of the Company's next base distribution rate case.

15 **Q. What is the Advanced Rate Design Roadmap?**

16 A. The Company agreed to develop an Advanced Rate Design Roadmap for its next rate
17 case that would include but not be limited to:

18 (1) an explanation of how Liberty plans to leverage the functionality of its
19 existing and planned investments, particularly meters, to maximize

1 ratepayer benefits, and (2) Liberty's plans for the future of rates for
2 each customer class, including the extent to which the utility plans to
3 rely on innovative rate design techniques such as time-of-use rates,
4 critical peak pricing, etc. For each customer class, Liberty shall specify
5 the general design characteristics (e.g., number of time periods,
6 number of hours within each period, and pricing ratios between each
7 period) and the investment needed to enable the rate design, the
8 associated timeline and the nature of the rollout (e.g., opt-out versus
9 optional rate designs).

10 Settlement Agreement in Docket No. DE 19-064, Hearing Exhibit 37, at 9–10.

11 **Q. Was the Advanced Rate Design Roadmap (ARDR) part of the presentation to**
12 **parties?**

13 A. Yes. As part of the presentation in 2021 on PBR, the Company provided insight into
14 ideas for ARDR such as integrated demand-side management for electric vehicles,
15 demand response, and time-based rates, but these will be predicated on the Company
16 installing Advanced Metering Infrastructure (AMI). The rate designs will allow for the
17 potential of more robust commercial and industrial time-varying rate structures and
18 demand response programs. The Company is committed to continuing the conversation
19 on advanced rate design to be presented as part of the Company's next base distribution
20 rate case. The Company anticipates beginning the implementation of AMI in 2023 and
21 being completed in 2025. The Company will include ARDR in its next rate case,
22 anticipated to be filed in 2023.

1 **V. REVENUE REQUIREMENT**

2 **Q. What is the revenue requirement associated with the requested capital projects?**

3 A. The total cost of all nineteen projects above for which the Company seeks recovery in
4 this filing is \$10,187,080. The associated revenue requirement, which is calculated as
5 described below and in Attachment 1, is \$1,751,403.

6 **Q. Was the Company capped at a revenue requirement?**

7 A. Yes. The total cap for the 2021 revenue requirement was \$1,800,000. The Company did
8 not reach its cap due to bids coming in lower on certain projects and under-spending for
9 others.

10 **Q. Please explain the inputs used to determine the revenue requirement.**

11 A. The investments and capital structure included in Attachment 1 are those that were in
12 service by December 31, 2021, and in the approved Settlement Agreement in this docket
13 or replaced as allowed. Page 1 of Attachment 1 provides the total costs of each project
14 and the calculation of the book depreciation rate. The property tax rate of 3.12 percent is
15 calculated using the property tax rate from the Company's last approved annual
16 Reliability Enhancement Plan/Vegetation Management Plan, which was filed in Docket
17 No. DE 21-049 and is based on FERC Form No. 1 data as of December 31, 2018. The
18 tax rates of 21 percent (federal) and 7.7 percent (state) are for the taxable period ending
19 December 31, 2021.

20 **Q. Please explain what page 2 of Attachment 1 provides for information.**

21 A. Page 2 of Attachment 1 provides the revenue requirement calculation by FERC account.

1 **Q. What information is included on page 3 of Attachment 1?**

2 A. Page 3 of Attachment 1 provides the calculation of the removal of fully recovered rate
3 case expenses and recoupment per the Settlement Agreement on Bates 7–8. Please see
4 the summary below.

2021 Capital	\$1,751,403
Less: Recoupment	\$1,939,679
Less: Rate Cases Expenses	<u>\$565,077</u>
Total Change (Decrease)	(\$753,353)

5

6 **Q. What is the bill impact to residential customers?**

7 A. A residential customer using 650 kWh per month and taking energy service from the
8 Company's default service offering will see a decrease to their monthly bill of (\$0.84), or
9 (0.55%), from \$155.00 to \$154.16 effective July 1, 2022, compared to current rates in
10 effect as of April 6, 2022.

11 **VI. DOCUMENTATION**

12 **Q. Has the Company provided supporting documentation for the projects described**
13 **above?**

14 A. Yes. Please see the following attachments for the business cases, change order forms,
15 project close out forms and a breakdown by cost element of each project's cost.

- 16 1. Attachment 2: 8830-1958 Install Service to Tuscan Village
17 a. Business Case
18 b. Change Order - N/A, project was under budget
19 c. Project Close Out – N/A, project is ongoing through 2022

- 1 2. Attachment 3: 8830-2069 Golden Rock Feeder 19L2
- 2 a. Business Case
- 3 b. Change Order – N/A, project was under budget
- 4 c. Project Close Out

- 5 3. Attachment 4: 8830-2086 Lebanon Pole Pile
- 6 a. Business Case
- 7 b. Change Order - N/A, project was under budget
- 8 c. Project Close Out

- 9 4. Attachment 5: 8830-2107 General Equipment Blanket
- 10 a. Capital Expenditure – Business case is not required for mandated
- 11 projects
- 12 b. Change Order
- 13 c. Project Close Out

- 14 5. Attachment 6: 8830-2110 Street Light Blanket
- 15 a. Capital Expenditure – Business case is not required for mandated
- 16 projects
- 17 b. Change Order
- 18 c. Project Close Out

- 19 6. Attachment 7: 8830-2111 Public Requirements Blanket
- 20 a. Capital Expenditure – Business case is not required for mandated
- 21 projects
- 22 b. Change Order – N/A, project was under budget
- 23 c. Project Close Out

- 24 7. Attachment 8: 8830-2112 Damage/Failure Blanket
- 25 a. Capital Expenditure – Business case is not required for mandated
- 26 projects
- 27 b. Change Order
- 28 c. Project Close Out

- 29 8. Attachment 9: 8830-2113 Distribution Asset Replacement Blanket
- 30 a. Capital Expenditure – Business case is not required for mandated
- 31 projects
- 32 b. Change Order
- 33 c. Project Close Out

- 1 9. Attachment 10: 8830-2114 Third Party Attachments Blanket
- 2 a. Capital Expenditure – Business case is not required for mandated
- 3 projects
- 4 b. Change Order
- 5 c. Project Close Out

- 6 10. Attachment 11: 8830-2121 Distribution Reliability Blanket
- 7 a. Capital Expenditure – Business case is not required for mandated
- 8 projects
- 9 b. Change Order– N/A, project was under budget
- 10 c. Project Close Out

- 11 11. Attachment 12: 8830-2124 LED Street Light Conversion
- 12 a. Capital Expenditure – Business case is not required for mandated
- 13 projects
- 14 b. Change Order– N/A, project was under budget
- 15 c. Project Close Out

- 16 12. Attachment 13: 8830-2125 IT Systems & Equipment Blanket
- 17 a. Business Case
- 18 b. Change Order
- 19 c. Project Close Out – N/A, project is ongoing through 2022

- 20 13. Attachment 14: 8830-2146 Bare Conductor Replacement Program
- 21 a. Business Case
- 22 b. Change Order– N/A, project was under budget
- 23 c. Project Close Out

- 24 14. Attachment 15: 8830-2180 DTN Weather Upgrade
- 25 a. Business Case
- 26 b. Change Order– N/A, project was under budget
- 27 c. Project Close Out

- 28 15. Attachment 16: 8830-2185 Meter Test Board
- 29 a. Business Case
- 30 b. Change Order– N/A, project was under budget
- 31 c. Project Close Out

1 16. Attachment 17: 8830-2190 Transportation

- 2 a. Business Case
3 b. Change Order– N/A, project was under budget
4 c. Project Close Out

5 17. Attachment 18: 8830-2091 Granite State Meter Purchases

- 6 a. Business Case
7 b. Change Order – N/A, project was under budget
8 c. Project Close Out

9 18. Attachment 19: 8830-2192 Granite State Transformer Purchases

- 10 a. Business case
11 b. Change Order – N/A, project was under budget
12 c. Project Close Out

13 19. Attachment 20: 8830-2197 Salem Garage

- 14 a. Business case
15 b. Change Order – N/A, project was under budget
16 c. Project Close Out

17 20. Attachment 21: Redline tariff

18 21. Attachment 22: Clean tariff

19 **VII. CONCLUSION**

20 **Q. Please summarize the Company's request for the step adjustment.**

21 A. Through this testimony and the attached documents, the Company has established that
22 the described projects are in service, are used and useful for the provision of electric
23 distribution service, and were completed at a reasonable cost. The requested step
24 decrease is thus just and reasonable and should be approved by the Commission with the
25 projects found to be prudent. The Company requests a decision by June 15, 2022, to
26 allow time for rates to be implemented for effect by July 1, 2022.

1 **Q. Does this conclude your testimony?**

2 **A. Yes.**

**Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
Project List
In Service as of December 31, 2021**

<u>Att #</u>	<u>2021 Project #</u>	<u>Project Description</u>	<u>Priority</u>	<u>Budget</u>	<u>Total In Service \$</u>	<u>FERC</u>	<u>Book Rate</u>	<u>Book Amt</u>	<u>MACRS</u>	<u>Tax Amt</u>
2	8830-1958	Install Service to Tuscan Village South	3. Growth	\$1,000,000	\$1,235,243	364	3.64%	\$44,963	3.75%	\$46,322
3	8830-2069	Golden Rock Feeder 19L2	3. Growth	\$2,100,000	\$1,523,493	364	3.64%	\$55,455	3.75%	\$57,131
4	8830-2086	Lebanon Pole Pile	5. Mandated	\$652,750	\$345,099	361	2.39%	\$8,248	3.75%	\$12,941
5	8830-2107	General Equipment Blanket	5. Discretionary	\$50,000	\$188,456	394	4.17%	\$7,859	3.75%	\$7,067
6	8830-2110	Street Light Blanket	2. Mandated	\$125,000	\$98,979	373	3.67%	\$3,633	3.75%	\$3,712
7	8830-2111	Public Requirements Blanket	2. Mandated	\$520,000	\$308,503	364	3.64%	\$11,230	3.75%	\$11,569
8	8830-2112	Damage/Failure Blanket	2. Mandated	\$1,500,000	\$2,022,586	364	3.64%	\$73,622	3.75%	\$75,847
9	8830-2113	Distribution Asset Replacement Blanket	2. Mandated	\$200,000	\$296,406	364	3.64%	\$10,789	3.75%	\$11,115
10	8830-2114	Third Party Attachment Blanket	2. Mandated	\$125,000	\$164,315	364	3.64%	\$5,981	3.75%	\$6,162
11	8830-2121	Distribution Reliability Blanket	2. Mandated	\$161,000	\$174,854	364	3.64%	\$6,365	3.75%	\$6,557
12	8830-2124	LED Street Light Conversion	2. Mandated	\$125,000	\$387,666	373	3.67%	\$14,227	3.75%	\$14,537
13	8830-2125	IT Systems & Equipment Blanket	5. Discretionary	\$3,329,840	\$379,187	303	20.00%	\$75,837	3.75%	\$14,219
14	8830-2146	Bare Conductor Replacement Program	4. Regulatory Programs	\$1,000,000	\$691,575	364	3.64%	\$25,173	3.75%	\$25,934
15	8830-2180	DTN Weather Upgrade	5. Discretionary	\$226,250	\$182,483	303	20.00%	\$36,497	3.75%	\$6,843
16	8830-2185	Meter Test Board	5. Discretionary	\$300,000	\$248,313	370	5.00%	\$12,416	3.75%	\$9,312
17	8830-2190	Transportation	5. Discretionary	\$1,000,000	\$253,649	392	7.50%	\$19,024	3.75%	\$9,512
18	8830-2191	Meter Purchases	5. Discretionary	\$250,000	\$379,368	370	5.00%	\$18,968	3.75%	\$14,226
19	8830-2192	Transformer Purchases	2. Mandated	\$420,000	\$639,262	368	3.51%	\$22,438	3.75%	\$23,972
20	8830-2197	Salem Garage	5. Discretionary	\$700,000	\$667,641	361	2.39%	\$15,957	3.75%	\$25,037
			Total		\$10,187,080			\$468,681		\$382,015

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

Line	Description	Software	Structures/ Improvements	Poles, Towers, and Fixtures	Line Transformers	Meters	Street Lighting	Transportation	Tools, Shop and Garage Equip	Total
	<i>FERC Account</i>	303	361	364	368	370	373	392	394	
1	Capital Spending	\$ 561,669	\$ 1,012,740	\$ 6,416,976	\$ 639,262	\$ 627,681	\$ 486,646	\$ 253,649	\$ 188,456	\$ 10,187,080
2										
3	Deferred Tax Calculation									
4	Tax Method	MACRS20	MACRS20	MACRS20	MACRS20	MACRS20	MACRS20	MACRS20	MACRS20	
5	Tax Depreciation Rate	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	
6										
7	Bonus Depreciation @ 0.00%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8										
9	Tax Basis	\$ 561,669	\$ 1,012,740	\$ 6,416,976	\$ 639,262	\$ 627,681	\$ 486,646	\$ 253,649	\$ 188,456	\$ 10,187,080
10	MACRS Depreciation	\$ 21,063	\$ 37,978	\$ 240,637	\$ 23,972	\$ 23,538	\$ 18,249	\$ 9,512	\$ 7,067	\$ 382,015
11										
12	Tax Depreciation - Federal	\$ 21,063	\$ 37,978	\$ 240,637	\$ 23,972	\$ 23,538	\$ 18,249	\$ 9,512	\$ 7,067	\$ 382,015
13	Tax Depreciation - State	\$ 21,063	\$ 37,978	\$ 240,637	\$ 23,972	\$ 23,538	\$ 18,249	\$ 9,512	\$ 7,067	\$ 382,015
14										
15	Book Depreciation Rate	33.33%	2.39%	3.64%	3.51%	5.00%	3.67%	7.50%	4.17%	
16	Book Depreciation	\$ 187,204	\$ 24,204	\$ 233,578	\$ 22,438	\$ 31,384	\$ 17,860	\$ 19,024	\$ 7,859	\$ 543,551
17										
18	Tax over (under) Book - Federal	\$ (166,142)	\$ 13,773	\$ 7,059	\$ 1,534	\$ (7,846)	\$ 389	\$ (9,512)	\$ (792)	\$ (161,536)
19	Tax over (under) Book - State	(166,142)	13,773	7,059	1,534	(7,846)	389	(9,512)	(792)	(161,536)
20	Deferred Taxes - Federal @ 21.00%	(34,890)	2,892	1,482	322	(1,648)	82	(1,997)	(166)	(33,922)
21	Deferred Taxes - State @ 7.70%	(12,793)	1,061	544	118	(604)	30	(732)	(61)	(12,438)
22	Deferred Tax Balance @ 0.00%	\$ (47,683)	\$ 3,953	\$ 2,026	\$ 440	\$ (2,252)	\$ 112	\$ (2,730)	\$ (227)	\$ (46,361)
23										
24	Rate Base Calculation									
25	Plant in Service	\$ 561,669	\$ 1,012,740	\$ 6,416,976	\$ 639,262	\$ 627,681	\$ 486,646	\$ 253,649	\$ 188,456	\$ 10,187,080
26	Accumulated Depreciation	(187,204)	(24,204)	(233,578)	(22,438)	(31,384)	(17,860)	(19,024)	(7,859)	(543,551)
27	Deferred Tax Balance	47,683	(3,953)	(2,026)	(440)	2,252	(112)	2,730	227	46,361
28	Rate Base	\$ 422,148	\$ 984,583	\$ 6,181,372	\$ 616,384	\$ 598,548	\$ 468,674	\$ 237,356	\$ 180,825	\$ 9,689,889
29										
30	Revenue Requirement Calculation									
31	Return on Rate Base @ 9.36%	\$ 39,513	\$ 92,157	\$ 578,576	\$ 57,694	\$ 56,024	\$ 43,868	\$ 22,216	\$ 16,925	\$ 906,974
	Property Taxes @3.12%	\$ 11,683	\$ 30,842	\$ 192,922	\$ 19,245	\$ 18,604	\$ 14,626	\$ 7,320	\$ 5,635	\$ 300,878
32	Book Depreciation Expense	187,204	24,204	233,578	22,438	31,384	17,860	19,024	7,859	543,551
33	Annual Revenue Requirement	\$ 238,401	\$ 147,204	\$ 1,005,076	\$ 99,377	\$ 106,013	\$ 76,354	\$ 48,561	\$ 30,419	\$ 1,751,403

Capped at \$1,800,000

Rate of Return Calculation	Portion	After-Tax Cost	Pre-Tax WACC
Equity	52.0%	9.10%	6.49%
Debt	48.0%	5.97%	2.87%
	100.0%		9.36%

Tax
27.08%

**Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
Distribution Rate Adjustment for 2021 Step Adjustment
Effective July 1, 2022**

(1) Increase in Annual Revenue Requirement due to 2022 step increase	\$1,751,403
(2) Decrease in Annual Revenue Requirement due to full recovery of recoupment	\$1,939,679
(3) Decrease in Annual Revenue Requirement due to full recovery of rate case expense	\$565,077
(4) Total change in annual revenue requirement effective July 1, 2022	<u>(\$753,353)</u>
(5) Distribution Revenues per Settlement Agreement in Docket No. DE 19-064	\$48,394,903
(6) Percentage of Adjustment to Distribution Rates	-1.56%
(7) Total Revenues	\$47,641,550
(1) Page 2 line 33	
(2) Recoupment amount of \$1,835,991 per 5/26/20 Settlement Agreement, Bates page 032 and \$103,688 per 4/1/21 Step Adjustment filing Bates page 031	
(3) Rate case expense of \$553,642 per 5/26/20 Settlement Agreement, Bates pages 032 and \$11,435 per 4/1/21 Step Adjustment filing Bates page 031	
(4) Line (1) - Line (2) - Line (3)	
(5) Total rev req calculation based on rates effective 7/1/2020 of \$46,590,130, plus approved rev req in DE 21-049 effective 5/1/2021 of \$213,246, plus approved rev req in DE 19-064 effective 11/1/2021 of \$94,064	
(6) (Line 7 - line 5) / line 5	
(7) Lines (4) + (5)	

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Permanent Rate Design 2021 Step Adjustment
Rates Effective July 1, 2022

Rate Class	Distribution Rate Component	Current	2021 Capital	Proposed	Current	July 1, 2022
		Rates	Expenditures	July 1, 2022	REP/VMP	Rates
		(a)	% Increase/ % (Decrease)	Distribution	Adjustment	(e)
			(b)	Charges	Factor	
				(c)	(d)	
D	Customer Charge	\$14.74	0.00%	\$14.74		\$14.74
	All kWh	\$0.06038	-2.14%	\$0.05908	0.00064	\$0.05972
	16 Hour Off Peak kWh	\$0.05213	-2.14%	\$0.05101	0.00064	\$0.05165
	Farm kWh	\$0.05699	-2.14%	\$0.05577	0.00064	\$0.05641
	D-6 kWh	\$0.05310	-2.14%	\$0.05196	0.00064	\$0.05260
D-10	Customer Charge	\$14.74	0.00%	\$14.74		\$14.74
	On Peak kWh	\$0.12809	-2.01%	\$0.12551	0.00064	\$0.12615
	Off Peak kWh	\$0.00172	-2.01%	\$0.00168	0.00064	\$0.00232
D-11	Customer Charge	\$14.74		\$14.74		\$14.74
	Off Peak	\$0.04441		\$0.03754	0.00064	\$0.03818
	Mid Peak	\$0.06657		\$0.05524	0.00064	\$0.05588
	Critical Peak	\$0.09478		\$0.10011	0.00064	\$0.10075
EV	Customer Charge	\$11.35		\$11.35		\$11.35
	Off Peak	\$0.04441		\$0.03754	0.00064	\$0.03818
	Mid Peak	\$0.06657		\$0.05524	0.00064	\$0.05588
	Critical Peak	\$0.09478		\$0.10011	0.00064	\$0.10075
G-1	Customer Charge	\$444.70	-1.56%	\$437.77		\$437.77
	Demand Charge	\$9.43	-1.56%	\$9.28		\$9.28
	On Peak kWh	\$0.00603	-1.56%	\$0.00593	0.00064	\$0.00657
	Off Peak kWh	\$0.00178	-1.56%	\$0.00175	0.00064	\$0.00239
	Credit for High Voltage Delivery > 2.4	(\$0.50)	-1.56%	(\$0.49)		(\$0.49)
G-2	Customer Charge	\$74.11	-1.56%	\$72.95		\$72.95
	Demand Charge	\$9.48	-1.56%	\$9.33		\$9.33
	All kWh	\$0.00239	-1.56%	\$0.00235	0.00064	\$0.00299
	Credit for High Voltage Delivery > 2.4	(\$0.50)	-1.56%	(\$0.49)		(\$0.49)
G-3	Customer Charge	\$17.03	-1.56%	\$16.76		\$16.76
	All kWh	\$0.05398	-1.56%	\$0.05313	0.00064	\$0.05377
M	Luminaire Charge					
	<u>Description</u>					
	HPS 4,000	\$8.72	-1.56%	\$8.58		\$8.58
	HPS 9,600	\$10.08	-1.56%	\$9.92		\$9.92
	HPS 27,500	\$16.73	-1.56%	\$16.46		\$16.46
	HPS 50,000	\$20.81	-1.56%	\$20.48		\$20.48
	HPS 9,600 (Post Top)	\$11.83	-1.56%	\$11.64		\$11.64
	HPS 27,500 Flood	\$16.91	-1.56%	\$16.64		\$16.64
	HPS 50,000 Flood	\$22.58	-1.56%	\$22.22		\$22.22
	Incandescent 1,000	\$11.19	-1.56%	\$11.01		\$11.01
	Mercury Vapor 4,000	\$7.74	-1.56%	\$7.61		\$7.61
			2021 Capital	Proposed		

<u>Rate Class</u>	<u>Distribution Rate Component</u>	<u>Current Rates</u> (a)	<u>Expenditures Step Adjustment % Increase/ % (Decrease)</u> (b)	<u>July 1, 2022 Base Distribution Charges</u> (c)	<u>REP/VMP Adjustment Factor</u> (d)	<u>July 1, 2022 Rates</u> (e)
	Mercury Vapor 8,000	\$8.69	-1.56%	\$8.55		\$8.55
	Mercury Vapor 22,000	\$15.54	-1.56%	\$15.29		\$15.29
	Mercury Vapor 63,000	\$26.26	-1.56%	\$25.85		\$25.85
	Mercury Vapor 22,000 Flood	\$17.78	-1.56%	\$17.50		\$17.50
	Mercury Vapor 63,000 Flood	\$34.44	-1.56%	\$33.90		\$33.90
LED-1	<u>LED-1 Fixtures</u>					
	30 Watt Pole Top	\$5.66	-1.56%	\$5.57		\$5.57
	50 Watt Pole Top	\$5.90	-1.56%	\$5.80		\$5.80
	130 Watt Pole Top	\$9.10	-1.56%	\$8.95		\$8.95
	190 Watt Pole Top	\$17.44	-1.56%	\$17.16		\$17.16
	30 Watt URD	\$13.18	-1.56%	\$12.97		\$12.97
	90 Watt Flood	\$8.96	-1.56%	\$8.82		\$8.82
	130 Watt Flood	\$10.31	-1.56%	\$10.14		\$10.14
	30 Watt Caretaker	\$5.07	-1.56%	\$4.99		\$4.99
	<u>Rates M, LED-1 & LED-2 Pole Accessory Charge</u>					
	Pole -Wood	\$9.87	-1.56%	\$9.72		\$9.72
	Fiberglass - Direct Embedded	\$10.28	-1.56%	\$10.12		\$10.12
	Fiberglass w/Foundation <25 ft	\$17.35	-1.56%	\$17.08		\$17.08
	Fiberglass w/Foundation >=25 ft	\$29.01	-1.56%	\$28.56		\$28.56
	Metal Poles - Direct Embedded	\$20.68	-1.56%	\$20.36		\$20.36
	Metal Poles with Foundation	\$24.95	-1.56%	\$24.56		\$24.56
	<u>Rate M, LED-1</u>					
	All kWh	\$0.04216	-1.56%	\$0.04150	0.00064	\$0.04214
	<u>Rate LED-2</u>	\$0.04216	-1.56%	\$0.04150	0.00064	\$0.04214
T	Customer Charge	\$14.74	0.00%	\$14.74		\$14.74
	All kWh	\$0.04871	-1.91%	\$0.04777	0.00064	\$0.04841
V	Minimum Charge	\$17.03	-1.56%	\$16.76		\$16.76
	All kWh	\$0.05552	-1.56%	\$0.05465	0.00064	\$0.05529

Rates D-11 and EV are calculated through the TOU model approved in Docket DE 17-189.

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

Usage	650	kWh	Current Rates	July 1, 2022 Proposed Rates	Current Bill	July 1, 2022 Proposed Bill
Customer Charge			\$14.74	\$14.74	\$14.74	\$14.74
Distribution Charge						
All kWh			\$0.06102	\$0.05972	\$39.66	\$38.82
Storm Recovery Adjustment			\$0.00000	\$0.00000	\$0.00	\$0.00
Transmission Charge			\$0.03760	\$0.03760	\$24.44	\$24.44
Stranded Cost Charge			(\$0.00080)	(\$0.00080)	(\$0.52)	(\$0.52)
System Benefits Charge			\$0.00678	\$0.00678	\$4.41	\$4.41
Electricity Consumption Tax			\$0.00000	\$0.00000	<u>\$0.00</u>	<u>\$0.00</u>
Subtotal Retail Delivery Services					\$82.73	\$81.89
Energy Service Charge			\$0.11119	\$0.11119	<u>\$72.27</u>	<u>\$72.27</u>
				Total Bill	\$155.00	\$154.16
						(\$0.84)
						-0.55%

Liberty Utilities (Granite State Electric) d/b/a Liberty
DE 19-064 2021 Step Adjustment
Project #8830-1958 Install Service to Tuscan Village

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>CIAC</u>	<u>AFUDC</u>	<u>Total Spend</u>
2019	\$690.52	\$94,053.36	\$2,260.00	\$1,210.03	\$0.00	\$30.22	\$98,244.13
2020	\$30,510.69	\$22,957.90	\$17,374.98	\$115,610.40	(\$15,369.85)	\$11,549.44	\$182,633.56
2021	<u>\$33,676.16</u>	<u>\$67,852.50</u>	<u>\$688,195.68</u>	<u>\$220,907.83</u>	<u>(\$86,018.75)</u>	<u>\$29,751.53</u>	<u>\$954,364.95</u>
Total	\$64,877.37	\$184,863.76	\$707,830.66	\$337,728.26	(\$101,388.60)	\$41,331.19	\$1,235,242.64



Capital Project Business Case

2021

NOTE: This form is required for planned Growth, Regulatory Supported, and Discretionary projects as well as combined blanket projects for Safety and Mandated with Growth, Regulatory Supported, and Discretionary Projects with a spend greater than \$100,000 and all unplanned projects. All other Project types can utilize the Capital Expenditure Application Form.

Project Overview			
Project Name:	Install Service to Tuscan Village South Line	Date Prepared:	1/4/2021
Project ID#:	8830-1958	Cost Estimate:	\$1,000,000
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2021
Project Lead:	Anthony Strabone	Project End Date:	12/31/2021
Prepared By:	Joel Rivera	Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned
Project Type (click appropriate boxes):	<input type="checkbox"/> Safety <input type="checkbox"/> Mandated <input checked="" type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input type="checkbox"/> Discretionary		
Spending Rationale:	<input checked="" type="checkbox"/> Growth <input type="checkbox"/> Improvement <input type="checkbox"/> Replenishment		
Project Scope Statement			
(Insert the scope of work, major deliverables, assumptions, and constraints)			
This project will install new UG conduit loop system along Tuscan Village Park to supply new growth in the commercial development – Southern Village.			
Background			
(Insert description of current operational arrangement, and brief history of project & asset)			
A recent purchase of the Rockingham Park Track by Tuscan Kitchen includes 50 acres for the Northern Village and 120 acres for the Southern Village. Existing master plans include developments for the southern village and is included in this business case.			
Recommendation/Objective			
(Insert the unique problem this project is looking to resolve)			
It is recommended to install new UG conduit loop system which includes 6” – 12 way duct bank with 1000 Cu cables for the purposes of supplying new commercial load growth in the Tuscan Village Development.			
Alternatives/Options			
(Describe all reasonably viable alternatives. Discuss the viability of each and provide reasons if rejected)			
Alternatives will be considered on a case by case basis. Non-Wires Solutions was not considered given the required in-service date.			
Financial Assessment/Cost Estimates			
(Double click embedded excel file to update; include contingency allowance in excel file)			



Capital Project Business Case

Next Anticipated Test Year	2022	Was this Capital Project included in the current year's Board Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Regulatory Lag (Click appropriate box)		<input type="checkbox"/> Less than 6 Months <input type="checkbox"/> 6-12 Months <input checked="" type="checkbox"/> 1 to 3 years <input type="checkbox"/> Greater than 3 years	

Category	Total Already Approved	2020	2021	Beyond 2021	Total
Internal Labour (including labour and travel)	\$ -	\$ -	\$ 150,000	\$ -	\$ 150,000
Materials (including consumables)	\$ -	\$ -	\$ 400,000	\$ -	\$ 400,000
Equipment (rental equipment)	\$ -	\$ -	\$ -	\$ -	\$ -
Contractor/Subcontractor (including consultants)	\$ -	\$ -	\$ 450,000	\$ -	\$ 450,000
AFUDC (\$)					

Unlevered Internal Rate of Return: [Click here to enter text.](#)

Basis of Estimate: *This estimate is of investment grade. A project grade estimate will be provided upon completion of detailed design. This estimate does not include impacts from Customer in aid of Construction (CIAC) payments.*

For materials, equipment, and construction requiring Engineering drawings please specify the percent complete:

Schedule
(List key milestone dates)

Key Milestone Description	Forecast Start Date	Forecast End Date
Detailed Design	2/1/2021	6/1/2021
Construction	6/1/2021	12/31/2021

Risk Assessment
(Please describe the risk of not completing the project)

Not completing this project could result in the Company not being able to supply new customer growth in the area and/or could result in distribution facilities operating above their design limits.

Trade Finance
(Is there a possibility to apply trade finance products to this project? See Capital Planning for further clarification)

Unknown

Supporting Documentation
(Reference drawings, condition assessment reports, vendor quotations, etc. Attach document or where possible include hyperlink to file located on shared server or SharePoint)

Supporting Documentation can be found at W:\Engineering\Electric Engineering\Electric Planning Engineering



Capital Project Business Case

Approvals and Signatures ⁱ

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager: :	Up to \$50,000	Anthony Strabone Senior Manager, Electric Engineering	<i>Anthony Strabone</i>	01/14/2021
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.01.15 10:05:07 -05'00'</small>	
Senior Vice President/ Vice President	Up to \$500,000	Richard MacDonald Vice President, Operations	Richard MacDonald <small>Digitally signed by Richard MacDonald Date: 2021.01.15 15:27:17 -05'00'</small>	
State President:	Up to \$500,000	Susan Fleck President, NH	Susan Fleck <small>Digitally signed by Susan Fleck Date: 2021.02.08 14:58:59 -05'00'</small>	
Regional President:	Up to \$3,000,000	James Sweeney President, East Region	<i>James Sweeney</i>	
Corporate - Sr VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			
Finance (East) – Vice President, Finance & Administration	All Requests	Peter Dawes VP, Finance & Administration		

ⁱ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Capital Project Expenditure Form

2021

Project Name:	Install Service to Tuscan Village South Line		
Financial Work Order (FWO):		Project ID #:	8830-1958
Requesting Region or Group:	Granite State Electric Co.	Date of Request (MM/DD/YY):	1/4/2021
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2021
Project Lead:	Anthony Strabone	Project End Date:	12/31/2021
Prepared by:	Joel Rivera	Requested Capital (\$)	\$1,000,000
Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned		
Project Type: (Click appropriate boxes)	<input type="checkbox"/> Safety <input type="checkbox"/> Mandated <input checked="" type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input type="checkbox"/> Discretionary		
Spending Rationale:	<input checked="" type="checkbox"/> Growth <input type="checkbox"/> Improvement <input type="checkbox"/> Replenishment		

Details of Request

Project description
This project will install new UG conduit loop system along Tuscan Village Park to supply new growth in the commercial development – Southern Village.

Is this project growth or customer connection related? If “yes”, list the specific locations and how expenditure aligns with customer expansion objectives.
Yes. This project supports and is aligned with the planned customer expansions at the Tuscan Village Park in Salem NH.

Please describe any permitting requirements, environmental impacts, or resulting performance obligations that may or may not result from this expenditure?
Permitting and/or Easement requirements will be undertaken during detailed design activities as applicable.

Will there be assets, greater than \$5,000, currently in service removed as a result of this expenditure?
<i>GUIDANCE: If yes, please detail the specific assets that will be removed:</i>
<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
No

What alternatives were evaluated and why were they rejected?
Alternatives will be considered on a case by case basis.
Non-Wires Solutions was not considered given the required in-service date.

What are the risks and consequences of not approving this expenditure?
Not completing this project could result in the Company not being able to supply new customer growth in the area and/or could result in distribution facilities operating above their design limits.



Capital Project Expenditure Form

2021

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

Health, Safety and Security will be addressed using Engineering designs/controls during the detailed design process if applicable.

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

No

Complete the Financial Summary table only if:

- Project is less than \$100,000; or
- Project category is *Mandated* or *Safety* (Business Case Form not required)

Financial Summary

Next Anticipated Test Year	2022	Was this Capital Project included in the current year's Board Approved Budget?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Regulatory Lag (Click appropriate box)	<input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 – 12 months <input type="checkbox"/> 1 – 3 years <input type="checkbox"/> Greater than three years		
Which regulatory constructs will be used for recovering this capital spend?			
Please Specify Basis of Estimate For materials, equipment, and construction requiring Engineering drawings please specify the percent complete: ¹	<input type="checkbox"/> Fixed or Firm Price <input type="checkbox"/> Estimate – Internal <input type="checkbox"/> Estimate – External <input type="checkbox"/> Other (specify details) Click here to enter text.		
Category	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 (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	\$1,000,000		



Capital Project Expenditure Form

2021

Approvals and Signatures ⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager:	Up to \$50,000	Anthony Strabone Senior Manager, Electric Engineering	<i>Anthony Strabone</i>	01/14/2021
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.01.16 08:35:54 -05'00'</small>	
Senior VP/VP:	Up to \$500,000	Richard MacDonald Vice President, Operations	Richard MacDonald <small>Digitally signed by Richard MacDonald Date: 2021.01.22 11:41:05 -05'00'</small>	
State President:	Up to \$500,000	Susan Fleck President, NH	Susan Fleck <small>Digitally signed by Susan Fleck Date: 2021.02.08 15:07:55 -05'00'</small>	
Regional President:	Up to \$3,000,000	James Sweeney President, East Region	<i>James Sweeney</i>	
Corporate – Sr. VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			
Finance (East) – Vice President, Finance & Administration:	All Requests	Peter Dawes VP, Finance & Administration		

ⁱ For Best Practices on estimating project contingencies please see the Capital Policy.

ⁱⁱ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.

Liberty Utilities (Granite State Electric) d/b/a Liberty
DE 19-064 2021 Step Adjustment
Project #8830-2069 Golden Rock Feeder 19L2

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>CIAC</u>	<u>AFUDC</u>	<u>Total Spend</u>
2020	\$3,589.28	\$0.00	\$94,838.62	\$34,538.48	\$0.00	\$1,489.12	\$134,455.50
<u>2021</u>	<u>\$1,029.44</u>	<u>\$120,855.73</u>	<u>\$903,452.18</u>	<u>\$343,964.49</u>	<u>\$0.00</u>	<u>\$19,735.32</u>	<u>\$1,389,037.16</u>
Total	\$4,618.72	\$120,855.73	\$998,290.80	\$378,502.97	\$0.00	\$21,224.44	\$1,523,492.66



Capital Project Business Case

2021

NOTE: This form is required for planned Growth, Regulatory Supported, and Discretionary projects as well as combined blanket projects for Safety and Mandated with Growth, Regulatory Supported, and Discretionary Projects with a spend greater than \$100,000 and all unplanned projects. All other Project types can utilize the Capital Expenditure Application Form.

Project Overview			
Project Name:	Golden Rock Distribution Feeder 19L2	Date Prepared:	1/9/2020
Project ID#:	8830-2069	Cost Estimate:	\$2,100,000
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2020
Project Lead:	Anthony Strabone	Project End Date:	12/31/2020
Prepared By:	Joel Rivera	Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned
Project Type (click appropriate boxes):	<input type="checkbox"/> Safety <input type="checkbox"/> Mandated <input checked="" type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input type="checkbox"/> Discretionary		
Spending Rationale:	<input type="checkbox"/> Growth <input checked="" type="checkbox"/> Improvement <input type="checkbox"/> Replenishment		
Project Scope Statement			
(Insert the scope of work, major deliverables, assumptions, and constraints)			
<p>The first phase of the Salem Area Study proposes the installation of a 115/13.2 kV - 33/44/55 MVA transformer and three 13.2kV feeders at the Golden Rock Substation. This phase is performed in conjunction with National Grid.</p> <p>In 2021 it is planned to install the third 13.2kV feeder position at the Golden Rock Substation.</p> <p>The 19L2 scope consists of the replacement of approximately 4600ft of bare wires with 477 spacer cable and the installation of approximately 2,500ft of new 1000 Cu underground cable.</p>			
Background			
(Insert description of current operational arrangement, and brief history of project & asset)			
<p>The 2376W circuit supplies the Spicket River Substation and originates from Ward Hill, via a pole mounted recloser located in the Spicket River Massachusetts Right of Way. Approximately 5.2 miles of the 2376W is exposed to outages without any backup, with 4.3 miles in National Grid maintenance territory and 0.9 miles in Liberty Utilities territory. Liberty Utilities relies on the Transmission provider to expedite repairs should an outage related problem occur.</p> <p>The loss of the 22.8 kV source for an outage on the 5.2-mile section would require the Spicket River circuits to be backed up by existing distribution circuit ties, however area feeders are not positioned geographically to re-supply the Spicket River distribution feeders.</p> <p>Loss of the 22.8 kV sub-transmission supply circuit to the Spicket River No.13 Station could cause Liberty Utilities to have up to 226 MWhrs of load at risk, after restorative switching occurs and for an assumed repair time of 12 hours. This violates Liberty's planning criteria of 120 MWhrs.</p>			
Recommendation/Objective			
(Insert the unique problem this project is looking to resolve)			
A new Golden Rock 19L2 feeder position is proposed to be installed to provide an alternate supply to customers served from the Spicket River Substation and resolve the load at risk issue from loss of the sub-transmission supply.			
Alternatives/Options			
(Describe all reasonably viable alternatives. Discuss the viability of each and provide reasons if rejected)			



Capital Project Business Case

2021

For details on alternatives considered, refer to the 2020 Salem Area Study.

Financial Assessment/Cost Estimates
(Double click embedded excel file to update; include contingency allowance in excel file)

Next Anticipated Test Year	2022	Was this Capital Project included in the current year's Board Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Regulatory Lag (Click appropriate box)	<input type="checkbox"/> Less than 6 Months <input type="checkbox"/> 6-12 Months <input checked="" type="checkbox"/> 1 to 3 years <input type="checkbox"/> Greater than 3 years		

Category	Total Already Approved	2020	2021	Beyond 2021	Total
Internal Labour (including labour and travel)	\$ -	\$ -	\$ 50,000	\$ -	\$ 50,000
Materials (including consumables)	\$ -	\$ -	\$ 435,000	\$ -	\$ 435,000
Equipment (rental equipment)	\$ -	\$ -	\$ -	\$ -	\$ -
Contactor/Subcontractor (including consultants)	\$ -	\$ -	\$ 1,615,000	\$ -	\$ 1,615,000
AFUDC (\$)					

Unlevered Internal Rate of Return: [Click here to enter text.](#)

Basis of Estimate: *This estimate is of investment grade. Detailed estimates will be provided upon completion of final design.*

For materials, equipment, and construction requiring Engineering drawings please specify the percent complete:

Schedule
(List key milestone dates)

Key Milestone Description	Forecast Start Date	Forecast End Date
Detailed Design	2/1/2021	6/1/2021
Construction	8/1/2021	12/31/2021

Risk Assessment
(Please describe the risk of not completing the project)

Not completing this project could result in extended outages resulting from a loss of supply and lack of adjacent backup supply.

Trade Finance
(Is there a possibility to apply trade finance products to this project? See Capital Planning for further clarification)

Unknown

Supporting Documentation
(Reference drawings, condition assessment reports, vendor quotations, etc. Attach document or where possible include hyperlink)



Capital Project Business Case

to file located on shared server or SharePoint)

Supporting Documentation can be found at W:\Engineering\Electric Engineering\Electric Planning Engineering

Approvals and Signatures ⁱ

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager: :	Up to \$50,000	Anthony Strabone Senior Manager, Electric Engineering	<i>Anthony Strabone</i>	01/14/2021
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.01.15 09:55:56 -05'00'</small>	
Senior Vice President/ Vice President	Up to \$500,000	Richard MacDonald Vice President, Operations	Richard MacDonald <small>Digitally signed by Richard MacDonald Date: 2021.01.15 15:23:31 -05'00'</small>	
State President:	Up to \$500,000	Susan Fleck President, NH	Susan Fleck <small>Digitally signed by Susan Fleck Date: 2021.02.08 15:09:52 -05'00'</small>	
Regional President:	Up to \$3,000,000	James Sweeney President, East Region	<i>James Sweeney</i>	
Corporate - Sr VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			
Finance (East) – Vice President, Finance & Administration	All Requests	Peter Dawes VP, Finance & Administration		

ⁱ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Capital Project Expenditure Form

2021

Project Name:	Golden Rock Distribution Feeder 19L2		
Financial Work Order (FWO):		Project ID #:	8830-2069
Requesting Region or Group:	Granite State Electric Co.	Date of Request (MM/DD/YY):	1/4/2021
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2021
Project Lead:	Anthony Strabone	Project End Date:	12/31/2021
Prepared by:	Joel Rivera	Requested Capital (\$)	\$2,100,000
Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned		
Project Type: (Click appropriate boxes)	<input type="checkbox"/> Safety <input type="checkbox"/> Mandated <input checked="" type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input type="checkbox"/> Discretionary		
Spending Rationale:	<input type="checkbox"/> Growth <input checked="" type="checkbox"/> Improvement <input type="checkbox"/> Replenishment		

Details of Request

Project description
<p>The first phase of the Salem Area Study proposes the installation of a 115/13.2 kV - 33/44/55 MVA transformer and three 13.2kV feeders at the Golden Rock Substation. This phase is performed in conjunction with National Grid.</p> <p>In 2021 it is planned to install the third 13.2kV feeder position at the Golden Rock Substation.</p> <p>The 19L2 scope consists of the replacement of approximately 4600ft of bare wires with 477 spacer cable and the installation of approximately 2,500ft of new 1000 Cu underground cable.</p>

Is this project growth or customer connection related? If “yes”, list the specific locations and how expenditure aligns with customer expansion objectives.
Yes. This project supports and is aligned with the planned customer expansions at the Tuscan Village Park in Salem NH.

Please describe any permitting requirements, environmental impacts, or resulting performance obligations that may or may not result from this expenditure?
Permitting and/or Easement requirements will be undertaken during detailed design activities as applicable.

Will there be assets, greater than \$5,000, currently in service removed as a result of this expenditure?
<p><i>GUIDANCE: If yes, please detail the specific assets that will be removed:</i></p> <ol style="list-style-type: none"> <i>Original Cost of Plant to be removed (if known):</i> <i>What is the replacement cost of the plant being removed (if original cost not known)?</i> <i>Original Work Order of Plant to be removed (if known):</i> <i>Is the Plant being removed reusable?</i> <i>What is the year of original installation of the plant being removed</i> <p>Yes. As part of this project poles and overhead wires will be removed along the reconducted sections. Replacement costs will be determined during detailed design activity. The plant being removed is not usable. Answers to questions 1, 3 and 5 are unknown at this time.</p>

What alternatives were evaluated and why were they rejected?
For details on alternatives considered, refer to the 2020 Salem Area Study.



Capital Project Expenditure Form

2021

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

Not completing this project could result in extended outages resulting from a loss of supply and lack of adjacent backup supply.

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

Health, Safety and Security will be addressed using Engineering designs/controls during the detailed design process if applicable.

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

No

Complete the Financial Summary table only if:

- Project is less than \$100,000; or
- Project category is *Mandated* or *Safety* (Business Case Form not required)

Financial Summary

Next Anticipated Test Year	2022	Was this Capital Project included in the current year's Board Approved Budget?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Regulatory Lag (Click appropriate box)	<input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 – 12 months <input type="checkbox"/> 1 – 3 years <input type="checkbox"/> Greater than three years		
Which regulatory constructs will be used for recovering this capital spend?			
Please Specify Basis of Estimate For materials, equipment, and construction requiring Engineering drawings please specify the percent complete: ¹	<input type="checkbox"/> Fixed or Firm Price <input type="checkbox"/> Estimate – Internal <input type="checkbox"/> Estimate – External <input type="checkbox"/> Other (specify details) Click here to enter text.		
Category	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 (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	\$2,100,000		



Capital Project Expenditure Form

2021

Approvals and Signatures ⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager:	Up to \$50,000	Anthony Strabone Senior Manager, Electric Engineering	<i>Anthony Strabone</i>	01/14/2021
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.01.16 08:35:00 -05'00'</small>	
Senior VP/VP:	Up to \$500,000	Richard MacDonald Vice President, Operations	Richard MacDonald <small>Digitally signed by Richard MacDonald Date: 2021.01.22 11:52:05 -05'00'</small>	
State President:	Up to \$500,000	Susan Fleck President, NH	Susan Fleck <small>Digitally signed by Susan Fleck Date: 2021.02.08 15:05:52 -05'00'</small>	
Regional President:	Up to \$3,000,000	James Sweeney President, East Region	<i>James Sweeney</i>	
Corporate – Sr. VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			
Finance (East) – Vice President, Finance & Administration:	All Requests	Peter Dawes VP, Finance & Administration		

ⁱ For Best Practices on estimating project contingencies please see the Capital Policy.

ⁱⁱ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Project Close Out Report

2021

Requesting Region or Group:	Granite State Electric	Date of Close out (MM/DD/YY):	02/18/22
Project Name:	Golden Rock Distribution Feeder 19L2 8830-2069		
Requesting Region:	East Region	Sponsor (Name):	Christopher Steele
Project Champion:	Melvin Emerson	Project Champion	Anthony Strabone
Project Status	<input checked="" type="checkbox"/> In Service <input type="checkbox"/> Complete <input type="checkbox"/> Closed		
Project Start Date:	01/01/2021	Project Completion Date:	12/31/2021
Requested Capital (\$)	\$3,400,000	Expenditure Included in Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Section 1. Approval

Approval of the Project Closeout and Assessment Report indicates an understanding and formal agreement that the project is ready to be closed. By signing this document, each individual agrees all administrative, financial, and logistical aspects of the project should be concluded, executed, and documented as described herein.

Further, by signing this Report, it is accepted that CWIP (FERC Account 107) should be transferred to Utility in Plant Service (FERC Account 101)

Approver Name	Title	Signature	Date
Melvin Emerson	Capital Lead	<i>Melvin Emerson</i>	2/28/2022
Anthony Strabone	Sr. Manager, Electric Engineering	<i>Anthony Strabone</i>	02/28/2022
Christopher Steele	Sr. Director, Electric Operations	Christopher Steele <small>Digitally signed by Christopher Steele Date: 2022.03.22 15:50:29 -04'00'</small>	03/22/2022

Section 2. Final Deliverable/Deployment Checklist

Sponsor to respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response
2.1	Do you agree that the product and/or service is ready to be deployed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.2	Do you agree the product and/or service has sufficiently met the stated business goals and objectives?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.3	Do you fully understand and agree to accept all operational requirements, operational risks, maintenance costs, and other limitations and/or constraints imposed as a result of ongoing operations of the product and/or service?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.4	Has the final unitization estimate been provided to Property Accounting?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>



Project Close Out Report

2021

Item	Question	Response
2.5	Do you agree the project should be closed? If no, please explain:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	<i>Scale of 1 thru 5; 5 = highest</i>	
	Rate your level of satisfaction with regards to the project outcomes listed below	
2.5	Project Quality	3/5
2.6	Product and/or Service Performance	3/5
2.7	Scope	3/5
2.8	Cost (Budget)	3/5
2.9	Schedule	3/5

Section 3. Project Documentation Checklist

Project Manager Respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response	
3.1	Have project documentation and other items (e.g., Business Case, Project Plan, Charter, Budget Documents, Status Reports) been prepared, collected, filed, and/or disposed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.3 ⁱ	Were audits (e.g., project closeout audit) completed and results documented for future reference?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.4	Identify the storage location for the following project documents items:		
Item	Document	Location (e.g., Google Docs, Webspaces)	Format
3.4a	Business Case	Operations Finance SharePoint	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4b	If available, the Final Project Schedule	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4c	Budget Documentation and Invoices	W:\Public\Accounts Payable\New Hampshire	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4d	Status Reports	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4e	Risks and Issues Log	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4f	Final deliverable	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4g	If applicable, verify that final project deliverable for the project is attached or storage location is identified in 3.4.		



Project Close Out Report

2021

Section 4. Project Team ⁱⁱ

Project Manager to list resources specified in the Project Plan and used by the project.

Name	Role	Type (e.g., Contractor, Employee)
Anthony Strabone	Engineering	Employee
Mark Parker	Operations	Employee
Balance Staffing	Field Construction Supervisor	Contractor

Section 5. Project Lessons Learned

Project Team to identify lessons learned specifically for the project. State the lessons learned in terms of a problem (issue). If available please include a Lesson Learned Log in the attached.. Please summarize the top three issues on the project and the recommended improvements to correct a similar problem in the future.

Problem Statement	Problem Description	References	Recommendation
None	None	None	None

Section 7. Open Issues

Project Manager and Functional Lead to describe any open issues and plans for resolution within the context of project closeout. Include an open issue for any “no” responses in the Final Product and/or Service Acceptance Checklist and the Project Artifacts Checklist sections.

Issue	Planned Resolution
None	None



Project Close Out Report

2021

Section 8. Project Cost Summary

Project Manager and Functional Lead to provide details for the following tables.

Cost Category	1- Budget	2- Actual	3 = 1 -2 Variance
Cost of Design & Engineering (\$)			
Cost of Materials (\$)		\$120,856	
Cost of Construction (\$)			
External Costs (\$)		\$898,264	
Internal Costs (\$)		\$1,029	
Other (\$)			
Burden & AFUDC (\$)		\$363,700	
Total Project Costs (\$)	\$3,400,000	\$1,383,849	\$2,016,151

Reasons for Variance	Impact
Actual spend was less than budgeted due to lower than estimated contractor costs	Project was underbudget by amount listed in table above

Project Manager to list of all work orders associated with project that should be closed once Close Out Report is accepted.

Registry of All Job Codes (Regional, Corporate, LABs)
302069-01001

ⁱ This section assumes an accounting audit has been completed ensuring all outstanding payments have been reconciled to the project

ⁱⁱ For Section 4 in filling out the Project Team Section, for those projects following the materiality limit set forth in the work order approval limits greater than \$5M please complete this section, all other projects do not require this.

Liberty Utilities (Granite State Electric) d/b/a Liberty
DE 19-064 2021 Step Adjustment
Project #8830-2086 Lebanon Pole Pile

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>CIAC</u>	<u>AFUDC</u>	<u>Total Spend</u>
2020	\$0.00	\$0.00	\$26,424.00	\$0.00	\$0.00	\$0.00	\$26,424.00
2021	<u>\$16,826.96</u>	<u>\$0.00</u>	<u>\$288,793.97</u>	<u>\$13,054.18</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$318,675.11</u>
Total	\$16,826.96	\$0.00	\$315,217.97	\$13,054.18	\$0.00	\$0.00	\$345,099.11



Capital Project Expenditure Form

2020

Project Name:	GSE Lebanon Pole Pile		
Financial Work Order (FWO):		Project ID #:	8830-2086
Requesting Region or Group:	New Hampshire-	Date of Request (MM/DD/YY):	2/7/2020
Project Sponsor:	Rich Foley	Project Start Date:	3/1/2020
Project Lead:	Doug Dorn	Project End Date:	12/31/2020
Prepared by:	Doug Dorn	Requested Capital (\$)	\$652,750
Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned		
Project Type: (Click appropriate boxes)	<input type="checkbox"/> Safety <input type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input checked="" type="checkbox"/> Discretionary		

Details of Request

Project description
<p>The project will address the sever safety issue regarding the current pole pile in Lebanon. Currently the employees need to climb on the one large pile to access the poles they need. There is a very real danger that a pole could role and hurt an employee.</p> <p>The key drivers for this project include :</p> <ul style="list-style-type: none"> <input type="checkbox"/> Risk mitigation <input type="checkbox"/> Employee Safety <input type="checkbox"/> Improvements and upkeep to the Assets

Is this project growth or customer connection related? If "yes", list the specific locations and how expenditure aligns with customer expansion objectives.
NO

Please describe any permitting requirements, environmental impacts, or resulting performance obligations that may or may not result from this expenditure?
All permits and environmental impact studies will be coordinated with the city of Lebanon. City driving request solve current safety issue at yard.



Capital Project Expenditure Form

2020

Will there be assets, greater than \$5,000, currently in service removed as a result of this expenditure?

GUIDANCE: If yes, please detail the specific assets that will be removed: NA

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?

Continue to store poles in current yard configuration.

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

It's only a matter of time before one of the employees gets hurt or worse if we don't do these repairs. This is a clear accident waiting to happen. Currently the employees need to climb on the one large pile to access the poles they need. There is a very real danger that a pole could roll and hurt an employee.

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

All standard operating procedures regarding safety will be followed during project construction.

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

No

Complete the Financial Summary table only if:

- Project is less than \$100,000; or
- Project category is *Mandated* or *Safety* (Business Case Form not required)

Financial Summary

Next Anticipated Test Year	2021	Was this Capital Project included in the current year's Board Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Regulatory Lag (Click appropriate box)	<input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 – 12 months <input checked="" type="checkbox"/> 1 – 3 years <input type="checkbox"/> Greater than three years		
Which regulatory constructs will be used for recovering this capital spend?	Rate Case		
Please Specify Basis of Estimate	<input type="checkbox"/> Fixed or Firm Price <input checked="" type="checkbox"/> Estimate – Internal <input type="checkbox"/> Estimate – External <input type="checkbox"/> Other (specify details)		



Capital Project Expenditure Form

2020

For materials, equipment, and construction requiring Engineering drawings please specify the percent complete: ⁱ	Click here to enter text.		
Category	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 (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)			

Approvals and Signaturesⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			Click here to enter a date.
Senior Manager:	Up to \$50,000	Douglas Dorn		February 7, 2020
Senior Director/Director:	Up to \$250,000	Richard Foley		February 7, 2020
Senior VP/VP:	Up to \$500,000	Richard MacDonald		2/21/2020
State President:	Up to \$500,000	Susan Fleck		2/26/2020 Click here to enter a date.
Regional President:	Up to \$3,000,000	James Sweeney		Click here to enter a date. 2/26/2020
Corporate – Sr. VP Operations:	Up to \$5,000,000			Click here to enter a date.
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			Click here to enter a date.



Capital Project Expenditure Form



Capital Project Business Case

NOTE: This form is required for planned Growth, Regulatory Supported, and Discretionary projects as well as combined blanket projects for Safety and Mandated with Growth, Regulatory Supported, and Discretionary Projects with a spend greater than \$100,000 and all unplanned projects. All other Project types can utilize the Capital Expenditure Application Form.

Project Overview			
Project Name:	GSE Lebanon Pole Pile	Date Prepared:	2/7/2020
Project ID#:	8830-2086	Cost Estimate:	\$652,750
Project Sponsor:	Rich Foley	Project Start Date:	3/1/2020
Project Lead:	Doug Dorn	Project End Date:	31-Dec-2020
Prepared By:	Douglas Dorn	Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned
Project Type (click appropriate boxes):	<input checked="" type="checkbox"/> Safety <input type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input checked="" type="checkbox"/> Discretionary		
Spending Rationale:	<input type="checkbox"/> Growth <input checked="" type="checkbox"/> Improvement <input type="checkbox"/> Replenishment		
Project Scope Statement			
(Insert the scope of work, major deliverables, assumptions, and constraints)			
<p>This project is to re-configure the pole pile in the Lebanon yard due to extreme safety issues with the current setup. We will install four low pole holders similar to what we did at the Salem location.</p>			
Background			
(Insert description of current operational arrangement, and brief history of project & asset)			
<p>This project will address the sever safety issue regarding the current pole pile in Lebanon. Currently the employees need to climb on the one large pile to access the poles they need. There is a very real danger that a pole could role and hurt an employee.</p>			
<p>The key drivers for this project include :</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Risk mitigation <input checked="" type="checkbox"/> Employee Safety <input checked="" type="checkbox"/> Improvements and upkeep to the Assets 			
Recommendation/Objective			(Insert the
unique problem this project is looking to resolve)			
<p>Approval of funds to allow and maintain the upkeep and improvements to the NH GSE Assets.</p>			



Capital Project Business Case

Alternatives/Options
(Describe all reasonably viable alternatives. Discuss the viability of each and provide reasons if rejected)

No Alternatives.

Financial Assessment/Cost Estimates
(Double click embedded excel file to update; include contingency allowance in excel file)

Next Anticipated Test Year	2021	Was this Capital Project included in the current year's Board Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Regulatory Lag (Click appropriate box)			
<input type="checkbox"/> Less than 6 Months <input type="checkbox"/> 6-12 Months <input type="checkbox"/> 1 to 3 years <input type="checkbox"/> Greater than 3 years			

Category	Total Already Approved	2020	2021	Beyond 2021	Total
Internal Labor					
Materials					
Equipment					
Contractor/ Subcontractor		652,750			
AFUDC					
Total Project Cost		652,750			

Unlevered Internal Rate of Return:

Basis of Estimate: *Provide brief explanation on basis of estimate, activities completed to determine costs*

For materials, equipment, and construction requiring Engineering drawings please specify the percent complete:

Schedule
(List key milestone dates)


Key Milestone Description	Forecast Start Date	Forecast End Date
Begin various projects/improvements	3/1/2020	12/15/2020

Risk Assessment
(Please describe the risk of not completing the project)

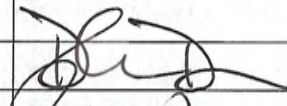
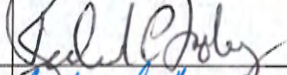
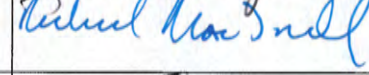
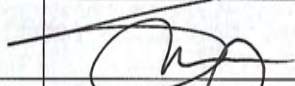
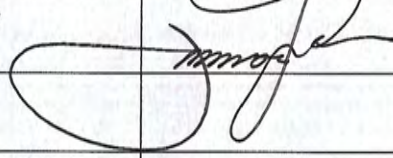
It's only a matter of time before one of the employees gets hurt or worse if we don't do these repairs. This is a clear accident waiting to happen.



Capital Project Business Case

Trade Finance
(Is there a possibility to apply trade finance products to this project? See Capital Planning for further clarification)
No
Supporting Documentation
(Reference drawings, condition assessment reports, vendor quotations, etc. Attach document or where possible include hyperlink to file located on shared server or SharePoint)
 Lebanon Pole Pile Relocate -1-23-2020.

Approvals and Signatures¹

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager: :	Up to \$50,000	Douglas Dorn		2/22/2020
Senior Director/Director:	Up to \$250,000	Richard Foley		2/20/2020
Senior Vice President/ Vice President	Up to \$500,000	Richard MacDonald		2/21/2020
State President:	Up to \$500,000	Susan Fleck		2/26/2020
Regional President:	Up to \$3,000,000	James Sweeney		2/26/2020
Corporate - Sr VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			

¹ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.

Project Close Out Report



2021

Requesting Region or Group:		Date of Closeout (MM/DD/YY):	2-10-2022
Project Name:	Lebanon Pole Pile 8830-2086		
Requesting Region:		Sponsor (Name):	Richard Foley
Project Champion:	Douglas Dorn	Project Champion	
Project Status	<input type="checkbox"/> In Service <input checked="" type="checkbox"/> Complete <input type="checkbox"/> Closed		
Project Start Date:	1-2021	Project Completion Date:	12-2021
Requested Capital (\$)	\$600,000	Expenditure Included in Approved Budget?	X Yes <input type="checkbox"/> No

Section 1. Approval

Approval of the Project Closeout and Assessment Report indicates an understanding and formal agreement that the project is ready to be closed. By signing this document, each individual agrees all administrative, financial, and logistical aspects of the project should be concluded, executed, and documented as described herein.

Further, by signing this Report, it is accepted that CWIP (FERC Account 107) should be transferred to Utility in Plant Service (FERC Account 101)

Approver Name	Title	Signature	Date
Doug Dorn	Project Lead	 Digitally signed by ddorn DN: cn=ddorn, o=ou, email=douglas.dorn@libertyutilities.com, c=US Date: 2022.02.09 16:27:04 -05'00'	
Rich Foley	Project Sponsor	 Digitally signed by Richard Foley DN: cn=Richard Foley, o=Liberty Utilities, ou, email=richard.foley@libertyutilities.com, c=US Date: 2022.02.09 15:57:10 -05'00'	
	Operations Manager		
	Accounting Manager		

Section 2. Final Deliverable/Deployment Checklist

Sponsor to respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response
2.1	Do you agree that the product and/or service is ready to be deployed?	Yes x <input type="checkbox"/> No <input type="checkbox"/>
2.2	Do you agree the product and/or service has sufficiently met the stated business goals and objectives?	Yes x <input type="checkbox"/> No <input type="checkbox"/>
2.3	Do you fully understand and agree to accept all operational requirements, operational risks, maintenance costs, and other limitations and/or constraints imposed as a result of ongoing operations of the product and/or service?	Yes x <input type="checkbox"/> No <input type="checkbox"/>
2.4	Has the final unitization estimate been provided to Property Accounting?	Yes x <input type="checkbox"/> No <input type="checkbox"/>

Project Close Out Report **2021**

Item	Question	Response
2.5	Do you agree the project should be closed? If no, please explain:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	<i>Scale of 1 thru 5; 5 = highest</i>	
	Rate your level of satisfaction with regards to the project outcomes listed below	
2.5	Project Quality	4/5
2.6	Product and/or Service Performance	4/5
2.7	Scope	4/5
2.8	Cost (Budget)	4/5
2.9	Schedule	4/5

Section 3. Project Documentation Checklist

Project Manager Respond to each question. For each “no” response, include an issue in Open Issues section.

Item	Question	Response	
3.1	Have project documentation and other items (e.g., Business Case, Project Plan, Charter, Budget Documents, Status Reports) been prepared, collected, filed, and/or disposed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.3 ⁱ	Were audits (e.g., project closeout audit) completed and results documented for future reference?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
3.4	Identify the storage location for the following project documents items: On line		
Item	Document	Location (e.g., Google Docs, Webspac)	Format
3.4a	Business Case		<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4b	If available, the Final Project Schedule		<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4c	Budget Documentation and Invoices		<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4d	Status Reports		<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4e	Risks and Issues Log		<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4f	Final deliverable		<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4g	If applicable, verify that final project deliverable for the project is attached or storage location is identified in 3.4.		

Section 4. Project Team ⁱⁱ

Project Manager to list resources specified in the Project Plan and used by the project.

Project Close Out Report **2021**

Name	Role	Type (e.g., Contractor, Employee)
Doug Dorn	Lead	Employee
Shawn Raleigh	PM	Employee
Leighton Wite	Installer	Contractor

Section 5. Project Lessons Learned

Project Team to identify lessons learned specifically for the project. State the lessons learned in terms of a problem (issue). If available please include a Lesson Learned Log in the attached.. Please summarize the top three issues on the project and the recommended improvements to correct a similar problem in the future.

Problem Statement	Problem Description	References	Recommendation
None			

Section 7. Open Issues

Project Manager and Functional Lead to describe any open issues and plans for resolution within the context of project closeout. Include an open issue for any "no" responses in the Final Product and/or Service Acceptance Checklist and the Project Artifacts Checklist sections.

Issue	Planned Resolution
None	

Section 8. Project Cost Summary

Project Manager and Functional Lead to provide details for the following tables.

Cost Category	1- Budget	2- Actual	3 = 1 -2 Variance
Cost of Design & Engineering (\$)			
Cost of Materials (\$)			
Cost of Construction (\$)			

Project Close Out Report **2021**

External Costs (\$)			
Internal Costs (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	\$600,000	\$ 315,620	\$ 284,380

Reasons for Variance	Impact
Cause 1 Scope change	\$ 284,380
Cause 2	\$
Cause 3	\$

Project Manager to list of all work orders associated with project that should be closed once Close Out Report is accepted.

Registry of All Job Codes (Regional, Corporate, LABs)
302086-04001

ⁱ This section assumes an accounting audit has been completed ensuring all outstanding payments have been reconciled to the project

ⁱⁱ For Section 4 in filling out the Project Team Section, for those projects following the materiality limit set forth in the work order approval limits greater than \$5M please complete this section, all other projects do not require this.

Liberty Utilities (Granite State Electric) d/b/a Liberty
DE 19-064 2021 Step Adjustment
Project #8830-2107 General Equipment Blanket

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>CIAC</u>	<u>AFUDC</u>	<u>Total Spend</u>
<u>2021</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$157,206.86</u>	<u>\$31,249.62</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$188,456.48</u>
Total	\$0.00	\$0.00	\$157,206.86	\$31,249.62	\$0.00	\$0.00	\$188,456.48



Capital Project Expenditure Form

2021

Project Name:	General Equipment Blanket		
Financial Work Order (FWO):		Project ID #:	8830-2107
Requesting Region or Group:	Granite State electric	Date of Request (MM/DD/YY):	2/11/2021
Project Sponsor:	Richard MacDonald	Project Start Date:	2/15/2021
Project Lead:	Mark Parker	Project End Date:	12/31/2021
Prepared by:	Ryan Patnode	Requested Capital (\$)	\$50,000
Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned		
Project Type: (Click appropriate boxes)	<input type="checkbox"/> Safety <input type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input checked="" type="checkbox"/> Discretionary		

Details of Request

Project description
<p>This blanket project covers general equipment used in execution of work for Granite State Electric operations. Field equipment and tools purchased under this project will follow company's policy on capitalized.</p>

Is this project growth or customer connection related? If "yes", list the specific locations and how expenditure aligns with customer expansion objectives.
No

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

Will there be assets, greater than \$5,000, currently in service removed as a result of this expenditure?
<p><i>GUIDANCE: If yes, please detail the specific assets that will be removed: NA</i></p> <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



Capital Project Expenditure Form

2021

What alternatives were evaluated and why were they rejected?

Alternatives either to continue to use existing tools or not purchase any additional tools. These options are rejected due to potential safety risks.

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

Potential safety risk in not upgrading equipment and/or not purchasing new equipment that aids in safe working conditions.

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

All standard safety procedures will be followed in use or equipment and tools

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

No



Capital Project Expenditure Form

2021

Complete the Financial Summary table only if:

- Project is less than \$100,000; or
- Project category is *Mandated or Safety* (Business Case Form not required)

Financial Summary

Next Anticipated Test Year	2021	Was this Capital Project included in the current year's Board Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Regulatory Lag (Click appropriate box)	<input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 – 12 months <input type="checkbox"/> 1 – 3 years <input type="checkbox"/> Greater than three years		
Which regulatory constructs will be used for recovering this capital spend?			
Please Specify Basis of Estimate For materials, equipment, and construction requiring Engineering drawings please specify the percent complete: ¹	<input type="checkbox"/> Fixed or Firm Price <input type="checkbox"/> Estimate – Internal <input type="checkbox"/> Estimate – External <input type="checkbox"/> Other (specify details) Click here to enter text.		
Category	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 (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	\$50,000		

Approvals and Signaturesⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			Click here to enter a date.
Senior Manager:	Up to \$50,000			Click here to enter a date.
Senior Director/Director:	Up to \$250,000	Mark Parker Electric operations	Mark Parker <small>Digitally signed by Mark Parker DN: cn=Mark Parker, o=Liberty Utilities, email=mark.parker@libertyutilities.com, c=US Date: 2021.02.11 12:46:12 -05'00'</small>	Click here to enter a date.
Senior VP/VP:	Up to \$500,000	Richard MacDonald VP operations		



Capital Project Expenditure Form

2021

State President:	Up to \$500,000			Click here to enter a date.
Regional President:	Up to \$3,000,000			Click here to enter a date.
Corporate – Sr. VP Operations:	Up to \$5,000,000			Click here to enter a date.
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			Click here to enter a date.

ⁱ For Best Practices on estimating project contingencies please see the Capital Policy.

ⁱⁱ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Change Order Form

2021

Project Overview			
Reason for Change: Purchase of meter testing board			
Project ID:	8830-2107	Project Name:	General Equipment Blanket
Change Order Name:	GSE-Dist-Genl Equip Blanket	Date Prepared:	
Change Order #:	8830-2107 #1	Financial Work Order (FWO): ⁱ	
Project Sponsor:	Christopher Steele	Revised Start Date:	
Project Lead:	Mark Parker	Revised End Date: ⁱⁱ	
Prepared By:	Shawn Furey	Change Type ⁱⁱⁱ	X In Scope <input type="checkbox"/> Out of Scope
Project Contingency Available?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If No is Selected, Please specify source of funds ^{iv}	8830-2138 New Business Commercial

Financial Assessment/Cost Estimates
(Double click embedded excel file to update; include contingency allowance in excel file)

Category	Original Project Value	Previous Approved Charges	Current Change Order Amount	Total
Internal Labor				
Materials				
Equipment				
Contractor/Subcontractor				
Burdens/Overheads				
AFUDC				
Total Project Cost	\$50,000		\$415,000	\$465,000

Updated Unlevered Internal Rate of Return:

Basis of Current Change Order Amount:

This increase in project funding will be offset by underspend with other Capital Projects and as a result will not increase the overall 2021 Capital budget for GSE.

The first request for funding is for \$15,000 of the requested \$415,000 and includes the purchase of 2 PMI recorders which were required by Engineering to support service voltage analysis. The PMI's are used when a customer has a voltage complaint and the unit is installed within the meter socket for a specified period. Once removed Engineering downloads the data and can troubleshoot the service with real time data which will help ensure the proper solution is applied to the account. Prior to the purchase Engineering did not have a back up and the existing unit was required to be sent out for repairs. The 2 PMI's which ensure that Engineering has newer units on hand and a backup if needed.

The second request for funding is for \$400,000 of the requested \$415,000 and includes the purchase of a new electric meter test board. The current test board only has 4-meter sockets and the proposed new one has 9-meter sockets. The current meter test board was purchased approximately 7-8 years ago and was one of the first units manufactured by the



Change Order Form

2021

manufacturer. Because of this the unit has gone down for repairs almost monthly which causes significant delays in the testing process. The new test board will allow the meter workers to be more productive because there are more meter sockets and less down time during the board is being repaired. If moving to AMI, the new test board will allow Liberty NH electric to test the remote disconnect/ reconnect functionality of the meters. This will allow us to get ahead on the project. Note we did receive a quote from a separate manufacturer, where the pricing would have been similar, but they did not include support to setup the board nor did they supply any credit for our existing test board. We also went with Tesco because that is what our meter management system is currently tied to.

Click here to enter text.

Schedule Impacts (As a result of the Change Order, where applicable, List the Impacts to schedule)		
Baseline Schedule (BL)	New Forecast (NF)	Variance (BL - NF)

Approvals and Signatures*

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Shawn Furey	<i>[Signature]</i>	9.3.21
Senior Manager: :	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	MARK PARKER	<i>[Signature]</i>	9/3/2021
State President / Senior VP / VP:	Up to \$500,000			
Regional President:	Up to \$3,000,000			
Corporate - Sr VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			

Christopher Steele
Digitally signed by Christopher Steele
Date: 2021.11.10 09:23:26 -05'00'

Neil Proudman
Digitally signed by Neil Proudman
Date: 2021.11.10 09:30:58 -05'00'



Change Order Form

2021

¹ The Financial Work Order Section captures the work order this change falls under when the job was initially set-up.

¹¹ The Revised project end date is dependent on changes in scope that may deviate the schedule from the original plan.

¹¹¹ The Change type for In scope or Out of scope changes fall within the following scenario:

- In Scope changes are deviations of scope from the original plan and approved budget that align to the original scope of the project but have revised pricing as a result of changes in pricing of labour, materials, and equipment.
- Out of Scope changes are scope changes that were not originally planned for in the project baselines and approved budget. Examples of this type of change are related to changes in technology, missed deliverables, a change in the project design altering the scope of the project, etc.

¹¹¹¹ In cases where the project no longer has contingency to cover project change orders, please specify any other sources of funds that would address the project variance (i.e. not executing another project, delaying scope of another project, etc.)

¹¹¹¹¹ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.

Project Close Out Report

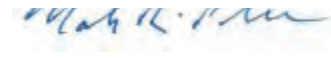
2021

Requesting Region or Group:	East,NH	Date of Closeout (MM/DD/YY):	02/08/2022
Project Name:	GSE-Dist-Genl Equip Blanket 8830-2107		
Requesting Region:	Nh, Electric	Sponsor (Name):	Chris Steele
Project Champion:	Mark Parker	Project Champion	
Project Status	<input type="checkbox"/> In Service <input type="checkbox"/> Complete <input checked="" type="checkbox"/> Closed		
Project Start Date:	01/01/2021	Project Completion Date:	12/30/2021
Requested Capital (\$)	\$50,000	Expenditure Included in Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Section 1. Approval

Approval of the Project Closeout and Assessment Report indicates an understanding and formal agreement that the project is ready to be closed. By signing this document, each individual agrees all administrative, financial, and logistical aspects of the project should be concluded, executed, and documented as described herein.

Further, by signing this Report, it is accepted that CWIP (FERC Account 107) should be transferred to Utility in Plant Service (FERC Account 101)

Approver Name	Title	Signature	Date
Mark Parker	Project Lead		02/08/2022
Christopher Steele	Project Sponsor	Christopher Steele	03/30/2022
	Operations Manager		
	Accounting Manager		

Digitally signed by Christopher Steele
Date: 2022.03.30 14:34:28 -04'00'

Section 2. Final Deliverable/Deployment Checklist

Sponsor to respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response
2.1	Do you agree that the product and/or service is ready to be deployed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.2	Do you agree the product and/or service has sufficiently met the stated business goals and objectives?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.3	Do you fully understand and agree to accept all operational requirements, operational risks, maintenance costs, and other limitations and/or constraints imposed as a result of ongoing operations of the product and/or service?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.4	Has the final unitization estimate been provided to Property Accounting?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Project Close Out Report **2021**

Item	Question	Response
2.5	Do you agree the project should be closed? If no, please explain:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	<i>Scale of 1 thru 5; 5 = highest</i>	
	Rate your level of satisfaction with regards to the project outcomes listed below	
2.5	Project Quality	5/5
2.6	Product and/or Service Performance	5/5
2.7	Scope	5/5
2.8	Cost (Budget)	5/5
2.9	Schedule	5/5

Section 3. Project Documentation Checklist

Project Manager Respond to each question. For each “no” response, include an issue in Open Issues section.

Item	Question	Response	
3.1	Have project documentation and other items (e.g., Business Case, Project Plan, Charter, Budget Documents, Status Reports) been prepared, collected, filed, and/or disposed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.3 ⁱ	Were audits (e.g., project closeout audit) completed and results documented for future reference?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
3.4	Identify the storage location for the following project documents items:		
Item	Document	Location (e.g., Google Docs, Webspace)	Format
3.4a	Business Case		<input type="checkbox"/> x Electronic <input type="checkbox"/> Manual
3.4b	If available, the Final Project Schedule		<input type="checkbox"/> x Electronic <input type="checkbox"/> Manual
3.4c	Budget Documentation and Invoices		<input type="checkbox"/> x Electronic <input type="checkbox"/> Manual
3.4d	Status Reports		<input type="checkbox"/> x Electronic <input type="checkbox"/> Manual
3.4e	Risks and Issues Log		<input type="checkbox"/> x Electronic <input type="checkbox"/> Manual
3.4f	Final deliverable		<input type="checkbox"/> x Electronic <input type="checkbox"/> Manual
3.4g	If applicable, verify that final project deliverable for the project is attached or storage location is identified in 3.4.		

Section 4. Project Team ⁱⁱ

Project Manager to list resources specified in the Project Plan and used by the project.

Project Close Out Report

2021

Name	Role	Type (e.g., Contractor, Employee)

Section 5. Project Lessons Learned

Project Team to identify lessons learned specifically for the project. State the lessons learned in terms of a problem (issue). If available please include a Lesson Learned Log in the attached. Please summarize the top three issues on the project and the recommended improvements to correct a similar problem in the future.

Problem Statement	Problem Description	References	Recommendation

Section 7. Open Issues

Project Manager and Functional Lead to describe any open issues and plans for resolution within the context of project closeout. Include an open issue for any “no” responses in the Final Product and/or Service Acceptance Checklist and the Project Artifacts Checklist sections.

Issue	Planned Resolution

Section 8. Project Cost Summary

Project Manager and Functional Lead to provide details for the following tables.

Cost Category	1- Budget	2- Actual	3 = 1 -2 Variance
Cost of Design & Engineering (\$)			
Cost of Materials (\$)			
Cost of Construction (\$)			

Project Close Out Report **2021**

External Costs (\$)			
Internal Costs (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	\$50,000	\$264,933	(\$214,933)

Reasons for Variance	Impact
Change order #1	\$415,000
Cause 2	\$
Cause 3	\$

Project Manager to list of all work orders associated with project that should be closed once Close Out Report is accepted.

Registry of All Job Codes (Regional, Corporate, LABs)

ⁱ This section assumes an accounting audit has been completed ensuring all outstanding payments have been reconciled to the project

ⁱⁱ For Section 4 in filling out the Project Team Section, for those projects following the materiality limit set forth in the work order approval limits greater than \$5M please complete this section, all other projects do not require this.



Change Order Form

2021

Project Overview			
Reason for Change: Purchase of meter testing board			
Project ID:	8830-2107	Project Name:	General Equipment Blanket
Change Order Name:	GSE-Dist-Genl Equip Blanket	Date Prepared:	
Change Order #:	8830-2107 #1	Financial Work Order (FWO): ⁱ	
Project Sponsor:	Christopher Steele	Revised Start Date:	
Project Lead:	Mark Parker	Revised End Date: ⁱⁱ	
Prepared By:	Shawn Furey	Change Type ⁱⁱⁱ	X In Scope <input type="checkbox"/> Out of Scope
Project Contingency Available?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If No is Selected, Please specify source of funds ^{iv}	8830-2138 New Business Commercial

Financial Assessment/Cost Estimates
(Double click embedded excel file to update; include contingency allowance in excel file)

Category	Original Project Value	Previous Approved Charges	Current Change Order Amount	Total
Internal Labor				
Materials				
Equipment				
Contractor/Subcontractor				
Burdens/Overheads				
AFUDC				
Total Project Cost	\$50,000		\$415,000	\$465,000

Updated Unlevered Internal Rate of Return:

Basis of Current Change Order Amount:

This increase in project funding will be offset by underspend with other Capital Projects and as a result will not increase the overall 2021 Capital budget for GSE.

The first request for funding is for \$15,000 of the requested \$415,000 and includes the purchase of 2 PMI recorders which were required by Engineering to support service voltage analysis. The PMI's are used when a customer has a voltage complaint and the unit is installed within the meter socket for a specified period. Once removed Engineering downloads the data and can troubleshoot the service with real time data which will help ensure the proper solution is applied to the account. Prior to the purchase Engineering did not have a back up and the existing unit was required to be sent out for repairs. The 2 PMI's which ensure that Engineering has newer units on hand and a backup if needed.

The second request for funding is for \$400,000 of the requested \$415,000 and includes the purchase of a new electric meter test board. The current test board only has 4-meter sockets and the proposed new one has 9-meter sockets. The current meter test board was purchased approximately 7-8 years ago and was one of the first units manufactured by the



Change Order Form

2021

manufacturer. Because of this the unit has gone down for repairs almost monthly which causes significant delays in the testing process. The new test board will allow the meter workers to be more productive because there are more meter sockets and less down time during the board is being repaired. If moving to AMI, the new test board will allow Liberty NH electric to test the remote disconnect/ reconnect functionality of the meters. This will allow us to get ahead on the project. Note we did receive a quote from a separate manufacturer, where the pricing would have been similar, but they did not include support to setup the board nor did they supply any credit for our existing test board. We also went with Tesco because that is what our meter management system is currently tied to.

Click here to enter text.

Schedule Impacts (As a result of the Change Order, where applicable, List the Impacts to schedule)		
Baseline Schedule (BL)	New Forecast (NF)	Variance (BL - NF)

Approvals and Signatures*

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Shawn Fuscay	<i>[Signature]</i>	9.3.21
Senior Manager: :	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	MARK PARKER	<i>[Signature]</i>	9/3/2021
State President / Senior VP / VP:	Up to \$500,000			
Regional President:	Up to \$3,000,000			
Corporate - Sr VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			



Change Order Form

2021

¹ The Financial Work Order Section captures the work order this change falls under when the job was initially set-up

¹¹ The Revised project end date is dependent on changes in scope that may deviate the schedule from the original plan

¹¹¹ The Change type for In scope or Out of scope changes fall within the following scenario:

- In Scope changes are deviations of scope from the original plan and approved budget that align to the original scope of the project but have revised pricing as a result of changes in pricing of labour, materials, and equipment
- Out of Scope changes are scope changes that were not originally planned for in the project baselines and approved budget. Examples of this type of change are related to changes in technology, missed deliverables, a change in the project design altering the scope of the project, etc.

¹¹¹¹ In cases where the project no longer has contingency to cover project change orders, please specify any other sources of funds that would address the project variance (i.e. not executing another project, delaying scope of another project, etc)

¹¹¹¹¹ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.

Liberty Utilities (Granite State Electric) d/b/a Liberty
DE 19-064 2021 Step Adjustment
Project #8830-2110 Street Light Blanket

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>CIAC</u>	<u>AFUDC</u>	<u>Total Spend</u>
<u>2021</u>	<u>\$17,622.50</u>	<u>\$23,978.42</u>	<u>\$12,671.00</u>	<u>\$46,462.38</u>	<u>(\$1,755.00)</u>	<u>\$0.00</u>	<u>\$98,979.30</u>
Total	\$17,622.50	\$23,978.42	\$12,671.00	\$46,462.38	(\$1,755.00)	\$0.00	\$98,979.30



Capital Project Expenditure Form

2021

Project Name:	GSE-Dist-St Light Blanket		
Financial Work Order (FWO):		Project ID #:	8830-2110
Requesting Region or Group:	Granite State Electric Co.	Date of Request (MM/DD/YY):	1/4/2021
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2021
Project Lead:	Anthony Strabone	Project End Date:	12/31/2021
Prepared by:	Anthony Strabone	Requested Capital (\$)	\$125,000
Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned		
Project Type: (Click appropriate boxes)	<input type="checkbox"/> Safety <input checked="" type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input type="checkbox"/> Discretionary		
Spending Rationale:	<input type="checkbox"/> Growth <input type="checkbox"/> Improvement <input checked="" type="checkbox"/> Replenishment		

Details of Request

Project description
<p>This project is to provide funding associate with new and/or replacement of existing municipal lighting facilities which includes:</p> <ul style="list-style-type: none"> LED Conversion Install street light or flood light Replace street light or flood light due to size, model or condition Install conductor serving street light or flood light Install street light pole or standard

Is this project growth or customer connection related? If "yes", list the specific locations and how expenditure aligns with customer expansion objectives.
No

Please describe any permitting requirements, environmental impacts, or resulting performance obligations that may or may not result from this expenditure?
No permitting or environmental requirements are expected with this expenditure.

Will there be assets, greater than \$5,000, currently in service removed as a result of this expenditure?
<p><i>GUIDANCE: If yes, please detail the specific assets that will be removed:</i></p> <ol style="list-style-type: none"> 1. <i>Original Cost of Plant to be removed (if known): Not known</i> 2. <i>What is the replacement cost of the plant being removed (if original cost not known)? Not known</i> 3. <i>Original Work Order of Plant to be removed (if known): Not known</i> 4. <i>Is the Plant being removed reusable? No</i> 5. <i>What is the year of original installation of the plant being removed: Varied</i>



Capital Project Expenditure Form

2021

What alternatives were evaluated and why were they rejected?

Alternatives will be considered on a case by case basis. However since the majority, if not all, equipment replacement associated with this blanket will be one for one replacements; alternative options may not be feasible.

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

Costs associated with this expenditure will need to be captured under other Capital Expenditure Blankets.

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

Work associated with this expenditure will be performed in accordance with the Company's Safety Manual and other industry accepted safety practices.

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

No.



Capital Project Expenditure Form

2021

Complete the Financial Summary table only if:

- Project is less than \$100,000; or
- Project category is *Mandated or Safety* (Business Case Form not required)

Financial Summary

Next Anticipated Test Year	2022	Was this Capital Project included in the current year's Board Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Regulatory Lag (Click appropriate box)	<input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 – 12 months <input checked="" type="checkbox"/> 1 – 3 years <input type="checkbox"/> Greater than three years		
Which regulatory constructs will be used for recovering this capital spend?			
Please Specify Basis of Estimate For materials, equipment, and construction requiring Engineering drawings please specify the percent complete: ⁱ	<input type="checkbox"/> Fixed or Firm Price <input type="checkbox"/> Estimate – Internal <input type="checkbox"/> Estimate – External <input type="checkbox"/> Other (specify details) Click here to enter text.		
Category	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 (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	\$125,000		

Approvals and Signatures ⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager:	Up to \$50,000	Anthony Strabone Senior Manager, Electric Engineering	<i>Anthony Strabone</i>	01/14/2021
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.01.15 08:10:51 -0500</small>	



Capital Project Expenditure Form

2021

Senior VP/VP:	Up to \$500,000		Richard MacDonald	Digitally signed by Richard MacDonald Date: 2021.01.15 14:14:48 -05'00'
State President:	Up to \$500,000			
Regional President:	Up to \$3,000,000			
Corporate – Sr. VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			
Finance (East) – Vice President, Finance & Administration:	All Requests	Peter Dawes VP, Finance & Administration		

ⁱ For Best Practices on estimating project contingencies please see the Capital Policy.

ⁱⁱ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Change Order Form

Project Overview

Reason for Change: Increase project costs

Project ID:	8830-2110	Project Name:	GSE-St Light Blanket
Change Order Name:	8830-2110 St Light	Date Prepared:	5/17/21
Change Order #:	8830-2110-1	Financial Work Order (FWO):ⁱ	Various
Project Sponsor:	Charles Rodrigues	Revised Start Date:	1/1/2021
Project Lead:	Anthony Strabone	Revised End Date:ⁱⁱ	12/31/2021
Prepared By:	Anthony Strabone	Change Typeⁱⁱⁱ	x In Scope <input type="checkbox"/> Out of Scope
Project Contingency Available?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If No is Selected, Please specify source of funds^{iv}	

Financial Assessment/Cost Estimates

(Double click embedded excel file to update; include contingency allowance in excel file)

Category	Original Project Value	Previous Approved Charges	Current Change Order Amount	Total
Internal Labor				
Materials				
Equipment				
Contractor/Subcontractor				
Burdens/Overheads				
AFUDC				
Total Project Cost	\$125,000		\$75,000	\$200,000

Updated Unlevered Internal Rate of Return:

Basis of Current Change Order Amount: \$75,000

Over expenditure is being driven by costs associated with numerous street light replacement work orders. Taking into account the current spend and historic spend rates of May through December, the Company anticipates requiring additional Capital for this blanket in order to perform work related to street light replacements.

Schedule Impacts

(As a result of the Change Order, where applicable, List the Impacts to schedule)

Baseline Schedule (BL)	New Forecast (NF)	Variance (BL – NF)
N/A	N/A	N/A



Change Order Form

Approvals and Signatures^v

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager/ Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager: :	Up to \$50,000	Anthony Strabone Sr Manager, Electric Engineering	<i>Anthony Strabone</i>	05/19/2021
Senior Director/Director:	Up to \$250,000	Charles Rodrigues, Director Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.05.19 15:09:05 -04'00'</small>	
State President / Senior VP / VP:	Up to \$500,000	Richard Macdonald VP Operations		
Regional President:	Up to \$3,000,000	James Sweeney East Region President		
Corporate - Sr VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			

ⁱ The Financial Work Order Section captures the work order this change falls under when the job was initially set-up

ⁱⁱ The Revised project end date is dependent on changes in scope that may deviate the schedule from the original plan

ⁱⁱⁱ The Change type for In scope or Out of scope changes fall within the following scenario:

- In Scope changes are deviations of scope from the original plan and approved budget that align to the original scope of the project but have revised pricing as a result of changes in pricing of labour, materials, and equipment
- Out of Scope changes are scope changes that were not originally planned for in the project baselines and approved budget. Examples of this type of change are related to changes in technology, missed deliverables, a change in the project design altering the scope of the project, etc.

^{iv} In cases where the project no longer has contingency to cover project change orders, please specify any other sources of funds that would address the project variance (i.e. not executing another project, delaying scope of another project, etc)

^v Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Project Close Out Report

2021

Requesting Region or Group:	Granite State Electric	Date of Close out (MM/DD/YY):	02/18/22
Project Name:	GSE-Dist-St Light Blanket 8830-2110		
Requesting Region:	East Region	Sponsor (Name):	Christopher Steele
Project Champion:	Melvin Emerson	Project Champion	Anthony Strabone
Project Status	<input checked="" type="checkbox"/> In Service <input type="checkbox"/> Complete <input type="checkbox"/> Closed		
Project Start Date:	01/01/2021	Project Completion Date:	12/31/2021
Requested Capital (\$)	\$125,000	Expenditure Included in Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Section 1. Approval

Approval of the Project Closeout and Assessment Report indicates an understanding and formal agreement that the project is ready to be closed. By signing this document, each individual agrees all administrative, financial, and logistical aspects of the project should be concluded, executed, and documented as described herein.

Further, by signing this Report, it is accepted that CWIP (FERC Account 107) should be transferred to Utility in Plant Service (FERC Account 101)

Approver Name	Title	Signature	Date
Melvin Emerson	Capital Lead	<i>Melvin Emerson</i>	2/28/2022
Anthony Strabone	Sr. Manager, Electric Engineering	<i>Anthony Strabone</i>	02/28/2022
Christopher Steele	Sr. Director, Electric Operations	Christopher Steele <small>Digitally signed by Christopher Steele Date: 2022.03.24 10:27:11 -04'00'</small>	03/24/2022

Section 2. Final Deliverable/Deployment Checklist

Sponsor to respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response
2.1	Do you agree that the product and/or service is ready to be deployed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.2	Do you agree the product and/or service has sufficiently met the stated business goals and objectives?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.3	Do you fully understand and agree to accept all operational requirements, operational risks, maintenance costs, and other limitations and/or constraints imposed as a result of ongoing operations of the product and/or service?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.4	Has the final unitization estimate been provided to Property Accounting?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>



Project Close Out Report

2021

Item	Question	Response
2.5	Do you agree the project should be closed? If no, please explain:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	<i>Scale of 1 thru 5; 5 = highest</i>	
	Rate your level of satisfaction with regards to the project outcomes listed below	
2.5	Project Quality	5/5
2.6	Product and/or Service Performance	5/5
2.7	Scope	5/5
2.8	Cost (Budget)	4/5
2.9	Schedule	5/5

Section 3. Project Documentation Checklist

Project Manager Respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response	
3.1	Have project documentation and other items (e.g., Business Case, Project Plan, Charter, Budget Documents, Status Reports) been prepared, collected, filed, and/or disposed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.3 ⁱ	Were audits (e.g., project closeout audit) completed and results documented for future reference?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.4	Identify the storage location for the following project documents items:		
Item	Document	Location (e.g., Google Docs, Webspaces)	Format
3.4a	Business Case	Operations Finance SharePoint	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4b	If available, the Final Project Schedule	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4c	Budget Documentation and Invoices	W:\Public\Accounts Payable\New Hampshire	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4d	Status Reports	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4e	Risks and Issues Log	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4f	Final deliverable	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4g	If applicable, verify that final project deliverable for the project is attached or storage location is identified in 3.4.		



Project Close Out Report

2021

Section 4. Project Teamⁱⁱ

Project Manager to list resources specified in the Project Plan and used by the project.

Name	Role	Type (e.g., Contractor, Employee)
Anthony Strabone	Engineering	Employee
Mark Parker	Operations	Employee

Section 5. Project Lessons Learned

Project Team to identify lessons learned specifically for the project. State the lessons learned in terms of a problem (issue) If available please include a Lesson Learned Log in the attached. Please summarize the top three issues on the project and the recommended improvements to correct a similar problem in the future.

Problem Statement	Problem Description	References	Recommendation
None	None	None	None

Section 7. Open Issues

Project Manager and Functional Lead to describe any open issues and plans for resolution within the context of project closeout. Include an open issue for any “no” responses in the Final Product and/or Service Acceptance Checklist and the Project Artifacts Checklist sections.

Issue	Planned Resolution
None	None



Project Close Out Report

2021

Section 8. Project Cost Summary

Project Manager and Functional Lead to provide details for the following tables.

Cost Category	1- Budget	2- Actual	3 = 1 -2 Variance
Cost of Design & Engineering (\$)			
Cost of Materials (\$)		\$27,883	
Cost of Construction (\$)			
External Costs (\$)		\$17,091	
Internal Costs (\$)		\$21,243	
Other (\$)		\$ (13,177)	
Burden & AFUDC (\$)		\$63,221	
Total Project Costs (\$)	\$125,000	\$116,261	\$8,739

Reasons for Variance	Impact
Actual spend was offset by CIAC	Project was underbudget by amount listed in table above

Project Manager to list of all work orders associated with project that should be closed once Close Out Report is accepted.

Registry of All Job Codes (Regional, Corporate, LABs)
various

ⁱ This section assumes an accounting audit has been completed ensuring all outstanding payments have been reconciled to the project

ⁱⁱ For Section 4 in filling out the Project Team Section, for those projects following the materiality limit set forth in the work order approval limits greater than \$5M please complete this section, all other projects do not require this.

Liberty Utilities (Granite State Electric) d/b/a Liberty
DE 19-064 2021 Step Adjustment
Project #8830-2111 Public Requirements Blanket

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>CIAC</u>	<u>AFUDC</u>	<u>Total Spend</u>
2019	\$4,450.33	\$0.00	\$2,476.00	\$7,322.29	\$0.00	\$0.00	\$14,248.62
2020	\$14,308.32	\$8,812.31	\$26,173.55	\$32,162.46	\$0.00	\$0.00	\$81,456.64
2021	<u>\$53,023.39</u>	<u>\$11,950.82</u>	<u>\$40,881.73</u>	<u>\$106,941.89</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$212,797.83</u>
Total	\$71,782.04	\$20,763.13	\$69,531.28	\$146,426.64	\$0.00	\$0.00	\$308,503.09



Capital Project Expenditure Form

2021

Project Name:	GSE-Dist-Public Require Blanket		
Financial Work Order (FWO):		Project ID #:	8830-2111
Requesting Region or Group:	Granite State Electric Co.	Date of Request (MM/DD/YY):	1/4/2021
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2021
Project Lead:	Anthony Strabone	Project End Date:	12/31/2021
Prepared by:	Anthony Strabone	Requested Capital (\$)	\$520,000
Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned		
Project Type: (Click appropriate boxes)	<input type="checkbox"/> Safety <input checked="" type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input type="checkbox"/> Discretionary		
Spending Rationale:	<input type="checkbox"/> Growth <input type="checkbox"/> Improvement <input checked="" type="checkbox"/> Replenishment		

Details of Request

Project description
<p>This project will provide for public requirements to cover DOT / Municipal requirements necessitating relocation, removal or installation of our facilities which includes:</p> <ul style="list-style-type: none"> Relocate existing overhead/underground facilities (i.e. poles; padmount transformers) due to road or bridge work, and other public requirements Relocate existing overhead/underground facilities per customer requests Construction requested (overhead/underground) by Telephone Company, Public Authorities, Towns and/or Municipalities

Is this project growth or customer connection related? If "yes", list the specific locations and how expenditure aligns with customer expansion objectives.
No

Please describe any permitting requirements, environmental impacts, or resulting performance obligations that may or may not result from this expenditure?
Permitting may be required for pole installation and installation of underground electrical equipment including conduit.

Will there be assets, greater than \$5,000, currently in service removed as a result of this expenditure?
<p><i>GUIDANCE: If yes, please detail the specific assets that will be removed:</i></p> <ol style="list-style-type: none"> Original Cost of Plant to be removed (if known): Not Known What is the replacement cost of the plant being removed (if original cost not known)? Not Known Original Work Order of Plant to be removed (if known): Not Known Is the Plant being removed reusable? No What is the year of original installation of the plant being removed: Varied



Capital Project Expenditure Form

2021

What alternatives were evaluated and why were they rejected?

Alternatives will be considered on a case by case basis as part of determining the best option for a specific project.

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

Costs associated with this expenditure will need to be captured under other Capital Expenditure Blankets.

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

Work associated with this expenditure will be performed in accordance with the Company's Safety Manual and other industry accepted safety practices.

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

No



Capital Project Expenditure Form

2021

Complete the Financial Summary table only if:

- Project is less than \$100,000; or
- Project category is *Mandated or Safety* (Business Case Form not required)

Financial Summary

Next Anticipated Test Year	2022	Was this Capital Project included in the current year's Board Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Regulatory Lag (Click appropriate box)	<input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 – 12 months <input checked="" type="checkbox"/> 1 – 3 years <input type="checkbox"/> Greater than three years		
Which regulatory constructs will be used for recovering this capital spend?			
Please Specify Basis of Estimate For materials, equipment, and construction requiring Engineering drawings please specify the percent complete: ⁱ	<input type="checkbox"/> Fixed or Firm Price <input checked="" type="checkbox"/> Estimate – Internal <input type="checkbox"/> Estimate – External <input type="checkbox"/> Other (specify details) Click here to enter text.		
Category	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 (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	\$520,000		

Approvals and Signatures ⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager:	Up to \$50,000	Anthony Strabone Senior Manager, Electric Engineering	<i>Anthony Strabone</i>	01/14/2021
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.01.15 07:57:22 -05'00'</small>	



Capital Project Expenditure Form

2021

Senior VP/VP:	Up to \$500,000	Richard MacDonald Vice President, Operations	Richard MacDonald <small>Digitally signed by Richard MacDonald Date: 2021.01.15 14:24:40 -05'00'</small>
State President:	Up to \$500,000	Susan Fleck President, NH	Susan Fleck <small>Digitally signed by Susan Fleck Date: 2021.01.15 15:02:52 -05'00'</small>
Regional President:	Up to \$3,000,000	James Sweeney President, East Region	
Corporate – Sr. VP Operations:	Up to \$5,000,000		
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000		
Finance (East) – Vice President, Finance & Administration:	All Requests	Peter Dawes VP, Finance & Administration	

ⁱ For Best Practices on estimating project contingencies please see the Capital Policy.

ⁱⁱ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Project Close Out Report

2021

Requesting Region or Group:	Granite State Electric	Date of Close out (MM/DD/YY):	02/18/22
Project Name:	GSE-Public Requirement Blanket 8830-2111		
Requesting Region:	East Region	Sponsor (Name):	Christopher Steele
Project Champion:	Melvin Emerson	Project Champion	Anthony Strabone
Project Status	<input checked="" type="checkbox"/> In Service <input type="checkbox"/> Complete <input type="checkbox"/> Closed		
Project Start Date:	01/01/2021	Project Completion Date:	12/31/2021
Requested Capital (\$)	\$520,000	Expenditure Included in Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Section 1. Approval

Approval of the Project Closeout and Assessment Report indicates an understanding and formal agreement that the project is ready to be closed. By signing this document, each individual agrees all administrative, financial, and logistical aspects of the project should be concluded, executed, and documented as described herein.

Further, by signing this Report, it is accepted that CWIP (FERC Account 107) should be transferred to Utility in Plant Service (FERC Account 101)

Approver Name	Title	Signature	Date
Melvin Emerson	Capital Lead	<i>Melvin Emerson</i>	2/28/2022
Anthony Strabone	Sr. Manager, Electric Engineering	<i>Anthony Strabone</i>	02/28/2022
Christopher Steele	Sr. Director, Electric Operations	Christopher Steele <small>Digitally signed by Christopher Steele Date: 2022.03.24 10:29:41 -04'00'</small>	03/24/2022

Section 2. Final Deliverable/Deployment Checklist

Sponsor to respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response
2.1	Do you agree that the product and/or service is ready to be deployed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.2	Do you agree the product and/or service has sufficiently met the stated business goals and objectives?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.3	Do you fully understand and agree to accept all operational requirements, operational risks, maintenance costs, and other limitations and/or constraints imposed as a result of ongoing operations of the product and/or service?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.4	Has the final unitization estimate been provided to Property Accounting?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>



Project Close Out Report

2021

Item	Question	Response
2.5	Do you agree the project should be closed? If no, please explain:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	<i>Scale of 1 thru 5; 5 = highest</i>	
	Rate your level of satisfaction with regards to the project outcomes listed below	
2.5	Project Quality	5/5
2.6	Product and/or Service Performance	5/5
2.7	Scope	5/5
2.8	Cost (Budget)	5/5
2.9	Schedule	5/5

Section 3. Project Documentation Checklist

Project Manager Respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response	
3.1	Have project documentation and other items (e.g., Business Case, Project Plan, Charter, Budget Documents, Status Reports) been prepared, collected, filed, and/or disposed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.3 ⁱ	Were audits (e.g., project closeout audit) completed and results documented for future reference?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.4	Identify the storage location for the following project documents items:		
Item	Document	Location (e.g., Google Docs, Webspaces)	Format
3.4a	Business Case	Operations Finance SharePoint	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4b	If available, the Final Project Schedule	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4c	Budget Documentation and Invoices	W:\Public\Accounts Payable\New Hampshire	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4d	Status Reports	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4e	Risks and Issues Log	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4f	Final deliverable	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4g	If applicable, verify that final project deliverable for the project is attached or storage location is identified in 3.4.		



Project Close Out Report

2021

Section 4. Project Team ⁱⁱ

Project Manager to list resources specified in the Project Plan and used by the project.

Name	Role	Type (e.g., Contractor, Employee)
Anthony Strabone	Engineering	Employee
Mark Parker	Operations	Employee

Section 5. Project Lessons Learned

Project Team to identify lessons learned specifically for the project. State the lessons learned in terms of a problem (issue). If available, please include a Lesson Learned Log in the attached. Please summarize the top three issues on the project and the recommended improvements to correct a similar problem in the future.

Problem Statement	Problem Description	References	Recommendation
None	None	None	None

Section 7. Open Issues

Project Manager and Functional Lead to describe any open issues and plans for resolution within the context of project closeout. Include an open issue for any “no” responses in the Final Product and/or Service Acceptance Checklist and the Project Artifacts Checklist sections.

Issue	Planned Resolution
None	None



Project Close Out Report

2021

Section 8. Project Cost Summary

Project Manager and Functional Lead to provide details for the following tables.

Cost Category	1- Budget	2- Actual	3 = 1 -2 Variance
Cost of Design & Engineering (\$)			
Cost of Materials (\$)		\$29,067	
Cost of Construction (\$)			
External Costs (\$)		\$89,105	
Internal Costs (\$)		\$71,909	
Other (\$)			
Burden & AFUDC (\$)		\$223,485	
Total Project Costs (\$)	\$520,000	\$ 413,566	\$106,434

Reasons for Variance	Impact
Actual spend was less than estimated	Project was underbudget by amount listed in table above
Cause 2	\$
Cause 3	\$

Project Manager to list of all work orders associated with project that should be closed once Close Out Report is accepted.

Registry of All Job Codes (Regional, Corporate, LABs)
Various

ⁱ This section assumes an accounting audit has been completed ensuring all outstanding payments have been reconciled to the project

ⁱⁱ For Section 4 in filling out the Project Team Section, for those projects following the materiality limit set forth in the work order approval limits greater than \$5M please complete this section, all other projects do not require this.

Liberty Utilities (Granite State Electric) d/b/a Liberty
DE 19-064 2021 Step Adjustment
Project #8830-2112 Damage Failure Blanket

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>CIAC</u>	<u>AFUDC</u>	<u>Total Spend</u>
2020	\$20,344.86	\$3,342.48	\$20,495.73	\$22,711.95	\$0.00	\$0.00	\$66,895.02
2021	\$395,410.71	\$159,858.94	\$544,692.49	\$855,729.11	\$0.00	\$0.00	\$1,955,691.25
Total	\$415,755.57	\$163,201.42	\$565,188.22	\$878,441.06	\$0.00	\$0.00	\$2,022,586.27



Capital Project Expenditure Form

2021

Project Name:	Dist-Damage&Failure Blanket		
Financial Work Order (FWO):		Project ID #:	8830-2112
Requesting Region or Group:	Granite State Electric Co.	Date of Request (MM/DD/YY):	1/4/2021
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2021
Project Lead:	Anthony Strabone	Project End Date:	12/31/2021
Prepared by:	Anthony Strabone	Requested Capital (\$)	\$1,500,000
Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned		
Project Type: (Click appropriate boxes)	<input type="checkbox"/> Safety <input checked="" type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input type="checkbox"/> Discretionary		
Spending Rationale:	<input type="checkbox"/> Growth <input type="checkbox"/> Improvement <input checked="" type="checkbox"/> Replenishment		

Details of Request

Project description
This project is associated with repair/replacement to damaged equipment found on inspection and equipment deemed about to fail. Replacement of equipment can be caused by any of the following: <ul style="list-style-type: none"> • Damage caused by vehicle • Damage caused by vandalism • Failure caused by age, fatigue, and/or deterioration

Is this project growth or customer connection related? If “yes”, list the specific locations and how expenditure aligns with customer expansion objectives.
No.

Please describe any permitting requirements, environmental impacts, or resulting performance obligations that may or may not result from this expenditure?
Permitting requirements may be associated with the installation of poles and underground electrical facilities including conduit.

Will there be assets, greater than \$5,000, currently in service removed as a result of this expenditure?
<p><i>GUIDANCE: If yes, please detail the specific assets that will be removed:</i></p> <ol style="list-style-type: none"> 1. <i>Original Cost of Plant to be removed (if known): Not Known</i> 2. <i>What is the replacement cost of the plant being removed (if original cost not known)? Not Known</i> 3. <i>Original Work Order of Plant to be removed (if known): Not Known</i> 4. <i>Is the Plant being removed reusable? No</i> 5. <i>What is the year of original installation of the plant being removed: Varied</i>



Capital Project Expenditure Form

2021

What alternatives were evaluated and why were they rejected?

Alternatives will be considered on a case by case basis. However since the majority, if not all, equipment replacement associated with this blanket will be one for one replacements; alternative options may not be feasible.

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

Costs associated with this expenditure will need to be captured under other Capital Expenditure Blankets.

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

Work associated with this expenditure will be performed in accordance with the Company's Safety Manual and other industry accepted safety practices.

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

No



Capital Project Expenditure Form

2021

Complete the Financial Summary table only if:

- Project is less than \$100,000; or
- Project category is *Mandated or Safety* (Business Case Form not required)

Financial Summary

Next Anticipated Test Year	2022	Was this Capital Project included in the current year's Board Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Regulatory Lag (Click appropriate box)	<input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 – 12 months <input checked="" type="checkbox"/> 1 – 3 years <input type="checkbox"/> Greater than three years		
Which regulatory constructs will be used for recovering this capital spend?			
Please Specify Basis of Estimate For materials, equipment, and construction requiring Engineering drawings please specify the percent complete: ⁱ	<input type="checkbox"/> Fixed or Firm Price <input type="checkbox"/> Estimate – Internal <input type="checkbox"/> Estimate – External <input type="checkbox"/> Other (specify details) Click here to enter text.		
Category	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 (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	\$1,500,000		

Approvals and Signatures ⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager:	Up to \$50,000	Anthony Strabone Senior Manager, Electric Engineering	<i>Anthony Strabone</i>	01/14/2021
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.01.15 07:51:50 -05'00'</small>	



Capital Project Expenditure Form

2021

Senior VP/VP:	Up to \$500,000	Richard MacDonald Vice President, Operations	Richard MacDonald <small>Digitally signed by Richard MacDonald Date: 2021.01.15 14:20:23 -05'00'</small>	
State President:	Up to \$500,000	Susan Fleck President, NH	Susan Fleck <small>Digitally signed by Susan Fleck Date: 2021.01.15 15:06:34 -05'00'</small>	
Regional President:	Up to \$3,000,000	James Sweeney President, East Region		
Corporate – Sr. VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			
Finance (East) – Vice President, Finance & Administration:	All Requests	Peter Dawes VP, Finance & Administration		

ⁱ For Best Practices on estimating project contingencies please see the Capital Policy.

ⁱⁱ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Change Order Form

Project Overview

Reason for Change: Budget Increase to fund project to accommodate work associated with Damage Failure Blanket

Project ID:	8830-2112	Project Name:	Damage & Failure
Change Order Name:	8830-2112 Damage & Failure	Date Prepared:	10/29/21
Change Order #:	8830-2112-2	Financial Work Order (FWO):ⁱ	Various
Project Sponsor:	Charles Rodrigues	Revised Start Date:	1/1/2020
Project Lead:	Anthony Strabone	Revised End Date:ⁱⁱ	12/31/2021
Prepared By:	Anthony Strabone	Change Typeⁱⁱⁱ	<input checked="" type="checkbox"/> In Scope <input type="checkbox"/> Out of Scope
Project Contingency Available?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If No is Selected, Please specify source of funds^{iv}	8830-2139 URD Cable Replacement \$200K 8830-2138 New Bus Comm \$200K

Financial Assessment/Cost Estimates

(Double click embedded excel file to update; include contingency allowance in excel file)

Category	Original Project Value	Previous Approved Charges	Current Change Order Amount	Total
Internal Labor				
Materials				
Equipment				
Contractor/Subcontractor				
Burdens/Overheads				
AFUDC				
Total Project Cost	\$1,200,000		\$500,000	\$1,700,000

Updated Unlevered Internal Rate of Return:

Basis of Current Change Order Amount: \$500,000.

Over expenditure is being driven by costs associated with work identified needing to be addressed under the Damage - Failure Blanket. Taking into account the current spend rate and historic spend rates of November and December, the Company anticipates requiring additional Capital for this blanket in order to address items that have been identified as either damaged or failed and need immediate replacement. The anticipated overspend of this project will be offset by underspend of other capital projects and therefore will not impact the overall 2021 GSE Capital Budget.

Schedule Impacts

(As a result of the Change Order, where applicable, List the Impacts to schedule)

Baseline Schedule (BL)	New Forecast (NF)	Variance (BL - NF)
N/A	N/A	N/A



Change Order Form

Approvals and Signatures^v

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager/ Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager: :	Up to \$50,000	Anthony Strabone Sr Manager, Electric Engineering	<i>Anthony Strabone</i>	11/22/2021
Senior Director/Director:	Up to \$250,000	Charles Rodrigues, Director Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.11.22 12:16:00 -05'00'</small>	
Senior Director/Director:	Up to \$250,000	Christopher Steele Senior Director, Electric Operations	Christopher Steele <small>Digitally signed by Christopher Steele Date: 2021.11.24 10:23:12 -05'00'</small>	
State President / Senior VP / VP:	Up to \$500,000	Neil Proudman NH President	Neil Proudman <small>Digitally signed by Neil Proudman Date: 2021.11.24 13:45:29 -05'00'</small>	
Regional President:	Up to \$3,000,000	James Sweeney East Region President	James M. Sweeney <small>Digitally signed by James M. Sweeney Date: 2021.12.13 11:31:13 -05'00'</small>	
Corporate - Sr VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			

ⁱ The Financial Work Order Section captures the work order this change falls under when the job was initially set-up

ⁱⁱ The Revised project end date is dependent on changes in scope that may deviate the schedule from the original plan

ⁱⁱⁱ The Change type for In scope or Out of scope changes fall within the following scenario:

- In Scope changes are deviations of scope from the original plan and approved budget that align to the original scope of the project but have revised pricing as a result of changes in pricing of labour, materials, and equipment
- Out of Scope changes are scope changes that were not originally planned for in the project baselines and approved budget. Examples of this type of change are related to changes in technology, missed deliverables, a change in the project design altering the scope of the project, etc.

^{iv} In cases where the project no longer has contingency to cover project change orders, please specify any other sources of funds that would address the project variance (i.e. not executing another project, delaying scope of another project, etc)

^v Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Change Order Form

Project Overview

Reason for Change: Budget Increase to fund project to accommodate work associated with Damage Failure Blanket

Project ID:	8830-2112	Project Name:	Damage & Failure
Change Order Name:	8830-2112 Damage & Failure	Date Prepared:	1/18/21
Change Order #:	8830-2112-3	Financial Work Order (FWO):ⁱ	
Project Sponsor:	Christopher Steele	Revised Start Date:	1/1/2020
Project Lead:	Anthony Strabone	Revised End Date:ⁱⁱ	12/31/2021
Prepared By:	Anthony Strabone	Change Typeⁱⁱⁱ	<input checked="" type="checkbox"/> In Scope <input type="checkbox"/> Out of Scope
Project Contingency Available?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If No is Selected, Please specify source of funds^{iv}	8830-2074 Rockingham Distribution Feeders \$280K 8830-2071 MT Support- 16L7 Distribution Feeder (Substation) \$160K

Financial Assessment/Cost Estimates

(Double click embedded excel file to update; include contingency allowance in excel file)

Category	Original Project Value	Previous Approved Charges	Current Change Order Amount	Total
Internal Labor				
Materials				
Equipment				
Contractor/Subcontractor				
Burdens/Overheads				
AFUDC				
Total Project Cost	\$1,200,000	\$400,000	\$440,000	\$2,140,000

Updated Unlevered Internal Rate of Return:

Basis of Current Change Order Amount: 440,000

Over expenditure is being driven by costs associated with work identified needing to be addressed under the Damage-Failure Blanket. Taking into account the current spend rate and historic spend rates, the Company spent 2.6 times the 2021 monthly spend rate and 7 times the historic spend rate for the month of December. 40% of the total spent in the month of December can be attributed to two jobs that were identified as either damaged or failed and need immediate replacement. The anticipated overspend of this project will be offset by underspend of other capital projects and therefore will not impact the overall 2021 GSE Capital Budget

Schedule Impacts

(As a result of the Change Order, where applicable, List the Impacts to schedule)



Change Order Form

Baseline Schedule (BL)	New Forecast (NF)	Variance (BL – NF)
N/A	N/A	N/A

Approvals and Signatures^v

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager/ Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager: :	Up to \$50,000	Anthony Strabone Sr Manager, Electric Engineering	<i>Anthony Strabone</i>	01/29/2022
Senior Director/Director:	Up to \$250,000	Christopher Steele Senior Director, Electric Operations	Christopher Steele Digitally signed by Christopher Steele Date: 2022.02.03 08:34:50 -05'00'	
State President / Senior VP / VP:	Up to \$500,000	Neil Proudman NH President	Neil Proudman Digitally signed by Neil Proudman Date: 2022.02.03 12:07:51 -05'00'	
Regional President:	Up to \$3,000,000	James Sweeney East Region President	James M. Sweeney Digitally signed by James M. Sweeney Date: 2022.03.31 09:34:14 -04'00'	
Corporate - Sr VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			

ⁱ The Financial Work Order Section captures the work order this change falls under when the job was initially set-up

ⁱⁱ The Revised project end date is dependent on changes in scope that may deviate the schedule from the original plan

ⁱⁱⁱ The Change type for In scope or Out of scope changes fall within the following scenario:

- In Scope changes are deviations of scope from the original plan and approved budget that align to the original scope of the project but have revised pricing as a result of changes in pricing of labour, materials, and equipment



Change Order Form

- Out of Scope changes are scope changes that were not originally planned for in the project baselines and approved budget. Examples of this type of change are related to changes in technology, missed deliverables, a change in the project design altering the scope of the project, etc.

iv In cases where the project no longer has contingency to cover project change orders, please specify any other sources of funds that would address the project variance (i.e. not executing another project, delaying scope of another project, etc)

v Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Project Close Out Report

2021

Requesting Region or Group:	Granite State Electric	Date of Closeout (MM/DD/YY):	3/31/2022
Project Name:	Dist-Damage & Failure Blanket 8830-2112		
Requesting Region:	East Region	Sponsor (Name):	Christopher Steele
Project Champion:	Melvin Emerson	Project Champion	Anthony Strabone
Project Status	X In Service <input type="checkbox"/> Complete <input type="checkbox"/> Closed		
Project Start Date:	1/1/2021	Project Completion Date:	12/31/2021
Requested Capital (\$)	\$1,200,000	Expenditure Included in Approved Budget?	X Yes <input type="checkbox"/> No

Section 1. Approval

Approval of the Project Closeout and Assessment Report indicates an understanding and formal agreement that the project is ready to be closed. By signing this document, each individual agrees all administrative, financial, and logistical aspects of the project should be concluded, executed, and documented as described herein.

Further, by signing this Report, it is accepted that CWIP (FERC Account 107) should be transferred to Utility in Plant Service (FERC Account 101)

Approver Name	Title	Signature	Date
Melvin Emerson	Capital Lead	<i>Melvin Emerson</i>	03/31/2022
Anthony Strabone	Sr Manager, Electric Engineering	<i>Anthony Strabone</i>	03/31/2022
Christopher Steele	Sr. Director, Electric Operations	Christopher Steele <small>Digitally signed by Christopher Steele Date: 2022.03.31 16:22:46 -04'00'</small>	03/31/2022
	Accounting Manager		

Section 2. Final Deliverable/Deployment Checklist

Sponsor to respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response
2.1	Do you agree that the product and/or service is ready to be deployed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.2	Do you agree the product and/or service has sufficiently met the stated business goals and objectives?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.3	Do you fully understand and agree to accept all operational requirements, operational risks, maintenance costs, and other limitations and/or constraints imposed as a result of ongoing operations of the product and/or service?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.4	Has the final unitization estimate been provided to Property Accounting?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>



Project Close Out Report

2021

Item	Question	Response
2.5	Do you agree the project should be closed? If no, please explain:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	<i>Scale of 1 thru 5; 5 = highest</i>	
	Rate your level of satisfaction with regards to the project outcomes listed below	
2.5	Project Quality	5/5
2.6	Product and/or Service Performance	5/5
2.7	Scope	5/5
2.8	Cost (Budget)	3/5
2.9	Schedule	5/5

Section 3. Project Documentation Checklist

Project Manager Respond to each question. For each “no” response, include an issue in Open Issues section.

Item	Question	Response	
3.1	Have project documentation and other items (e.g., Business Case, Project Plan, Charter, Budget Documents, Status Reports) been prepared, collected, filed, and/or disposed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.3 ⁱ	Were audits (e.g., project closeout audit) completed and results documented for future reference?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.4	Identify the storage location for the following project documents items:		
Item	Document	Location (e.g., Google Docs, Webspaces)	Format
3.4a	Business Case	Operations Finance SharePoint	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4b	If available, the Final Project Schedule	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4c	Budget Documentation and Invoices	W:\Public\Accounts Payable\New Hampshire	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4d	Status Reports	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4e	Risks and Issues Log	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4f	Final deliverable	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4g	If applicable, verify that final project deliverable for the project is attached or storage location is identified in 3.4.		

Section 4. Project Team ⁱⁱ

Project Manager to list resources specified in the Project Plan and used by the project.



Project Close Out Report

2021

Name	Role	Type (e.g., Contractor, Employee)
Anthony Strabone	Engineering	Employee
Mark Parker	Operations	Employee

Section 5. Project Lessons Learned

Project Team to identify lessons learned specifically for the project. State the lessons learned in terms of a problem (issue). If available please include a Lesson Learned Log in the attached.. Please summarize the top three issues on the project and the recommended improvements to correct a similar problem in the future.

Problem Statement	Problem Description	References	Recommendation

Section 7. Open Issues

Project Manager and Functional Lead to describe any open issues and plans for resolution within the context of project closeout. Include an open issue for any “no” responses in the Final Product and/or Service Acceptance Checklist and the Project Artifacts Checklist sections.

Issue	Planned Resolution

Section 8. Project Cost Summary

Project Manager and Functional Lead to provide details for the following tables.

Cost Category	1- Budget	2- Actual	3 = 1 -2 Variance
Cost of Design & Engineering (\$)			
Cost of Materials (\$)		\$168,434	
Cost of Construction (\$)			



Project Close Out Report

2021

External Costs (\$)		\$574,993	
Internal Costs (\$)		\$440,435	
Other (\$)		\$949,707	
AFUDC (\$)			
Total Project Costs (\$)	\$1,200,000	\$ 2,133,569	(\$933,569)

Reasons for Variance	Impact
Change order #1	\$500,000
Change order #2	\$440,000
Cause 3	\$

Project Manager to list of all work orders associated with project that should be closed once Close Out Report is accepted.

Registry of All Job Codes (Regional, Corporate, LABs)

ⁱ This section assumes an accounting audit has been completed ensuring all outstanding payments have been reconciled to the project

ⁱⁱ For Section 4 in filling out the Project Team Section, for those projects following the materiality limit set forth in the work order approval limits greater than \$5M please complete this section, all other projects do not require this.

Liberty Utilities (Granite State Electric) d/b/a Liberty
DE 19-064 2021 Step Adjustment
Project #8830-2113 Distribution Asset Replacement Blanket

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>CIAC</u>	<u>AFUDC</u>	<u>Total Spend</u>
2020	\$1,659.21	\$952.86	\$4,164.00	\$3,928.71	\$0.00	\$0.00	\$10,704.78
2021	<u>\$84,724.77</u>	<u>\$12,617.29</u>	<u>\$36,539.60</u>	<u>\$151,819.90</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$285,701.56</u>
Total	\$86,383.98	\$13,570.15	\$40,703.60	\$155,748.61	\$0.00	\$0.00	\$296,406.34



Capital Project Expenditure Form

2021

Project Name:	GSE-Dist-Asset Replace Blanket		
Financial Work Order (FWO):		Project ID #:	8830-2113
Requesting Region or Group:	Granite State Electric Co.	Date of Request (MM/DD/YY):	1/4/2021
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2021
Project Lead:	Anthony Strabone	Project End Date:	12/31/2021
Prepared by:	Anthony Strabone	Requested Capital (\$)	\$200,000
Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned		
Project Type: (Click appropriate boxes)	<input type="checkbox"/> Safety <input checked="" type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input type="checkbox"/> Discretionary		
Spending Rationale:	<input type="checkbox"/> Growth <input type="checkbox"/> Improvement <input checked="" type="checkbox"/> Replenishment		

Details of Request

Project description
This project is associated with replacement of line or substation assets based upon inspection, asset condition data, and Company Strategies.

Is this project growth or customer connection related? If “yes”, list the specific locations and how expenditure aligns with customer expansion objectives.
No.

Please describe any permitting requirements, environmental impacts, or resulting performance obligations that may or may not result from this expenditure?
Permitting requirements associated with this expenditure may be required for new pole installations.

Will there be assets, greater than \$5,000, currently in service removed as a result of this expenditure?
<p><i>GUIDANCE: If yes, please detail the specific assets that will be removed:</i></p> <ol style="list-style-type: none"> Original Cost of Plant to be removed (if known): Not Known What is the replacement cost of the plant being removed (if original cost not known)? Not Known Original Work Order of Plant to be removed (if known): Not Known Is the Plant being removed reusable? No What is the year of original installation of the plant being removed: Varied

What alternatives were evaluated and why were they rejected?
Alternatives will be considered on a case by case basis. However since the majority, if not all, equipment replacement associated with this blanket will be one for one replacements; alternative options may not be feasible.



Capital Project Expenditure Form

2021

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

Costs associated with this expenditure will need to be captured under other Capital Expenditure Blankets

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

Work associated with this expenditure will be performed in accordance with the Company's Safety Manual and other industry accepted safety practices.

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

No.

Complete the Financial Summary table only if:

- Project is less than \$100,000; or
- Project category is *Mandated* or *Safety* (Business Case Form not required)

Financial Summary

Next Anticipated Test Year	2022	Was this Capital Project included in the current year's Board Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Regulatory Lag (Click appropriate box)	<input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 – 12 months <input checked="" type="checkbox"/> 1 – 3 years <input type="checkbox"/> Greater than three years		
Which regulatory constructs will be used for recovering this capital spend?			
Please Specify Basis of Estimate For materials, equipment, and construction requiring Engineering drawings please specify the percent complete: ¹	<input type="checkbox"/> Fixed or Firm Price <input checked="" type="checkbox"/> Estimate – Internal <input type="checkbox"/> Estimate – External <input type="checkbox"/> Other (specify details) Click here to enter text.		
Category	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 (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	\$200,000		



Capital Project Expenditure Form

2021

Approvals and Signatures ⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager:	Up to \$50,000	Anthony Strabone Senior Manager, Electric Engineering	<i>Anthony Strabone</i>	01/22/2021
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.01.22 08:44:39 -05'00'</small>	
Senior VP/VP:	Up to \$500,000	Richard MacDonald Vice President, Operations		
State President:	Up to \$500,000			
Regional President:	Up to \$3,000,000			
Corporate – Sr. VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			
Finance (East) – Vice President, Finance & Administration:	All Requests	Peter Dawes VP, Finance & Administration		

ⁱ For Best Practices on estimating project contingencies please see the Capital Policy.

ⁱⁱ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Change Order Form

2021

Project Overview

Reason for Change: Increase project costs			
Project ID:	8830-2113	Project Name:	GSE-Asset Replacement Blanket
Change Order Name:	8830-2113 Asset Replacement	Date Prepared:	5/17/21
Change Order #:	8830-2113-1	Financial Work Order (FWO):ⁱ	Various
Project Sponsor:	Charles Rodrigues	Revised Start Date:	1/1/2021
Project Lead:	Anthony Strabone	Revised End Date:ⁱⁱ	12/31/2021
Prepared By:	Anthony Strabone	Change Typeⁱⁱⁱ	<input checked="" type="checkbox"/> In Scope <input type="checkbox"/> Out of Scope
Project Contingency Available?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If No is Selected, Please specify source of funds^{iv}	

Financial Assessment/Cost Estimates

(Double click embedded excel file to update; include contingency allowance in excel file)

Category	Original Project Value	Previous Approved Charges	Current Change Order Amount	Total
Internal Labor				
Materials				
Equipment				
Contractor/Subcontractor				
Burdens/Overheads				
AFUDC				
Total Project Cost	\$200,000		\$500,000	\$700,000

Updated Unlevered Internal Rate of Return:

Basis of Current Change Order Amount: \$500,000

Over expenditure is being driven by costs associated with numerous asset replacement work orders. At the time this change order was prepared, approximately 50% of the current spend was associated with projects initiated in 2020 but not completed until 2021. Taking into account the current spend and historic spend rates of May through December, the Company anticipates requiring additional Capital for this blanket in order to perform work related to asset replacement requests.

Schedule Impacts

(As a result of the Change Order, where applicable, List the Impacts to schedule)

Baseline Schedule (BL)	New Forecast (NF)	Variance (BL - NF)
N/A	N/A	N/A



Change Order Form

2021

Approvals and Signatures*

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager/ Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager:	Up to \$50,000	Anthony Strabone Sr Manager, Electric Engineering	<i>Anthony Strabone</i>	05/17/2021
Senior Director/Director:	Up to \$250,000	Charles Rodrigues, Director Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.05.17 13:53:34 -04'00'</small>	
State President / Senior VP / VP:	Up to \$500,000	Richard Macdonald VP Operations	Richard MacDonald <small>Digitally signed by Richard MacDonald Date: 2021.05.24 08:58:28 -04'00'</small>	
Regional President:	Up to \$3,000,000	James Sweeney East Region President	<i>James Sweeney</i>	5/26/21
Corporate - Sr VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			

* The Financial Work Order Section captures the work order this change falls under when the job was initially set-up
 * The Revised project end date is dependent on changes in scope that may deviate the schedule from the original plan

** The Change type for In scope or Out of scope changes fall within the following scenario:

- In Scope changes are deviations of scope from the original plan and approved budget that align to the original scope of the project but have revised pricing as a result of changes in pricing of labour, materials, and equipment
- Out of Scope changes are scope changes that were not originally planned for in the project baselines and approved budget. Examples of this type of change are related to changes in technology, missed deliverables, a change in the project design altering the scope of the project, etc.

†† In cases where the project no longer has contingency to cover project change orders, please specify any other sources of funds that would address the project variance (i.e. not executing another project, delaying scope of another project, etc.)

* Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Project Close Out Report

2021

Requesting Region or Group:	Granite State Electric	Date of Close out (MM/DD/YY):	02/18/22
Project Name:	GSE-Dist-Asset Replace Blanket 8830-2113		
Requesting Region:	East Region	Sponsor (Name):	Christopher Steele
Project Champion:	Melvin Emerson	Project Champion	Anthony Strabone
Project Status	<input checked="" type="checkbox"/> In Service <input type="checkbox"/> Complete <input type="checkbox"/> Closed		
Project Start Date:	1/1/2021	Project Completion Date:	12/31/2021
Requested Capital (\$)	\$200,000	Expenditure Included in Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Section 1. Approval

Approval of the Project Closeout and Assessment Report indicates an understanding and formal agreement that the project is ready to be closed. By signing this document, each individual agrees all administrative, financial, and logistical aspects of the project should be concluded, executed, and documented as described herein.

Further, by signing this Report, it is accepted that CWIP (FERC Account 107) should be transferred to Utility in Plant Service (FERC Account 101)

Approver Name	Title	Signature	Date
Melvin Emerson	Capital Lead	<i>Melvin Emerson</i>	2/28/2022
Anthony Strabone	Sr. Manager, Electric Engineering	<i>Anthony Strabone</i>	02/28/2022
Christopher Steele	Sr. Director, Electric Operations		

Section 2. Final Deliverable/Deployment Checklist

Sponsor to respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response
2.1	Do you agree that the product and/or service is ready to be deployed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.2	Do you agree the product and/or service has sufficiently met the stated business goals and objectives?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.3	Do you fully understand and agree to accept all operational requirements, operational risks, maintenance costs, and other limitations and/or constraints imposed as a result of ongoing operations of the product and/or service?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.4	Has the final unitization estimate been provided to Property Accounting?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>



Project Close Out Report

2021

Item	Question	Response
2.5	Do you agree the project should be closed? If no, please explain:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	<i>Scale of 1 thru 5; 5 = highest</i>	
	Rate your level of satisfaction with regards to the project outcomes listed below	
2.5	Project Quality	5/5
2.6	Product and/or Service Performance	5/5
2.7	Scope	3/5
2.8	Cost (Budget)	3/5
2.9	Schedule	4/5

Section 3. Project Documentation Checklist

Project Manager Respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response	
3.1	Have project documentation and other items (e.g., Business Case, Project Plan, Charter, Budget Documents, Status Reports) been prepared, collected, filed, and/or disposed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.3 ⁱ	Were audits (e.g., project closeout audit) completed and results documented for future reference?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.4	Identify the storage location for the following project documents items:		
Item	Document	Location (e.g., Google Docs, Webspace)	Format
3.4a	Business Case	Operations Finance SharePoint	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4b	If available, the Final Project Schedule	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4c	Budget Documentation and Invoices	W:\Public\Accounts Payable\New Hampshire	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4d	Status Reports	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4e	Risks and Issues Log	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4f	Final deliverable	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4g	If applicable, verify that final project deliverable for the project is attached or storage location is identified in 3.4.		



Project Close Out Report

Section 4. Project Team ⁱⁱ

Project Manager to list resources specified in the Project Plan and used by the project.

Name	Role	Type (e.g., Contractor, Employee)
Anthony Strabone	Engineering	Employee
Mark Parker	Operations	Employee

Section 5. Project Lessons Learned

Project Team to identify lessons learned specifically for the project. State the lessons learned in terms of a problem (issue). If available, please include a Lesson Learned Log in the attached. Please summarize the top three issues on the project and the recommended improvements to correct a similar problem in the future.

Problem Statement	Problem Description	References	Recommendation
None	None	None	None

Section 7. Open Issues

Project Manager and Functional Lead to describe any open issues and plans for resolution within the context of project closeout. Include an open issue for any “no” responses in the Final Product and/or Service Acceptance Checklist and the Project Artifacts Checklist sections.

Issue	Planned Resolution
None	None



Project Close Out Report

Section 8. Project Cost Summary

Project Manager and Functional Lead to provide details for the following tables.

Cost Category	1- Budget	2- Actual	3 = 1 -2 Variance
Cost of Design & Engineering (\$)			
Cost of Materials (\$)		\$25,374	
Cost of Construction (\$)			
External Costs (\$)		\$88,290	
Internal Costs (\$)		\$101,251	
Other (\$)			
Burden & AFUDC (\$)		\$234,937	
Total Project Costs (\$)	\$200,000	\$449,852	(\$249,852)

Reasons for Variance	Impact
See Change order #1	\$500,000

Project Manager to list of all work orders associated with project that should be closed once Close Out Report is accepted.

Registry of All Job Codes (Regional, Corporate, LABs)
Various

ⁱ This section assumes an accounting audit has been completed ensuring all outstanding payments have been reconciled to the project

ⁱⁱ For Section 4 in filling out the Project Team Section, for those projects following the materiality limit set forth in the work order approval limits greater than \$5M please complete this section, all other projects do not require this.

Liberty Utilities (Granite State Electric) d/b/a Liberty
DE 19-064 2021 Step Adjustment
Project #8830-2114 Third Party Attachment Blanket

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>CIAC</u>	<u>AFUDC</u>	<u>Total Spend</u>
2020	\$8,958.12	\$644.02	\$42,897.86	\$22,883.22	(\$94,959.47)	\$192.55	(\$19,383.70)
2021	\$21,413.80	\$12,953.04	\$82,422.36	\$75,744.28	(\$9,377.70)	\$543.05	\$183,698.83
Total	\$30,371.92	\$13,597.06	\$125,320.22	\$98,627.50	(\$104,337.17)	\$735.60	\$164,315.13



Capital Project Expenditure Form

2021

Project Name:	GSE-Dist-3rd Party Attach Blanket		
Financial Work Order (FWO):		Project ID #:	8830-2114
Requesting Region or Group:	Granite State Electric Co.	Date of Request (MM/DD/YY):	1/4/2021
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2021
Project Lead:	Anthony Strabone	Project End Date:	12/31/2021
Prepared by:	Anthony Strabone	Requested Capital (\$)	\$125,000
Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned		
Project Type: (Click appropriate boxes)	<input type="checkbox"/> Safety <input checked="" type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input type="checkbox"/> Discretionary		
Spending Rationale:	<input type="checkbox"/> Growth <input type="checkbox"/> Improvement <input checked="" type="checkbox"/> Replenishment		

Details of Request

Project description
This blanket will provide funding for make ready work associated with Third Party Attachments. Re-working of our electrical pole mounted equipment is required at times to accommodate requests from Third Party Companies (i.e. Comcast) to attach to our poles.

Is this project growth or customer connection related? If “yes”, list the specific locations and how expenditure aligns with customer expansion objectives.
No.

Please describe any permitting requirements, environmental impacts, or resulting performance obligations that may or may not result from this expenditure?
Permitting may be required for new pole installations.

Will there be assets, greater than \$5,000, currently in service removed as a result of this expenditure?
<p><i>GUIDANCE: If yes, please detail the specific assets that will be removed:</i></p> <ol style="list-style-type: none"> 1. Original Cost of Plant to be removed (if known): Not Known 2. What is the replacement cost of the plant being removed (if original cost not known)? Not Known 3. Original Work Order of Plant to be removed (if known): Not Known 4. Is the Plant being removed reusable? No 5. What is the year of original installation of the plant being removed: Varied

What alternatives were evaluated and why were they rejected?
Alternatives will be considered on a case by case basis. However since the majority, if not all, equipment replacement associated with this blanket will be one for one replacements; alternative options may not be feasible.



Capital Project Expenditure Form

2021

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

Costs associated with this expenditure will need to be captured under other Capital Expenditure Blankets.

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

Work associated with this expenditure will be performed in accordance with the Company's Safety Manual and other industry accepted safety practices.

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

No

Complete the Financial Summary table only if:

- Project is less than \$100,000; or
- Project category is *Mandated* or *Safety* (Business Case Form not required)

Financial Summary

Next Anticipated Test Year	2022	Was this Capital Project included in the current year's Board Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Regulatory Lag (Click appropriate box)	<input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 – 12 months <input checked="" type="checkbox"/> 1 – 3 years <input type="checkbox"/> Greater than three years		
Which regulatory constructs will be used for recovering this capital spend?			
Please Specify Basis of Estimate For materials, equipment, and construction requiring Engineering drawings please specify the percent complete: ¹	<input type="checkbox"/> Fixed or Firm Price <input checked="" type="checkbox"/> Estimate – Internal <input type="checkbox"/> Estimate – External <input type="checkbox"/> Other (specify details) Click here to enter text.		
Category	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 (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	\$125,000		



Capital Project Expenditure Form

2021

Approvals and Signatures ⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager:	Up to \$50,000	Anthony Strabone Senior Manager, Electric Engineering	<i>Anthony Strabone</i>	01/14/2021
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.01.15 08:05:01 -05'00'</small>	
Senior VP/VP:	Up to \$500,000		Richard MacDonald <small>Digitally signed by Richard MacDonald Date: 2021.01.15 14:22:03 -05'00'</small>	
State President:	Up to \$500,000			
Regional President:	Up to \$3,000,000			
Corporate – Sr. VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			
Finance (East) – Vice President, Finance & Administration:	All Requests	Peter Dawes VP, Finance & Administration		

ⁱ For Best Practices on estimating project contingencies please see the Capital Policy.

ⁱⁱ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Change Order Form

Project Overview

Reason for Change: Increase project costs

Project ID:	8830-2114	Project Name:	GSE-Dist-3rd Party Attach Blanket
Change Order Name:	8830-2114 3 rd Party	Date Prepared:	4/22/21
Change Order #:	8830-2114-1	Financial Work Order (FWO):ⁱ	Various
Project Sponsor:	Charles Rodrigues	Revised Start Date:	1/1/2021
Project Lead:	Anthony Strabone	Revised End Date:ⁱⁱ	12/31/2021
Prepared By:	Anthony Strabone	Change Typeⁱⁱⁱ	<input checked="" type="checkbox"/> In Scope <input type="checkbox"/> Out of Scope
Project Contingency Available?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If No is Selected, Please specify source of funds^{iv}	

Financial Assessment/Cost Estimates

(Double click embedded excel file to update; include contingency allowance in excel file)

Category	Original Project Value	Previous Approved Charges	Current Change Order Amount	Total
Internal Labor				
Materials				
Equipment				
Contractor/Subcontractor				
Burdens/Overheads				
AFUDC				
Total Project Cost	\$125,000		\$175,000	\$300,000

Updated Unlevered Internal Rate of Return:

Basis of Current Change Order Amount: \$175,000

Over expenditure is being driven by costs associated with Third Party Attachment Requests, and more specifically two carry over projects from 2020. At the time of this change order being prepared, these two projects total approximately 62% of the current spend. Taking into account the current spend and historic spend rates of April through December, the Company anticipates requiring additional Capital for this blanket in order to perform 'make ready' work related to requests from Third Party Companies

Schedule Impacts

(As a result of the Change Order, where applicable, List the Impacts to schedule)

Baseline Schedule (BL)	New Forecast (NF)	Variance (BL – NF)
N/A	N/A	N/A



Change Order Form

Approvals and Signatures^v

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager/ Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager: :	Up to \$50,000	Anthony Strabone Sr Manager, Electric Engineering	<i>Anthony Strabone</i>	04/23/2021
Senior Director/Director:	Up to \$250,000	Charles Rodrigues, Director Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.04.27 08:22:17 -04'00'</small>	
State President / Senior VP / VP:	Up to \$500,000	Richard Macdonald VP Operations	Richard MacDonald <small>Digitally signed by Richard MacDonald Date: 2021.04.27 11:31:52 -04'00'</small>	
Regional President:	Up to \$3,000,000	James Sweeney East Region President		
Corporate - Sr VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			

ⁱ The Financial Work Order Section captures the work order this change falls under when the job was initially set-up

ⁱⁱ The Revised project end date is dependent on changes in scope that may deviate the schedule from the original plan

ⁱⁱⁱ The Change type for In scope or Out of scope changes fall within the following scenario:

- In Scope changes are deviations of scope from the original plan and approved budget that align to the original scope of the project but have revised pricing as a result of changes in pricing of labour, materials, and equipment
- Out of Scope changes are scope changes that were not originally planned for in the project baselines and approved budget. Examples of this type of change are related to changes in technology, missed deliverables, a change in the project design altering the scope of the project, etc.

^{iv} In cases where the project no longer has contingency to cover project change orders, please specify any other sources of funds that would address the project variance (i.e. not executing another project, delaying scope of another project, etc)

^v Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Project Close Out Report

2021

Requesting Region or Group:	Granite State Electric	Date of Close out (MM/DD/YY):	02/18/22
Project Name:	GSE-Dist-3rd Party Attach Blanket 8830-2114		
Requesting Region:	East Region	Sponsor (Name):	Christopher Steele
Project Champion:	Melvin Emerson	Project Champion	Anthony Strabone
Project Status	<input checked="" type="checkbox"/> In Service <input type="checkbox"/> Complete <input type="checkbox"/> Closed		
Project Start Date:	01/01/2021	Project Completion Date:	12/31/2021
Requested Capital (\$)	\$125,000	Expenditure Included in Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Section 1. Approval

Approval of the Project Closeout and Assessment Report indicates an understanding and formal agreement that the project is ready to be closed. By signing this document, each individual agrees all administrative, financial, and logistical aspects of the project should be concluded, executed, and documented as described herein.

Further, by signing this Report, it is accepted that CWIP (FERC Account 107) should be transferred to Utility in Plant Service (FERC Account 101)

Approver Name	Title	Signature	Date
Melvin Emerson	Capital Lead	<i>Melvin Emerson</i>	2/28/2022
Anthony Strabone	Sr. Manager, Electric Engineering	<i>Anthony Strabone</i>	02/28/2022
Christopher Steele	Sr. Director, Electric Operations	Christopher Steele	Digitally signed by Christopher Steele Date: 2022.03.28 15:19:05 -04'00'

Section 2. Final Deliverable/Deployment Checklist

Sponsor to respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response
2.1	Do you agree that the product and/or service is ready to be deployed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.2	Do you agree the product and/or service has sufficiently met the stated business goals and objectives?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.3	Do you fully understand and agree to accept all operational requirements, operational risks, maintenance costs, and other limitations and/or constraints imposed as a result of ongoing operations of the product and/or service?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.4	Has the final unitization estimate been provided to Property Accounting?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>



Project Close Out Report

2021

Item	Question	Response
2.5	Do you agree the project should be closed? If no, please explain:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	<i>Scale of 1 thru 5; 5 = highest</i>	
	Rate your level of satisfaction with regards to the project outcomes listed below	
2.5	Project Quality	5/5
2.6	Product and/or Service Performance	5/5
2.7	Scope	3/5
2.8	Cost (Budget)	3/5
2.9	Schedule	5/5

Section 3. Project Documentation Checklist

Project Manager Respond to each question. For each “no” response, include an issue in Open Issues section.

Item	Question	Response	
3.1	Have project documentation and other items (e.g., Business Case, Project Plan, Charter, Budget Documents, Status Reports) been prepared, collected, filed, and/or disposed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.3 ⁱ	Were audits (e.g., project closeout audit) completed and results documented for future reference?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.4	Identify the storage location for the following project documents items:		
Item	Document	Location (e.g., Google Docs, Webspaces)	Format
3.4a	Business Case	Operations Finance SharePoint	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4b	If available, the Final Project Schedule	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4c	Budget Documentation and Invoices	W:\Public\Accounts Payable\New Hampshire	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4d	Status Reports	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4e	Risks and Issues Log	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4f	Final deliverable	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4g	If applicable, verify that final project deliverable for the project is attached or storage location is identified in 3.4.		



Project Close Out Report

2021

Section 4. Project Teamⁱⁱ

Project Manager to list resources specified in the Project Plan and used by the project.

Name	Role	Type (e.g., Contractor, Employee)
Anthony Strabone	Engineering	Employee
Mark Parker	Operations	Employee

Section 5. Project Lessons Learned

Project Team to identify lessons learned specifically for the project. State the lessons learned in terms of a problem (issue). If available, please include a Lesson Learned Log in the attached. Please summarize the top three issues on the project and the recommended improvements to correct a similar problem in the future.

Problem Statement	Problem Description	References	Recommendation
None	None	None	None

Section 7. Open Issues

Project Manager and Functional Lead to describe any open issues and plans for resolution within the context of project closeout. Include an open issue for any “no” responses in the Final Product and/or Service Acceptance Checklist and the Project Artifacts Checklist sections.

Issue	Planned Resolution
None	None



Project Close Out Report

2021

Section 8. Project Cost Summary

Project Manager and Functional Lead to provide details for the following tables.

Cost Category	1- Budget	2- Actual	3 = 1 -2 Variance
Cost of Design & Engineering (\$)			
Cost of Materials (\$)		\$15,873	
Cost of Construction (\$)			
External Costs (\$)		\$148,011	
Internal Costs (\$)		\$44,815	
Other (\$)		\$ (165,149)	
Burden & AFUDC (\$)		\$130,374	
Total Project Costs (\$)	\$125,000	\$173,924	(\$48,924)

Reasons for Variance	Impact
See Change order #1	\$175,000

Project Manager to list of all work orders associated with project that should be closed once Close Out Report is accepted.

Registry of All Job Codes (Regional, Corporate, LABs)
Various

ⁱ This section assumes an accounting audit has been completed ensuring all outstanding payments have been reconciled to the project

ⁱⁱ For Section 4 in filling out the Project Team Section, for those projects following the materiality limit set forth in the work order approval limits greater than \$5M please complete this section, all other projects do not require this.



Change Order Form

Project Overview

Reason for Change: Increase project costs

Project ID:	8830-2114	Project Name:	GSE-Dist-3rd Party Attach Blanket
Change Order Name:	8830-2114 3 rd Party	Date Prepared:	4/22/21
Change Order #:	8830-2114-1	Financial Work Order (FWO):ⁱ	Various
Project Sponsor:	Charles Rodrigues	Revised Start Date:	1/1/2021
Project Lead:	Anthony Strabone	Revised End Date:ⁱⁱ	12/31/2021
Prepared By:	Anthony Strabone	Change Typeⁱⁱⁱ	<input checked="" type="checkbox"/> In Scope <input type="checkbox"/> Out of Scope
Project Contingency Available?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If No is Selected, Please specify source of funds^{iv}	

Financial Assessment/Cost Estimates

(Double click embedded excel file to update; include contingency allowance in excel file)

Category	Original Project Value	Previous Approved Charges	Current Change Order Amount	Total
Internal Labor				
Materials				
Equipment				
Contractor/Subcontractor				
Burdens/Overheads				
AFUDC				
Total Project Cost	\$125,000		\$175,000	\$300,000

Updated Unlevered Internal Rate of Return:

Basis of Current Change Order Amount: \$175,000

Over expenditure is being driven by costs associated with Third Party Attachment Requests, and more specifically two carry over projects from 2020. At the time of this change order being prepared, these two projects total approximately 62% of the current spend. Taking into account the current spend and historic spend rates of April through December, the Company anticipates requiring additional Capital for this blanket in order to perform 'make ready' work related to requests from Third Party Companies

Schedule Impacts

(As a result of the Change Order, where applicable, List the Impacts to schedule)

Baseline Schedule (BL)	New Forecast (NF)	Variance (BL – NF)
N/A	N/A	N/A



Change Order Form

Approvals and Signatures^v

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager/ Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager: :	Up to \$50,000	Anthony Strabone Sr Manager, Electric Engineering	<i>Anthony Strabone</i>	04/23/2021
Senior Director/Director:	Up to \$250,000	Christopher Steele, Senior Director Elec Ops	Christopher Steele <small>Digitally signed by Christopher Steele Date: 2022.03.28 15:18:23 -04'00'</small>	
State President / Senior VP / VP:	Up to \$500,000	Neil Proudman, President NH	Neil Proudman <small>Digitally signed by Neil Proudman Date: 2022.03.28 16:00:38 -04'00'</small>	
Regional President:	Up to \$3,000,000	James Sweeney East Region President		
Corporate - Sr VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			

ⁱ The Financial Work Order Section captures the work order this change falls under when the job was initially set-up

ⁱⁱ The Revised project end date is dependent on changes in scope that may deviate the schedule from the original plan

ⁱⁱⁱ The Change type for In scope or Out of scope changes fall within the following scenario:

- In Scope changes are deviations of scope from the original plan and approved budget that align to the original scope of the project but have revised pricing as a result of changes in pricing of labour, materials, and equipment
- Out of Scope changes are scope changes that were not originally planned for in the project baselines and approved budget. Examples of this type of change are related to changes in technology, missed deliverables, a change in the project design altering the scope of the project, etc.

^{iv} In cases where the project no longer has contingency to cover project change orders, please specify any other sources of funds that would address the project variance (i.e. not executing another project, delaying scope of another project, etc)

^v Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.

Liberty Utilities (Granite State Electric) d/b/a Liberty
DE 19-064 2021 Step Adjustment
Project #8830-2121 Distribution Reliability Blanket

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>CIAC</u>	<u>AFUDC</u>	<u>Total Spend</u>
2020	\$21,337.83	\$333.16	\$7,681.84	\$12,662.59	\$0.00	\$160.47	\$42,175.89
2021	\$29,160.84	\$14,411.05	\$14,429.00	\$74,512.89	\$0.00	\$164.67	\$132,678.45
Total	\$50,498.67	\$14,744.21	\$22,110.84	\$87,175.48	\$0.00	\$325.14	\$174,854.34



Capital Project Expenditure Form

2021

Project Name:	GSE-Dist-Reliability Blanket		
Financial Work Order (FWO):		Project ID #:	8830-2121
Requesting Region or Group:	Granite State Electric Co.	Date of Request (MM/DD/YY):	1/4/2021
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2021
Project Lead:	Anthony Strabone	Project End Date:	12/31/2021
Prepared by:	Anthony Strabone	Requested Capital (\$)	\$161,000
Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned		
Project Type: (Click appropriate boxes)	<input type="checkbox"/> Safety <input checked="" type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input type="checkbox"/> Discretionary		
Spending Rationale:	<input type="checkbox"/> Growth <input checked="" type="checkbox"/> Improvement <input type="checkbox"/> Replenishment		

Details of Request

Project description
<p>This blanket will provide funding for projects identified to resolve and/or improve system reliability performance. Projects under this blanket may include:</p> <ul style="list-style-type: none"> • Re-conductor due to mechanical capacity • Replacement of bare conductors to minimize tree related interruptions • Construction necessary to correct hazardous conditions • Replace open wire secondary with cable • Replace customer overhead service wire due to condition • Install sectionalizing equipment • Increase size of pole for proper spacing or road clearance.

Is this project growth or customer connection related? If “yes”, list the specific locations and how expenditure aligns with customer expansion objectives.
These projects are not related to growth.

Please describe any permitting requirements, environmental impacts, or resulting performance obligations that may or may not result from this expenditure?
Permitting may be required for pole installations and installation of underground electrical facilities including installation of conduit.

Will there be assets, greater than \$5,000, currently in service removed as a result of this expenditure?
<p><i>GUIDANCE: If yes, please detail the specific assets that will be removed:</i></p> <ol style="list-style-type: none"> 1. <i>Original Cost of Plant to be removed (if known):</i> Not known 2. <i>What is the replacement cost of the plant being removed (if original cost not known)?</i> Not Known 3. <i>Original Work Order of Plant to be removed (if known):</i> Not Known 4. <i>Is the Plant being removed reusable?</i> No 5. <i>What is the year of original installation of the plant being removed:</i> Varied



Capital Project Expenditure Form

What alternatives were evaluated and why were they rejected?
 Alternatives will be considered on a case by case basis as part of determining the best option for a specific project.

What are the risks and consequences of not approving this expenditure?
 Costs associated with this expenditure will need to be captured under other Capital Expenditure Blankets.

Please describe how Health, Safety and Security concerns and impacts as a result of this expenditure been addressed.
 Work associated with this expenditure will be performed in accordance with the Company's Safety Manual and other industry accepted safety practices.

Are there other pertinent details that may affect the decision making process?
 No

Complete the Financial Summary table only if:

- Project is less than \$100,000; or
- Project category is *Mandated* or *Safety* (Business Case Form not required)

Financial Summary

Next Anticipated Test Year	2022	Was this Capital Project included in the current year's Board Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Regulatory Lag (Click appropriate box)	<input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 – 12 months <input checked="" type="checkbox"/> 1 – 3 years <input type="checkbox"/> Greater than three years		
Which regulatory constructs will be used for recovering this capital spend?			
Please Specify Basis of Estimate For materials, equipment, and construction requiring Engineering drawings please specify the percent complete: ¹	<input type="checkbox"/> Fixed or Firm Price <input checked="" type="checkbox"/> Estimate – Internal <input type="checkbox"/> Estimate – External <input type="checkbox"/> Other (specify details) Click here to enter text.		
Category	Current Year	Future Years	Authorized Amount (to be filled in by Corporate)
Cost of Design & Engineering (\$)			
Cost of Materials (\$)			
Cost of Construction (\$)			
External Costs (\$)			



Capital Project Expenditure Form

2021

Internal Costs (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)		\$161,000	

Approvals and Signatures ⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager:	Up to \$50,000	Anthony Strabone Senior Manager, Electric Engineering	<i>Anthony Strabone</i>	01/14/2021
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.01.15 07:52:46 -05'00'</small>	
Senior VP/VP:	Up to \$500,000	Richard MacDonald Vice President, Operations	Richard MacDonald <small>Digitally signed by Richard MacDonald Date: 2021.01.15 14:41:16 -05'00'</small>	
State President:	Up to \$500,000	Susan Fleck President, NH		
Regional President:	Up to \$3,000,000	James Sweeney President, East Region		
Corporate – Sr. VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			
Finance (East) – Vice President, Finance & Administration:	All Requests	Peter Dawes VP, Finance & Administration		

ⁱ For Best Practices on estimating project contingencies please see the Capital Policy.

ⁱⁱ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Change Order Form

Project Overview

Reason for Change: Increase project costs

Project ID:	8830-2121	Project Name:	GSE-Reliability Blanket
Change Order Name:	8830-2121 Reliability	Date Prepared:	5/17/21
Change Order #:	8830-2121-1	Financial Work Order (FWO):ⁱ	Various
Project Sponsor:	Charles Rodrigues	Revised Start Date:	1/1/2021
Project Lead:	Anthony Strabone	Revised End Date:ⁱⁱ	12/31/2021
Prepared By:	Anthony Strabone	Change Typeⁱⁱⁱ	x In Scope <input type="checkbox"/> Out of Scope
Project Contingency Available?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If No is Selected, Please specify source of funds^{iv}	

Financial Assessment/Cost Estimates

(Double click embedded excel file to update; include contingency allowance in excel file)

Category	Original Project Value	Previous Approved Charges	Current Change Order Amount	Total
Internal Labor				
Materials				
Equipment				
Contractor/Subcontractor				
Burdens/Overheads				
AFUDC				
Total Project Cost	\$ 161,540		\$88,460	\$250,000

Updated Unlevered Internal Rate of Return:

Basis of Current Change Order Amount: \$88,460

Over expenditure is being driven by costs associated with numerous reliability work orders. Taking into account the current spend and historic spend rates of May through December, the Company anticipates requiring additional Capital for this blanket in order to perform work related to reliability requests.

Schedule Impacts

(As a result of the Change Order, where applicable, List the Impacts to schedule)

Baseline Schedule (BL)	New Forecast (NF)	Variance (BL – NF)
N/A	N/A	N/A



Change Order Form

Approvals and Signatures^v

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager/ Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager: :	Up to \$50,000	Anthony Strabone Sr Manager, Electric Engineering	<i>Anthony Strabone</i>	05/17/2021
Senior Director/Director:	Up to \$250,000	Charles Rodrigues, Director Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.05.17 13:50:39 -04'00'</small>	
State President / Senior VP / VP:	Up to \$500,000	Richard Macdonald VP Operations		
Regional President:	Up to \$3,000,000	James Sweeney East Region President		
Corporate - Sr VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			

ⁱ The Financial Work Order Section captures the work order this change falls under when the job was initially set-up

ⁱⁱ The Revised project end date is dependent on changes in scope that may deviate the schedule from the original plan

ⁱⁱⁱ The Change type for In scope or Out of scope changes fall within the following scenario:

- In Scope changes are deviations of scope from the original plan and approved budget that align to the original scope of the project but have revised pricing as a result of changes in pricing of labour, materials, and equipment
- Out of Scope changes are scope changes that were not originally planned for in the project baselines and approved budget. Examples of this type of change are related to changes in technology, missed deliverables, a change in the project design altering the scope of the project, etc.

^{iv} In cases where the project no longer has contingency to cover project change orders, please specify any other sources of funds that would address the project variance (i.e. not executing another project, delaying scope of another project, etc)

^v Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Project Close Out Report

2021

Requesting Region or Group:	Granite State Electric	Date of Close out (MM/DD/YY):	02/18/22
Project Name:	GSE-Dist-Reliability Blanket 8830-2121		
Requesting Region:	East Region	Sponsor (Name):	Christopher Steele
Project Champion:	Melvin Emerson	Project Champion	Anthony Strabone
Project Status	<input checked="" type="checkbox"/> In Service <input type="checkbox"/> Complete <input type="checkbox"/> Closed		
Project Start Date:	01/01/2021	Project Completion Date:	12/31/2021
Requested Capital (\$)	\$161,540	Expenditure Included in Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Section 1. Approval

Approval of the Project Closeout and Assessment Report indicates an understanding and formal agreement that the project is ready to be closed. By signing this document, each individual agrees all administrative, financial, and logistical aspects of the project should be concluded, executed, and documented as described herein.

Further, by signing this Report, it is accepted that CWIP (FERC Account 107) should be transferred to Utility in Plant Service (FERC Account 101)

Approver Name	Title	Signature	Date
Melvin Emerson	Capital Lead	<i>Melvin Emerson</i>	2/28/2022
Anthony Strabone	Sr. Manager, Electric Engineering	<i>Anthony Strabone</i>	02/28/2022
Christopher Steele	Sr. Director, Electric Operations	Christopher Steele	Digitally signed by Christopher Steele Date: 2022.03.28 15:16:43 -04'00'

Section 2. Final Deliverable/Deployment Checklist

Sponsor to respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response
2.1	Do you agree that the product and/or service is ready to be deployed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.2	Do you agree the product and/or service has sufficiently met the stated business goals and objectives?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.3	Do you fully understand and agree to accept all operational requirements, operational risks, maintenance costs, and other limitations and/or constraints imposed as a result of ongoing operations of the product and/or service?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.4	Has the final unitization estimate been provided to Property Accounting?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>



Project Close Out Report

2021

Item	Question	Response
2.5	Do you agree the project should be closed? If no, please explain:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	<i>Scale of 1 thru 5; 5 = highest</i>	
	Rate your level of satisfaction with regards to the project outcomes listed below	
2.5	Project Quality	5/5
2.6	Product and/or Service Performance	5/5
2.7	Scope	3/5
2.8	Cost (Budget)	3/5
2.9	Schedule	5/5

Section 3. Project Documentation Checklist

Project Manager Respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response	
3.1	Have project documentation and other items (e.g., Business Case, Project Plan, Charter, Budget Documents, Status Reports) been prepared, collected, filed, and/or disposed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.3 ⁱ	Were audits (e.g., project closeout audit) completed and results documented for future reference?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.4	Identify the storage location for the following project documents items:		
Item	Document	Location (e.g., Google Docs, Webspac)	Format
3.4a	Business Case	Operations Finance SharePoint	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4b	If available, the Final Project Schedule	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4c	Budget Documentation and Invoices	W:\Public\Accounts Payable\New Hampshire	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4d	Status Reports	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4e	Risks and Issues Log	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4f	Final deliverable	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4g	If applicable, verify that final project deliverable for the project is attached or storage location is identified in 3.4.		



Project Close Out Report

Section 4. Project Teamⁱⁱ

Project Manager to list resources specified in the Project Plan and used by the project.

Name	Role	Type (e.g., Contractor, Employee)
Anthony Strabone	Engineering	Employee
Mark Parker	Operations	Employee

Section 5. Project Lessons Learned

Project Team to identify lessons learned specifically for the project. State the lessons learned in terms of a problem (issue). If available, please include a Lesson Learned Log in the attached. Please summarize the top three issues on the project and the recommended improvements to correct a similar problem in the future.

Problem Statement	Problem Description	References	Recommendation
None	None	None	None

Section 7. Open Issues

Project Manager and Functional Lead to describe any open issues and plans for resolution within the context of project closeout. Include an open issue for any “no” responses in the Final Product and/or Service Acceptance Checklist and the Project Artifacts Checklist sections.

Issue	Planned Resolution
None	None



Project Close Out Report

2021

Section 8. Project Cost Summary

Project Manager and Functional Lead to provide details for the following tables.

Cost Category	1- Budget	2- Actual	3 = 1 -2 Variance
Cost of Design & Engineering (\$)			
Cost of Materials (\$)		\$116,687	
Cost of Construction (\$)			
External Costs (\$)		\$26,001	
Internal Costs (\$)		\$28,304	
Other (\$)			
Burden & AFUDC (\$)		\$78,829	
Total Project Costs (\$)	\$161,540	\$249,821	(\$88,281)

Reasons for Variance	Impact
See Change order #1	\$88,460
Cause 2	\$
Cause 3	\$

Project Manager to list of all work orders associated with project that should be closed once Close Out Report is accepted.

Registry of All Job Codes (Regional, Corporate, LABs)
Various

ⁱ This section assumes an accounting audit has been completed ensuring all outstanding payments have been reconciled to the project

ⁱⁱ For Section 4 in filling out the Project Team Section, for those projects following the materiality limit set forth in the work order approval limits greater than \$5M please complete this section, all other projects do not require this.



Change Order Form

Project Overview

Reason for Change: Increase project costs

Project ID:	8830-2121	Project Name:	GSE-Reliability Blanket
Change Order Name:	8830-2121 Reliability	Date Prepared:	5/17/21
Change Order #:	8830-2121-1	Financial Work Order (FWO):ⁱ	Various
Project Sponsor:	Charles Rodrigues	Revised Start Date:	1/1/2021
Project Lead:	Anthony Strabone	Revised End Date:ⁱⁱ	12/31/2021
Prepared By:	Anthony Strabone	Change Typeⁱⁱⁱ	x In Scope <input type="checkbox"/> Out of Scope
Project Contingency Available?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If No is Selected, Please specify source of funds^{iv}	

Financial Assessment/Cost Estimates

(Double click embedded excel file to update; include contingency allowance in excel file)

Category	Original Project Value	Previous Approved Charges	Current Change Order Amount	Total
Internal Labor				
Materials				
Equipment				
Contractor/Subcontractor				
Burdens/Overheads				
AFUDC				
Total Project Cost	\$ 161,540		\$88,460	\$250,000

Updated Unlevered Internal Rate of Return:

Basis of Current Change Order Amount: \$88,460

Over expenditure is being driven by costs associated with numerous reliability work orders. Taking into account the current spend and historic spend rates of May through December, the Company anticipates requiring additional Capital for this blanket in order to perform work related to reliability requests.

Schedule Impacts

(As a result of the Change Order, where applicable, List the Impacts to schedule)

Baseline Schedule (BL)	New Forecast (NF)	Variance (BL – NF)
N/A	N/A	N/A



Change Order Form

Approvals and Signatures^v

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager/ Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager: :	Up to \$50,000	Anthony Strabone Sr Manager, Electric Engineering	<i>Anthony Strabone</i>	05/17/2021
Senior Director/Director:	Up to \$250,000	Christopher Steele, Senior Director Elec Ops	Christopher Steele <small>Digitally signed by Christopher Steele Date: 2022.03.28 15:15:24 -04'00'</small>	
State President / Senior VP / VP:	Up to \$500,000	Richard Macdonald VP Operations		
Regional President:	Up to \$3,000,000	James Sweeney East Region President		
Corporate - Sr VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			

ⁱ The Financial Work Order Section captures the work order this change falls under when the job was initially set-up

ⁱⁱ The Revised project end date is dependent on changes in scope that may deviate the schedule from the original plan

ⁱⁱⁱ The Change type for In scope or Out of scope changes fall within the following scenario:

- In Scope changes are deviations of scope from the original plan and approved budget that align to the original scope of the project but have revised pricing as a result of changes in pricing of labour, materials, and equipment
- Out of Scope changes are scope changes that were not originally planned for in the project baselines and approved budget. Examples of this type of change are related to changes in technology, missed deliverables, a change in the project design altering the scope of the project, etc.

^{iv} In cases where the project no longer has contingency to cover project change orders, please specify any other sources of funds that would address the project variance (i.e. not executing another project, delaying scope of another project, etc)

^v Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.

Liberty Utilities (Granite State Electric) d/b/a Liberty
DE 19-064 2021 Step Adjustment
Project #8830-2124 LED Conversion

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>CIAC</u>	<u>AFUDC</u>	<u>Total Spend</u>
2020	\$40,138.47	\$18,748.08	\$3,651.25	\$61,876.75	(\$11,325.00)	\$974.67	\$114,064.22
2021	<u>\$35,729.53</u>	<u>\$120,286.91</u>	<u>\$5,625.00</u>	<u>\$134,769.50</u>	<u>(\$32,938.10)</u>	<u>\$10,129.20</u>	<u>\$273,602.04</u>
Total	\$75,868.00	\$139,034.99	\$9,276.25	\$196,646.25	(\$44,263.10)	\$11,103.87	\$387,666.26



Capital Project Expenditure Form

2021

Project Name:	LED Street Light Conversion		
Financial Work Order (FWO):		Project ID #:	8830-2124
Requesting Region or Group:	Granite State Electric Co.	Date of Request (MM/DD/YY):	1/4/2021
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2021
Project Lead:	Robert Johnson	Project End Date:	12/31/2021
Prepared by:	Anthony Strabone	Requested Capital (\$)	\$125,000
Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned		
Project Type: (Click appropriate boxes)	<input type="checkbox"/> Safety <input checked="" type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input type="checkbox"/> Discretionary		
Spending Rationale:	<input type="checkbox"/> Growth <input checked="" type="checkbox"/> Improvement <input type="checkbox"/> Replenishment		

Details of Request

Project description
<p>This project blanket will provide funding for Towns/Municipalities wanted to convert their existing Street Lighting to LED Street Lighting.</p> <p>Includes:</p> <ul style="list-style-type: none"> •LED Conversion •Install street light or flood light •Replace street light or flood light due to size, model or condition •Install conductor serving street light or flood light •Install street light pole or standard

Is this project growth or customer connection related? If “yes”, list the specific locations and how expenditure aligns with customer expansion objectives.
This project is not associated with load growth.

Please describe any permitting requirements, environmental impacts, or resulting performance obligations that may or may not result from this expenditure?
Permitting may be required for installation of new utility poles and underground conduit.

Will there be assets, greater than \$5,000, currently in service removed as a result of this expenditure?
<p><i>GUIDANCE: If yes, please detail the specific assets that will be removed:</i></p> <ol style="list-style-type: none"> 1. <i>Original Cost of Plant to be removed (if known):</i> Not Known 2. <i>What is the replacement cost of the plant being removed (if original cost not known)?</i> Not Known 3. <i>Original Work Order of Plant to be removed (if known):</i> Not Known 4. <i>Is the Plant being removed reusable?</i> No 5. <i>What is the year of original installation of the plant being removed:</i> Varied



Capital Project Expenditure Form

2021

What alternatives were evaluated and why were they rejected?

Alternatives will be considered on a case by case basis. However since the majority, if not all, equipment replacement associated with this blanket will be one for one replacements; alternative options may not be feasible

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

Costs associated with this expenditure will need to be captured under other Capital Expenditure Blankets

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

Work associated with this expenditure will be performed in accordance with the Company's Safety Manual and other industry accepted safety practices.

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

No

Complete the Financial Summary table only if:

- Project is less than \$100,000; or
- Project category is *Mandated* or *Safety* (Business Case Form not required)

Financial Summary

Next Anticipated Test Year	2022	Was this Capital Project included in the current year's Board Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Regulatory Lag (Click appropriate box)	<input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 – 12 months <input checked="" type="checkbox"/> 1 – 3 years <input type="checkbox"/> Greater than three years		
Which regulatory constructs will be used for recovering this capital spend?			
Please Specify Basis of Estimate For materials, equipment, and construction requiring Engineering drawings please specify the percent complete: ⁱ	<input type="checkbox"/> Fixed or Firm Price <input type="checkbox"/> Estimate – Internal <input type="checkbox"/> Estimate – External <input type="checkbox"/> Other (specify details) Click here to enter text.		
Category	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 (\$)			



Capital Project Expenditure Form

2021

Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)		\$125,000	

Approvals and Signatures ⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager:	Up to \$50,000	Anthony Strabone Senior Manager, Electric Engineering	<i>Anthony Strabone</i>	01/14/2021
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.01.15 08:07:59 -05'00'</small>	
Senior VP/VP:	Up to \$500,000	Richard MacDonald Vice President, Operations	Richard MacDonald <small>Digitally signed by Richard MacDonald Date: 2021.01.15 14:16:05 -05'00'</small>	
State President:	Up to \$500,000			
Regional President:	Up to \$3,000,000			
Corporate – Sr. VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			
Finance (East) – Vice President, Finance & Administration:	All Requests	Peter Dawes VP, Finance & Administration		

ⁱ For Best Practices on estimating project contingencies please see the Capital Policy.

ⁱⁱ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Project Close Out Report

2021

Requesting Region or Group:	Granite State Electric	Date of Close out (MM/DD/YY):	02/18/22
Project Name:	LED Street Light Conversion 8830-2124		
Requesting Region:	East Region	Sponsor (Name):	Christopher Steele
Project Champion:	Melvin Emerson	Project Champion	Anthony Strabone
Project Status	<input checked="" type="checkbox"/> In Service <input type="checkbox"/> Complete <input type="checkbox"/> Closed		
Project Start Date:	01/01/2021	Project Completion Date:	12/31/2021
Requested Capital (\$)	\$125,000	Expenditure Included in Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Section 1. Approval

Approval of the Project Closeout and Assessment Report indicates an understanding and formal agreement that the project is ready to be closed. By signing this document, each individual agrees all administrative, financial, and logistical aspects of the project should be concluded, executed, and documented as described herein.

Further, by signing this Report, it is accepted that CWIP (FERC Account 107) should be transferred to Utility in Plant Service (FERC Account 101)

Approver Name	Title	Signature	Date
Melvin Emerson	Capital Lead	<i>Melvin Emerson</i>	2/28/2022
Anthony Strabone	Sr. Manager, Electric Engineering	<i>Anthony Strabone</i>	02/28/2022
Christopher Steele	Sr. Director, Electric Operations	Christopher Steele <small>Digitally signed by Christopher Steele Date: 2022.03.31 16:18:42 -04'00'</small>	03/31/2022

Section 2. Final Deliverable/Deployment Checklist

Sponsor to respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response
2.1	Do you agree that the product and/or service is ready to be deployed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.2	Do you agree the product and/or service has sufficiently met the stated business goals and objectives?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.3	Do you fully understand and agree to accept all operational requirements, operational risks, maintenance costs, and other limitations and/or constraints imposed as a result of ongoing operations of the product and/or service?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.4	Has the final unitization estimate been provided to Property Accounting?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>



Project Close Out Report

2021

Item	Question	Response
2.5	Do you agree the project should be closed? If no, please explain:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	<i>Scale of 1 thru 5; 5 = highest</i>	
	Rate your level of satisfaction with regards to the project outcomes listed below	
2.5	Project Quality	5/5
2.6	Product and/or Service Performance	5/5
2.7	Scope	2/5
2.8	Cost (Budget)	2/5
2.9	Schedule	3/5

Section 3. Project Documentation Checklist

Project Manager Respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response	
3.1	Have project documentation and other items (e.g., Business Case, Project Plan, Charter, Budget Documents, Status Reports) been prepared, collected, filed, and/or disposed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.3 ⁱ	Were audits (e.g., project closeout audit) completed and results documented for future reference?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.4	Identify the storage location for the following project documents items:		
Item	Document	Location (e.g., Google Docs, Webspac)	Format
3.4a	Business Case	Operations Finance SharePoint	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4b	If available, the Final Project Schedule	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4c	Budget Documentation and Invoices	W:\Public\Accounts Payable\New Hampshire	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4d	Status Reports	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4e	Risks and Issues Log	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4f	Final deliverable	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4g	If applicable, verify that final project deliverable for the project is attached or storage location is identified in 3.4.		



Project Close Out Report

Section 4. Project Team ⁱⁱ

Project Manager to list resources specified in the Project Plan and used by the project.

Name	Role	Type (e.g., Contractor, Employee)
Anthony Strabone	Engineering	Employee
Mark Parker	Operations	Employee
Robert Johnson	Engineering	Employee

Section 5. Project Lessons Learned

Project Team to identify lessons learned specifically for the project. State the lessons learned in terms of a problem (issue). If available, please include a Lesson Learned Log in the attached. Please summarize the top three issues on the project and the recommended improvements to correct a similar problem in the future.

Problem Statement	Problem Description	References	Recommendation
None	None	None	None

Section 7. Open Issues

Project Manager and Functional Lead to describe any open issues and plans for resolution within the context of project closeout. Include an open issue for any “no” responses in the Final Product and/or Service Acceptance Checklist and the Project Artifacts Checklist sections.

Issue	Planned Resolution
None	None



Project Close Out Report

Section 8. Project Cost Summary

Project Manager and Functional Lead to provide details for the following tables.

Cost Category	1- Budget	2- Actual	3 = 1 -2 Variance
Cost of Design & Engineering (\$)			
Cost of Materials (\$)		\$187,419	
Cost of Construction (\$)			
External Costs (\$)		\$7,027	
Internal Costs (\$)		\$47,783	
Other (\$)		\$ (113,928)	
Burden & AFUDC (\$)		\$203,264	
Total Project Costs (\$)	\$125,000	\$ 331,565	(\$206,565)

Reasons for Variance	Impact
See Change order #1	\$150,000
See Change order #2	\$82,000

Project Manager to list of all work orders associated with project that should be closed once Close Out Report is accepted.

Registry of All Job Codes (Regional, Corporate, LABs)
Various

ⁱ This section assumes an accounting audit has been completed ensuring all outstanding payments have been reconciled to the project

ⁱⁱ For Section 4 in filling out the Project Team Section, for those projects following the materiality limit set forth in the work order approval limits greater than \$5M please complete this section, all other projects do not require this.



Change Order Form

Project Overview

Reason for Change: Budget Increase to fund project to accommodate work associated with LED St Light Conversions

Project ID:	8830-2124	Project Name:	Street light conversation
Change Order Name:	8830-2124 LED street light conversation	Date Prepared:	1/18/22
Change Order #:	8830-2124-2	Financial Work Order (FWO):ⁱ	
Project Sponsor:	Christopher Steele	Revised Start Date:	1/1/2020
Project Lead:	Robert Johnson	Revised End Date:ⁱⁱ	12/31/2021
Prepared By:	Anthony Strabone	Change Typeⁱⁱⁱ	<input checked="" type="checkbox"/> In Scope <input type="checkbox"/> Out of Scope
Project Contingency Available?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If No is Selected, Please specify source of funds^{iv}	8830-2193 Facilities Capital Improvements \$82K

Financial Assessment/Cost Estimates

(Double click embedded excel file to update; include contingency allowance in excel file)

Category	Original Project Value	Previous Approved Charges	Current Change Order Amount	Total
Internal Labor				
Materials				
Equipment				
Contractor/Subcontractor				
Burdens/Overheads				
AFUDC				
Total Project Cost	\$125,000	\$125,000	\$82,000	\$332,000

Updated Unlevered Internal Rate of Return:

Basis of Current Change Order Amount: \$82,000

Over expenditure is being driven by costs associated with light replacements that were carryover from 2020 to 2021. The Town of Salem requested 630 street lights to be converted in 2020. Unfortunately, due to the Town of Salem not signing the agreement and issuing payment until October 2020, Liberty was only able to complete 100 street light conversions, pushing the remaining replacements into 2021.

Schedule Impacts

(As a result of the Change Order, where applicable, List the Impacts to schedule)

Baseline Schedule (BL)	New Forecast (NF)	Variance (BL - NF)
N/A	N/A	N/A



Change Order Form

Approvals and Signatures^v

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager/ Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager: :	Up to \$50,000	Anthony Strabone Sr Manager, Electric Engineering	<i>Anthony Strabone</i>	01/29/2022
Senior Director/Director:	Up to \$250,000	Christopher Steele, senior Director, Electric Operations	Christopher Steele <small>Digitally signed by Christopher Steele Date: 2022.02.03 08:37:26 -05'00'</small>	
State President / Senior VP / VP:	Up to \$500,000	Neil Proudman NH President	Neil Proudman <small>Digitally signed by Neil Proudman Date: 2022.02.03 12:10:18 -05'00'</small>	
Regional President:	Up to \$3,000,000	James Sweeney East Region President		
Corporate - Sr VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			

ⁱ The Financial Work Order Section captures the work order this change falls under when the job was initially set-up

ⁱⁱ The Revised project end date is dependent on changes in scope that may deviate the schedule from the original plan

ⁱⁱⁱ The Change type for In scope or Out of scope changes fall within the following scenario:

- In Scope changes are deviations of scope from the original plan and approved budget that align to the original scope of the project but have revised pricing as a result of changes in pricing of labour, materials, and equipment
- Out of Scope changes are scope changes that were not originally planned for in the project baselines and approved budget. Examples of this type of change are related to changes in technology, missed deliverables, a change in the project design altering the scope of the project, etc.

^{iv} In cases where the project no longer has contingency to cover project change orders, please specify any other sources of funds that would address the project variance (i.e. not executing another project, delaying scope of another project, etc)

^v Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.

Liberty Utilities (Granite State Electric) d/b/a Liberty
DE 19-064 2021 Step Adjustment
Project #8830-2125 IT

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>CIAC</u>	<u>AFUDC</u>	<u>Total Spend</u>
<u>2021</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$379,186.69</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$379,186.69</u>
Total	\$0.00	\$0.00	\$379,186.69	\$0.00	\$0.00	\$0.00	\$379,186.69



Capital Project Business Case

2018

NOTE: This form is required for planned Growth, Regulatory Supported, and Discretionary projects as well as combined blanket projects for Safety and Mandated with Growth, Regulatory Supported, and Discretionary Projects with a spend greater than \$100,000 and all unplanned projects. All other Project types can utilize the Capital Expenditure Application Form.

Project Overview			
Project Name:	Payments Project	Date Prepared:	February 11, 2020
Project ID#:	Click here to enter text.	Cost Estimate:	
Project Sponsor:	Brent Baker (Successor: Lauren Preston)	Project Start Date:	February 18, 2020
Project Lead:	Prafull Koli	Project End Date:	October 1, 2020
Prepared By:	Prafull Koli	Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned
Project Type (click appropriate boxes):	<input type="checkbox"/> Safety <input checked="" type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input type="checkbox"/> Discretionary		

Project Scope Statement
(Insert the scope of work, major deliverables, assumptions, and constraints)

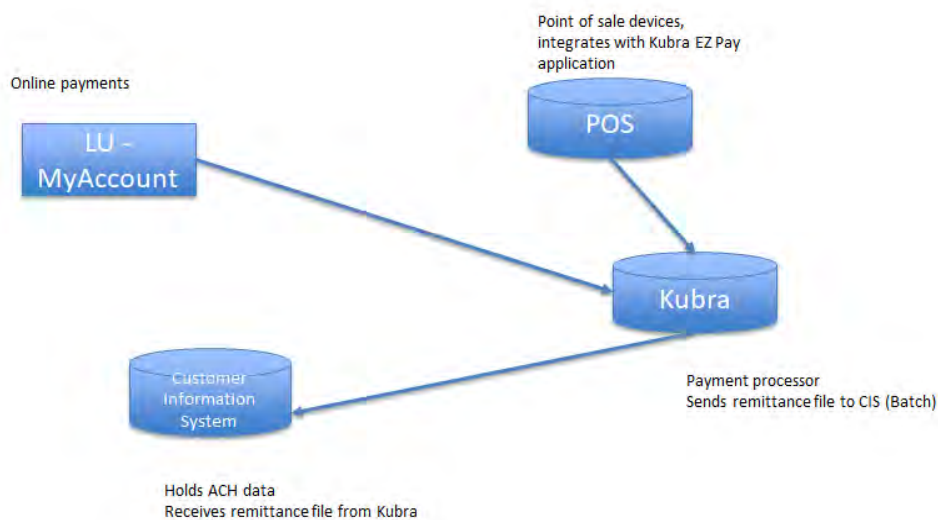
The Payment Processing Project will deliver the foundation for a single payment processing platform for the enterprise. This will allow Liberty Utilities to provide a positive and consistent payment experience and enable payments to be processed efficiently, accurately and securely.

The scope of this project includes the following payment channels and tender types:

#	Payment Channels	Tender types		
		E-Check	Credit card	Debit card
1	Libertyutilities.com. One-time payment for non-registered customers	✓	✓	✓
2	IVR. Payments via LU's Toll-Free Number	✓	✓	✓
3	Point of Sale (card readers). Customers walking into the local office with their credit/debit cards	✗	✓	✓
4	Auto-Pay. Customers with banking info setup at LU.	✓	✓	✓

The project will be implemented in various phases as outlined below.

Phase #	Region	Customer Count	Driver	System
1	AZ/TX - West	75703	- CIS Upgrade	Cogsdale v11.22 to 14.36
2	NH - East ARK/GA/MID - Central CA - West	419775	- Volume - System repeatable - SAP-ready	Cogsdale v14.36
3	Empire - Central	221312	- Volume - System repeatable - SAP-ready	Customer Watch



The above diagram shows the high level integration that is further detailed below:

Online payments: The assumption is to mirror existing process as much as possible. Following cutover for specific regions, one-time payment transactions initiated from LibertyUtilities.com will point to the Kubra EZ Pay platform. The customer experience will be managed by ensuring the Liberty Utilities branding guidelines are followed. Basic customer account authentication process will be adopted, these details will be established during the workshops with Kubra. The existing process of leveraging MAM file for basic authentication and presenting the customer with payment balance will be adopted.

Auto-Pay: It is expected that the existing CIS systems hold and maintain ACH data. The customer enrollment for this process will continue following existing process. The NACHA files that are generated by the CIS systems will be transferred to Kubra for processing via standard file transfer process approved by the customer first technical



Capital Project Business Case

Architecture team. All remittance files originating from Kubra will also follow standard file transfer process and be sent to the corresponding CIS system for upload. Any process changes will be detailed during the workshops.

Point of Sale (POS): This will be a new process that will be introduced to customer walk in centers. These are physical devices (Card readers) that will be deployed which in turn will be integrated to the Kubra EZ Pay platform. The KUBRA IDOXs application is cloud based and will be made available to the customer service agent. The following are the high level steps in the process (this will be detailed during the workshops):

- The customer service agent will have access to KUBRA IDOXs application to facilitate customer walk in payments
- The customer service agent validates the customer account
- The customer service agent confirms the amount the customer would like to pay with respect to the bill
- The customer service agent selects the SWIPE option on their screen and hands the POS terminal to the customer to process with their payment
- The customer confirms the payment amount on the POS terminal
- The customer swipes the card for payment
- Once payment is processed and authorized and receipt of the transaction is provided to the customer

IVR Payments: The existing IVR process for payments will be kept intact as much as possible. This will be determined during the workshops. However, there are regions that will have this payment channel be available to the customer for the first time. The IVR option of payment will follow a customer hand off to the KUBRA IVR when the payment option is selected. This process will again adopt the basic customer account validation. The details of the customer account validation will be determined during the workshop along with the Customer first team. It has not been decided yet, whether the customer validation will be performed within Liberty Utilities prior to handoff to Kubra.

Once the customer is transferred to the Kubra IVR, the process will follow the one-time payment process to complete the transaction. A notification is also sent to the customer to complete the transaction.

Assumptions:

As the SAP customer first transformation is underway, the guidance for the project is to minimize any interim customization to the existing CIS systems.

The work effort for AZ/TX region will overlap with the upgrade project, as such effort specific to Payments project for testing and change management will fall within the scope of the payments project.

The specific go live date for AZ/TX will be coordinated with the South Upgrade project

The payments project will have dependencies on the South Upgrade project:

- Testing environment and customer data
- LibertyUtilities.com test environment
- Deployment planning and cutover/stabilization

Background

(Insert description of current operational arrangement, and brief history of project & asset)

Currently, there are various payment Vendors serving Liberty Utilities customers depending on their geographical location. Since the payment vendors operate independently of each other, there is a challenge in delivering a consistent customer experience and payment product offerings across the enterprise. By serving customers through the right channel, Liberty Utilities can expect to see operational efficiencies through call reduction, vendor



Capital Project Business Case

cost reduction and business process improvements.

With the current technological innovation in the payments industry and the regulations that contribute to its evolution, there is a significant shift in customer expectations of doing business with Liberty Utilities. Customers now expect and/or demand not only a consistent and robust self-service payment options, but also a smoother user experience in a manner that balances security and convenience.

Recommendation/Objective

(Insert the unique problem this project is looking to resolve)

LU sponsors recommend moving forward with the delivery of a single platform for payment processing across the enterprise.

Introducing the new platform will resolve the following problems:

1. Allows customers to have consistent experience, regardless of their geographical location
2. Allows CSRs to consistently support payment-related customer inquiries across the enterprise, reducing confusion as to which payment channels/vendors operate in which region
3. Provides customers with various payment options, eliminating wait times at the local offices
4. Supports PCI Compliance

Alternatives/Options

(Describe all reasonably viable alternatives. Discuss the viability of each and provide reasons if rejected)

Alternative	Pro	Cons	Recommendation
Status Quo	<ul style="list-style-type: none"> • Frees up resources to focus on customer first program 	<ul style="list-style-type: none"> • Inconsistent customer experience across enterprise • No improvement in customer service • Upgraded AZ/TX environment does not support online payments • No reduction in operating cost 	Not recommended

Financial Assessment/Cost Estimates

(Double click embedded excel file to update; include contingency allowance in excel file)



Capital Project Business Case

Next Anticipated Test Year Multiple, see addendum	Click to select a date	Was this Capital Project included in the current year's Board Approved Budget?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Regulatory Lag (Click appropriate box)			
<input type="checkbox"/> Less than 6 Months <input type="checkbox"/> 6-12 Months <input type="checkbox"/> 1 to 3 years <input type="checkbox"/> Greater than 3 years			

eCustomer - Kubra	Project Total	% of Total
unit: US\$		
Implementation Costs	\$ 2,479,995.00	74.48%
Labour & T&E	\$ 844,845.00	25.37%
Other	\$ 5,000.00	0.15%
Total	\$ 3,329,840.00	100.00%

Unlevered Internal Rate of Return: [Click here to enter text.](#)

Basis of Estimate: *Provide brief explanation on basis of estimate, activities completed to determine costs*

For materials, equipment, and construction requiring Engineering drawings please specify the percent complete:

Schedule
(List key milestone dates)

Key Milestone Description	Forecast Start Date	Forecast End Date
	Click here to enter a date.	Click here to enter a date.

Risk Assessment
(Please describe the risk of not completing the project)

- Operational cost savings** – delayed realization projected cost savings
- Negative impact to accounts receivable** – Due to loss of debit/credit card payment options

Trade Finance
(Is there a possibility to apply trade finance products to this project? See Capital Planning for further clarification)

None.

Supporting Documentation
(Reference drawings, condition assessment reports, vendor quotations, etc. Attach document or where possible include hyperlink to file located on shared server or SharePoint)



Capital Project Business Case

2018

Approvals and Signatures¹

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	PRAFULL KOLI	Digitally signed by PRAFULL KOLI Date: 2022.01.10 16:00:41 -05'00'	Click here to enter a date.
Senior Manager: :	Up to \$50,000			Click here to enter a date.
Senior Director/Director:	Up to \$250,000			Click here to enter a date.
State President / Senior VP / VP:	Up to \$500,000	Lauren Preston successor to Brent Baker		January 10, 2022
Regional President:	Up to \$3,000,000			Click here to enter a date.
Corporate - Sr VP Operations:	Up to \$5,000,000	Gerald Tremblay		Click here to enter a date.
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			Click here to enter a date.

¹ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.

APUC Cyber Security Policy Exception Form



Cordes Lake CW2
APUC Cyber Security

Liberty Regulatory Plan



Liberty Utilities
Regulatory Plan - 20

Business Benefits



Capital Project Business Case



Billing Services
Business Plan v1 (00)

Liberty Utilities (Granite State Electric) d/b/a Liberty
DE 19-064 2021 Step Adjustment
Project #8830-2146 Bare Conductor Replacement

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>CIAC</u>	<u>AFUDC</u>	<u>Total Spend</u>
2020	\$0.00	(\$274.42)	\$17,173.62	\$5,669.39	\$0.00	\$914.49	\$23,483.08
<u>2021</u>	<u>\$3,958.23</u>	<u>\$112,584.78</u>	<u>\$392,615.69</u>	<u>\$158,237.60</u>	<u>\$0.00</u>	<u>\$695.52</u>	<u>\$668,091.82</u>
Total	\$3,958.23	\$112,310.36	\$409,789.31	\$163,906.99	\$0.00	\$1,610.01	\$691,574.90



Capital Project Business Case

2021

NOTE: This form is required for planned Growth, Regulatory Supported, and Discretionary projects as well as combined blanket projects for Safety and Mandated with Growth, Regulatory Supported, and Discretionary Projects with a spend greater than \$100,000 and all unplanned projects. All other Project types can utilize the Capital Expenditure Application Form.

Project Overview			
Project Name:	Bare Conductor Replacement Program	Date Prepared:	1/4/2021
Project ID#:	8830-2146	Cost Estimate:	\$1,000,000
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2021
Project Lead:	Anthony Strabone	Project End Date:	12/31/2021
Prepared By:	Joel Rivera	Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned
Project Type (click appropriate boxes):	<input type="checkbox"/> Safety <input type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input checked="" type="checkbox"/> Discretionary		
Spending Rationale:	<input type="checkbox"/> Growth <input checked="" type="checkbox"/> Improvement <input type="checkbox"/> Replenishment		
Project Scope Statement			
(Insert the scope of work, major deliverables, assumptions, and constraints)			
<p>This strategy replaces primary overhead bare conductors with 477 aluminum spacer cable in areas prone to tree contact. Overhead line sections between the substation and the first protective device are prioritized.</p> <p>In 2021 the scope of this strategy includes the replacement of approximately 8,000ft of bare wires along Burns Rd and Mammoth Rd in Pelham NH.</p>			
Background			
(Insert description of current operational arrangement, and brief history of project & asset)			
<p>Bare mainline primary conductors are targeted for replacement with spacer cable. Spacer cable is installed in areas prone to tree outages that are too costly to rely on vegetation management practices alone to mitigate feeder lockouts. The application of spacer cable, a covered conductor resistant to tree related outages, significantly improves mainline circuit performance during windy and stormy conditions as well as affording protection against incidental tree-conductor contact at the end of the trim cycle and contact resulting from branches falling from above the trim zone.</p>			
Recommendation/Objective			
(Insert the unique problem this project is looking to resolve)			
<p>The main objective of this strategy is to improve the reliability performance of the Company by minimizing tree related interruptions on the circuit mainline.</p>			
Alternatives/Options			
(Describe all reasonably viable alternatives. Discuss the viability of each and provide reasons if rejected)			
<p>This program aims to improve tree related reliability by replacing specific sections of bare conductor with covered conductor. The use of 1/0 Aluminum conductors and/or cross-arm construction as an alternative to 477 Aluminum and/or spacer construction is considered on a case by case basis.</p>			
Financial Assessment/Cost Estimates			
(Double click embedded excel file to update; include contingency allowance in excel file)			



Capital Project Business Case

2021

Next Anticipated Test Year	2022	Was this Capital Project included in the current year's Board Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Regulatory Lag (Click appropriate box)		<input type="checkbox"/> Less than 6 Months <input type="checkbox"/> 6-12 Months <input checked="" type="checkbox"/> 1 to 3 years <input type="checkbox"/> Greater than 3 years	

Category	Total Already Approved	2020	2021	Beyond 2021	Total
Internal Labour (including labour and travel)	\$ -	\$ -	\$ 50,000	\$ -	\$ 50,000
Materials (including consumables)	\$ -	\$ -	\$ 200,000	\$ -	\$ 200,000
Equipment (rental equipment)	\$ -	\$ -	\$ -	\$ -	\$ -
Contractor/Subcontractor (including consultants)	\$ -	\$ -	\$ 750,000	\$ -	\$ 750,000
AFUDC (\$)					

Unlevered Internal Rate of Return: [Click here to enter text.](#)

Basis of Estimate: *This estimate is of investment grade. A project grade estimate will be provided upon completion of detailed design.*

For materials, equipment, and construction requiring Engineering drawings please specify the percent complete:

Schedule
(List key milestone dates)

Key Milestone Description	Forecast Start Date	Forecast End Date
Detailed Design	2/1/2021	5/1/2021
Construction	8/1/2021	12/31/2021

Risk Assessment
(Please describe the risk of not completing the project)

Maintaining a favorable relationship with state regulators is important to the Company's future success. Poor performance as measured by reliability goals and customer complaints to the regulator stresses this relationship and results in reduced credibility.

Trade Finance
(Is there a possibility to apply trade finance products to this project? See Capital Planning for further clarification)

Unknown

Supporting Documentation
(Reference drawings, condition assessment reports, vendor quotations, etc. Attach document or where possible include hyperlink to file located on shared server or SharePoint)

Supporting Documentation can be found at W:\Engineering\Electric Engineering\Electric Planning Engineering



Capital Project Business Case

Approvals and Signatures ⁱ

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager: :	Up to \$50,000	Anthony Strabone Senior Manager, Electric Engineering	<i>Anthony Strabone</i>	01/14/2021
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.01.15 09:52:37 -05'00'</small>	
Senior Vice President/ Vice President	Up to \$500,000	Richard MacDonald Vice President, Operations	Richard MacDonald <small>Digitally signed by Richard MacDonald Date: 2021.01.15 15:34:23 -05'00'</small>	
State President:	Up to \$500,000	Susan Fleck President, NH	Susan Fleck <small>Digitally signed by Susan Fleck Date: 2021.02.08 15:07:30 -05'00'</small>	
Regional President:	Up to \$3,000,000	James Sweeney President, East Region	<i>James Sweeney</i>	
Corporate - Sr VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			
Finance (East) – Vice President, Finance & Administration	All Requests	Peter Dawes VP, Finance & Administration		

ⁱ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Capital Project Expenditure Form

2021

Project Name:	Bare Conductor Replacement Program		
Financial Work Order (FWO):		Project ID #:	8830-2146
Requesting Region or Group:	Granite State Electric Co.	Date of Request (MM/DD/YY):	1/4/2021
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2021
Project Lead:	Anthony Strabone	Project End Date:	12/31/2021
Prepared by:	Joel Rivera	Requested Capital (\$)	\$1,000,000
Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned		
Project Type: (Click appropriate boxes)	<input type="checkbox"/> Safety <input type="checkbox"/> Mandated <input type="checkbox"/> Growth <input checked="" type="checkbox"/> Regulatory Supported <input type="checkbox"/> Discretionary		
Spending Rationale:	<input type="checkbox"/> Growth <input checked="" type="checkbox"/> Improvement <input type="checkbox"/> Replenishment		

Details of Request

Project description
This strategy replaces primary overhead bare conductors with 477 aluminum spacer cable in areas prone to tree contact. Overhead line sections between the substation and the first protective device are prioritized. In 2021 the scope of this strategy includes the replacement of approximately 1.5 miles of bare wires along Burns Rd Pelham and Mammoth Rd Pelham.

Is this project growth or customer connection related? If “yes”, list the specific locations and how expenditure aligns with customer expansion objectives.
No

Please describe any permitting requirements, environmental impacts, or resulting performance obligations that may or may not result from this expenditure?
Permitting and/or Easement requirements will be undertaken during detailed design activities as applicable.

Will there be assets, greater than \$5,000, currently in service removed as a result of this expenditure?
<i>GUIDANCE: If yes, please detail the specific assets that will be removed:</i>
<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
<i>Yes. As part of this project poles and overhead wires will be removed along the reconducted sections. Replacement costs will be determined during detailed design activity. The plant being removed is not usable. Answers to questions 1, 3 and 5 are unknown at this time.</i>

What alternatives were evaluated and why were they rejected?
This program aims to improve tree related reliability by replacing specific sections of bare conductor with covered conductor. The use of 1/0 Aluminum conductors and/or cross-arm construction as an alternative to 477 Aluminum and/or spacer construction is considered on a case by case basis.



Capital Project Expenditure Form

2021

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

Maintaining a favorable relationship with state regulators is important to the Company's future success. Poor performance as measured by reliability goals and customer complaints to the regulator stresses this relationship and results in reduced credibility.

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

Health, Safety and Security will be addressed using Engineering designs/controls during the detailed design process if applicable.

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

None

Complete the Financial Summary table only if:

- Project is less than \$100,000; or
- Project category is *Mandated* or *Safety* (Business Case Form not required)

Financial Summary

Next Anticipated Test Year	2022	Was this Capital Project included in the current year's Board Approved Budget?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Regulatory Lag (Click appropriate box)	<input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 – 12 months <input type="checkbox"/> 1 – 3 years <input type="checkbox"/> Greater than three years		
Which regulatory constructs will be used for recovering this capital spend?			
Please Specify Basis of Estimate For materials, equipment, and construction requiring Engineering drawings please specify the percent complete: ¹	<input type="checkbox"/> Fixed or Firm Price <input type="checkbox"/> Estimate – Internal <input type="checkbox"/> Estimate – External <input type="checkbox"/> Other (specify details) Click here to enter text.		
Category	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 (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	\$1,000,000		



Capital Project Expenditure Form

2021

A

Approvals and Signatures ⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager:	Up to \$50,000	Anthony Strabone Senior Manager, Electric Engineering	<i>Anthony Strabone</i>	01/14/2021
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.01.16 08:39:08 -05'00'</small>	
Senior VP/VP:	Up to \$500,000	Richard MacDonald Vice President, Operations	Richard MacDonald <small>Digitally signed by Richard MacDonald Date: 2021.01.22 11:39:21 -05'00'</small>	
State President:	Up to \$500,000	Susan Fleck President, NH	Susan Fleck <small>Digitally signed by Susan Fleck Date: 2021.02.08 15:03:28 -05'00'</small>	
Regional President:	Up to \$3,000,000	James Sweeney President, East Region	<i>James Sweeney</i>	
Corporate – Sr. VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			
Finance (East) – Vice President, Finance & Administration:	All Requests	Peter Dawes VP, Finance & Administration		

ⁱ For Best Practices on estimating project contingencies please see the Capital Policy.

ⁱⁱ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Project Close Out Report

2021

Requesting Region or Group:	Granite State Electric	Date of Close out (MM/DD/YY):	02/18/22
Project Name:	Bare Conductor Replacement Program 8830-2146		
Requesting Region:	East Region	Sponsor (Name):	Christopher Steele
Project Champion:	Melvin Emerson	Project Champion	Anthony Strabone
Project Status	X In Service <input type="checkbox"/> Complete <input type="checkbox"/> Closed		
Project Start Date:	1/1/2021	Project Completion Date:	12/31/2021
Requested Capital (\$)	\$1,000,000	Expenditure Included in Approved Budget?	X Yes <input type="checkbox"/> No

Section 1. Approval

Approval of the Project Closeout and Assessment Report indicates an understanding and formal agreement that the project is ready to be closed. By signing this document, each individual agrees all administrative, financial, and logistical aspects of the project should be concluded, executed, and documented as described herein.

Further, by signing this Report, it is accepted that CWIP (FERC Account 107) should be transferred to Utility in Plant Service (FERC Account 101)

Approver Name	Title	Signature	Date
Melvin Emerson	Capital Lead	<i>Melvin Emerson</i>	2/28/2022
Anthony Strabone	Sr Manager, Electric Engineering	<i>Anthony Strabone</i>	02/28/2022
Christopher Steele	Sr. Director, Electric Operations	Christopher Steele <small>Digitally signed by Christopher Steele Date: 2022.03.24 10:53:54 -04'00'</small>	03/24/2022

Section 2. Final Deliverable/Deployment Checklist

Sponsor to respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response
2.1	Do you agree that the product and/or service is ready to be deployed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.2	Do you agree the product and/or service has sufficiently met the stated business goals and objectives?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.3	Do you fully understand and agree to accept all operational requirements, operational risks, maintenance costs, and other limitations and/or constraints imposed as a result of ongoing operations of the product and/or service?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.4	Has the final unitization estimate been provided to Property Accounting?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>



Project Close Out Report

2021

Item	Question	Response
2.5	Do you agree the project should be closed? If no, please explain:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	<i>Scale of 1 thru 5; 5 = highest</i>	
	Rate your level of satisfaction with regards to the project outcomes listed below	
2.5	Project Quality	5/5
2.6	Product and/or Service Performance	5/5
2.7	Scope	5/5
2.8	Cost (Budget)	5/5
2.9	Schedule	5/5

Section 3. Project Documentation Checklist

Project Manager Respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response	
3.1	Have project documentation and other items (e.g., Business Case, Project Plan, Charter, Budget Documents, Status Reports) been prepared, collected, filed, and/or disposed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.3 ⁱ	Were audits (e.g., project closeout audit) completed and results documented for future reference?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.4	Identify the storage location for the following project documents items:		
Item	Document	Location (e.g., Google Docs, Webspaces)	Format
3.4a	Business Case	Operations Finance SharePoint	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4b	If available, the Final Project Schedule	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4c	Budget Documentation and Invoices	W:\Public\Accounts Payable\New Hampshire	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4d	Status Reports	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4e	Risks and Issues Log	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4f	Final deliverable	N/A	<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4g	If applicable, verify that final project deliverable for the project is attached or storage location is identified in 3.4.		



Project Close Out Report

Section 4. Project Teamⁱⁱ

Project Manager to list resources specified in the Project Plan and used by the project.

Name	Role	Type (e.g., Contractor, Employee)
Anthony Strabone	Engineering	Employee
Mark Parker	Operations	Employee
Control Point Technologies	Field Construction Supervisor	Contractor

Section 5. Project Lessons Learned

Project Team to identify lessons learned specifically for the project. State the lessons learned in terms of a problem (issue). If available, please include a Lesson Learned Log in the attached. Please summarize the top three issues on the project and the recommended improvements to correct a similar problem in the future.

Problem Statement	Problem Description	References	Recommendation
None	None	None	None

Section 7. Open Issues

Project Manager and Functional Lead to describe any open issues and plans for resolution within the context of project closeout. Include an open issue for any “no” responses in the Final Product and/or Service Acceptance Checklist and the Project Artifacts Checklist sections.

Issue	Planned Resolution
None	None



Project Close Out Report

2021

Section 8. Project Cost Summary

Project Manager and Functional Lead to provide details for the following tables.

Cost Category	1- Budget	2- Actual	3 = 1 -2 Variance
Cost of Design & Engineering (\$)			
Cost of Materials (\$)		\$ 93,549	
Cost of Construction (\$)			
External Costs (\$)		\$ 380,819	
Internal Costs (\$)		\$ 3,884	
Other (\$)			
AFUDC (\$)		\$ 177,339	
Total Project Costs (\$)	\$1,000,000	\$ 655,591	\$344,409

Reasons for Variance	Impact
Actual construction costs were less than originally estimated	Project was underbudget by variance listed in table above
Cause 2	\$
Cause 3	\$

Project Manager to list of all work orders associated with project that should be closed once Close Out Report is accepted.

Registry of All Job Codes (Regional, Corporate, LABs)
Various

ⁱ This section assumes an accounting audit has been completed ensuring all outstanding payments have been reconciled to the project

ⁱⁱ For Section 4 in filling out the Project Team Section, for those projects following the materiality limit set forth in the work order approval limits greater than \$5M please complete this section, all other projects do not require this.

Liberty Utilities (Granite State Electric) d/b/a Liberty
DE 19-064 2021 Step Adjustment
Project #8830-2180 DTN Weather Forecast Upgrade

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>CIAC</u>	<u>AFUDC</u>	<u>Total Spend</u>
<u>2021</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$150,000.00</u>	<u>\$32,482.92</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$182,482.92</u>
Total	\$0.00	\$0.00	\$150,000.00	\$32,482.92	\$0.00	\$0.00	\$182,482.92



Capital Project Business Case

2021

NOTE: This form is required for planned Growth, Regulatory Supported, and Discretionary projects as well as combined blanket projects for Safety and Mandated with Growth, Regulatory Supported, and Discretionary Projects with a spend greater than \$100,000 and all unplanned projects. All other Project types can utilize the Capital Expenditure Application Form.

Project Overview			
Project Name:	DTN Weather Forecast Upgrade	Date Prepared:	2/12/2021
Project ID#:	8830-2180	Cost Estimate:	\$226,250
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2021
Project Lead:	Heather Tebbetts	Project End Date:	31-Dec-2021
Prepared By:	Heather Tebbetts	Planned or Unplanned Projects:	<input type="checkbox"/> Planned <input checked="" type="checkbox"/> Unplanned
Project Type (click appropriate boxes):	<input type="checkbox"/> Safety <input type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input checked="" type="checkbox"/> Discretionary		
Spending Rationale:	<input type="checkbox"/> Growth <input checked="" type="checkbox"/> Improvement <input type="checkbox"/> Replenishment		
Project Scope Statement			
(Insert the scope of work, major deliverables, assumptions, and constraints)			
<p>The Company is looking to update our storm tool from DTN, our weather service we subscribe to for weather forecasts and cost recovery for storm restoration. Right now, we only receive static data provided by the meteorologists each day. The upgrade is associated with storm event modeling through artificial intelligence (AI).</p> <p>The AI provides the following:</p> <ul style="list-style-type: none"> • Machine learning applied to outage prediction • Meteorologist-enhanced artificial intelligence • Probabilistic outcomes and risk communication <p>How Liberty-NH will use the data:</p> <ul style="list-style-type: none"> • Current data provides high level forecast without any prediction of hazards to our distribution system • Modeling hazards will provide greater detail and allow us to make better, potentially less expensive, decisions on how to respond to the storm event • DTN will use as much previous outage data as we can provide (we have about 6-7 years' worth) to match up the actual weather data from those events to machine learn about our system, and then compare the upcoming event with all other previous events • Provides comparison of potential outages <p>Costs:</p> <ul style="list-style-type: none"> • \$150K one-time CapEx fee (includes set-up, onboarding, and service delivery) • \$9K/yr Annual Maintenance Agreement (standard upgrades, support, and escrow of source code) 			



Capital Project Business Case

2021

Background

(Insert description of current operational arrangement, and brief history of project & asset)

The Company only receives static weather forecasts right now which do not provide any modeling of upcoming storm events.

Recommendation/Objective (Insert the

unique problem this project is looking to resolve)

Better forecasting of potential storms which may reduce outage time and costs.

Alternatives/Options

(Describe all reasonably viable alternatives. Discuss the viability of each and provide reasons if rejected)

N/A- If the pilot doesn't get approved, the Company will continue to receive its static daily weather forecasts.

Financial Assessment/Cost Estimates

(Double click embedded excel file to update; include contingency allowance in excel file)

Next Anticipated Test Year	2022	Was this Capital Project included in the current year's Board Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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Regulatory Lag
(Click appropriate box) Less than 6 Months 6-12 Months 1 to 3 years Greater than 3 years

Category	Total Already Approved	2021	2022	Beyond 2021	Total
Internal Labor		\$11,750			
Materials					
Equipment					
Contractor/ Subcontractor		\$214,500			
AFUDC					
Total Project Cost		\$226,250			

Unlevered Internal Rate of Return:

Basis of Estimate: *DTN quoted \$150,000 for the project. I included 43% burden rate for contractors with an estimated internal labor cost of \$5,000. To include internal labor burdens, I added 135% to the \$5,000 estimate.*

For materials, equipment, and construction requiring Engineering drawings please specify the percent complete:

Schedule

(List key milestone dates)

Key Milestone Description	Forecast Start Date	Forecast End Date
Begin various projects/improvements	3/1/2021	12/31/2021



Capital Project Business Case

Risk Assessment (Please describe the risk of not completing the project)		
If the company doesn't upgrade to weather forecast modeling, it doesn't provide the best forecasting data to plan for storm restoration.		
Trade Finance (Is there a possibility to apply trade finance products to this project? See Capital Planning for further clarification)		
No		
Supporting Documentation (Reference drawings, condition assessment reports, vendor quotations, etc. Attach document or where possible include hyperlink to file located on shared server or SharePoint)		
Please see the proposal from DTN attached.		

Approvals and Signaturesⁱ

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Heather Tebbetts Manager Rate & Regulatory Affairs	Heather Tebbetts <small>Digitally signed by Heather Tebbetts DN: cn=Heather Tebbetts, o=Liberty Utilities, ou=Regulatory, email=heather.tebbetts@libertyutilities.com, c=US Date: 2021.02.24 08:35:25 -05'00'</small>	
Senior Manager: :	Up to \$50,000	Anthony Strabone Senior Manager Electric Engineering	Anthony Strabone <small>Digitally signed by Anthony Strabone DN: cn=Anthony Strabone, o=Liberty Utilities, ou=Engineering, email=anthony.strabone@libertyutilities.com, c=US Date: 2021.02.24 09:30:57 -05'00'</small>	
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.02.24 12:25:19 -05'00'</small>	
Senior Vice President/ Vice President	Up to \$500,000	Richard MacDonald Vice President Operations		
State President:	Up to \$500,000	Susan Fleck President, NH		
Regional President:	Up to \$3,000,000	James Sweeney President East Region		
Corporate - Sr VP Operations:	Up to \$5,000,000			



Capital Project Business Case

Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			
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¹ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Capital Project Expenditure Form

2021

Project Name:	DTN Weather forecasting		
Financial Work Order (FWO):		Project ID #:	8830-2180
Requesting Region or Group:	Granite State Electric	Date of Request (MM/DD/YY):	2/12/2021
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2021
Project Lead:	Heather Tebbetts	Project End Date:	31-Dec-2021
Prepared by:	Heather Tebbetts	Requested Capital (\$)	\$226,250
Planned or Unplanned Projects:	<input type="checkbox"/> Planned <input checked="" type="checkbox"/> Unplanned		
Project Type: (Click appropriate boxes)	<input type="checkbox"/> Safety <input type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input checked="" type="checkbox"/> Discretionary		

Details of Request

Project description
<p>The Company is looking to update our storm tool from DTN, our weather service we subscribe to for weather forecasts and cost recovery for storm restoration. Right now, we only receive static data provided by the meteorologists each day. The upgrade is associated with storm event modeling through artificial intelligence (AI).</p> <p>The AI provides the following:</p> <ul style="list-style-type: none"> • Machine learning applied to outage prediction • Meteorologist-enhanced artificial intelligence • Probabilistic outcomes and risk communication <p>How Liberty-NH will use the data:</p> <ul style="list-style-type: none"> • Current data provides high level forecast without any prediction of hazards to our distribution system • Modeling hazards will provide greater detail and allow us to make better, potentially less expensive, decisions on how to respond to the storm event • DTN will use as much previous outage data as we can provide (we have about 6-7 years' worth) to match up the actual weather data from those events to machine learn about our system, and then compare the upcoming event with all other previous events • Provides comparison of potential outages <p>Costs:</p> <ul style="list-style-type: none"> • \$150K one-time CapEx fee (includes set-up, onboarding, and service delivery) • \$9K/yr Annual Maintenance Agreement (standard upgrades, support, and escrow of source code)



Capital Project Expenditure Form

2021

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

No

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

N/A

Will there be assets, greater than \$5,000, currently in service removed as a result of this expenditure?

GUIDANCE: If yes, please detail the specific assets that will be removed: No

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*

No.

What alternatives were evaluated and why were they rejected?

N/A- If the pilot doesn't get approved, the Company will continue to receive its static daily weather forecasts.

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

N/A- If the pilot doesn't get approved, the Company will continue to receive its static daily weather forecasts.

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

All company polices will be followed during the upgrade.

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

No



Capital Project Expenditure Form

2021

Complete the Financial Summary table only if:

- Project is less than \$100,000; or
- Project category is *Mandated or Safety* (Business Case Form not required)

Financial Summary

Next Anticipated Test Year	2022	Was this Capital Project included in the current year's Board Approved Budget?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Regulatory Lag (Click appropriate box)	<input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 – 12 months <input checked="" type="checkbox"/> 1 – 3 years <input type="checkbox"/> Greater than three years		
Which regulatory constructs will be used for recovering this capital spend?	Future rate case		
Please Specify Basis of Estimate For materials, equipment, and construction requiring Engineering drawings please specify the percent complete: ¹	<input type="checkbox"/> Fixed or Firm Price <input checked="" type="checkbox"/> Estimate – Internal <input type="checkbox"/> Estimate – External <input type="checkbox"/> Other (specify details) Quote provided by DTN provides the costs. The presentation attached to the business case provides what the upgrade will provide for additional forecasting abilities.		
Category	Current Year	Future Years	Authorized Amount (to be filled in by Corporate)
Cost of Design & Engineering (\$)	0		
Cost of Materials (\$)	0		
Cost of Construction (\$)	0		
External Costs (\$)	\$214,500		
Internal Costs (\$)	\$11,750		
Other (\$)	0		
AFUDC (\$)	0		
Total Project Costs (\$)	\$226,250		

Approvals and Signaturesⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Heather Tebbetts Manager Rate & Regulatory Affairs	Heather Tebbetts <small>Digitally signed by Heather Tebbetts DN: cn=Heather Tebbetts, o=Liberty Utilities, ou=Regulatory, email=heather.tebbetts@libertyutilities.com, c=US Date: 2021.02.24 08:03:27 -05'00'</small>	Click here to enter a date.
Senior Manager:	Up to \$50,000	Anthony Strabone Senior Manager Electric Engineering	Anthony Strabone <small>Digitally signed by Anthony Strabone DN: cn=Anthony Strabone, o=Liberty Utilities, ou=Engineering, email=anthony.strabone@libertyutilities.com, c=US Date: 2021.02.24 09:31:55 -05'00'</small>	Click here to enter a date.
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.02.24 12:28:49 -05'00'</small>	Click here to enter a date.



Capital Project Expenditure Form

2021

Senior VP/VP:	Up to \$500,000	Richard MacDonald Vice President Operations		
State President:	Up to \$500,000	Susan Fleck President, NH		Click here to enter a date.
Regional President:	Up to \$3,000,000	James Sweeney President East Region		Click here to enter a date.
Corporate – Sr. VP Operations:	Up to \$5,000,000			Click here to enter a date.
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			Click here to enter a date.

ⁱ For Best Practices on estimating project contingencies please see the Capital Policy.

ⁱⁱ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.

Project Close Out Report

2021

Requesting Region or Group:		Date of Closeout (MM/DD/YY):	2/8/2022
Project Name:	DTN Weather 8830-2180		
Requesting Region:		Sponsor (Name):	Charles Rodrigues
Project Champion:	Heather Tebbetts	Project Champion	
Project Status	X In Service <input type="checkbox"/> Complete <input type="checkbox"/> Closed		
Project Start Date:		Project Completion Date:	
Requested Capital (\$)	\$226,250	Expenditure Included in Approved Budget?	Yes X No

Section 1. Approval

Approval of the Project Closeout and Assessment Report indicates an understanding and formal agreement that the project is ready to be closed. By signing this document, each individual agrees all administrative, financial, and logistical aspects of the project should be concluded, executed, and documented as described herein.

Further, by signing this Report, it is accepted that CWIP (FERC Account 107) should be transferred to Utility in Plant Service (FERC Account 101)

Approver Name	Title	Signature	Date
	Project Lead	Heather Tebbetts <small>Digitally signed by Heather Tebbetts Date: 2022.02.08 10:44:51 -05'00'</small>	
	Project Sponsor	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2022.02.08 10:47:45 -05'00'</small>	
	Operations Manager		
	Accounting Manager		

Section 2. Final Deliverable/Deployment Checklist

Sponsor to respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response
2.1	Do you agree that the product and/or service is ready to be deployed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.2	Do you agree the product and/or service has sufficiently met the stated business goals and objectives?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.3	Do you fully understand and agree to accept all operational requirements, operational risks, maintenance costs, and other limitations and/or constraints imposed as a result of ongoing operations of the product and/or service?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.4	Has the final unitization estimate been provided to Property Accounting?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Project Close Out Report **2021**

Item	Question	Response
2.5	Do you agree the project should be closed? If no, please explain:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	<i>Scale of 1 thru 5; 5 = highest</i>	
	Rate your level of satisfaction with regards to the project outcomes listed below	
2.5	Project Quality	5/5
2.6	Product and/or Service Performance	4/5
2.7	Scope	5/5
2.8	Cost (Budget)	5/5
2.9	Schedule	5/5

Section 3. Project Documentation Checklist

Project Manager Respond to each question. For each “no” response, include an issue in Open Issues section.

Item	Question	Response	
3.1	Have project documentation and other items (e.g., Business Case, Project Plan, Charter, Budget Documents, Status Reports) been prepared, collected, filed, and/or disposed?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
3.3 ⁱ	Were audits (e.g., project closeout audit) completed and results documented for future reference?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
3.4	Identify the storage location for the following project documents items:		
Item	Document	Location (e.g., Google Docs, Webspace)	Format
3.4a	Business Case	W:\Regulatory\H & M\Business Cases\2021\DTN Upgrade	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4b	If available, the Final Project Schedule	W:\Regulatory\H & M\Business Cases\2021\DTN Upgrade	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4c	Budget Documentation and Invoices	W:\Regulatory\H & M\Business Cases\2021\DTN Upgrade	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4d	Status Reports	W:\Regulatory\H & M\Business Cases\2021\DTN Upgrade	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4e	Risks and Issues Log	W:\Regulatory\H & M\Business Cases\2021\DTN Upgrade	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4f	Final deliverable	W:\Regulatory\H & M\Business Cases\2021\DTN Upgrade	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4g	If applicable, verify that final project deliverable for the project is attached or storage location is identified in 3.4.		

Section 4. Project Team ⁱⁱ

Project Manager to list resources specified in the Project Plan and used by the project.

Project Close Out Report

2021

Name	Role	Type (e.g., Contractor, Employee)
Incident Command Structure/Operations		Employees

Section 5. Project Lessons Learned

Project Team to identify lessons learned specifically for the project. State the lessons learned in terms of a problem (issue). If available please include a Lesson Learned Log in the attached.. Please summarize the top three issues on the project and the recommended improvements to correct a similar problem in the future.

Problem Statement	Problem Description	References	Recommendation
N/A			

Section 7. Open Issues

Project Manager and Functional Lead to describe any open issues and plans for resolution within the context of project closeout. Include an open issue for any "no" responses in the Final Product and/or Service Acceptance Checklist and the Project Artifacts Checklist sections.

Issue	Planned Resolution
N/A	

Section 8. Project Cost Summary

Project Manager and Functional Lead to provide details for the following tables.

Cost Category	1- Budget	2- Actual	3 = 1 -2 Variance
Cost of Design & Engineering (\$)			
Cost of Materials (\$)			
Cost of Construction (\$)			

Project Close Out Report **2021**

External Costs (\$)			
Internal Costs (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	\$226,250	\$ 182,483	\$43,767

Reasons for Variance	Impact
Cause 1	\$
Cause 2	\$
Cause 3	\$

Project Manager to list of all work orders associated with project that should be closed once Close Out Report is accepted.

Registry of All Job Codes (Regional, Corporate, LABs)
302180-05001

ⁱ This section assumes an accounting audit has been completed ensuring all outstanding payments have been reconciled to the project

ⁱⁱ For Section 4 in filling out the Project Team Section, for those projects following the materiality limit set forth in the work order approval limits greater than \$5M please complete this section, all other projects do not require this.

Liberty Utilities (Granite State Electric) d/b/a Liberty
DE 19-064 2021 Step Adjustment
Project #8830-2185 Meter Board

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>CIAC</u>	<u>AFUDC</u>	<u>Total Spend</u>
<u>2021</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$218,336.25</u>	<u>\$29,976.54</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$248,312.79</u>
Total	\$0.00	\$0.00	\$218,336.25	\$29,976.54	\$0.00	\$0.00	\$248,312.79



Capital Project Expenditure Form

2021

Project Name:	Liberty Electric NH Meter Test Board		
Financial Work Order (FWO):		Project ID #:	8830-2185
Requesting Region or Group:	Granite State Electric	Date of Request (MM/DD/YY):	9/20/2021
Project Sponsor:	Mark Parker	Project Start Date:	9/20/2021
Project Lead:	Shawn Furey	Project End Date:	12/31/2021
Prepared by:	Shawn Furey	Requested Capital (\$)	\$300,000
Planned or Unplanned Projects:	<input type="checkbox"/> Planned <input checked="" type="checkbox"/> Unplanned		
Project Type: (Click appropriate boxes)	<input type="checkbox"/> Safety <input type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input checked="" type="checkbox"/> Discretionary		

Details of Request

Project description
<p>Liberty Electric NH’s test board is used to test its electric meters in compliance with state and federal guidelines. The board is used to test new meters purchased from the manufacturer as well as meters returned from the field.</p> <p>This request is for \$300,000 and includes the purchase of a new electric meter test board (includes burdens). The current test board has 4-meter sockets. Since the test board was purchased, it is required for maintenance on a monthly basis to allow our team members a safe working piece of test equipment. This meter socket test board has reached its end of life. This test board also has the additional functionality to test remote disconnect/ reconnect functionality of the meters.</p> <p>During the bid process Granite State considered a 9-position test board and received (2) quotes for pricing. Radian’s pricing for the test board was \$287,925 while Tesco’s pricing was \$287,625. After discussions with our vendors granite state elected to move to a 6-position test board rather than a 9 position. This would allow our meter workers to be more efficient and be sized appropriately for the meters going in and out of the meter shop. Granite State received a revised quote for \$201,305 from Tesco and \$218,336.25 from Radian.</p> <p>Within the industry Radian is viewed by many as the standard and provider of high-quality meter testing equipment. Tesco, although they have provided great customer service over the past 8 years with our current test board, there have been constant issues with the board breaking down since day 1. It is estimated that over the past 8 years that the shop technician has spent approximately 1 year of his time resolving issues with the company’s product. Although more expensive, we recommend moving towards a Radian provided test board vs. a Tesco test board. The probability is much lower with this option and this will allow Liberty NH to standardize its testing equipment with other regions who also have Radian products.</p>



Capital Project Expenditure Form

2021

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

No

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

None.

Will there be assets, greater than \$5,000, currently in service removed as a result of this expenditure?

GUIDANCE: If yes, please detail the specific assets that will be removed:

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*

Yes, the original test board will be retired and returned for a credit with the supplier. This is included in the supplier’s quote. The cost of the old test build is unknown but electric ops will work with finance to ensure that the unit is properly retired.

What alternatives were evaluated and why were they rejected?

Option 1: Do Nothing: if GSE continues with its current test board in its current configuration, it will continue to require additional maintenance and downtime for the metering organization.

Option 2: Purchase Test Set: the purchase of a new test board allows our team members to have a reliable piece of test equipment which allows all our team members to complete their work tasks, safely, reliably and with no concern of it breaking.

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



Capital Project Expenditure Form

The test board continues to breakdown which will result in downtime of internal resources and the cost of parts to repair the board.

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

None.

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

None.

Complete the Financial Summary table only if:

- Project is less than \$100,000; or
- Project category is *Mandated* or *Safety* (Business Case Form not required)

Financial Summary

Next Anticipated Test Year		Was this Capital Project included in the current year's Board Approved Budget?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Regulatory Lag (Click appropriate box)	<input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 – 12 months <input type="checkbox"/> 1 – 3 years <input type="checkbox"/> Greater than three years		
Which regulatory constructs will be used for recovering this capital spend?			
Please Specify Basis of Estimate For materials, equipment, and construction requiring Engineering drawings please specify the percent complete: ⁱ	<input type="checkbox"/> Fixed or Firm Price <input type="checkbox"/> Estimate – Internal <input type="checkbox"/> Estimate – External <input type="checkbox"/> Other (specify details) Click here to enter text.		



Capital Project Expenditure Form

2021

Category	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 (\$)	\$300,000		
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	\$300,000		

Approvals and Signaturesⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Shawn Furey	SHAWN FUREY <small>Digitally signed by SHAWN FUREY DN: cn=SHAWN FUREY, o=LIBERTY UTILITIES, ou=CONSTRUCTION, email=SHAWN.FUREY@LIBERTYUTILITIES.COM, c=US Date: 2021.09.21 09:25:07 -04'00'</small>	September 20, 2021
Senior Manager:	Up to \$50,000			Click here to enter a date.
Senior Director/Director:	Up to \$250,000		Christopher A. Steele, P.E. <small>Digitally signed by Christopher A. Steele, P.E. Date: 2021.09.21 12:58:08 -04'00'</small>	Click here to enter a date.
Senior VP/VP:	Up to \$500,000			
State President:	Up to \$500,000		Neil Proudman <small>Digitally signed by Neil Proudman Date: 2021.09.22 08:15:30 -04'00'</small>	Click here to enter a date.
Regional President:	Up to \$3,000,000			Click here to enter a date.
Corporate – Sr. VP Operations:	Up to \$5,000,000			Click here to enter a date.
Corporate - Exec Team Member (CEO, CFO, COO,	Over \$5,000,0			Click here to enter a date.



Capital Project Expenditure Form

2021

Vice Chair):	00			

ⁱ For Best Practices on estimating project contingencies please see the Capital Policy.

ⁱⁱ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.

Project Close Out Report

2021

Requesting Region or Group:	Granite State Electric	Date of Closeout (MM/DD/YY):	02/08/2022
Project Name:	Meter Test Board 8830-2185		
Requesting Region:	NH Electric	Sponsor (Name):	Mark Parker
Project Champion:	Shawn Furey	Project Champion	
Project Status	X In Service <input type="checkbox"/> Complete <input type="checkbox"/> Closed		
Project Start Date:	01/01/2022	Project Completion Date:	12/31/2022
Requested Capital (\$)	\$300,000	Expenditure Included in Approved Budget?	Yes X No

Section 1. Approval

Approval of the Project Closeout and Assessment Report indicates an understanding and formal agreement that the project is ready to be closed. By signing this document, each individual agrees all administrative, financial, and logistical aspects of the project should be concluded, executed, and documented as described herein.

Further, by signing this Report, it is accepted that CWIP (FERC Account 107) should be transferred to Utility in Plant Service (FERC Account 101)

Approver Name	Title	Signature	Date
Shawn Furey	Project Lead		2/8/2022
Mark Parker	Project Sponsor		2/8/2022
	Operations Manager		
	Accounting Manager		

Section 2. Final Deliverable/Deployment Checklist

Sponsor to respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response
2.1	Do you agree that the product and/or service is ready to be deployed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.2	Do you agree the product and/or service has sufficiently met the stated business goals and objectives?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.3	Do you fully understand and agree to accept all operational requirements, operational risks, maintenance costs, and other limitations and/or constraints imposed as a result of ongoing operations of the product and/or service?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.4	Has the final unitization estimate been provided to Property Accounting?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Project Close Out Report

2021

Item	Question	Response
2.5	Do you agree the project should be closed? If no, please explain:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	<i>Scale of 1 thru 5; 5 = highest</i>	
	Rate your level of satisfaction with regards to the project outcomes listed below	
2.5	Project Quality	5/5
2.6	Product and/or Service Performance	5/5
2.7	Scope	5/5
2.8	Cost (Budget)	5/5
2.9	Schedule	5/5

Section 3. Project Documentation Checklist

Project Manager Respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response	
3.1	Have project documentation and other items (e.g., Business Case, Project Plan, Charter, Budget Documents, Status Reports) been prepared, collected, filed, and/or disposed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.3 ⁱ	Were audits (e.g., project closeout audit) completed and results documented for future reference?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.4	Identify the storage location for the following project documents items: W drive		
Item	Document	Location (e.g., Google Docs, Webspace)	Format
3.4a	Business Case	W Drive	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4b	If available, the Final Project Schedule		<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4c	Budget Documentation and Invoices	W Drive	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4d	Status Reports		<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4e	Risks and Issues Log		<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4f	Final deliverable		<input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4g	If applicable, verify that final project deliverable for the project is attached or storage location is identified in 3.4.		

Section 4. Project Team ⁱⁱ

Project Manager to list resources specified in the Project Plan and used by the project.

Project Close Out Report

2021

Name	Role	Type (e.g., Contractor, Employee)
Shawn Furey	Project Manager	Employee

Section 5. Project Lessons Learned

Project Team to identify lessons learned specifically for the project. State the lessons learned in terms of a problem (issue). If available please include a Lesson Learned Log in the attached. Please summarize the top three issues on the project and the recommended improvements to correct a similar problem in the future.

Problem Statement	Problem Description	References	Recommendation
None at this time			

Section 7. Open Issues

Project Manager and Functional Lead to describe any open issues and plans for resolution within the context of project closeout. Include an open issue for any "no" responses in the Final Product and/or Service Acceptance Checklist and the Project Artifacts Checklist sections.

Issue	Planned Resolution
None at this time	

Section 8. Project Cost Summary

Project Manager and Functional Lead to provide details for the following tables.

Cost Category	1- Budget	2- Actual	3 = 1 -2 Variance
Cost of Design & Engineering (\$)			
Cost of Materials (\$)			
Cost of Construction (\$)			

Project Close Out Report **2021**

External Costs (\$)			
Internal Costs (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	\$300,000	\$ 248,313	\$51,687

Reasons for Variance	Impact
Total spend lower than estimate due to less burdens applied than estimated.	\$51,687

Project Manager to list of all work orders associated with project that should be closed once Close Out Report is accepted.

Registry of All Job Codes (Regional, Corporate, LABs)
302185-04001

ⁱ This section assumes an accounting audit has been completed ensuring all outstanding payments have been reconciled to the project

ⁱⁱ For Section 4 in filling out the Project Team Section, for those projects following the materiality limit set forth in the work order approval limits greater than \$5M please complete this section, all other projects do not require this.

Liberty Utilities (Granite State Electric) d/b/a Liberty
DE 19-064 2021 Step Adjustment
Project #8830-2190 Transportation

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>CIAC</u>	<u>AFUDC</u>	<u>Total Spend</u>
<u>2021</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$231,813.66</u>	<u>\$21,835.71</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$253,649.37</u>
Total	\$0.00	\$0.00	\$231,813.66	\$21,835.71	\$0.00	\$0.00	\$253,649.37



Capital Project Business Case

2021

NOTE: This form is required for planned Growth, Regulatory Supported, and Discretionary projects as well as combined blanket projects for Safety and Mandated with Growth, Regulatory Supported, and Discretionary Projects with a spend greater than \$100,000 and all unplanned projects. All other Project types can utilize the Capital Expenditure Application Form.

Project Overview			
Project Name:	Transportation/Fleet	Date Prepared:	1/21/21
Project ID#:	8830-2190	Cost Estimate:	1,000,000
Project Sponsor:	Mark Parker	Project Start Date:	1/31/2021
Project Lead:	Richard Foley	Project End Date:	12/31/2021
Prepared By:	Ryan Patnode	Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned
Project Type (click appropriate boxes):	<input type="checkbox"/> Safety <input type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input checked="" type="checkbox"/> Discretionary		
Spending Rationale:	<input type="checkbox"/> Growth <input type="checkbox"/> Improvement <input checked="" type="checkbox"/> Replenishment		
Project Scope Statement			
(Insert the scope of work, major deliverables, assumptions, and constraints)			
<p>This Project represents the annual purchases of vehicles required for Liberty Utilities (Granite State Electric) Corp. A review and assessment of the fleet is performed in conjunction with operations to determine any fleet additions required and replacement needs based on the current condition (mileage and age) of the fleet as determined in the corporate fleet policy</p>			
Background			
(Insert description of current operational arrangement, and brief history of project & asset)			
<p>To support the requirement to construct and maintain the electric distribution assets in the territory, there is a requirement for crews and employees to use trucks and cars to perform the work. This project is designed to fund the new and replacement vehicles required to support these operations</p>			
Recommendation/Objective			
(Insert the unique problem this project is looking to resolve)			
<p>Purchase vehicles to assist in the performance and completion of tasks required to provide an adequate and safe supply of energy to our customers. We review needs annually to determine new and replacement needs to support these operations.</p>			
Alternatives/Options			
(Describe all reasonably viable alternatives. Discuss the viability of each and provide reasons if rejected)			
<p>Regional Fleet committee meets regularly to discuss all needs and alternatives related to fleet inventory. Within this committee any viable alternatives for individual fleet equipment is explored.</p>			
Financial Assessment/Cost Estimates			
(Double click embedded excel file to update; include contingency allowance in excel file)			



Capital Project Business Case

2021

Next Anticipated Test Year	2022	Was this Capital Project included in the current year's Board Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Regulatory Lag (Click appropriate box)		<input type="checkbox"/> Less than 6 Months <input type="checkbox"/> 6-12 Months <input checked="" type="checkbox"/> 1 to 3 years <input type="checkbox"/> Greater than 3 years			
Category	Total Already Approved	2021	2022	Beyond 2022	Total
Internal Labor					
Materials					
Equipment		1,000,000			
Contractor/ Subcontractor					
AFUDC					
Total Project Cost		1,000,000			
Unlevered Internal Rate of Return:					
Basis of Estimate: <i>Provide brief explanation on basis of estimate, activities completed to determine costs</i>					
For materials, equipment, and construction requiring Engineering drawings please specify the percent complete: Historic cost of vehicles and current vendor quotes.					
Schedule (List key milestone dates)					
Key Milestone Description	Forecast Start Date	Forecast End Date			
Purchase Trucks	01-31-2021	06-30-2021			
Receive Trucks	01-31-2021	09-30-2021			
Risk Assessment (Please describe the risk of not completing the project)					
Regular review and replacement of fleet assets is important as it keeps our vehicles in good working order. Failure to have an adequate program leads to more frequent breakdowns and the potential for not having the correct vehicle to perform the required tasks.					
Trade Finance (Is there a possibility to apply trade finance products to this project? See Capital Planning for further clarification)					



Capital Project Business Case

2021

Supporting Documentation	
(Reference drawings, condition assessment reports, vendor quotations, etc. Attach document or where possible include hyperlink to file located on shared server or SharePoint)	
See above	

Approvals and Signatures¹

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager: :	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Richard Foley Director, Supply Chain, Supply Chain Procurement	Richard Foley	Digitally signed by Richard Foley DN: cn=Richard Foley, o=Liberty Utilities, ou, email=richard.foley@libertyutilities.com, c=US Date: 2021.01.21 16:59:13 -05'00'
Senior Vice President/ Vice President	Up to \$500,000	Richard MacDonald VP Operations	Richard MacDonald	Digitally signed by Richard MacDonald Date: 2021.01.22 09:05:22 -05'00'
State President:	Up to \$500,000	Susan Fleck NH President	Susan Fleck	Digitally signed by Susan Fleck Date: 2021.02.12 10:24:33 -05'00'
Regional President:	Up to \$3,000,000	James Sweeney East Region President		3/2/21
Corporate - Sr VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			

¹ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Capital Project Expenditure Form **2021**

Project Name:	Transportation/Fleet		
Financial Work Order (FWO):		Project ID #:	8830-2190
Requesting Region or Group:	Rich Foley	Date of Request (MM/DD/YY):	1-21-2021
Project Sponsor:	Mark Parker	Project Start Date:	1/31/2021
Project Lead:	Rich Foley	Project End Date:	12/31/2021
Prepared by:	Ryan Patnode	Requested Capital (\$)	1,000,000
Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned		
Project Type: (Click appropriate boxes)	<input type="checkbox"/> Safety <input type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input checked="" type="checkbox"/> Discretionary		

Details of Request

Project description
The Project represent the annual purchase of a vehicles required for Liberty Utilities (Granite State Electric) Corp. A review and assessment of the fleet is performed in conjunction with operation to determine any fleet additions required and replacement needs based on the current conditions (mileage and age) of the fleet as determined in the corporate fleet policy

Is this project growth or customer connection related? If "yes", list the specific locations and how expenditure aligns with customer expansion objectives.
No

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

Will there be assets, greater than \$5,000, currently in service removed as a result of this expenditure?
<i>GUIDANCE: If yes, please detail the specific assets that will be removed;</i>
<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
<i>Yes there will be some plant removed. The exact plant removed will be contingent upon the arrival of the equipment. Vehicles are order based on what is proposed for preplacement and there instances where the exact unit being replace changes based on updated vehicles condition when the new unit is completed. All Vehicles retired are communicated to plant accounting. New unit will not have plant removed.</i>

 **Liberty Utilities** Capital Project Expenditure Form **2021**

What alternatives were evaluated and why were they rejected?

Continue using existing vehicles: this was rejected due to failing conditions and assets and safety risk this in continuing to operate older assets and the risk of failure/ breakdown can impeded our ability to respond to customer needs.

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

Increased risk of equipment failure posing potential safety risks to employee's customer and possibly the general public if equipment failure results in delayed response to emergencies.

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

Other replacements are in result of standards set forth in fleet policy.

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

No

Complete the Financial Summary table only if:

- Project is less than \$100,000; or
- Project category is *Mandated or Safety* (Business Case Form not required)

Financial Summary

Next Anticipated Test Year	2022	Was this Capital Project included in the current	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
----------------------------	------	--	--



Capital Project Expenditure Form 2021

		year's Board Approved Budget?	
Regulatory Lag (Click appropriate box)	<input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 – 12 months <input checked="" type="checkbox"/> 1 – 3 years <input type="checkbox"/> Greater than three years		
Which regulatory constructs will be used for recovering this capital spend?			
Please Specify Basis of Estimate For materials, equipment, and construction requiring Engineering drawings please specify the percent complete:¹	<input type="checkbox"/> Fixed or Firm Price <input checked="" type="checkbox"/> Estimate – Internal <input type="checkbox"/> Estimate – External <input type="checkbox"/> Other (specify details)		
	This project has not started yet. Click here to enter text.		
Category	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 (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	1,000,000		

Approvals and Signatures[#]

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager:	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Richard Foley Director, Supply Chain, Supply Chain Procurement	Richard Foley <small>Digitally signed by Richard Foley DN: cn=Richard Foley, o=Liberty Utilities, ou, email=richard.foley@libertyutilities.com, c=US Date: 2021.02.11 16:58:42 -05'00'</small>	
Senior VP/VP:	Up to \$500,000	Richard MacDonald VP Operations	Richard MacDonald <small>Digitally signed by Richard MacDonald Date: 2021.02.11 13:23:51 -05'00'</small>	
State President:	Up to \$500,000	Susan Fleck NH President	Susan Fleck <small>Digitally signed by Susan Fleck Date: 2021.02.12 10:25:01 -05'00'</small>	
Regional President:	Up to \$3,000,000	James Sweeney East Region		3/2/21



Capital Project Expenditure Form

2021

		President		
Corporate – Sr. VP Operations:	Up to \$5,000,000			Click here to enter a date.
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			Click here to enter a date.

ⁱ For Best Practices on estimating project contingencies please see the Capital Policy.

ⁱⁱ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.

Project Close Out Report

2021

Requesting Region or Group:	Liberty Utilities- NH- Gas Operations	Date of Closeout (MM/DD/YY):	
Project Name:	Transportation Fleet and Equipment Purchases 8840-2190		
Requesting Region:		Sponsor (Name):	Robert Mostone
Project Champion:	Richard Foley	Project ID	8840-2190
Project Status	<input type="checkbox"/> In Service <input type="checkbox"/> Complete <input type="checkbox"/> Closed		
Project Start Date:	01/01/2021	Project Completion Date:	12/31/2021
Requested Capital (\$)	\$2,013,000	Expenditure Included in Approved Budget?	X Yes <input type="checkbox"/> No

Section 1. Approval

Approval of the Project Closeout and Assessment Report indicates an understanding and formal agreement that the project is ready to be closed. By signing this document, each individual agrees all administrative, financial, and logistical aspects of the project should be concluded, executed, and documented as described herein.

Further, by signing this Report, it is accepted that CWIP (FERC Account 107) should be transferred to Utility in Plant Service (FERC Account 101)

Approver Name	Title	Signature	Date
	Project Lead		
Richard Foley	Project Sponsor	Richard Foley <small>Digitally signed by Richard Foley DN: cn=Richard Foley, o=Liberty Utilities, ou, email=richard.foley@libertyutilities.com, c=US Date: 2022.02.10 18:45:49 -05'00'</small>	
Robert Mostone	Operations Manager	Robert Mostone <small>Digitally signed by Robert Mostone Date: 2022.02.11 07:17:38 -05'00'</small>	
	Accounting Manager		

Section 2. Final Deliverable/Deployment Checklist

Sponsor to respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response
2.1	Do you agree that the product and/or service is ready to be deployed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.2	Do you agree the product and/or service has sufficiently met the stated business goals and objectives?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.3	Do you fully understand and agree to accept all operational requirements, operational risks, maintenance costs, and other limitations and/or constraints imposed as a result of ongoing operations of the product and/or service?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.4	Has the final unitization estimate been provided to Property Accounting?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Project Close Out Report

2021

Item	Question	Response
2.5	Do you agree the project should be closed? If no, please explain:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	<i>Scale of 1 thru 5; 5 = highest</i>	
	Rate your level of satisfaction with regards to the project outcomes listed below	
2.5	Project Quality	4/5
2.6	Product and/or Service Performance	4/5
2.7	Scope	4/5
2.8	Cost (Budget)	4/5
2.9	Schedule	4/5

Section 3. Project Documentation Checklist

Project Manager Respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response	
3.1	Have project documentation and other items (e.g., Business Case, Project Plan, Charter, Budget Documents, Status Reports) been prepared, collected, filed, and/or disposed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.3 ⁱ	Were audits (e.g., project closeout audit) completed and results documented for future reference?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.4	Identify the storage location for the following project documents items:		
Item	Document	Location (e.g., Google Docs, Webspace)	Format
3.4a	Business Case	W Drive	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4b	If available, the Final Project Schedule	W Drive	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4c	Budget Documentation and Invoices	W Drive	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4d	Status Reports	W Drive	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4e	Risks and Issues Log	W Drive	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4f	Final deliverable	W Drive	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4g	If applicable, verify that final project deliverable for the project is attached or storage location is identified in 3.4.		

Section 4. Project Team ⁱⁱ

Project Manager to list resources specified in the Project Plan and used by the project.

Project Close Out Report **2021**

Name	Role	Type (e.g., Contractor, Employee)
Richard Foley	Project Sponsor	Employee
Robert Mostong	Operations Manager	Employee

Section 5. Project Lessons Learned

Project Team to identify lessons learned specifically for the project. State the lessons learned in terms of a problem (issue). If available please include a Lesson Learned Log in the attached.. Please summarize the top three issues on the project and the recommended improvements to correct a similar problem in the future.

Problem Statement	Problem Description	References	Recommendation
Supply Chain Issues	Issues with Supply impacted our ability to get vehicles		

Section 7. Open Issues

Project Manager and Functional Lead to describe any open issues and plans for resolution within the context of project closeout. Include an open issue for any “no” responses in the Final Product and/or Service Acceptance Checklist and the Project Artifacts Checklist sections.

Issue	Planned Resolution
We were unsuccessful in getting our 3 fitting trucks received by year end due to supply chain issues in getting the product	We will be incorporating these units into 2022 budget.

Section 8. Project Cost Summary

Project Manager and Functional Lead to provide details for the following tables.

Cost Category	1- Budget	2- Actual	3 = 1 -2 Variance
---------------	-----------	-----------	-------------------

Project Close Out Report **2021**

Cost of Design & Engineering (\$)			
Cost of Materials (\$)			
Cost of Construction (\$)			
External Costs (\$)			
Internal Costs (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	\$2,013,000	\$ 1,142,619	\$870,381

Reasons for Variance	Impact
Supply Chain issues globally with automotive parts lead to delays product availability.	Fleet is being kept longer than planned (past retirement)

Project Manager to list of all work orders associated with project that should be closed once Close Out Report is accepted.

Project Close Out Report

2021

Registry of All Job Codes (Regional, Corporate, LABs)
402190-39201
402190-39202
402190-39203
402190-39204
402190-39205
402190-39206
402190-39207
402190-39208
402190-39209
402190-39210
402190-39211
402190-39212
402190-39601
402190-39613
402190-39801
402190-39802

ⁱ This section assumes an accounting audit has been completed ensuring all outstanding payments have been reconciled to the project

ⁱⁱ For Section 4 in filling out the Project Team Section, for those projects following the materiality limit set forth in the work order approval limits greater than \$5M please complete this section, all other projects do not require this.

Liberty Utilities (Granite State Electric) d/b/a Liberty
DE 19-064 2021 Step Adjustment
Project #8830-2191 Meters

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>CIAC</u>	<u>AFUDC</u>	<u>Total Spend</u>
<u>2021</u>	<u>\$184,971.55</u>	<u>\$0.00</u>	<u>\$110,152.95</u>	<u>\$84,243.40</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$379,367.90</u>
Total	\$184,971.55	\$0.00	\$110,152.95	\$84,243.40	\$0.00	\$0.00	\$379,367.90



Capital Project Expenditure Form

2021

Project Name:	Meter Purchases- Electric		
Financial Work Order (FWO):		Project ID #:	8830-2191
Requesting Region or Group:	Shawn Furey	Date of Request (MM/DD/YY):	1-21-2021
Project Sponsor:	Mark Parker	Project Start Date:	1/31/2021
Project Lead:	Shawn Furey	Project End Date:	12/31/2021
Prepared by:	Ryan Patnode	Requested Capital (\$)	250,000
Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned		
Project Type: (Click appropriate boxes)	<input type="checkbox"/> Safety <input type="checkbox"/> Mandated <input checked="" type="checkbox"/> Growth <input checked="" type="checkbox"/> Regulatory Supported <input checked="" type="checkbox"/> Discretionary		

Details of Request

Project description
This Project represents the annual purchase of electric meters for Liberty Utilities (Granite State Electric) Corp. We are required to provide new meters as part of our replacement programs as well as meters required for new business.

Is this project growth or customer connection related? If “yes”, list the specific locations and how expenditure aligns with customer expansion objectives.
Yes—Replacement meters that are on our system are identified by operations and are based on annual testing requirements. Some population of the new meters will also be used to support customer growth. The specific locations develop as the year progresses.

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

Will there be assets, greater than \$5,000, currently in service removed as a result of this expenditure?
<i>GUIDANCE: If yes, please detail the specific assets that will be removed:</i>
<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
Yes there will be some plant removed. The exact plant removed will be contingent upon the arrival of the new equipment and the locations selected as part of the meter testing program. New meter installations to support growth will not have plant removed.



Capital Project Expenditure Form

2021

What alternatives were evaluated and why were they rejected?

We have an obligation to perform meter testing to confirm the accuracy of the meter devices. New meters are purchased to remove the vintage meters that are in the field. Leaving older meters which have the potential for failure or create reading/billing issues can impact the customer. For new customers, a mechanism is required to ensure we can measure customer usage.

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

We fall out of compliance with our meter testing and change program. Additionally we will be unable to install any new meters on new customers and unable to provide service.

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

Meter installation follows company safety standards operating procedures.

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

No



Capital Project Expenditure Form

2021



Complete the Financial Summary table only if:

- Project is less than \$100,000; or
- Project category is *Mandated or Safety* (Business Case Form not required)

Financial Summary

Next Anticipated Test Year	2022	Was this Capital Project included in the current year's Board Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Regulatory Lag (Click appropriate box)	<input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 – 12 months <input checked="" type="checkbox"/> 1 – 3 years <input type="checkbox"/> Greater than three years		
Which regulatory constructs will be used for recovering this capital spend?			
Please Specify Basis of Estimate For materials, equipment, and construction requiring Engineering drawings please specify the percent complete:!	<input type="checkbox"/> Fixed or Firm Price <input checked="" type="checkbox"/> Estimate – Internal <input type="checkbox"/> Estimate – External <input type="checkbox"/> Other (specify details) This project has not started yet. Click here to enter text.		
Category	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 (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	250,000		

Approvals and Signaturesⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Shawn Furey Supervisor Electric Customer Metering Services	SHAWN FUREY  <small>Digitally signed by SHAWN FUREY DN: cn=SHAWN FUREY, o=LIBERTY UTILITIES, ou=CONSTRUCTION, email=SHAWN.FUREY@LIBERTYUTILITIES.COM, c=US Date: 2021.02.04 09:54:24 -05'00'</small>	February 4, 2020
Senior Manager:	Up to \$50,000			Click here to enter a date.
Senior Director/Director:	Up to \$250,000	Mark Parker Director Electric operations	Mark Parker  <small>Digitally signed by Mark Parker DN: cn=Mark Parker, o=Liberty Utilities, email=mark.parker@libertyutilities.com, c=US Date: 2021.02.04 10:39:29 -05'00'</small>	Click here to enter a date.



Capital Project Expenditure Form

2021

Senior VP/VP:	Up to \$500,000	Richard MacDonald VP Operations		
State President:	Up to \$500,000	Susan Fleck NH President		Click here to enter a date.
Regional President:	Up to \$3,000,000	James Sweeney East Region President		Click here to enter a date.
Corporate – Sr. VP Operations:	Up to \$5,000,000			Click here to enter a date.
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			Click here to enter a date.

ⁱ For Best Practices on estimating project contingencies please see the Capital Policy.

ⁱⁱ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Capital Project Business Case

2021

NOTE: This form is required for planned Growth, Regulatory Supported, and Discretionary projects as well as combined blanket projects for Safety and Mandated with Growth, Regulatory Supported, and Discretionary Projects with a spend greater than \$100,000 and all unplanned projects. All other Project types can utilize the Capital Expenditure Application Form.

Project Overview			
Project Name:	Meter Purchase Blanket	Date Prepared:	1/21/2021
Project ID#:	8830-2191	Cost Estimate:	250,000
Project Sponsor:	Shawn Furey	Project Start Date:	1/1/2020
Project Lead:	Mark Parker	Project End Date:	
Prepared By:	Ryan Patnode	Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned
Project Type (click appropriate boxes):	<input type="checkbox"/> Safety <input checked="" type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input checked="" type="checkbox"/> Discretionary		
Spending Rationale:	<input type="checkbox"/> Growth <input type="checkbox"/> Improvement <input checked="" type="checkbox"/> Replenishment		
Project Scope Statement			
(Insert the scope of work, major deliverables, assumptions, and constraints)			
<p>This project represents the annual purchase of electric meters required for Liberty Utilities (Granite State Electric) Corp. The scope is for purchase and receipt of meters and includes the recapitalized installation cost.</p>			
Background			
(Insert description of current operational arrangement, and brief history of project & asset)			
<p>Liberty Utilities has an obligation to replace and install meters for customers on a regular basis. This expenditure is to purchase, receive and install meters required for existing and new customers.</p> <p>The key Drivers for this project are:</p> <ul style="list-style-type: none"> • Identification of older meters subject to replacement • Results of “pick for test” program and the need to perform additional meter replacement • New Customer growth and upgrades requiring new or larger sized meters based on customer demand 			
Recommendation/Objective			(Insert the
unique problem this project is looking to resolve)			
<p>Purchase electric meters to meet obligation of replacement units to support any new requirement for electric service along our distribution system.</p>			
Alternatives/Options			
(Describe all reasonably viable alternatives. Discuss the viability of each and provide reasons if rejected)			
None- Regulatory requirement			
Financial Assessment/Cost Estimates			



Capital Project Business Case

(Double click embedded excel file to update; include contingency allowance in excel file)

Next Anticipated Test Year

2022

Was this Capital Project included in the current year's Board Approved Budget?

Yes
 No

Regulatory Lag

(Click appropriate box)

Less than 6 Months 6-12 Months 1 to 3 years Greater than 3 years

Category	Total Already Approved	2021	2022	Beyond 2021	Total
Internal Labor					
Materials					
Equipment					
Contractor/ Subcontractor					
AFUDC					
Total Project Cost		\$250,000			

Unlevered Internal Rate of Return:

Basis of Estimate: *Historical spend.*

For materials, equipment, and construction requiring Engineering drawings please specify the percent complete:

Schedule

(List key milestone dates)

Key Milestone Description	Forecast Start Date	Forecast End Date
Purchase Meters	1/31/2021	12/31/2021
Receive Meters	1/31/2021	12/31/2021

Risk Assessment

(Please describe the risk of not completing the project)

Inability to replace older meters will result in being non-compliant with our obligations to replace older meters.

Trade Finance

(Is there a possibility to apply trade finance products to this project? See Capital Planning for further clarification)



Capital Project Business Case


2021

Supporting Documentation (Reference drawings, condition assessment reports, vendor quotations, etc. Attach document or where possible include hyperlink to file located on shared server or SharePoint)

Approvals and Signaturesⁱ

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Shawn Furey Supervisor Electric Customer Metering Services	SHAWN FUREY <small>Digitally signed by SHAWN FUREY DN: cn=SHAWN FUREY, o=LIBERTY UTILITIES, ou=CONSTRUCTION, email=SHAWN.FUREY@LIBERTYUTILS.TESCOM, c=US Date: 2021.02.04 09:55:45 -05'00'</small>	2/4/2021
Senior Manager: :	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Mark Parker Director Electric operations	Mark Parker <small>Digitally signed by Mark Parker DN: cn=Mark Parker, o, ou=Liberty Utilities, email=mark.parker@libertyutilities.com, c=US Date: 2021.02.04 10:40:54 -05'00'</small>	
Senior Vice President/ Vice President	Up to \$500,000	Richard MacDonald VP Operations		
State President:	Up to \$500,000	Susan Fleck NH President		
Regional President:	Up to \$3,000,000	James Sweeney East Region President		
Corporate - Sr VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			

ⁱ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.

 **Liberty Utilities Change Order Form 2021**

Project Overview

Reason for Change:

Project ID:	8830-2191	Project Name:	Granite St Meter Purchases
Change Order Name:	8830-2191 GSE Meter	Date Prepared:	4/22/21
Change Order #:	8830-2191-1	Financial Work Order (FWO):	
Project Sponsor:	Mark Parker	Revised Start Date:	1/1/2020
Project Lead:	Shawn Furey	Revised End Date:	12/31/2021
Prepared By:	Shawn Furey	Change Type	<input checked="" type="checkbox"/> In Scope <input type="checkbox"/> Out of Scope
Project Contingency Available?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If No is Selected, Please specify source of funds	

Financial Assessment/Cost Estimates
(Double click embedded excel file to update; include contingency allowance in excel file)

Category	Original Project Value	Previous Approved Charges	Current Change Order Amount	Total
Internal Labor				
Materials				
Equipment				
Contractor/Subcontractor				
Burdens/Overheads				
AFUDC				
Total Project Cost	\$250,000		\$260,000	\$510,000

Updated Unlevered Internal Rate of Return:

Basis of Current Change Order Amount:

In 2021, there was one large meter order that the metering group is receiving in 4 batches throughout the year. This is the standard order for basic meters to run the business on existing and new meters to support growth. The total amount of the order is 166k. To reduce spend, Operations recently cancelled one of the orders which reduced this amount to 126k. 62k has been received and there are 2 more batches expected in the fall. That leaves a total remaining direct charge of 64k. Operations also needs a few sets of CT's to support existing growth which amounts to approximately 85k in direct charges remaining.

Other charges that have already hit this account were G1 cell meters to replenish inventory for growth, primary CT and PT equipment needed to support growth in the northern division and CT/PT testing equipment to test the effectiveness of our equipment on large accounts. Between these three purchases that amounted to approximately 50k.

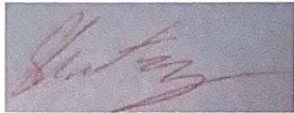


Labor and burden allocation is 57% which is higher than anticipated due to additional growth and testing required which resulted in additional employees hours and corresponding burden cost

Adding 30% to the remaining direct charges the requested amount is 260k greater than the budget which will help support the standard replacement of

meters in the field and to support growth within our service territory.		
Schedule Impacts (As a result of the Change Order, where applicable, List the Impacts to schedule)		
Baseline Schedule (BL)	New Forecast (NF)	Variance (BL - NF)

Approvals and Signatures

Approved By:

Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Shawn Furey Supervisors Electric Customer Metering Services		4/22/2021
Senior Manager: :	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Mark Parkder, Director Electric Operations		4/22/2021
State President / Senior VP / VP:	Up to \$500,000	Richard Macdonald VP Operations	Richard MacDonald <small>Digitally signed by Richard MacDonald Date: 2021.04.22 16:32:55 -0400</small>	
Regional President:	Up to \$3,000,000	James Sweeney East Region President		
Corporate - Sr VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			

Project Close Out Report 2021

Requesting Region or Group:	New Hampshire	Date of Closeout (MM/DD/YY):	12/31/2021
Project Name:	01659 Granite St Meter Purchases 8830-2191		
Requesting Region:	New Hampshire	Sponsor (Name):	Richard Foley
Project Champion:	Mark Parker	Project Champion	
Project Status	X In Service <input type="checkbox"/> Complete <input type="checkbox"/> Closed		
Project Start Date:	1/1/2021	Project Completion Date:	12/31/2021
Requested Capital (\$)	\$250,000	Expenditure Included in Approved Budget?	X Yes <input type="checkbox"/> No

Section 1. Approval

Approval of the Project Closeout and Assessment Report indicates an understanding and formal agreement that the project is ready to be closed. By signing this document, each individual agrees all administrative, financial, and logistical aspects of the project should be concluded, executed, and documented as described herein.

Further, by signing this Report, it is accepted that CWIP (FERC Account 107) should be transferred to Utility in Plant Service (FERC Account 101)

Approver Name	Title	Signature	Date
Shawn Furey	Project Lead	SHAWN FUREY <small>Digitally signed by SHAWN FUREY DN: cn=SHAWN FUREY, o=LIBERTY UTILITIES, ou=CONSTRUCTION, email=SHAWN.FUREY@LIBERTYUTILITIES.COM, c=US Date: 2022.02.09 05:52:56 -0500'</small>	2/9/2022
Richard Foley	Project Sponsor	Richard Foley <small>Digitally signed by Richard Foley DN: cn=Richard Foley, o=Liberty Utilities, ou, email=richard.foley@libertyutilities.com, c=US Date: 2022.02.09 15:21:43 -05'00'</small>	
Mark Parker	Operations Manager		2/10/22
	Accounting Manager		

Section 2. Final Deliverable/Deployment Checklist

Sponsor to respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response
2.1	Do you agree that the product and/or service is ready to be deployed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.2	Do you agree the product and/or service has sufficiently met the stated business goals and objectives?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.3	Do you fully understand and agree to accept all operational requirements, operational risks, maintenance costs, and other limitations and/or constraints imposed as a result of ongoing operations of the product and/or service?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.4	Has the final unitization estimate been provided to Property Accounting?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Project Close Out Report | 2021

Item	Question	Response
2.5	Do you agree the project should be closed? If no, please explain:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<i>Scale of 1 thru 5; 5 = highest</i>		
Rate your level of satisfaction with regards to the project outcomes listed below		
2.5	Project Quality	4/5
2.6	Product and/or Service Performance	4/5
2.7	Scope	4/5
2.8	Cost (Budget)	4/5
2.9	Schedule	4/5

Section 3. Project Documentation Checklist

Project Manager Respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response	
3.1	Have project documentation and other items (e.g., Business Case, Project Plan, Charter, Budget Documents, Status Reports) been prepared, collected, filed, and/or disposed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.3 ¹	Were audits (e.g., project closeout audit) completed and results documented for future reference?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.4	Identify the storage location for the following project documents items:		
Item	Document	Location (e.g., Google Docs, Webspace)	Format
3.4a	Business Case	W drive	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4b	If available, the Final Project Schedule	W drive	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4c	Budget Documentation and Invoices	W drive	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4d	Status Reports	W drive	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4e	Risks and Issues Log	W drive	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4f	Final deliverable	W drive	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4g	If applicable, verify that final project deliverable for the project is attached or storage location is identified in 3.4.		

Section 4. Project Team ⁱⁱ

Project Manager to list resources specified in the Project Plan and used by the project.

Project Close Out Report 2021

Name	Role	Type (e.g., Contractor, Employee)
Shawn Furey	Project Lead	Employee
Richard Foley	Project Sponsor	Employee
Mark Parker	Operations Manager	Employee

Section 5. Project Lessons Learned

Project Team to identify lessons learned specifically for the project. State the lessons learned in terms of a problem (issue). If available please include a Lesson Learned Log in the attached. Please summarize the top three issues on the project and the recommended improvements to correct a similar problem in the future.

Problem Statement	Problem Description	References	Recommendation
Supply Chain Shortages	Global Supply Chain issues are creating issues with product. We pulled forward purchases to help meet future needs.		

Section 7. Open Issues

Project Manager and Functional Lead to describe any open issues and plans for resolution within the context of project closeout. Include an open issue for any "no" responses in the Final Product and/or Service Acceptance Checklist and the Project Artifacts Checklist sections.

Issue	Planned Resolution

Section 8. Project Cost Summary

Project Manager and Functional Lead to provide details for the following tables.

Cost Category	1- Budget	2- Actual	3 = 1 -2 Variance

Project Close Out Report | 2021

Cost of Design & Engineering (\$)			
Cost of Materials (\$)			
Cost of Construction (\$)			
External Costs (\$)			
Internal Costs (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	\$250,000	\$ 528,709	(\$278,709)

Reasons for Variance	Impact
Change order #1	\$260,000
Change order #2	\$19,000
Cause 3	\$

Project Manager to list of all work orders associated with project that should be closed once Close Out Report is accepted.

Registry of All Job Codes (Regional, Corporate, LABs)
302191-77001

¹ This section assumes an accounting audit has been completed ensuring all outstanding payments have been reconciled to the project

² For Section 4 in filling out the Project Team Section, for those projects following the materiality limit set forth in the work order approval limits greater than \$5M please complete this section, all other projects do not require this.

Liberty Utilities (Granite State Electric) d/b/a Liberty
DE 19-064 2021 Step Adjustment
Project #8830-2192 Transformers

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>CIAC</u>	<u>AFUDC</u>	<u>Total Spend</u>
<u>2021</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$491,856.56</u>	<u>\$147,405.53</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$639,262.09</u>
Total	\$0.00	\$0.00	\$491,856.56	\$147,405.53	\$0.00	\$0.00	\$639,262.09



Capital Project Business Case

2021

NOTE: This form is required for planned Growth, Regulatory Supported, and Discretionary projects as well as combined blanket projects for Safety and Mandated with Growth, Regulatory Supported, and Discretionary Projects with a spend greater than \$100,000 and all unplanned projects. All other Project types can utilize the Capital Expenditure Application Form.

Project Overview			
Project Name:	Transformer, Cap & Regul Purchase Blanket	Date Prepared:	1/21/2021
Project ID#:	8830-2192	Cost Estimate:	\$420,000
Project Sponsor:	Richard Foley	Project Start Date:	1/31/2021
Project Lead:	Mark Parker	Project End Date:	12/31/2021
Prepared By:	Ryan Patnode	Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned
Project Type (click appropriate boxes):	<input type="checkbox"/> Safety <input type="checkbox"/> Mandated <input checked="" type="checkbox"/> Growth <input checked="" type="checkbox"/> Regulatory Supported <input type="checkbox"/> Discretionary		
Spending Rationale:	<input checked="" type="checkbox"/> Growth <input type="checkbox"/> Improvement <input checked="" type="checkbox"/> Replenishment		
Project Scope Statement			
(Insert the scope of work, major deliverables, assumptions, and constraints)			
This project represents the annual purchase of electric transformer for Liberty Utilities (Granite State Electric) Corp. The scope is for the purchase and receipt of transformers to support equipment failure and growth.			
Background			
(Insert description of current operational arrangement, and brief history of project & asset)			
Liberty Utilities has an obligation to replace and install transformers to support reliability of electric services to customers. Additionally transformer are needed to support system growth for residential and commercial customers along our distribution system.			
Recommendation/Objective			
(Insert the unique problem this project is looking to resolve)			
Purchase electric transformer to meet the obligation of replacement units and support any new requirements for electric service along our distribution system.			
Alternatives/Options			
(Describe all reasonably viable alternatives. Discuss the viability of each and provide reasons if rejected)			
None-Regulatory requirement			
Financial Assessment/Cost Estimates			
(Double click embedded excel file to update; include contingency allowance in excel file)			



Capital Project Business Case

2021

Next Anticipated Test Year	2020	Was this Capital Project included in the current year's Board Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
-----------------------------------	------	---	--

Regulatory Lag
(Click appropriate box)

Less than 6 Months
 6-12 Months
 1 to 3 years
 Greater than 3 years

Category	Total Already Approved	2021	2022	Beyond 2022	Total
Internal Labor					
Materials					
Equipment					
Contractor/ Subcontractor					
AFUDC					
Total Project Cost		\$420,000			

Unlevered Internal Rate of Return:

Basis of Estimate: *Provide brief explanation on basis of estimate, activities completed to determine costs*

For materials, equipment, and construction requiring Engineering drawings please specify the percent complete:

Schedule

(List key milestone dates)

Key Milestone Description	Forecast Start Date	Forecast End Date
Purchase Transformers	1/31/2021	12/31/2021
Receive Transformers	1/31/2021	12/31/2021

Risk Assessment

(Please describe the risk of not completing the project)

Inability to replace older transformers will result in being risk of not providing reliable service.

Trade Finance

(Is there a possibility to apply trade finance products to this project? See Capital Planning for further clarification)



Capital Project Business Case

Supporting Documentation
(Reference drawings, condition assessment reports, vendor quotations, etc. Attach document or where possible include hyperlink to file located on shared server or SharePoint)

Approvals and Signatures¹

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager: :	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Richard Foley Director, Supply Chain, Supply Chain Procurement	Richard Foley	Digitally signed by Richard Foley DN: cn=Richard Foley, o=Liberty Utilities, ou, email=richard.foley@libertyutilities.com, c=US Date: 2021.01.21 17:04:06 -05'00'
Senior Vice President/ Vice President	Up to \$500,000	Richard MacDonald VP Operations	Richard MacDonald	Digitally signed by Richard MacDonald Date: 2021.01.22 09:13:42 -05'00'
State President:	Up to \$500,000	Susan Fleck NH President		
Regional President:	Up to \$3,000,000	James Sweeney East Region President		
Corporate - Sr VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			

¹ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.

Project Close Out Report 2021

Requesting Region or Group:	New Hampshire	Date of Closeout (MM/DD/YY):	12/31/2021
Project Name:	01660 Granite St Transformer Purchases 8830-2192		
Requesting Region:		Sponsor (Name):	Richard Foley
Project Champion:	Mark Parker	Project Champion	
Project Status	X In Service <input type="checkbox"/> Complete <input type="checkbox"/> Closed		
Project Start Date:	1/1/2021	Project Completion Date:	12/31/201
Requested Capital (\$)	\$420,000	Expenditure Included in Approved Budget?	X Yes <input type="checkbox"/> No

Section 1. Approval

Approval of the Project Closeout and Assessment Report indicates an understanding and formal agreement that the project is ready to be closed. By signing this document, each individual agrees all administrative, financial, and logistical aspects of the project should be concluded, executed, and documented as described herein.

Further, by signing this Report, it is accepted that CWIP (FERC Account 107) should be transferred to Utility in Plant Service (FERC Account 101)

Approver Name	Title	Signature	Date
	Project Lead		
Richard Foley	Project Sponsor	Richard Foley <small>Digitally signed by Richard Foley DN: cn=Richard Foley, o=Liberty Utilities, ou, email=richard.foley@libertyutilities.com, c=US Date: 2022.02.09 15:15:40 -05'00'</small>	
Mark Parker	Operations Manager		2/10/22
	Accounting Manager		

Section 2. Final Deliverable/Deployment Checklist

Sponsor to respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response
2.1	Do you agree that the product and/or service is ready to be deployed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.2	Do you agree the product and/or service has sufficiently met the stated business goals and objectives?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.3	Do you fully understand and agree to accept all operational requirements, operational risks, maintenance costs, and other limitations and/or constraints imposed as a result of ongoing operations of the product and/or service?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2.4	Has the final unitization estimate been provided to Property Accounting?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Project Close Out Report | 2021

Item	Question	Response
2.5	Do you agree the project should be closed? If no, please explain:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	<i>Scale of 1 thru 5; 5 = highest</i>	
	Rate your level of satisfaction with regards to the project outcomes listed below	
2.5	Project Quality	4/5
2.6	Product and/or Service Performance	4/5
2.7	Scope	4/5
2.8	Cost (Budget)	4/5
2.9	Schedule	4/5

Section 3. Project Documentation Checklist

Project Manager Respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response	
3.1	Have project documentation and other items (e.g., Business Case, Project Plan, Charter, Budget Documents, Status Reports) been prepared, collected, filed, and/or disposed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.3 ⁱ	Were audits (e.g., project closeout audit) completed and results documented for future reference?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
3.4	Identify the storage location for the following project documents items:		
Item	Document	Location (e.g., Google Docs, Webspace)	Format
3.4a	Business Case		<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4b	If available, the Final Project Schedule		<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4c	Budget Documentation and Invoices		<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4d	Status Reports		<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4e	Risks and Issues Log		<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4f	Final deliverable		<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4g	If applicable, verify that final project deliverable for the project is attached or storage location is identified in 3.4.		

Section 4. Project Team ⁱⁱ

Project Manager to list resources specified in the Project Plan and used by the project.

Project Close Out Report 2021

Name	Role	Type (e.g., Contractor, Employee)
Richard Foley	Project Sponsor	Employee
Mark Parker	Operations Manager	Employee

Section 5. Project Lessons Learned

Project Team to identify lessons learned specifically for the project. State the lessons learned in terms of a problem (issue). If available please include a Lesson Learned Log in the attached. Please summarize the top three issues on the project and the recommended improvements to correct a similar problem in the future.

Problem Statement	Problem Description	References	Recommendation
Supply Chain Shortages	Global Supply Chain issues are creating issues with product. We pulled forward purchases to help meet future needs.		

Section 7. Open Issues

Project Manager and Functional Lead to describe any open issues and plans for resolution within the context of project closeout. Include an open issue for any "no" responses in the Final Product and/or Service Acceptance Checklist and the Project Artifacts Checklist sections.

Issue	Planned Resolution

Section 8. Project Cost Summary

Project Manager and Functional Lead to provide details for the following tables.

Cost Category	1- Budget	2- Actual	3 = 1 -2 Variance

Project Close Out Report | 2021

Cost of Design & Engineering (\$)			
Cost of Materials (\$)			
Cost of Construction (\$)			
External Costs (\$)			
Internal Costs (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	\$420,000	\$895,844	(\$475,844)

Reasons for Variance	Impact
Change order #1	\$480,000
Cause 2	\$
Cause 3	\$

Project Manager to list of all work orders associated with project that should be closed once Close Out Report is accepted.

Registry of All Job Codes (Regional, Corporate, LABs)
302192-99001
302192-99002

ⁱ This section assumes an accounting audit has been completed ensuring all outstanding payments have been reconciled to the project

ⁱⁱ For Section 4 in filling out the Project Team Section, for those projects following the materiality limit set forth in the work order approval limits greater than \$5M please complete this section, all other projects do not require this.

Liberty Utilities (Granite State Electric) d/b/a Liberty
DE 19-064 2021 Step Adjustment
Project #8830-2197 Salem Garage

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>CIAC</u>	<u>AFUDC</u>	<u>Total Spend</u>
<u>2021</u>	<u>\$46,542.81</u>	<u>\$0.00</u>	<u>\$451,095.00</u>	<u>\$170,003.31</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$667,641.12</u>
Total	\$46,542.81	\$0.00	\$451,095.00	\$170,003.31	\$0.00	\$0.00	\$667,641.12



Capital Project Expenditure Form **2021**

Project Name:	Salem Garage Expansion for Sub Station Work Area		
Financial Work Order (FWO):		Project ID #:	8830-2197
Requesting Region or Group:		Date of Request (MM/DD/YY):	1-12-2021
Project Sponsor:	Rich Foley	Project Start Date:	2/1/2021
Project Lead:	Doug Dorn	Project End Date:	12/15/2021
Prepared by:	Doug Dorn/ Ryan Patnode	Requested Capital (\$)	700,000
Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned		
Project Type: (Click appropriate boxes)	<input checked="" type="checkbox"/> Safety <input type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input type="checkbox"/> Discretionary		

Details of Request

Project description

Due to the incident that occurred in Lebanon where we experienced a lineman being electrocuted and subsequent fine from OSHA, we needed to provide appropriate space for substation work and equipment testing to be done safely and securely. A review of options with NH leadership lead to the decision to expand the back garage in the Salem location to accommodate this need. The funding request to proceed forward with the expansion to meet the OSHA mandates for this process.

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

No

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

We will be required to obtain permits from the town of Salem to complete building construction.

Will there be assets, greater than \$5,000, currently in service removed as a result of this expenditure?
GUIDANCE: If yes, please detail the specific assets that will be removed: NO

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?



Capital Project Expenditure Form

2021

5. *What is the year of original installation of the plant being removed*

What alternatives were evaluated and why were they rejected?

Facilities considered several alternatives. First was a build a structure at the Lebanon operation site. However, due to lot size constraints, this option was not viable. Another option was a leased warehouse bay in Hooksett, NH. However, the logistics of this option limited its due to the distance from the operating locations (Lebanon or Salem) and effectiveness due to union employees having to travel to his location some distance from their current reporting location and it is not provided for in their contract agreement. This location was not adjacent to the equipment and tools needed for equipment repairs and was some distance from the substation locations. Other locations offsite in Lebanon and Salem were considered but not explored further for the some of the same reasons as the Hooksett location.

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

Risk on significant injury to employees in the safe repair and testing and the potential of additional OSHA fines .

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

EH&S has been part of this entire process since the issue. They have been working with OSHA and the team to find a solution. They have been part of the NH leadership on board with this decision.

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

Ensure the risk of a similar event to the one that took place in Lebanon has been mitigated.



Capital Project Expenditure Form

2021

Complete the Financial Summary table only if:

- Project is less than \$100,000; or
- Project category is *Mandated* or *Safety* (Business Case Form not required)

Financial Summary

Next Anticipated Test Year	2022	Was this Capital Project included in the current year's Board Approved Budget?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Regulatory Lag (Click appropriate box)	<input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 – 12 months <input checked="" type="checkbox"/> 1 – 3 years <input type="checkbox"/> Greater than three years		
Which regulatory constructs will be used for recovering this capital spend?			
Please Specify Basis of Estimate For materials, equipment, and construction requiring Engineering drawings please specify the percent complete:	<input type="checkbox"/> Fixed or Firm Price <input checked="" type="checkbox"/> Estimate – Internal <input type="checkbox"/> Estimate – External <input type="checkbox"/> Other (specify details) This project has not started yet. Click here to enter text.		
Category	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 (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	700,000		

Approvals and Signatures[#]

Approved By:



Capital Project Expenditure Form

2021

Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager:	Up to \$50,000	Doug Dorn Senior Manager, Facilities and Security, Procurement	DDorn	Digitally signed by DDorn DN: cn=DDorn, o, ou, email=douglas.dorn@liberty utilities.com, c=US Date: 2021.01.15 08:10:14 -05'00'
Senior Director/Director:	Up to \$250,000	Richard Foley Director, Supply Chain, Supply Chain Procurement	Richard Foley	Digitally signed by Richard Foley DN: cn=Richard Foley, o=Liberty Utilities, ou, email=richard.foley@libertyutilities.com, c=US Date: 2021.01.15 11:44:15 -05'00'
Senior VP/VP:	Up to \$500,000	Richard MacDonald VP Operations	Richard MacDonald	Digitally signed by Richard MacDonald Date: 2021.01.15 14:49:06 -05'00'
State President:	Up to \$500,000	Susan Fleck NH President	Susan Fleck	Digitally signed by Susan Fleck Date: 2021.01.15 15:12:46 -05'00'
Regional President:	Up to \$3,000,000	James Sweeney East Region President		Click here to enter a date. 3/9/21
Corporate – Sr. VP Operations:	Up to \$5,000,000			Click here to enter a date.
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			Click here to enter a date.

ⁱ For Best Practices on estimating project contingencies please see the Capital Policy.

ⁱⁱ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.



Capital Project Business Case

2021

NOTE: This form is required for planned Growth, Regulatory Supported, and Discretionary projects as well as combined blanket projects for Safety and Mandated with Growth, Regulatory Supported, and Discretionary Projects with a spend greater than \$100,000 and all unplanned projects. All other Project types can utilize the Capital Expenditure Application Form.

Project Overview			
Project Name:	Salem Garage Expansion for Sub Station Work Area	Date Prepared:	1-12-2021
Project ID#:	8830-2197	Cost Estimate:	700,000
Project Sponsor:	Rich Foley	Project Start Date:	2-1-2021
Project Lead:	Doug Dorn	Project End Date:	12-15-2021
Prepared By:	Doug Dorn/ Ryan Patnode	Planned or Unplanned Projects:	<input checked="" type="checkbox"/> Planned <input type="checkbox"/> Unplanned
Project Type (click appropriate boxes):	<input checked="" type="checkbox"/> Safety <input type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input type="checkbox"/> Discretionary		
Spending Rationale:	<input type="checkbox"/> Growth <input checked="" type="checkbox"/> Improvement <input type="checkbox"/> Replenishment		
Project Scope Statement			
(Insert the scope of work, major deliverables, assumptions, and constraints)			
<p>The project request is to expand the back garage at the Salem NH Liberty Operations Center to house a substation repair and testing facility. The newly constructed garage location will measure approximately 45x50 feet of once built.</p>			
Background			
(Insert description of current operational arrangement, and brief history of project & asset)			
<p>An incident that occurred at the Lebanon location resulted in a lineman being electrocuted. A worker was hurt and subsequently, LU was fined by OSHA. As a result of this incident it was determined that a safe and secure dedicated space was needed for substation employees to perform repairs and testing. In the existing locations, there is not adequate space for this work to be performed to meet OSHA requirements. After reviewing multiply options, a decision was made to expand the large back garage in Salem to safely accommodate this need and meet OSHA requirements.</p>			
Recommendation/Objective			
(Insert the unique problem this project is looking to resolve)			
<p>The project objective is to construct a space to meet the safety requirements for substation maintenance work on their equipment and meet all OSHA requirements. Salem, due to space and location, provides the best option to adhere to requirements.</p>			
Alternatives/Options			
(Describe all reasonably viable alternatives. Discuss the viability of each and provide reasons if rejected)			
<p>Facilities considered several alternatives. First was a build at the Lebanon operation site. However, due to lot size constraints, this option was not considered viable. A warehouse bay, located in Hooksett, NH, was considered. However, it was determined to be too far from the resources of materials and equipment available at both operations centers and a distance away from where the equipment would be deployed to be effective. It also didn't provide the best procedures efficiently.</p>			



Capital Project Business Case

2021

requiring additional travel between locations. Other locations offsite in Lebanon and Salem were considered but not explored further for the same reasons as the Hookset location.

Financial Assessment/Cost Estimates

(Double click embedded excel file to update; include contingency allowance in excel file)

Next Anticipated Test Year

2022

Was this Capital Project included in the current year's Board Approved Budget?

Yes
 No

Regulatory Lag (Click appropriate box)

Less than 6 Months 6-12 Months 1 to 3 years Greater than 3 years

Category	Total Already Approved	2021	2022	Beyond 2022	Total
Internal Labor					
Materials					
Equipment		\$42,000			
Contractor/ Subcontractor		\$388,928			
AFUDC/Burden/Other		\$264,381			
Total Project Cost		700,000			

Unlevered Internal Rate of Return:

Basis of Estimate: We have contractor estimate, internal labor estimate plus burden, plus contingency for unknowns.

For materials, equipment, and construction requiring Engineering drawings please specify the percent complete:

Schedule

(List key milestone dates)

Key Milestone Description	Forecast Start Date	Forecast End Date
Town approvals, Build out, Complete approvals, Move in and operate.	2-01-2021	12-15-2021

Risk Assessment



(Please describe the risk of not completing the project)

Risk of additional OSHA fines and safety risks to Linemen for not having the location complete the work safely.

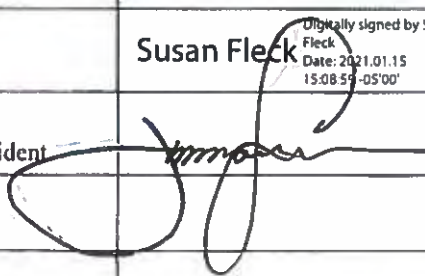


Capital Project Business Case

2021

Trade Finance	
(Is there a possibility to apply trade finance products to this project? See Capital Planning for further clarification)	
No	
Supporting Documentation	
(Reference drawings, condition assessment reports, vendor quotations, etc. Attach document or where possible include hyperlink to file located on shared server or SharePoint)	
 Salem Garage Estimate.xlsx	 Salem Garage Addition Rev01-1211

Approvals and Signatures

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			
Senior Manager :	Up to \$50,000	Doug Dorn Senior Manager, Facilities and Security, Procurement	DDorn	Digitally signed by DDorn DN: cn=DDorn, o, ou, email=douglas.dorn@libertyutilities.com, c=US Date: 2021.01.15 10:13:09 -05'00'
Senior Director/Director:	Up to \$250,000	Richard Foley Director, Supply Chain, Supply Chain Procurement	Richard Foley	Digitally signed by Richard Foley DN: cn=Richard Foley, o=Liberty Utilities, ou, email=richard.foley@libertyutilities.com, c=US Date: 2021.01.15 11:45:24 -05'00'
Senior Vice President/ Vice President	Up to \$500,000	Richard MacDonald VP Operations	Richard MacDonald	Digitally signed by Richard MacDonald Date: 2021.01.15 14:52:11 -05'00'
State President:	Up to \$500,000	Susan Fleck NH President	Susan Fleck	Digitally signed by Susan Fleck Date: 2021.01.15 15:08:59 -05'00'
Regional President:	Up to \$3,000,000	James Sweeney East Region President		3/9/21
Corporate - Sr VP Operations:	Up to \$5,000,000			
Corporate - Exec Team Member (CEO, CFO, COO, Vice Chair):	Over \$5,000,000			



Capital Project Business Case

2021

¹ Approvals for work orders and purchase orders are subject to the limits set forth in the Approval Limits of Authority Policy owned and amended from time to time by the corporate procurement group.

Project Close Out Report



2021

Requesting Region or Group:	East- NH	Date of Closeout (MM/DD/YY):	2-10-2022
Project Name:	Add on to Garage in Salem 8830-2197		
Requesting Region:		Sponsor (Name):	Richard Foley
Project Champion:	Douglas Dorn	Project Champion	
Project Status	<input type="checkbox"/> In Service <input type="checkbox"/> Complete <input type="checkbox"/> Closed		
Project Start Date:		Project Completion Date:	
Requested Capital (\$)	\$700,000	Expenditure Included in Approved Budget?	X Yes <input type="checkbox"/> No

Section 1. Approval

Approval of the Project Closeout and Assessment Report indicates an understanding and formal agreement that the project is ready to be closed. By signing this document, each individual agrees all administrative, financial, and logistical aspects of the project should be concluded, executed, and documented as described herein.

Further, by signing this Report, it is accepted that CWIP (FERC Account 107) should be transferred to Utility in Plant Service (FERC Account 101)

Approver Name	Title	Signature	Date
Doug Dorn	Project Lead		Digitally signed by ddorn DN: cn=ddorn, o, ou, email=douglas.dorn@libertyutilities.com, c=US Date: 2022.02.09 16:28:26 -05'00'
Rich Foley	Project Sponsor		Digitally signed by Richard Foley DN: cn=Richard Foley, o=Liberty Utilities, ou, email=richard.foley@libertyutilities.com, c=US Date: 2022.02.09 15:59:16 -05'00'
	Operations Manager		
	Accounting Manager		

Section 2. Final Deliverable/Deployment Checklist

Sponsor to respond to each question. For each "no" response, include an issue in Open Issues section.

Item	Question	Response
2.1	Do you agree that the product and/or service is ready to be deployed?	Yes X <input type="checkbox"/> No <input type="checkbox"/>
2.2	Do you agree the product and/or service has sufficiently met the stated business goals and objectives?	Yes X <input type="checkbox"/> No <input type="checkbox"/>
2.3	Do you fully understand and agree to accept all operational requirements, operational risks, maintenance costs, and other limitations and/or constraints imposed as a result of ongoing operations of the product and/or service?	Yes X <input type="checkbox"/> No <input type="checkbox"/>
2.4	Has the final unitization estimate been provided to Property Accounting?	Yes X <input type="checkbox"/> No <input type="checkbox"/>

Project Close Out Report **2021**

Item	Question	Response
2.5	Do you agree the project should be closed? If no, please explain:	Yes X <input type="checkbox"/> No <input type="checkbox"/>
	<i>Scale of 1 thru 5; 5 = highest</i>	
	Rate your level of satisfaction with regards to the project outcomes listed below	
2.5	Project Quality	4/5
2.6	Product and/or Service Performance	4/5
2.7	Scope	4/5
2.8	Cost (Budget)	4/5
2.9	Schedule	4/5

Section 3. Project Documentation Checklist

Project Manager Respond to each question. For each “no” response, include an issue in Open Issues section.

Item	Question	Response	
3.1	Have project documentation and other items (e.g., Business Case, Project Plan, Charter, Budget Documents, Status Reports) been prepared, collected, filed, and/or disposed?	Yes x <input type="checkbox"/> No <input type="checkbox"/>	
3.3 ⁱ	Were audits (e.g., project closeout audit) completed and results documented for future reference?	Yes <input type="checkbox"/> No x <input type="checkbox"/>	
3.4	Identify the storage location for the following project documents items: online		
Item	Document	Location (e.g., Google Docs, Webspace)	Format
3.4a	Business Case		x <input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4b	If available, the Final Project Schedule		x <input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4c	Budget Documentation and Invoices		x <input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4d	Status Reports		x <input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4e	Risks and Issues Log		x <input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4f	Final deliverable		x <input type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4g	If applicable, verify that final project deliverable for the project is attached or storage location is identified in 3.4.		

Section 4. Project Team ⁱⁱ

Project Manager to list resources specified in the Project Plan and used by the project.

Project Close Out Report **2021**

Name	Role	Type (e.g., Contractor, Employee)
Doug Dorn	Lead	Employee
Shawn Raleigh	PM	Employee
Fulcrum Associates	Builder	Contractor

Section 5. Project Lessons Learned

Project Team to identify lessons learned specifically for the project. State the lessons learned in terms of a problem (issue). If available please include a Lesson Learned Log in the attached.. Please summarize the top three issues on the project and the recommended improvements to correct a similar problem in the future.

Problem Statement	Problem Description	References	Recommendation
Difficulties with the Town	Slow to respond, change to their original responses	Fulcrum	Start Much Earlier

Section 7. Open Issues

Project Manager and Functional Lead to describe any open issues and plans for resolution within the context of project closeout. Include an open issue for any “no” responses in the Final Product and/or Service Acceptance Checklist and the Project Artifacts Checklist sections.

Issue	Planned Resolution
None	

Section 8. Project Cost Summary

Project Manager and Functional Lead to provide details for the following tables.

Cost Category	1- Budget	2- Actual	3 = 1 -2 Variance
Cost of Design & Engineering (\$)			
Cost of Materials (\$)			
Cost of Construction (\$)			

Project Close Out Report **2021**

External Costs (\$)			
Internal Costs (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	\$700,000	\$ 667,641	\$ 32,359

Reasons for Variance	Impact
Cause 1 Savings by vendor through improved timelines	\$ 32,359
Cause 2	\$
Cause 3	\$

Project Manager to list of all work orders associated with project that should be closed once Close Out Report is accepted.

Registry of All Job Codes (Regional, Corporate, LABs)
302197-04001

ⁱ This section assumes an accounting audit has been completed ensuring all outstanding payments have been reconciled to the project

ⁱⁱ For Section 4 in filling out the Project Team Section, for those projects following the materiality limit set forth in the work order approval limits greater than \$5M please complete this section, all other projects do not require this.

NHPUC NO. 21 - ELECTRICITY DELIVERY
LIBERTY UTILITIES

Fifth Revised Page 92
Superseding Fourth Revised Page 92
Rate D

Farm Use

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

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge*	5. 57769 9
Reliability Enhancement/Vegetation Management	0.064
Total Distribution	5. 64176 3
Transmission Service Cost Adjustment	3.703
Stranded Cost Adjustment Factor	(0.080)
Storm Recovery Adjustment Factor	0.000

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

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

Issued: ~~November 22, 2021~~ XX XX, 2022

Issued by: /s/ Neil Proudman

Effective: ~~July~~ November-1, 2022

Title: President

Authorized by NHPUC Order No. ~~26,537~~ in Docket No. DE ~~19-064~~, dated ~~October 29, 2021~~

Rate D-10 Optional Peak Load Rate

Availability

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

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

Character of Service

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

Rate Per Month

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

Rates for Retail Delivery Service

Customer Charge \$14.74 per month

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge On Peak	12. 551 809
Distribution Charge Off Peak	0.1 6872
Reliability Enhancement/Vegetation Management	0.064
<hr/>	
Total Distribution Charge On Peak	12. 615 873
Total Distribution Charge Off Peak	0. 236 232
Transmission Charge	2.848
Stranded Cost Charge	(0.080)
Storm Recovery Adjustment Factor	0.000

Peak hours will be from 8:00 a.m. to 9:00 p.m. daily on Monday through Friday excluding holidays.

Issued: ~~November 22, 2021~~ XX XX, 2022 Issued by: /s/ Neil Proudman
Neil Proudman
Effective: ~~July~~ November 1, 2022 Title: President

Authorized by NHPUC Order No. ~~26,537~~ in Docket No. DE-~~19-064~~, dated ~~October 29, 2021~~

NHPUC NO. 21 - ELECTRICITY DELIVERY
LIBERTY UTILITIES

~~Fifth~~ Revised Page 96
Superseding ~~Fourth~~ ~~Third~~ Revised Page 96
Rate G-1

Rates for Retail Delivery Service

Customer Charge \$~~37.77~~44.70 per month
Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge On Peak	0. 593603
Distribution Charge Off Peak	0. 175178
Reliability Enhancement/Vegetation Management	0.064
<hr/>	
Total Distribution Charge On Peak	0.6 5767
Total Distribution Charge Off Peak	0.2 3942
Transmission Charge	2.957
Stranded Cost Charge	(0.080)
Storm Recovery Adjustment Factor	0.000

Demand Charges Per Kilowatt

Distribution \$9.~~2843~~

Distribution Energy Charges Peak Periods

Peak hours will be from 8:00 a.m. to 9:00 p.m. daily on Monday through Friday excluding holidays.

Off-Peak hours will be from 9:00 p.m. to 8:00 a.m. daily Monday through Friday, and all day on Saturdays, Sundays, and holidays.

Demand

The Demand for each month under ordinary load conditions shall be the greatest of the following:

1. The greatest fifteen-minute peak during the peak hours which occurs during such month as measured in kilowatts,
2. 90% of the greatest fifteen-minute peak during the peak hours occurring during such month as measured in kilovolt-amperes where the Customer's kilowatt Demand exceeds 75 kilowatts, or
3. 80% of the greatest Demand as so determined above during the preceding eleven months.

Any Demands established during the eleven (11) months prior to the application of this rate shall be considered as having been established under this rate.

Issued: ~~November 22, 2021~~ XX XX, 2022 Issued by: /s/ Neil Proudman
Neil Proudman
Effective: ~~July~~ November 1, 2021 Title: President

Authorized by NHPUC Order No. ~~26,537~~ in Docket No. DE ~~19-064~~, dated ~~October 29, 2021~~

NHPUC NO. 21 - ELECTRICITY DELIVERY
LIBERTY UTILITIES

~~Fifth~~^{Fourth} Revised Page 101
Superseding ~~Fourth~~^{Third} Revised Page 101
Rate G-3

General Service Rate G-3

Availability

Retail Delivery Service under this rate is available for all purposes except resale. The sale of electric vehicle charging services to a third party from an electric vehicle charging station shall not be considered resale of electricity. A Customer will take delivery service on this rate if the Company estimates that its average use will be less than 20 kW of demand. If electricity is delivered through more than one meter, except at the Company's option, the charge for electricity delivered through each meter shall be computed separately under this rate.

Character of Service

Service supplied under this rate will be 60 cycle, alternating current either:

- a) Single-phase normally three-wire at a nominal voltage of 120/240 volts.
- b) Three-phase secondary normally at a nominal voltage of 120/208, or 277/480 volts.
- c) Three-phase primary normally at a nominal voltage of 2400, 4160, 4800, 7200, 13,200 or 13,800 volts.

All voltages are not available in every area.

Rate Per Month

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

Rates for Retail Delivery Service

Customer Charge \$17.03 per month

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge	5.3 139 8
Reliability Enhancement/Vegetation Management	0.064
<hr/> Total Distribution Charge	<hr/> 5.3 774 62
Transmission Charge	3.104
Stranded Cost Charge	(0.080)
Storm Recovery Adjustment Factor	0.000

Issued: ~~November 22, 2021~~ XX XX, 2022

Issued by: /s/ Neil Proudman

Effective: ~~July~~ November 1, 202~~1~~

Title: President

Authorized by NHPUC Order No. ~~26,537~~ in Docket No. DE ~~19-064~~, dated ~~October 29, 2021~~

NHPUC NO. 21 - ELECTRICITY DELIVERY
LIBERTY UTILITIES

~~Fifth~~ Revised Page 104
Superseding ~~Fourth~~ Revised Page 104
Rate T

Character of Service

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

Rate Per Month

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

Rates for Retail Delivery Service

Customer Charge \$14.74 per month

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge	4. 777871
Reliability Enhancement/Vegetation Management	0.064
<hr/>	
Total Distribution Charge	4. 841935
Transmission Charge	2.795
Stranded Cost Charge	(0.080)
Storm Recovery Adjustment Factor	0.000

Terms of Agreement

A Customer served under this rate must provide the Company with one-year prior written notice before installing additional generation for its own use. This notice provision shall be waived with respect to the installation of on-site non-emergency generation from renewable energy resources. Renewable energy resources shall mean fuel cells (including natural gas powered fuel cells), and emerging power generation technologies that produce electricity from wind energy, solar energy, small-scale hydro power, ocean power, landfill gas, sustainably managed biomass, and future clean renewable technologies.

Issued: ~~November 22, 2021~~ XX XX, 2022 Issued by: /s/ Neil Proudman
Neil Proudman
Effective: ~~July~~ November 1, 2022 Title: President

NHPUC NO. 21 - ELECTRICITY DELIVERY
LIBERTY UTILITIES

Superseding ~~Fourth~~ ~~Third~~ Revised Page 108
~~Fourth~~ ~~Third~~ Revised Page 108
Rate M

Outdoor Lighting Service Rate M

Availability

Public Lighting

Available for Street or Highways and areas within the public domain for customers designated as governmental entities, inclusive of the state, municipalities, or other public authorities. Installations on limited access highways, tunnels, bridges and the access and egress ramps thereto are subject to the Special Rate Conditions of this tariff.

Private Lighting

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

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

Lighting Services

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

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge	4.1 50 52
Reliability Enhancement/Vegetation Management	0.064
Total Distribution	4.21416
Transmission Charge	2.179
Stranded Cost Charge	(0.080)
Storm Recovery Adjustment Factor	0.000

No further installation or relocation of Incandescent and Mercury Vapor lights will be made after the effective date of this rate.

Issued: ~~November 22, 2021~~ ~~XX XX, 2022~~ Issued by: /s/ Neil Proudman
Neil Proudman
Effective: ~~July~~ ~~November~~ 1, 2021 Title: President

Authorized by NHPUC Order No. ~~26,537~~ in Docket No. DE ~~19-064~~, dated ~~October 29, 2021~~

NHPUC NO. 21 - ELECTRICITY DELIVERY
LIBERTY UTILITIES

Superseding ~~Third~~ ~~Second~~ Revised Page 110
Rate M

For Full-Night Schedule and Part-Night Schedule, the monthly distribution charge is based on the monthly cost of the fixture as provided below:

For New and Existing Installations:

Lamp Nominal Light Output	Nominal Power Rating		Monthly Fixed Luminaires Charge	Average Monthly kWh		Monthly kWh Charges		Total Distribution Charges	
				Full Night Schedule	Part-Night Schedule	Full Night Schedule	Part-Night Schedule	Full Night Schedule	Part-Night Schedule
(Lumens)	Watts	Kelvin	\$/month	kWh/month	kWh/month	\$/month	\$/month	\$/month	\$/month

High Pressure Sodium (HPS)

4,000	50	2,000	\$8. 5872	16	8	\$0. 6798	\$0. 3449	\$9. 2570	\$8. 929.21
9,600	100	2,000	\$9. 9210.0 8	33	17	\$1. 392.0 +	\$0. 701.0 +	\$11. 312.09 9	\$10. 6211.0 9
27,500	250	2,000	\$16. 4673	82	41	\$3. 465.0 0	\$1. 732.5 0	\$19. 9221.7 3	\$18. 199.23
50,000	400	2,000	\$20. 4881	131	66	\$5. 527.9 9	\$2. 764.0 0	\$26. 008.80	\$23. 244.81
9,600	100	2,000	\$11. 6483	33	17	\$1. 392.0 +	\$0. 701.0 +	\$13. 0384	\$12. 342.84

High Pressure Sodium (HPS) Flood

27,500	250	2,000	\$16. 6491	82	41	\$3. 465.0 0	\$1. 732.5 0	\$20. 101.91	\$18. 379.41
50,000	400	2,000	\$22. 2258	131	66	\$5. 527.9 9	\$2. 764.0 0	\$27. 7430.5 7	\$24. 986.58

For Existing Installations Only:

Lamp Nominal Light Output	Nominal Power Rating		Monthly Fixed Luminaires Charge	Average Monthly kWh		Monthly kWh Charges		Total Distribution Charges	
				Full Night Schedule	Part-Night Schedule	Full Night Schedule	Part-Night Schedule	Full Night Schedule	Part-Night Schedule
(Lumens)	Watts	Kelvin	\$/month	kWh/month	kWh/month	\$/month	\$/month	\$/month	\$/month

Incandescent

1000	103	2,400	\$11. 0149	34	17	\$1. 432.07	\$0. 721.04	\$12. 443.2 6	\$11. 732.2 3
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Mercury Vapor (MV)

4,000	100	4,000	\$7. 6174	33	17	\$1. 392.01	\$0. 701.01	\$9. 0075	\$8. 3175
8,000	175	4,000	\$8. 5569	57	29	\$2. 403.48	\$1. 2074	\$10. 7521 7	\$9. 7510.4 3

Issued: ~~XX XX, 2022~~ November 22, 2024

Issued by: _____ /s/ Neil Proudman

Effective: July 1, 2022 ~~November 1, 2024~~

Neil Proudman
Title: President

Authorized by NHPUC Order No. ~~26,537~~ in Docket No. DE ~~19-064~~, dated ~~October 29, 2021~~

NHPUC NO. 21 - ELECTRICITY DELIVERY
LIBERTY UTILITIES

~~Fifth~~ Revised Page 114
Superseding ~~Fourth~~ Revised Page 114
Rate LED-1

Outdoor Lighting Service Rate LED-1

Availability

Public Lighting

Available for Street or Highways and areas within the public domain for customers designated as governmental entities, inclusive of the state, municipalities, or other public authorities. Installations on limited access highways, tunnels, bridges and the access and egress ramps thereto are subject to the Special Rate Conditions of this tariff.

Private Lighting

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

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

Lighting Services

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

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge	4.1 50 ⁵²
Reliability Enhancement/Vegetation Management	0.064
Total Distribution	4.2146
Transmission Charge	2.179
Stranded Cost Charge	(0.080)
Storm Recovery Adjustment Factor	0.000

No further installation or relocation of Incandescent and Mercury Vapor lights will be made after the effective date of this rate.

Issued: ~~November 22, 2021~~ XX XX, 2022 Issued by: /s/ Neil Proudman
Neil Proudman
Effective: ~~July~~ November 1, 202~~1~~ Title: President

Authorized by NHPUC Order No. ~~26,537~~ in Docket No. DE ~~19-064~~, dated ~~October 29, 2021~~

NHPUC NO. 21 - ELECTRICITY DELIVERY
LIBERTY UTILITIES

Superseding ~~Third~~ ~~Second~~ Revised Page 116
~~Third~~ ~~Second~~ Revised Page 116
Rate LED-1

For Full-Night Schedule and Part-Night Schedule, the monthly distribution charge is based on the monthly cost of the fixture as provided below:

Lamp Nominal Light Output	Nominal Power Rating		Monthly Fixed Luminaire Charge	Average Monthly kWh		Monthly kWh Charges		Total Distribution Charges	
				Full Night Schedule	Part-Night Schedule	Full Night Schedule	Part-Night Schedule	Full Night Schedule	Part-Night Schedule
(Lumens)	Watts	Kelvin	\$/month	kWh/month	kWh/month	\$/month	\$/month	\$/month	\$/month

LED Roadway/Highway

4,000	30	4,000	\$5. 5766	10	5	\$0. 4264	\$0. 2134	\$5. 996.27	\$5. 7897
6,500	50	4,000	\$5. 8090	16	8	\$0. 6798	\$0. 3449	\$6. 1488	\$6. 1439
16,500	130	4,000	\$8. 959.10	43	22	\$1. 812.6	\$0. 914.3	\$10. 7641.7	\$9. 8640.4
21,000	190	4,000	\$17. 1644	62	31	\$2. 613.7	\$1. 3189	\$19. 7721.2	\$18. 479.3

LED Underground

Residential Developments:

3,000	30	3,000	\$12. 973.1	10	5	\$0. 4264	\$0. 2134	\$13. 3979	\$13. 1849
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LED Flood:

10,500	90	4,000	\$8. 8296	30	15	\$1. 2683	\$0. 6392	\$10. 0879	\$9. 4588
16,500	130	4,000	\$10. 1431	43	22	\$1. 812.6	\$0. 914.3	\$11. 952.93	\$11. 0562

LED Caretaker I (Secondary Roadways):

4,000	30	3,000	\$4. 995.07	10	5	\$0. 4264	\$0. 2134	\$5. 4168	\$5. 2038
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Limitations on Availability

The availability of this rate to any Customer is contingent upon the availability to the Company of personnel and/or other resources necessary to perform the conversion of existing Fixtures.

Special Rate Conditions

Charges for the operation of outdoor lights may be increased if, in the Company's opinion, lights are to be installed in locations or under conditions such that estimated income will be insufficient to justify the estimated cost of construction.

Choice of Color Temperature

Issued: ~~XX XX, 2022~~ ~~November 22, 2021~~ Issued by: _____ /s/ Neil Proudman
Effective: ~~July 1, 2022~~ ~~November 1, 2021~~ Title: Neil Proudman
President

NHPUC NO. 21 - ELECTRICITY DELIVERY
LIBERTY UTILITIES

~~Fifth~~ Revised Page 121
Superseding ~~Fourth~~ Revised Page 121
Rate LED-2

Additional Requirements

Fixtures must be provided by the Customer for installation on the Company's facilities. Fixtures shall be accepted by the Company in advance of installation and must be compatible with existing line voltage and brackets, and must require no special tools or training to install and maintain. Customers who are replacing existing fixtures with LED fixtures are responsible for the cost of removal and installation. Customers may choose to have this work completed by the Company or may opt to hire and pay a private line contractor to perform the work. Any private contractor shall have all the requisite training, certifications and insurance to safely perform the required installations, and shall be licensed by the State and accepted by the Company. Prior to commencement of work, the municipality must provide written certification of the qualifications to the Company. Contractors shall coordinate the installation work with the Company and submit a work plan subject to approval by the Company, including provisions for either returning removed fixtures to the Company or otherwise disposing of them as approved by the Company. The Customer shall bear all expenses related to the use of such labor, including any expenses arising from damage to the Company's electrical system caused by the contractor's actions.

Monthly Rates:

The energy charges for each luminaire will be determined by multiplying the energy charges per kilowatt-hour by the average monthly kilowatt-hours. The Customer is responsible for providing the list of fixtures and wattages to allow the Company to calculate the kWh to be billed. The kWh will be calculated based on the 2020 Farmer's Almanac hours of daylight.

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge per kWh	4.1502
Reliability Enhancement/Vegetation Management	0.064
Total Distribution	4.2146
Transmission Charge	2.179
Stranded Cost Charge	(0.080)
Storm Recovery Adjustment Factor	0.000

For the alternative schedule, the monthly kWh shall be determined as set forth under Use of Advanced Controls.

Failure of Lights to Burn

Should any light fail to burn for the full period provided above, a deduction will be made from the calculated monthly kWh of such light, upon presentation of a claim from the Customer. The provisions of this paragraph do not apply when failure to burn is due to an act of God, or an act or order of any Public Authority or accidental or malicious breakage, provided, however, the necessary repairs are made with reasonable dispatch upon notification by the Customer.

Issued: ~~November 22, 2021~~ XX XX, 2022 Issued by: /s/ Neil Proudman
Neil Proudman
Effective: ~~November 1, 2022~~ Title: President

NHPUC NO. 21 - ELECTRICITY DELIVERY
LIBERTY UTILITIES

~~Tenth~~^{Ninth} Revised Page 123
Superseding ~~Ninth~~^{Eighth} Revised Page 123
Rate EV

Rate EV Plug In Electric Vehicle D-12

Availability

Retail Delivery Service under this rate is available for uses of a customer taking service under Rate D as a separately metered service. By choosing to participate in this Plug In Electric Vehicle rate, the Customer agrees to pay the following charges for a minimum of two years. The charging station shall be connected by means of an approved circuit to a separate electric vehicle charging meter. The rates for energy (kWh) based charges are seasonal with a winter period from November 1 to April 30 and a summer period from May 1 to October 31.

Character of Service

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

Rates per Month

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

Rates for Retail Delivery Service Effective ~~May 1, 2022, November 1, 2021~~ through ~~October 31, 2022~~^{April 30, 2022}

Customer Charge \$11.35 per month

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge Off Peak ~~3.7544.441~~

Distribution Charge Mid Peak ~~5.5246.657~~

Distribution Charge Critical Peak ~~10.0119.478~~

Reliability Enhancement/Vegetation Management 0.064

Total Distribution Charge Off Peak ~~3.8184.505~~

Total Distribution Charge Mid Peak ~~5.5886.721~~

Total Distribution Charge Critical Peak ~~10.0759.542~~

Transmission Charge Off Peak 0.213

Transmission Charge Mid Peak 0.590

Transmission Charge Critical Peak 23.553

Energy Service Charge Off Peak 10.659

Energy Service Charge Mid Peak 12.161

Energy Service Charge Critical Peak 12.636

Stranded Cost Adjustment Factor (0.080)

Storm Recovery Adjustment Factor 0.000

Off peak hours will be from 12AM to 8AM and 8PM to 12AM daily.

Mid peak hours will be from 8AM to 3PM daily Monday through Friday, except holidays.

Mid peak hours will be from 8AM to 8PM Saturday, Sunday and holidays.

Critical peak hours will be from 3PM to 8PM daily Monday through Friday, except holidays.

Issued: ~~XX XX, 2022~~^{January 10, 2022} Issued by: /s/ Neil Proudman

Neil Proudman

Effective: ~~July~~^{February} 1, 2022 Title: President

NHPUC NO. 21 – ELECTRICITY DELIVERY
LIBERTY UTILITIES

~~Tenth~~^{Ninth} Revised Page 125
Superseding ~~Ninth~~^{Eighth} Revised Page 125
Rate D-11

Control Credits

The Company or Tesla will take control of and dispatch the Powerwall 2 battery equipment during predicted peak events. Customers who lease the Powerwall 2 battery equipment from the Company will be compensated in accordance with the Alternative Net Metering Tariff adopted by the Commission in Order No. 26,029 dated June 23, 2017, as described in Section 51 of this tariff, when the Company dispatches the Powerwall 2 battery equipment for predicted peak events.

Rates per Month

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

Rates for Retail Delivery Service Effective ~~May 1, 2022~~^{November 1, 2021}, through ~~October 31, 2022~~^{April 30, 2022}

Customer Charge \$14.74 per month

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge Off Peak	3.7544.441
Distribution Charge Mid Peak	5.5246.657
Distribution Charge Critical Peak	10.0119.478
Reliability Enhancement/Vegetation Management	0.064
Total Distribution Charge Off Peak	3.8184.505
Total Distribution Charge Mid Peak	5.5886.721
Total Distribution Charge Critical Peak	10.0759.542

Transmission Charge Off Peak	0.213
Transmission Charge Mid Peak	0.590
Transmission Charge Critical Peak	23.553

Energy Service Charge Off Peak	10.659
Energy Service Charge Mid Peak	12.161
Energy Service Charge Critical Peak	12.636

Stranded Cost Adjustment Factor (0.080)

Storm Recovery Adjustment Factor 0.000

Off peak hours will be from 12AM to 8AM and 8PM to 12AM daily.

Mid peak hours will be from 8AM to 3PM daily Monday through Friday, except holidays.

Mid peak hours will be from 8AM to 8PM Saturday, Sunday and holidays.

Critical peak hours will be from 3PM to 8PM daily Monday through Friday, except holidays.

Issued: ~~XX XX, 2022~~^{January 10, 2022}

Issued by: /s/ Neil Proudman

Effective: ~~July~~^{February} 1, 2022

Neil Proudman
Title: President

NHPUC No. 21 - ELECTRICITY
LIBERTY UTILITIES

Tenth Revised Page 126
Superseding Ninth Revised Page 126
Summary of Rates

**RATES EFFECTIVE MARCH 1, 2022
FOR USAGE ON AND AFTER MARCH 1, 2022**

Rate	Blocks	Distribution Charge	REP/ VMP	Net Distribution Charge	Transmission Charge	Stranded Cost Charge	Storm Recovery Adjustment Factor	System Benefits Charge	Electricity Consumption Tax	Total Delivery Service	Energy Service	Total Rate
D	Customer Charge All kWh	\$ 14.74 \$ 0.06038		14.74 0.06102		(0.00080)	-	0.06780	-	14.74 -0.16505	0.11119	\$ 14.74 \$ -0.27624
Off Peak Water Heating Use 16 Hour Control ¹	All kWh	\$ 0.05213	-0.00064	0.05277	0.03703	(0.00080)	-	0.06780	-	-0.15680	0.11119	\$ -0.26799
Off Peak Water Heating Use 6 Hour Control ¹	All kWh	\$ 0.05310	-0.00064	0.05374	0.03703	(0.00080)	-	0.06780	-	-0.15777	0.11119	\$ -0.26896
Farm ¹	All kWh	\$ 0.05699	-0.00064	0.05763	0.03703	(0.00080)	-	0.06780	-	-0.16166	0.11119	\$ -0.27285
D-10	Customer Charge On Peak kWh Off Peak kWh	\$ 14.74 \$ 0.12809 \$ 0.00172		14.74 0.12873 0.00236		(0.00080)	-	0.06780	-	14.74 -0.22421 -0.09784	0.11119	\$ 14.74 \$ -0.33540 \$ -0.20903
G-1	Customer Charge	\$ 444.70		444.70						444.70		\$ 444.70
	Demand Charge	\$ 9.43		9.43						9.43		\$ 9.43
	On Peak kWh	\$ 0.00603	-0.00064	0.00667	0.02957	(0.00080)	-	0.06780	-	-0.10324		
											0.20258	\$ -0.30582
											0.13422	\$ -0.23746
											0.08985	\$ -0.19309
											0.07084	\$ -0.17408
											0.07443	\$ -0.17767
											0.08324	\$ -0.18648
											0.08324	\$ -0.18223
G-2	Customer Charge	\$ 74.11		74.11						74.11		\$ 74.11
	Demand Charge	\$ 9.48		9.48						9.48		\$ 9.48
	All kWh	\$ 0.00239	-0.00064	0.00303	0.03418	(0.00080)	-	0.06780	-	-0.10421		
											0.20258	\$ -0.30679
											0.13422	\$ -0.23843
											0.08985	\$ -0.19406
											0.07084	\$ -0.17505
										0.07443	\$ -0.17864	
										0.08324	\$ -0.18745	
G-3	Customer Charge All kWh	\$ 17.03 \$ 0.05398		17.03 0.05462		(0.00080)	-	0.06780	-	17.03 -0.15266	0.11119	\$ 17.03 \$ -0.26385
T	Customer Charge All kWh	\$ 14.74 \$ 0.04871		14.74 0.04935		(0.00080)	-	0.06780	-	14.74 -0.14430	0.11119	\$ 14.74 \$ -0.25549
V	Minimum Charge All kWh	\$ 17.03 \$ 0.05552		17.03 0.05616		(0.00080)	-	0.06780	-	17.03 -0.14772	0.11119	\$ 17.03 \$ -0.25891

¹ Rate is a subset of Domestic Rate D

Dated: February 25, 2022
Effective: March 1, 2022

Issued by: /s/Neil Proudman
Neil Proudman
Title: President

Authorized by NHPUC Order No. 26,579 in Docket No. DE 20-092, dated February 10, 2022

NHPUC No. 21 - ELECTRICITY
LIBERTY UTILITIES

Eleventh Revised Page 127
Superseding Tenth Revised Page 127
Summary of Rates

**RATES EFFECTIVE MARCH 1, 2022
FOR USAGE ON AND AFTER MARCH 1, 2022**

Rate	Blocks	Distribution Charge	REP/ VMP	Net Distribution Charge	Transmission Charge	Stranded Cost Charge	Storm Recovery Adjustment Factor	System Benefits Charge	Electricity Consumption Tax	Total Delivery Service	Energy Service	Total Rate
	Customer Charge	\$14.74		\$14.74								\$14.74
	<u>Monday through Friday</u>											
	Off Peak	\$0.04441	\$0.00064	\$0.04505	\$0.00213	(\$0.00080)	-	\$0.06780	-	\$0.11418	\$0.10659	\$0.22077
	Mid Peak	\$0.06657	\$0.00064	\$0.06721	\$0.00590	(\$0.00080)	-	\$0.06780	-	\$0.14011	\$0.12161	\$0.26172
D-11	Critical Peak	\$0.09478	\$0.00064	\$0.09542	\$0.23553	(\$0.00080)	-	\$0.06780	-	\$0.39795	\$0.12636	\$0.52431
	<u>Saturday through Sunday and Holidays</u>											
	Off Peak	\$0.04441	\$0.00064	\$0.04505	\$0.00213	(\$0.00080)	-	\$0.06780	-	\$0.11418	\$0.10659	\$0.22077
	Mid Peak	\$0.06657	\$0.00064	\$0.06721	\$0.00590	(\$0.00080)	-	\$0.06780	-	\$0.14011	\$0.12161	\$0.26172
	Customer Charge	\$11.35		\$11.35								\$11.35
	<u>Monday through Friday</u>											
	Off Peak	\$0.04441	\$0.00064	\$0.04505	\$0.00213	(\$0.00080)	-	\$0.06780	-	\$0.11418	\$0.10659	\$0.22077
	Mid Peak	\$0.06657	\$0.00064	\$0.06721	\$0.00590	(\$0.00080)	-	\$0.06780	-	\$0.14011	\$0.12161	\$0.26172
Rate EV	Critical Peak	\$0.09478	\$0.00064	\$0.09542	\$0.23553	(\$0.00080)	-	\$0.06780	-	\$0.39795	\$0.12636	\$0.52431
	<u>Saturday through Sunday and Holidays</u>											
	Off Peak	\$0.04441	\$0.00064	\$0.04505	\$0.00213	(\$0.00080)	-	\$0.06780	-	\$0.11418	\$0.10659	\$0.22077
	Mid Peak	\$0.06657	\$0.00064	\$0.06721	\$0.00590	(\$0.00080)	-	\$0.06780	-	\$0.14011	\$0.12161	\$0.26172
	<u>Luminaire Charge</u>											
	HPS 4,000	\$8.72		\$8.72								\$8.72
	HPS 9,600	\$10.08		\$10.08								\$10.08
	HPS 27,500	\$16.73		\$16.73								\$16.73
	HPS 50,000	\$20.81		\$20.81								\$20.81
	HPS 9,600 (Post Top)	\$11.83		\$11.83								\$11.83
	HPS 27,500 Flood	\$16.91		\$16.91								\$16.91
M	HPS 50,000 Flood	\$22.58		\$22.58								\$22.58
	Incandescent 1,000	\$11.19		\$11.19								\$11.19
	Mercury Vapor 4,000	\$7.74		\$7.74								\$7.74
	Mercury Vapor 8,000	\$8.69		\$8.69								\$8.69
	Mercury Vapor 22,000	\$15.54		\$15.54								\$15.54
	Mercury Vapor 63,000	\$26.26		\$26.26								\$26.26
	Mercury Vapor 22,000 Flood	\$17.78		\$17.78								\$17.78
	Mercury Vapor 63,000 Flood	\$34.44		\$34.44								\$34.44
	<u>Luminaire Charge</u>											
	30 Watt Pole Top	\$5.66		\$5.66								\$5.66
	50 Watt Pole Top	\$5.90		\$5.90								\$5.90
	130 Watt Pole Top	\$9.10		\$9.10								\$9.10
LED-1	190 Watt Pole Top	\$17.44		\$17.44								\$17.44
	30 Watt URD	\$13.18		\$13.18								\$13.18
	90 Watt Flood	\$8.96		\$8.96								\$8.96
	130 Watt Flood	\$10.31		\$10.31								\$10.31
	30 Watt Caretaker	\$5.07		\$5.07								\$5.07
	Pole -Wood	\$9.87		\$9.87								\$9.87
	Fiberglass - Direct Embedded	\$10.28		\$10.28								\$10.28
Poles	Fiberglass w/Foundation <25 ft	\$17.35		\$17.35								\$17.35
	Fiberglass w/Foundation >=25 ft	\$29.01		\$29.01								\$29.01
	Metal Poles - Direct Embedded	\$20.68		\$20.68								\$20.68
	Metal Poles with Foundation	\$24.95		\$24.95								\$24.95
M & LED-1	All kWh	\$0.04152	\$0.00064	\$0.04216	\$0.02179	(\$0.00080)	\$0.00000	\$0.06780	\$0.00000	\$0.13095	\$0.11119	\$0.24214
LED-2	All kWh	\$0.04152	\$0.00064	\$0.04216	\$0.02179	(\$0.00080)	\$0.00000	\$0.06780	\$0.00000	\$0.13095	\$0.11119	\$0.24214

Dated: February 25, 2022
Effective: March 1, 2022

Issued by: /s/Neil Proudman
Neil Proudman
Title: President

Authorized by NHPUC Order No. 26,579 in Docket No. DE 20-092, dated February 10, 2022

NHPUC NO. 21 - ELECTRICITY DELIVERY
LIBERTY UTILITIES

Fifth Revised Page 92
Superseding Fourth Revised Page 92
Rate D

Farm Use

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

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge*	5.577
Reliability Enhancement/Vegetation Management	0.064
<hr/>	
Total Distribution	5.641
Transmission Service Cost Adjustment	3.703
Stranded Cost Adjustment Factor	(0.080)
Storm Recovery Adjustment Factor	0.000

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

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

Issued: XX XX, 2022

Issued by: /s/ Neil Proudman

Effective: July1, 2022

Title: Neil Proudman
President

NHPUC NO. 21 - ELECTRICITY DELIVERY
LIBERTY UTILITIES

Fifth Revised Page 96
Superseding Fourth Revised Page 96
Rate G-1

Rates for Retail Delivery Service

Customer Charge \$437.77 per month
Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge On Peak	0.593
Distribution Charge Off Peak	0.175
Reliability Enhancement/Vegetation Management	0.064
<hr/>	
Total Distribution Charge On Peak	0.657
Total Distribution Charge Off Peak	0.239
Transmission Charge	2.957
Stranded Cost Charge	(0.080)
Storm Recovery Adjustment Factor	0.000

Demand Charges Per Kilowatt

Distribution \$9.28

Distribution Energy Charges Peak Periods

Peak hours will be from 8:00 a.m. to 9:00 p.m. daily on Monday through Friday excluding holidays.

Off-Peak hours will be from 9:00 p.m. to 8:00 a.m. daily Monday through Friday, and all day on Saturdays, Sundays, and holidays.

Demand

The Demand for each month under ordinary load conditions shall be the greatest of the following:

1. The greatest fifteen-minute peak during the peak hours which occurs during such month as measured in kilowatts,
2. 90% of the greatest fifteen-minute peak during the peak hours occurring during such month as measured in kilovolt-amperes where the Customer's kilowatt Demand exceeds 75 kilowatts, or
3. 80% of the greatest Demand as so determined above during the preceding eleven months.

Any Demands established during the eleven (11) months prior to the application of this rate shall be considered as having been established under this rate.

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Issued by: /s/ Neil Proudman

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Neil Proudman
Title: President

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NHPUC NO. 21 - ELECTRICITY DELIVERY
LIBERTY UTILITIES

Fourth Revised Page 110
Superseding Third Revised Page 110
Rate M

For Full-Night Schedule and Part-Night Schedule, the monthly distribution charge is based on the monthly cost of the fixture as provided below:

For New and Existing Installations:

Lamp Nominal Light Output	Nominal Power Rating		Monthly Fixed Luminaire Charge	Average Monthly kWh		Monthly kWh Charges		Total Distribution Charges	
				Full Night Schedule	Part-Night Schedule	Full Night Schedule	Part-Night Schedule	Full Night Schedule	Part-Night Schedule
(Lumens)	Watts	Kelvin	\$/month	kWh/month	kWh/month	\$/month	\$/month	\$/month	\$/month

High Pressure Sodium (HPS)

4,000	50	2,000	\$8.58	16	8	\$0.67	\$0.34	\$9.25	\$8.92
9,600	100	2,000	\$9.92	33	17	\$1.39	\$0.70	\$11.31	\$10.62
27,500	250	2,000	\$16.46	82	41	\$3.46	\$1.73	\$19.92	\$18.19
50,000	400	2,000	\$20.48	131	66	\$5.52	\$2.76	\$26.00	\$23.24
9,600	100	2,000	\$11.64	33	17	\$1.39	\$0.70	\$13.03	\$12.34

High Pressure Sodium (HPS) Flood

27,500	250	2,000	\$16.64	82	41	\$3.46	\$1.73	\$20.10	\$18.37
50,000	400	2,000	\$22.22	131	66	\$5.52	\$2.76	\$27.74	\$24.98

For Existing Installations Only:

Lamp Nominal Light Output	Nominal Power Rating		Monthly Fixed Luminaire Charge	Average Monthly kWh		Monthly kWh Charges		Total Distribution Charges	
				Full Night Schedule	Part-Night Schedule	Full Night Schedule	Part-Night Schedule	Full Night Schedule	Part-Night Schedule
(Lumens)	Watts	Kelvin	\$/month	kWh/month	kWh/month	\$/month	\$/month	\$/month	\$/month

Incandescent

1000	103	2,400	\$11.01	34	17	\$1.43	\$0.72	\$12.44	\$11.73
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Mercury Vapor (MV)

4,000	100	4,000	\$7.61	33	17	\$1.39	\$0.70	\$9.00	\$8.31
8,000	175	4,000	\$8.55	57	29	\$2.40	\$1.20	\$10.75	\$9.75
22,000	400	5,700	\$15.29	131	66	\$5.52	\$2.76	\$20.81	\$18.05
63,000	1000	4,000	\$25.85	328	164	\$13.82	\$6.91	\$39.67	\$32.76

Mercury Vapor (MV) Flood

22,000	400	5,700	\$17.50	131	66	\$5.52	\$2.76	\$23.02	\$20.76
63,000	1000	4,000	\$33.90	328	164	\$13.82	\$6.91	\$47.72	\$40.81

Issued: XX XX, 2022

Issued by: _____/s/ Neil Proudman

Effective: July 1, 2022

Neil Proudman
Title: President

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NHPUC NO. 21 – ELECTRCITY DELIVERY
LIBERTY UTILITIES

Tenth Revised Page 125
Superseding Ninth Revised Page 125
Rate D-11

Control Credits

The Company or Tesla will take control of and dispatch the Powerwall 2 battery equipment during predicted peak events. Customers who lease the Powerwall 2 battery equipment from the Company will be compensated in accordance with the Alternative Net Metering Tariff adopted by the Commission in Order No. 26,029 dated June 23, 2017, as described in Section 51 of this tariff, when the Company dispatches the Powerwall 2 battery equipment for predicted peak events.

Rates per Month

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

Rates for Retail Delivery Service Effective May 1, 2022, through October 31, 2022

Customer Charge \$14.74 per month

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge Off Peak	3.754
Distribution Charge Mid Peak	5.524
Distribution Charge Critical Peak	10.011
Reliability Enhancement/Vegetation Management	0.064
<hr/>	
Total Distribution Charge Off Peak	3.818
Total Distribution Charge Mid Peak	5.588
Total Distribution Charge Critical Peak	10.075
Transmission Charge Off Peak	0.213
Transmission Charge Mid Peak	0.590
Transmission Charge Critical Peak	23.553
Energy Service Charge Off Peak	10.659
Energy Service Charge Mid Peak	12.161
Energy Service Charge Critical Peak	12.636
Stranded Cost Adjustment Factor	(0.080)
Storm Recovery Adjustment Factor	0.000

Off peak hours will be from 12AM to 8AM and 8PM to 12AM daily.

Mid peak hours will be from 8AM to 3PM daily Monday through Friday, except holidays.

Mid peak hours will be from 8AM to 8PM Saturday, Sunday and holidays.

Critical peak hours will be from 3PM to 8PM daily Monday through Friday, except holidays.

Issued: XX XX, 2022

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Neil Proudman
Title: President

NHPUC No. 21 - ELECTRICITY
LIBERTY UTILITIES

Eleventh Revised Page 126
Superseding Tenth Revised Page 126
Summary of Rates

RATES EFFECTIVE JULY 1, 2022
FOR USAGE ON AND AFTER JULY 1, 2022

Rate	Blocks	Distribution Charge	REP/VMP	Net Distribution Charge	Transmission Charge	Stranded Cost Charge	Storm Recovery Adjustment Factor	System Benefits Charge	Electricity Consumption Tax	Total Delivery Service	Energy Service	Total Rate
D	Customer Charge	\$ 14.74		14.74						14.74		\$ 14.74
	All kWh	\$ 0.05908	0.00064	0.05972	0.03703	(0.00080)	-	0.06780	-	0.16375	0.11119	\$ 0.27494
Off Peak Water Heating Use 16 Hour Control ¹	All kWh	\$ 0.05101	0.00064	0.05165	0.03703	(0.00080)	-	0.06780	-	0.15568	0.11119	\$ 0.26687
Off Peak Water Heating Use 6 Hour Control ¹	All kWh	\$ 0.05196	0.00064	0.05260	0.03703	(0.00080)	-	0.06780	-	0.15663	0.11119	\$ 0.26782
Farm ¹	All kWh	\$ 0.05577	0.00064	0.05641	0.03703	(0.00080)	-	0.06780	-	0.16044	0.11119	\$ 0.27163
D-10	Customer Charge	\$ 14.74		14.74						14.74		\$ 14.74
	On Peak kWh	\$ 0.12551	0.00064	0.12615	0.02848	(0.00080)	-	0.06780	-	0.22163	0.11119	\$ 0.33282
	Off Peak kWh	\$ 0.00168	0.00064	0.00232	0.02848	(0.00080)	-	0.06780	-	0.09780	0.11119	\$ 0.20899
	Customer Charge	\$ 437.77		437.77						437.77		\$ 437.77
	Demand Charge	\$ 9.28		9.28						9.28		\$ 9.28
	On Peak kWh	\$ 0.00593	0.00064	0.00657	0.02957	(0.00080)	-	0.06780	-	0.10314		
											Effective 2/1/22, usage on or after	\$ 0.20258
											Effective 3/1/22, usage on or after	\$ 0.13422
											Effective 4/1/22, usage on or after	\$ 0.08985
											Effective 5/1/22, usage on or after	\$ 0.07084
											Effective 6/1/22, usage on or after	\$ 0.07443
											Effective 7/1/22, usage on or after	\$ 0.08324
G-1	Off Peak kWh	\$ 0.00175	0.00064	0.00239	0.02957	(0.00080)	-	0.06780	-	0.09896		
											Effective 2/1/22, usage on or after	\$ 0.20258
											Effective 3/1/22, usage on or after	\$ 0.13422
											Effective 4/1/22, usage on or after	\$ 0.08985
											Effective 5/1/22, usage on or after	\$ 0.07084
											Effective 6/1/22, usage on or after	\$ 0.07443
											Effective 7/1/22, usage on or after	\$ 0.08324
	Customer Charge	\$ 72.95		72.95						72.95		\$ 72.95
	Demand Charge	\$ 9.33		9.33						9.33		\$ 9.33
	All kWh	\$ 0.00235	0.00064	0.00299	0.03418	(0.00080)	-	0.06780	-	0.10417		
											Effective 2/1/22, usage on or after	\$ 0.20258
											Effective 3/1/22, usage on or after	\$ 0.13422
											Effective 4/1/22, usage on or after	\$ 0.08985
											Effective 5/1/22, usage on or after	\$ 0.07084
											Effective 6/1/22, usage on or after	\$ 0.07443
											Effective 7/1/22, usage on or after	\$ 0.08324
G-2	Customer Charge	\$ 16.76		16.76						16.76		\$ 16.76
	All kWh	\$ 0.05313	0.00064	0.05377	0.03104	(0.00080)	-	0.06780	-	0.15181	0.11119	\$ 0.26300
G-3	Customer Charge	\$ 14.74		14.74						14.74		\$ 14.74
	All kWh	\$ 0.04777	0.00064	0.04841	0.02795	(0.00080)	-	0.06780	-	0.14336	0.11119	\$ 0.25455
T	Minimum Charge	\$ 16.76		16.76						16.76		\$ 16.76
V	All kWh	\$ 0.05465	0.00064	0.05529	0.02456	(0.00080)	-	0.06780	-	0.14685	0.11119	\$ 0.25804

¹ Rate is a subset of Domestic Rate D

Dated: XX XX, 2022
Effective: July 1, 2022

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Neil Proudman
Title: President

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NHPUC No. 21 - ELECTRICITY
LIBERTY UTILITIES

Twelfth Revised Page 127
Superseding Eleventh Revised Page 127
Summary of Rates

RATES EFFECTIVE JULY 1, 2022
FOR USAGE ON AND AFTER JULY 1, 2022

Rate	Blocks	Distribution Charge	REP/VMP	Net Distribution Charge	Transmission Charge	Stranded Cost Charge	Storm Recovery Adjustment Factor	System Benefits Charge	Electricity Consumption Tax	Total Delivery Service	Energy Service	Total Rate
	Customer Charge	\$14.74		\$14.74								\$14.74
	<u>Monday through Friday</u>											
	Off Peak	\$0.03754	\$0.00064	\$0.03818	\$0.00213	(\$0.00080)	-	\$0.06780	-	\$0.10731	\$0.10659	\$0.21390
	Mid Peak	\$0.05524	\$0.00064	\$0.05588	\$0.00590	(\$0.00080)	-	\$0.06780	-	\$0.12878	\$0.12161	\$0.25039
D-11	Critical Peak	\$0.10011	\$0.00064	\$0.10075	\$0.23553	(\$0.00080)	-	\$0.06780	-	\$0.40328	\$0.12636	\$0.52964
	<u>Saturday through Sunday and Holidays</u>											
	Off Peak	\$0.03754	\$0.00064	\$0.03818	\$0.00213	(\$0.00080)	-	\$0.06780	-	\$0.10731	\$0.10659	\$0.21390
	Mid Peak	\$0.05524	\$0.00064	\$0.05588	\$0.00590	(\$0.00080)	-	\$0.06780	-	\$0.12878	\$0.12161	\$0.25039
	Customer Charge	\$11.35		\$11.35								\$11.35
	<u>Monday through Friday</u>											
	Off Peak	\$0.03754	\$0.00064	\$0.03818	\$0.00213	(\$0.00080)	-	\$0.06780	-	\$0.10731	\$0.10659	\$0.21390
	Mid Peak	\$0.05524	\$0.00064	\$0.05588	\$0.00590	(\$0.00080)	-	\$0.06780	-	\$0.12878	\$0.12161	\$0.25039
Rate EV	Critical Peak	\$0.10011	\$0.00064	\$0.10075	\$0.23553	(\$0.00080)	-	\$0.06780	-	\$0.40328	\$0.12636	\$0.52964
	<u>Saturday through Sunday and Holidays</u>											
	Off Peak	\$0.03754	\$0.00064	\$0.03818	\$0.00213	(\$0.00080)	-	\$0.06780	-	\$0.10731	\$0.10659	\$0.21390
	Mid Peak	\$0.05524	\$0.00064	\$0.05588	\$0.00590	(\$0.00080)	-	\$0.06780	-	\$0.12878	\$0.12161	\$0.25039
	<u>Luminaire Charge</u>											
	HPS 4,000	\$8.58		\$8.58								\$8.58
	HPS 9,600	\$9.92		\$9.92								\$9.92
	HPS 27,500	\$16.46		\$16.46								\$16.46
	HPS 50,000	\$20.48		\$20.48								\$20.48
	HPS 9,600 (Post Top)	\$11.64		\$11.64								\$11.64
	HPS 27,500 Flood	\$16.64		\$16.64								\$16.64
M	HPS 50,000 Flood	\$22.22		\$22.22								\$22.22
	Incandescent 1,000	\$11.01		\$11.01								\$11.01
	Mercury Vapor 4,000	\$7.61		\$7.61								\$7.61
	Mercury Vapor 8,000	\$8.55		\$8.55								\$8.55
	Mercury Vapor 22,000	\$15.29		\$15.29								\$15.29
	Mercury Vapor 63,000	\$25.85		\$25.85								\$25.85
	Mercury Vapor 22,000 Flood	\$17.50		\$17.50								\$17.50
	Mercury Vapor 63,000 Flood	\$33.90		\$33.90								\$33.90
	<u>Luminaire Charge</u>											
	30 Watt Pole Top	\$5.57		\$5.57								\$5.57
	50 Watt Pole Top	\$5.80		\$5.80								\$5.80
	130 Watt Pole Top	\$8.95		\$8.95								\$8.95
LED-1	190 Watt Pole Top	\$17.16		\$17.16								\$17.16
	30 Watt URD	\$12.97		\$12.97								\$12.97
	90 Watt Flood	\$8.82		\$8.82								\$8.82
	130 Watt Flood	\$10.14		\$10.14								\$10.14
	30 Watt Caretaker	\$4.99		\$4.99								\$4.99
	<u>Poles</u>											
	Pole -Wood	\$9.72		\$9.72								\$9.72
	Fiberglass - Direct Embedded	\$10.12		\$10.12								\$10.12
	Fiberglass w/Foundation <25 ft	\$17.08		\$17.08								\$17.08
	Fiberglass w/Foundation >=25 ft	\$28.56		\$28.56								\$28.56
	Metal Poles - Direct Embedded	\$20.36		\$20.36								\$20.36
	Metal Poles with Foundation	\$24.56		\$24.56								\$24.56
M & LED-1	All kWh	\$0.04150	\$0.00064	\$0.04214	\$0.02179	(\$0.00080)	\$0.00000	\$0.06780	\$0.00000	\$0.13093	\$0.11119	\$0.24212
LED-2	All kWh	\$0.04150	\$0.00064	\$0.04214	\$0.02179	(\$0.00080)	\$0.00000	\$0.06780	\$0.00000	\$0.13093	\$0.11119	\$0.24212

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Neil Proudman
Title: President

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