

**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 1, 2021
Regarding Step Adjustment



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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.

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

2 A. Yes, I presented direct and rebuttal testimony in this docket, and I testified in support of
3 the Company's 2019 step adjustment in Docket No. DE 16-383.

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

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

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

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

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

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

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

19 A. Yes, I have testified on numerous occasions before the Commission, including direct and
20 rebuttal testimony in this docket.

1 **II. PURPOSE OF TESTIMONY**

2 **Q. What is the purpose or your testimony?**

3 A. The purpose of the testimony is to request an increase in distribution rates, to be effective
4 July 1, 2021, as approved in Order No. 26,376 (June 30, 2020) in this docket. This is the
5 second approved step increase described in the Settlement Agreement and pertains to
6 certain projects placed in service during calendar year 2020.

7 **III. CAPITAL PROJECTS**

8 **Q. Please explain each project for which the Company is seeking to commence cost**
9 **recovery in this second step increase, as provided for in the Settlement Agreement.**

10 A. The Company seeks approval to commence cost recovery for each of the capital projects
11 discussed below that were placed in service during 2020. The breakdown of budget and
12 spending by year is provided on page 1 of each of Attachments 2 through 11.

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

16 A. Project close out forms are completed on an annual basis and address only the spending
17 for that particular project for that calendar year. Therefore, when a project incurs costs
18 during more than one calendar year, its costs will be reflected in more than one project
19 close out form.

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

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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 their first calendar year, but since they are not complete and placed into
20 service during that first calendar year, they will incur additional costs 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 that same year they are started. In this proceeding, the Company is seeking cost recovery
12 only for capital projects that went in to service in 2020 under the listed project numbers
13 in Attachment 1, page 2. Some of these project numbers have actual spending of less
14 than the budget amounts provided in the description of each project below and on page 1
15 of each project's backup documentation, Attachments 2 through 11. Those projects
16 incurred costs under work orders that started in prior years, but did not go in to service
17 until 2020. The spending for those prior years was captured in the business cases, change
18 order forms if necessary, and prior year project close out forms. Any spending for those
19 work orders in 2020 is captured in the 2020 business cases, change order forms if
20 necessary, and project close out forms. Supporting information for all years of spending
21 for the multi-year capital projects covered in this testimony was provided to the
22 Commission's Audit Staff for review.

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

2 A. As discussed above, blanket projects are those “projects” that have numerous “work
3 orders” taken out for smaller jobs, sometimes hundreds of them. For example, these
4 charges arise from municipal requests for jobs such as relocating poles for road widening
5 (Public Requirements Blanket) and from damage to equipment (Damage Failure Blanket)
6 that are unknown until the request arrives at the Company or the equipment fails. Each
7 year the Company looks at spending from previous years to determine an appropriate
8 spending amount, or budget, for these blankets. For example, in 2017 and 2018, the final
9 spending for the Public Requirements Blanket was \$414,432 and \$441,939, respectively.
10 The 2019 budget was set at \$520,000, above the spending for the previous two years, yet
11 the total charges for 2019 came in at \$668,186. These are difficult budgets to set due to
12 the unknown quantity and cost of those requests when the budget is created and
13 approved. Also, the Company does not have the option to defer these requests due to
14 their nature, as we may do with other types of work orders such as replacing conductor
15 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. Yes. Although the Attachment 2 to the Settlement Agreement listed the projects to be
19 recovered through this filing, it also provided flexibility to substitute projects with the
20 following limitations:

21 *Liberty reserves the right to substitute projects into*
22 *Attachment 2 so long as any new projects are not growth*

1 *projects and are not related to the Rockingham Substation*
2 *or the 115kV transmission line. (Settlement Agreement in*
3 *Docket No. DE 19-064, Hearing Exhibit 37, at 4.)*

4 There are three projects listed in Attachment 2 to the Settlement Agreement that are not
5 part of this filing, with the Company substituting other projects in their place.

6 First, during the summer of 2020, the Company decided to postpone project 8830-2051
7 Enhanced Bare Conductor Replacement because actual construction bids for similar
8 projects came in well over the budget amount of \$875,000. Thus this project was
9 canceled for 2020 and it has been replaced in this filing with the carryover from project
10 8830-1946 2019 Reliability Enhancement Program (REP).

11 Second, the Company was expecting to renovate some of its facilities in 2020 but, due to
12 the COVID-19 pandemic, the Company canceled the GSE Facilities Capital
13 Improvements until further notice.

14 Third, projects 8830-2069 Golden Rock Distribution Feeder 19L4 and 8830-1944 Golden
15 Rock Substation did not go in to service in 2020, their in service dates having been
16 postponed to 2021, and as such are also not included in this filing.

17 The projects substituted for the original three projects in the Agreement are:

- 18 • Attachment 3 8830-1946 2019 REP Carryover, as mentioned above; and
19 • Attachment 5 8830-1969 Mall Road Underground/Street Lights.

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

3 A. Following are the ten projects for which the Company seeks to commence cost recovery
4 on July 1, 2021:

5 **1. 8830-1933 Battery Pilot Attachment 2**

6 On January 18, 2019, Liberty received an Order in Docket No. DE 17-189 approving the
7 settlement agreement in its proposal for a battery storage pilot program. As part of the
8 Settlement Agreement in this docket, the Company is requesting cost recovery for the
9 programming costs and battery installation costs for batteries installed through December
10 31, 2020.

11 As of December 31, 2020, the program had 60 customers with batteries installed and
12 providing benefits to both the customer and the grid during peak events. The total cost
13 for the batteries installed through 2020 is \$1,434,387. Page 1 of Attachment 2 provides
14 the breakdown by cost element of the project.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2020</u>	<u>Request for Cost</u>
		<u>In Service WO</u>	<u>Recovery</u>
<u>(a)</u>	<u>(b)</u>	<u>(c)</u>	<u>(d)</u>
2018	\$4,500,000	\$28,295	\$28,295
2019	\$500,000	\$58,106	\$58,106
2020	\$1,500,000	<u>\$1,347,986</u>	<u>\$1,347,986</u>
		\$1,434,388	\$1,434,388

(b) Approved budget for all work orders under this project for that calendar year

(c) Total amount spent only for work orders in service in 2020. Some work orders may span multiple years, thus multiple years of spending is shown. WO denotes "work orders"

(d) Amount Company is requesting for cost recovery. This request is *only* for projects in service in 2020.

1 **2. 8830-1946 2019 REP Carryover Attachment 3**

2 As part of the Settlement Agreement in this docket, the Enhanced Bare Conductor
3 Replacement project was included in the 2021 Step Adjustment for 2020 projects. The
4 Enhanced Bare Conductor replacement project provides funding for reconductoring bare
5 wire with tree resistant wire, using either open cross arm construction or spacer cable
6 configuration, essentially the same type of project as provided in the annual Reliability
7 Enhancement Program filing. As noted above, this project has been postponed to future
8 years and the budgeted amount have been applied to the carryover for 2019 REP project.
9 As provided in Docket No. DE 20-036, the reconductoring jobs for 7L2 Shaker Hill Road
10 in Enfield and 40L3 Sullivan Street in Charlestown were completed near the end of 2019,
11 thus many of the costs associated with the projects had not been charged by December
12 31, 2019, so they were not included in the annual REP/VMP reconciliation filing. The
13 total carryover is \$743,565. Page 1 of Attachment 3 provides the breakdown by cost
14 element of the project. The internal costs on the project close out form are captured in
15 the cost of construction and thus the total Internal Costs are shown as zero. The 2020
16 costs shown on page 1 in column Total Spend shows the carryover construction costs
17 associated with projects that went in to service in 2019, filed in Docket No. 20-036. The
18 project close out form provided in this filing includes project 8830-2046, the 2020 REP
19 spending filed in Docket No. 21-049, and the carryover from project 8830-1946.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2020 In Request for Cost</u>	
		<u>Service WO</u>	<u>Recovery</u>
<u>(a)</u>	<u>(b)</u>	<u>(c)</u>	<u>(d)</u>
2020	\$875,000	<u>\$743,565</u>	<u>\$743,565</u>
		\$743,565	\$743,565

(b) Approved budget for all work orders under this project for that calendar year

(c) Total amount spent only for work orders in service in 2020.

WO denotes "work orders"

(d) Amount Company is requesting for cost recovery.

3. 8830-1958 Install Service to Tuscan Village South Line Attachment 4

This project consisted of two pieces. The first part of the project consisted of providing service to the Hanover Building located on the south parcel of Tuscan Village. The scope of work included installing and testing approximately 5,500 feet of 1000 MCM CU EPR 15 KV jacketed primary cable and 4/0 neutral. The project also provided for the construction of eight fully dressed manholes, including installation of frames, cable supports, bonding and grounding, cathodic protection, and other related tasks. The scope of this project also included the installation, testing, and commissioning of radio controlled switchgear. This work was completed by contractors and internal line crews.

The second part provided service to the South parcel of Tuscan Village. The project consisted of installing and testing approximately 3,000 feet of 1000 MCM CU EPR 15 KV jacketed primary cable and 4/0 neutral and 3,500 feet of 3/C-4/0 underground cable. The project also provided for construction of nine fully dressed manholes including installation of frames, cable supports, bonding and grounding, cathodic protection, and other related tasks. The scope of this project also included the installation, testing, and

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1 commissioning of radio controlled switchgear. This work was completed by contractors
2 and internal line crews. For the work completed by 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 in which, all things being equal, price was usually the deciding factor.

6 Page 1 of Attachment 4 provides the breakdown by cost element of the project. The
7 internal costs on the project close out form are captured in the cost of construction and as
8 such the total Internal Costs are shown as zero. The 2018 and 2019 costs shown on page
9 1 in column Total Spend are engineering charges for the projects that went in to service
10 in 2020.

11 The additional spending for this project is driven by the developer's request to move up
12 the in service date to 2020 from 2021 to accommodate providing service to other areas of
13 the development.

14 The total request for cost recovery for project 8830-1958 is \$2,745,711. Please see the
15 table below for the breakdown of the budget and actual spend for work orders in service
16 in 2020.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2020</u>	<u>Request for Cost</u>
		<u>In Service WO</u>	<u>Recovery</u>
<u>(a)</u>	<u>(b)</u>	<u>(c)</u>	<u>(d)</u>
2018	\$0	\$3,122	\$3,122
2019	\$1,200,000	\$890,759	\$890,759
2020	\$900,000	\$1,814,686	\$1,814,686
2021	\$0	<u>\$37,145</u>	<u>\$37,145</u>
		\$2,745,711	\$2,745,711

- (b) Approved budget for all work orders under this project for that calendar year
- (c) Total amount spent only for work orders in service in 2020. Some work orders may span multiple years, thus multiple years of spending is shown. WO denotes "work orders"
- (d) Amount Company is requesting for cost recovery. This request is *only* for projects in service in 2020.

4. 8830-1969 Mall Road Underground Attachment 5

The Town of Salem and the New Hampshire Department of Transportation requested the developers of Tuscan Village to reconstruct Mall Road to include signals and turn lanes to accommodate the expected increase in vehicle traffic. As a result of the proposed improvements, Liberty's equipment including street lights and transformers would have been located in the traveled way and thus needed to be relocated. The scope of this project was to replace the direct buried underground primary and secondary street light circuit along Mall Road and Rockingham Park Boulevard, and included relocation of underground facilities and the installation of distribution pad-mount transformers, underground conduit, and new underground primary and secondary electrical cables.

The total request for cost recovery for project 8830-1969 is \$831,354. Please see the table below for the breakdown of the budget and actual spend for work orders in service in 2020.

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<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2020 In</u> <u>Service WO</u>	<u>Request for Cost</u> <u>Recovery</u>
<u>(a)</u>	<u>(b)</u>	<u>(c)</u>	<u>(d)</u>
2019	\$1,020,000	\$552,212.52	\$552,212.52
2020	\$400,000	\$277,675.40	\$277,675.40
2021	\$0	<u>\$1,466</u>	<u>\$1,465.98</u>
		\$831,354	\$831,354

(b) Approved budget for all work orders under this project for that calendar year

(c) Total amount spent only for work orders in service in 2020. Some work orders may span multiple years, thus multiple years of spending is shown. WO denotes "work orders"

(d) Amount Company is requesting for cost recovery. This request is *only* for projects in service in 2020.

In 2019, the Company expected the above project to be charged under the 8830-1911 Public Requirements blanket, but once the Company determined that the full scope of the project was larger than what would normally be included in a blanket project, the charges were moved from work order 301911-01010 under the project 8830-1911 to a new project number 8830-1969 for charges only associated with the Mall Road project. As such, when reviewing the backup documentation, the total budget in 2019 was \$500,000 with the total spend for the single work order 301969-01001 being \$421,587. The total spend for the single work order 301911-01010 was \$271,219, but was included in the 2019 project close out form for project 8830-1911. The work orders were combined in 2020 and the breakdown can be found on page 1 of Attachment 5.

5. 8830-2011 Public Requirements Blanket Attachment 6

As mentioned above, the Public Requirements Blanket provided funding for projects that arose during the year in response to requests from municipalities and the State of New Hampshire to relocate the Company's poles, associated equipment on the poles, and guy wires to accommodate various state and municipal projects, such as road widening

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1 projects. Depending on the scope of the job, Liberty crews or contractors may have
2 performed the work. For work requiring contractors, the Company engaged in a
3 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 in which, all things being equal, price was usually the deciding factor.

6 As shown on page 1 of Attachment 6, the total cost recovery request for project 8830-
7 2011 is \$1,035,602. Please see the table below for the breakdown of the budget and
8 actual spend for work orders in service in 2020.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2020</u>	<u>Request for Cost</u>
		<u>In Service WO</u>	<u>Recovery</u>
<u>(a)</u>	<u>(b)</u>	<u>(c)</u>	<u>(d)</u>
2017	\$505,000	\$1,024	\$1,024
2018	\$725,000	\$98	\$98
2019	\$630,000	\$117,473	\$117,473
2020	\$1,000,000	\$917,007	<u>\$917,007</u>
		Total	\$1,035,602

(b) Approved budget for all work orders under this project for that calendar year

(c) Total amount spent only for work orders in service in 2020. Some work orders may span multiple years, thus multiple years of spending is shown. WO denotes "work orders"

(d) Amount Company is requesting for cost recovery. This request is *only* for projects
9 in service in 2020.

10 For mandated projects such as these public requirement projects, the Company's Liberty
11 Way Policy & Procedures Capital Expenditures Planning and Management document
12 does not require a business case. Therefore, only a capital expenditure form is provided,
13 along with the change order and project close out forms.

1 **6. 8830-2012 Damage/Failure Blanket Attachment 7**

2 The purpose of the Damage Failure Blanket was to provide funding to repair damage to
3 the Company's equipment arising from unplanned, but regularly occurring, instances
4 such as lightning strikes, animal contacts, and motor vehicle accidents. Depending on the
5 scope of the job, Liberty crews or contractors may have performed the work. For work
6 requiring contractors, the Company engaged in a competitive bid process, the bids were
7 analyzed for price, timeline, and qualifications of the contractors, and the Company
8 awarded the project to the bidder with the best solution, in which, all things being equal,
9 price was usually the deciding factor.

10 For mandated projects such as these damage failures, the Company's Liberty Way Policy
11 & Procedures Capital Expenditures Planning and Management document does not require
12 a business case. Therefore, only a capital expenditure form is provided, along with the
13 change order and project close out forms.

14 The total request for cost recovery for project 8830-2012 is \$1,427,816. Please see the
15 table below for the breakdown of the budget and actual spend for work orders placed in
16 service in 2020. Page 1 of Attachment 7 provides the breakdown by cost element of the
17 project.

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<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2020</u> <u>In Service WO</u>	<u>Request for Cost</u> <u>Recovery</u>
<u>(a)</u>	<u>(b)</u>	<u>(c)</u>	<u>(d)</u>
2018	\$800,000	\$1,292	\$1,292
2019	\$1,100,000	\$29,135	\$29,135
2020	\$1,000,000	<u>\$1,397,390</u>	<u>\$1,397,390</u>
		\$1,427,816	\$1,427,816

(b) Approved budget for all work orders under this project for that calendar year

(c) Total amount spent only for work orders in service in 2020. Some work orders may span multiple years, thus multiple years of spending is shown. WO denotes "work orders"

(d) Amount Company is requesting for cost recovery. This request is *only* for projects in service in 2020.

The additional spending in 2020 for this project is driven by two factors. The first contributing factor is a carryover of \$30,427 associated with labor, burdens, and materials from jobs started in 2018 and 2019 but not completed until 2020. The second contributing factor are costs associated with work identified as needing to be addressed under the Damage- Failure Blanket. Taking into account the current spend rate and historic spend rates of July 2020 through December 2020, 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 as provided in the Change Order Form.

7. 8830-2039 IE-NN URD Cable Replacement Attachment 8

Underground residential developments (URD) and underground commercial developments (UCD) have historically been served by 15kV class #2 or single phase solid dielectric cables. Through the years a number of different insulations have been employed across the Company including XLPE and EPR cables. Likewise, these cables have been installed directly buried or in conduit systems.

1 Direct buried solid dielectric cables installed from the late 1960s through the late 1980s
2 have shown the most susceptibility for failure. The causes of failure have ranged from
3 improper backfill material during initial installation, damage from the third party
4 excavations, and an incomplete understanding of XLPE failure mechanisms by the
5 industry such as water, trees, electrical stress, concentric neutral (CN) corrosion, etc.
6 These cable types have also shown a susceptibility to neutral corrosion and tend to be
7 XLPE or PE insulated and are in excess of twenty years of age.

8 The costs for this project arose from an emergency replacement due to cable failure at
9 Lancelot Court, a project started in 2019. There was also a cable failure on Montview
10 Road in Hanover, where all of the primary cable had to be replaced. The planned
11 projects noted in the business case of Blueberry Hill and Hidden Valley Road were not
12 undertaken due to these emergency replacements that took precedent.

13 The URD cable replacement strategy aims to provide resolution and/or improve
14 reliability and address pocket problems in URD/UCD and includes the following options:

- 15 • Injection of cable rejuvenation fluids to extend the operating life of poor
16 performing cable;
- 17 • Replacement of poor performing cable to reduce interruptions;
- 18 • Installing short runs of primary cable to create loop feed arrangements; and
- 19 • Installing fault location equipment to facilitate restoration.

20 Page 1 of Attachment 8 provides the breakdown by cost element of the project. The total
21 request for cost recovery for project 8830-2039 is \$467,957. Please see the table below

1 for the breakdown of the budget and actual spend for work orders placed in service in
2 2020.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2020</u>	<u>Request for Cost</u>
		<u>In Service WO</u>	<u>Recovery</u>
<u>(a)</u>	<u>(b)</u>	<u>(c)</u>	<u>(d)</u>
2020	\$450,000	\$467,957	\$467,957
		\$467,957	\$467,957

(b) Approved budget for all work orders under this project for that calendar year

(c) Total amount spent only for work orders in service in 2020. Some work orders may span multiple years, thus multiple years of spending is shown. WO denotes "work orders"

(d) Amount Company is requesting for cost recovery. This request is *only* for projects in service in 2020.

4 This project does not have a change order form as the additional costs are less than ten
5 percent of budget.

6 **8. 8830-2068 Main Street Salem – Overhead Line Relocation Attachment 9**

7 The Town of Salem intends to reconfigure the intersection of Main Street and Broadway.
8 Their plans include widening both roads to accommodate turning lanes. The addition of
9 turning lanes would have resulted in the existing overhead facilities being located within
10 the proposed roadway. The Company was thus required to relocate the overhead
11 facilities at the intersection from overhead to underground. The project also included the
12 removal of the overhead facilities in and around this intersection. While the Company
13 pushed back on the Town, advocating for relocation of the overhead lines rather than
14 moving the lines underground, the Town threatened to withhold pole licenses for any new
15 proposed poles within 200 feet of the intersection and thus underground became the only
16 alternative for relocation of the Company's assets.

Page 1 of Attachment 9 provides the breakdown by cost element of the project. The total request for cost recovery for project 8830-2068 is \$1,309,994. Please see the table below for the breakdown of the budget and actual spend for work orders placed in service in 2020.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2020</u> <u>In Service WO</u>	<u>Request for Cost</u> <u>Recovery</u>
<u>(a)</u>	<u>(b)</u>	<u>(c)</u>	<u>(c)</u>
2020	\$1,200,000	<u>\$1,309,994</u>	<u>\$1,309,994</u>
		\$1,309,994	\$1,309,994

- (b) Approved budget for all work orders under this project for that calendar year
- (c) Total amount spent only for work orders in service in 2020. Some work orders may span multiple years, thus multiple years of spending is shown. WO denotes "work orders"
- (d) Amount Company is requesting for cost recovery. This request is *only* for projects in service in 2020.

The additional spending for this project was driven by two factors. The first was actual cost of traffic control, which was greater than originally estimated due to need for additional police officers necessary to direct traffic in the intersection. The second driver of the over-expenditure was a change in scope due to a relocation of a riser pole as requested by the Town of Salem.

9. 8830-2091 Granite State Meter Purchases Attachment 10

This project number provided funding for the purchase of electric meters. These meters were required to replace units which had failed in the field and for meters required to serve additional customers requesting service.

1 The total for project 8830-2091 is \$847,194 as shown in Attachment 10, and the total
2 budget was \$840,000. Please see the table below for the breakdown of the budget and
3 actual spend for work orders placed in service in 2020.

<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2020</u>	<u>Request for Cost</u>
		<u>In Service WO</u>	<u>Recovery</u>
<u>(a)</u>	<u>(b)</u>	<u>(c)</u>	<u>(d)</u>
2020	\$840,000	\$847,194	\$847,194
		\$847,194	\$847,194

(b) Approved budget for all work orders under this project for that calendar year

(c) Total amount spent only for work orders in service in 2020. Some work orders may span multiple years, thus multiple years of spending is shown. WO denotes "work orders"

(d) Amount Company is requesting for cost recovery. This request is *only* for projects in service in 2020.

5 **10. 8830-2092 Transformer Purchases Attachment 11**

6 This project number provided funding for the purchase of electric transformers to replace
7 units which had failed in the field and for transformers required to support electric
8 reliability and new construction.

9 The total for project 8830-2092 is \$596,327 as shown in Attachment 11. The budget was
10 \$600,000. Please see the table below for the breakdown of the budget and actual spend
11 for work orders placed in service in 2020.

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<u>Year</u>	<u>Total Budget</u>	<u>Total Spend - 2020</u>	<u>Request for Cost</u>
		<u>In Service WO</u>	<u>Recovery</u>
<u>(a)</u>	<u>(b)</u>	<u>(c)</u>	<u>(d)</u>
2020	\$600,000	\$596,327	\$596,327
		\$596,327	\$596,327

(b) Approved budget for all work orders under this project for that calendar year

(c) Total amount spent only for work orders in service in 2020. Some work orders may span multiple years, thus multiple years of spending is shown. WO denotes "work orders"

(d) Amount Company is requesting for cost recovery. This request is *only* for projects in service in 2020.

IV. REVENUE REQUIREMENT

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

A. The total cost of all ten projects above for which the Company seeks recovery in this filing is \$11,439,907. The associated revenue requirement, which is calculated as described below and in Attachment 1, is \$1,844,326.

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

A. The investments and capital structure included in Attachment 1 are those that were in service by December 31, 2020, and in the approved Settlement Agreement in this docket. Page 2 of Attachment 1 provides the total costs of each project and the calculation of the book depreciation rate. The property tax rate is calculated using the most recent FERC Form 1 (2019), which is 3.06%. This rate is also used to calculate the property tax rate for the Company's annual Reliability Enhancement Plan/Vegetation Management Plan, which was filed in Docket No. DE 21-049. The tax rates of 21% (federal) and 7.7% (state) are for the taxable period ending December 31, 2020.

1 **Q. Has the Company included additional rate case expenses in the revenue**
2 **requirement?**

3 A. Yes. As part of the Settlement Agreement the Company is including \$11,435 in rate case
4 expenses for invoices that were not included in July 1, 2020, rates and can be found in
5 Attachment 1, page 3, line 3.

6 **Q. Has the Company reconciled the recoupment at current rate levels to the amount**
7 **allowed in the Settlement Agreement?**

8 A. Yes. The Company has recalculated the estimated recoupment to \$1,939,679, as shown
9 in Attachment 3, line 9. The estimated recoupment level included in the Settlement
10 Agreement was \$1,835,991, for a difference of \$103,688, as shown on lines 8 and 10 of
11 page 3 in Attachment 1, respectively.

12 **Q. Have you compared the actual recoveries of rate case expenses and recoupment to**
13 **the estimated recoveries?**

14 A. Not at this time. Given that rates are not effective until July 1, 2021, the Company would
15 have to estimate the months of March through June revenues and as such will provide an
16 update of the actual recoveries after the May accounting close. The Company also has a
17 pending rate change in Docket No. DE 21-049 for rates effective May 1, 2021, that will
18 affect the total recovery at this time.

1 **Q. Please provide the total revenue requirement for this filing including capital**
2 **expenditures, rate case expenses and recoupment.**

3 A. The total revenue requirement in this filing is \$1,959,449, as shown in Attachment 1,
4 page 4, line 5.

5 **Q. Has the Company calculated time-of-use rates for its D-11 and EV rates?**

6 A. Yes. Attachment 1, page 6 provides the updated rates effective July 1 versus current
7 rates. The rates in effect until April 30, 2021, are winter rates, thus the rates effective
8 July 1, 2021, for this filing will be summer rates.

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

10 A. A residential customer using 650 kWh per month and taking energy service from the
11 Company's default service offering will see an increase to their monthly bill of \$2.17, or
12 1.89%, from \$114.87 to \$117.04 at current rate levels.

13 **V. MISCELLANEOUS ITEMS**

14 **Q. As part of the Settlement Agreement, the Company is required to provide proposed**
15 **tariff pages associated with its decoupling mechanism for effect July 1, 2021. Has**
16 **the Company provided these pages?**

17 A. Yes. Please see Attachment 13 for the proposed tariff pages associated with its
18 decoupling mechanism.

1 **Q. The Settlement Agreement provides that the Company will annually report by**
2 **November 6 each year the number of customers taking service under its Rate EV.**
3 **Did the Company file a report by November, 6, 2020?**

4 A. No, it did not. As of that date, the Company did not have any customers taking service
5 under Rate EV, and as of the date of this filing the Company has not received any
6 requests to take service under the rate. The Company will make the required filing on
7 November 6, 2021, with updated Rate EV data required by the Agreement.

8 **VI. DOCUMENTATION**

9 **Q. Has the Company provided supporting documentation for the projects described**
10 **above?**

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

13 1. Attachment 2: 8830-1933 Battery Pilot

- 14 a. Business Case
15 b. Change Order - N/A, project was under budget
16 c. Project Close Out – N/A, project is ongoing through 2021

17 2. Attachment 3: 8830-1946 REP 2019 Carryover

- 18 a. 2019 Business Case
19 b. 2019 Project Close Out
20 c. Project close out

21 3. Attachment 4: 8830-1958 Install Service to Tuscan Village South Line

- 22 a. Business Case
23 b. Change Order
24 c. Project Close Out – N/A, project is ongoing through 2021

25 4. Attachment 5: 8830-1969 Mall Road Underground

- 26 a. Business Case

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- b. Change Order – N/A, project under budget
- c. Project Close Out

5. Attachment 6: 8830-2011 Public Requirements Blanket

- a. Capital Expenditure – Business case is not required for mandated projects
- b. Change Order
- c. Project Close Out

6. Attachment 7: 8830-2012 Damage/Failure Blanket

- a. Capital Expenditure – Business case is not required for mandated projects
- b. Change Order
- c. Project Close Out

7. Attachment 8: 8830-2039 IE-NN URD Cable Replacement

- a. Business Case
- b. Change Order – N/A, project was less than 10% over budget
- c. Project Close Out

8. Attachment 9: 8830-2068 Main St Salem – Overhead Line Relocation

- a. Business Case
- b. Change Order
- c. Project Close Out

9. Attachment 10: 8830-2091 Granite State Meter Purchases

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

10. Attachment 11: 8830-2092 Granite State Transformer Purchases

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

11. Attachment 12: 2022 Step Adjustment Projects

12. Attachment 13: Proposed Decoupling Tariff

1 **VII. 2022 STEP ADJUSTMENT FILING**

2 **Q. Please provide the list of 2021 projects the Company will look to include in its 2022**
3 **step adjustment filing on April 6, 2022.**

4 A. As part of the Settlement Agreement, the Company is providing a list of projects it
5 expects to have in service by December 31, 2021. Please see Attachment 12 for the
6 proposed 2021 projects to be included in the 2022 Step Adjustment filing.

7 **VIII. CONCLUSION**

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

9 A. Through this testimony and the attached documents, the Company has established that
10 the described projects are in service, are used and useful for the provision of electric
11 distribution service, and were completed at a reasonable cost. The requested step
12 increase is thus just and reasonable and should be approved by the Commission with the
13 projects found to be prudent.

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

15 A. Yes.

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
Computation of Revenue Requirement
CY 2020 - Placed in Service

	<u>CY 2020 - Placed in Service</u>			
1	Total Investment		\$	11,439,907
2				
3	<u>Deferred Tax Calculation</u>			
4	Book Depreciation Rate		4.24%	
5	Federal Tax Depreciation Rate		5.07%	
6	FEDERAL Vintage Year Tax Depreciation:			
7	CY Spend		\$580,181	
8	Annual Tax Depreciation		\$580,181	
9				
10	STATE Vintage Year Tax Depreciation:			
11	CY Spend		\$580,181	
12	Annual Tax Depreciation		\$580,181	
13				
14	Book Depreciation		\$484,770	
15				
16	Book/Tax Timer (Federal)			
17	less: Deferred Tax Reserve (State)		\$7,347	
18	Net Book/Tax Timer (Federal)		(\$7,347)	
19	Effective Tax Rate (Federal)		21.00%	
20	Deferred Tax Reserve (Federal)		(\$1,543)	
21	Book/Tax Timer (State)		\$95,411	
22	Effective Tax Rate (State)		7.70%	
23	Deferred Tax Reserve (State)		\$7,347	
24	TOTAL Deferred Tax Reserve		\$5,804	
25				
26	<u>Rate Base Calculation</u>			
27	Plant In Service		\$11,439,907	
28	Accumulated Book Depreciation		(\$484,770)	
29	Deferred Tax Reserve		(\$5,804)	
30	Year End Rate Base		\$10,949,333	
31				
32	<u>Revenue Requirement Calculation</u>			
33	Year End Rate Base		\$10,949,333	
34	Pre-Tax ROR		9.36%	
35	Return and Taxes		\$1,024,329	
36	Book Depreciation		\$484,770	
37	Property Taxes	3.06%	\$335,227	
38	Annual Revenue Requirement		\$1,844,326	
39				
40	Adjusted Annual Revenue Requirement		\$1,844,326	
41				
42				
43	<u>Imputed Capital Structure</u>			
44		Ratio	Rate	Weighted Rate Pre Tax
45	Long Term Debt	48.00%	5.97%	2.87% 2.87%
46	Common Equity	52.00%	9.10%	4.73% 6.49%
47				
48		100.00%		7.60% 9.36%

Liberty Utilities (Granite State Electric) d/b/a Liberty
Project List
In Service as of December 31, 2020

<u>Att. #</u>	<u>2020 Project #</u>	<u>Project Description</u>	<u>Priority</u>	<u>Total Spend¹</u>	<u>In Service</u>	<u>FERC</u>	<u>Book Rate</u>	<u>Book Amt</u>	<u>MACRS</u>	<u>Tax Amt</u>
Att. 2	8830-1933	Battery Pilot	4. Regulatory Programs	\$1,434,387	Various - 2020	371	10.00%	\$ 143,439	14.29%	\$ 204,974
Att. 3	8830-1946	2019 REP carryover ²	4. Regulatory Programs	\$743,565	Various 2019	364	3.64%	\$ 27,066	3.75%	\$ 27,884
Att. 4	8830-1958	Install Service to Tuscan Village South	3. Growth	\$2,745,711	Various - 2020	364	3.64%	\$ 99,944	3.75%	\$ 102,964
Att. 5	8830-1969	Mall Road Underground	2. Mandated	\$831,354	9/30/2020	364	3.64%	\$ 30,261	3.75%	\$ 31,176
Att. 6	8830-2011	Public Requirements Blanket	2. Mandated	\$1,035,602	Various - 2020	364	3.64%	\$ 37,696	3.75%	\$ 38,835
Att. 7	8830-2012	Damage/Failure Blanket	2. Mandated	\$1,427,816	Various - 2020	364	3.64%	\$ 51,973	3.75%	\$ 53,543
Att. 8	8830-2039	IE-NN URD Cable Replacement	5. Discretionary	\$467,957	Various - 2020	366	1.96%	\$ 9,172	3.75%	\$ 17,548
Att. 9	8830-2068	Main St Salem - Overhead Line Relocation	2. Mandated	\$1,309,994	12/8/2020	364	3.64%	\$ 47,684	3.75%	\$ 49,125
Att. 10	8830-2091	Meter Purchases	2. Mandated	\$847,194	Various 2020	370	1.96%	\$ 16,605	3.75%	\$ 31,770
Att. 11	8830-2092	Transformer Purchases	2. Mandated	\$596,327	Various 2020	368	3.51%	\$ 20,931	3.75%	\$ 22,362
Total				\$11,439,907				\$ 484,770		\$ 580,181
								4.24%		5.07%

¹ Projects that span multiple years may have a 2019 actual spend lower than the total project spend reported in the related Project Close-out Reports. Liberty will provide a breakdown of annual charges by project in each of the three step adjustment filings. The amounts shown here were provided by Liberty and are subject to review and Commission approval in the three individual step adjustment dockets.

² 8830-2051 Enhanced Bare Conductor Replacement was canceled. This project replaces 8830-2051 in this filing.

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Distribution increase due to Rate Case Expense and Recoupment
Effective For July 1, 2021

1	Rate Case Expense	\$565,077
2	Current Rate Case Expense Level	\$553,642
3	Difference in Current Rate Case Expense Rate Level	<u>\$11,435</u>
4	Actual Billed Revenues July 2019 - February 2020	\$28,169,453
5	Actual Billed Revenues March 2020 - June 2020	<u>\$13,052,360</u>
6	Total	\$41,221,813
7	Calculated July 2019 - June 2020 Revenue @ DE 19-064 Approved Rates	\$43,161,492
8	Estimated Recoupment Level per Settlement Agreement	\$1,835,991
9	Updated Estimated Recoupment (Line 7 - Line 6)	\$1,939,679
10	Difference in Estimated Recoupment Level per Settlement Agreement	\$103,688

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty
Distribution Increase for 20119 Step Adjustment
Effective July 1, 2021

[1] Increase in Annual Revenue Requirement	\$1,844,326
[2] Rate Case Expense	\$11,435
[3] Recoupment Reconciliation	\$103,688
[4] Distribution Revenues per Settlement Agreement in Docket No. DE 19-064	\$46,590,297
[5] Total Revenue Increase	\$1,959,449
[6] Total Revenues	\$48,549,746
[7] Percentage of Adjustment to Distribution Rates	4.04%

- [1] Page 1 line 40
- [2] Page 3 line 3
- [3] Page 3 line 11
- [4] Total revenue requirement in proceeding
- [5] Sum of lines [1] through [3]
- [6] Lines [1]+[2]+[3]+[4]
- [7] Lines [4] / [5]

Liberty Utilities (Granite State Electric) d/b/a Liberty Utilities
Permanent Rate Design 2019 Step Adjustment
Rates Effective July 1, 2021

<u>Rate Class</u>	<u>Distribution Rate Component</u>	Permanent Rates Distribtuion Rates July 1, 2020 <u>Rates</u> (a)	2020 Capital Expenditures Step Adjustment % Increase/ % (Decrease) (b)	Proposed July 1, 2021 Base Distribution Charges (c)	REP/VMP Adjustment Factor (d)	July 1, 2020 Rates (e)
D	Customer Charge	\$14.74	0.00%	\$14.74		\$14.74
	All kWh	\$0.05705	5.86%	\$0.06039	0.00008	\$0.06047
	16 Hour Off Peak kWh	\$0.04926	5.86%	\$0.05214	0.00008	\$0.05222
	Farm kWh	\$0.05385	5.86%	\$0.05700	0.00008	\$0.05708
	D-6 kWh	\$0.05017	5.86%	\$0.05311	0.00008	\$0.05319
D-10	Customer Charge	\$14.74	0.00%	\$14.74		\$14.74
	On Peak kWh	\$0.12143	5.50%	\$0.12810	0.00008	\$0.12818
	Off Peak kWh	\$0.00165	5.50%	\$0.00174	0.00008	\$0.00182
D-11	Customer Charge	\$14.74		\$14.74		\$14.74
	Off Peak	\$0.04196		\$0.03837	0.00008	\$0.03845
	Mid Peak	\$0.06289		\$0.05646	0.00008	\$0.05654
	Critical Peak	\$0.08955		\$0.10233	0.00008	\$0.10241
EV	Customer Charge	\$11.35		\$11.35		\$11.35
	Off Peak	\$0.04196		\$0.03837	0.00008	\$0.03845
	Mid Peak	\$0.06289		\$0.05646	0.00008	\$0.05654
	Critical Peak	\$0.08955		\$0.10233	0.00008	\$0.10241
G-1	Customer Charge	\$426.78	4.21%	\$444.72		\$444.72
	Demand Charge	\$9.06	4.21%	\$9.44		\$9.44
	On Peak kWh	\$0.00580	4.21%	\$0.00604	0.00008	\$0.00612
	Off Peak kWh	\$0.00172	4.21%	\$0.00179	0.00008	\$0.00187
	Credit for High Voltage Delivery > 2.4 kv	(\$0.48)	4.21%	(\$0.50)		(\$0.50)
G-2	Customer Charge	\$71.14	4.21%	\$74.13		\$74.13
	Demand Charge	\$9.11	4.21%	\$9.49		\$9.49
	All kWh	\$0.00230	4.21%	\$0.00239	0.00008	\$0.00247
	Credit for High Voltage Delivery > 2.4 kv	(\$0.48)	4.21%	(\$0.50)		(\$0.50)
G-3	Customer Charge	\$16.36	4.21%	\$17.04		\$17.04
	All kWh	\$0.05182	4.21%	\$0.05399	0.00008	\$0.05407
M	Luminaire Charge					
	<u>Description</u>					
	HPS 4,000	\$8.39	4.21%	\$8.74		\$8.74
	HPS 9,600	\$9.69	4.21%	\$10.09		\$10.09
	HPS 27,500	\$16.07	4.21%	\$16.74		\$16.74
	HPS 50,000	\$19.98	4.21%	\$20.82		\$20.82
	HPS 9,600 (Post Top)	\$11.36	4.21%	\$11.83		\$11.83
	HPS 27,500 Flood	\$16.24	4.21%	\$16.92		\$16.92
	HPS 50,000 Flood	\$21.69	4.21%	\$22.60		\$22.60
	Incandescent 1,000	\$10.75	4.21%	\$11.20		\$11.20
	Mercury Vapor 4,000	\$7.44	4.21%	\$7.75		\$7.75

Rate Class	Distribution Rate Component	Permanent Rates & DE 20-036 Distribtuion Rates July 1, 2020 Rates (a)	2019 Capital Expenditures Step Adjustment % Increase/ % (Decrease) (b)	Proposed July 1, 2020 Base Distribution Charges (c)	REP/VMP Adjustment Factor (d)	July 1, 2020 Rates (e)
	Mercury Vapor 8,000	\$8.36	4.21%	\$8.71		\$8.71
	Mercury Vapor 22,000	\$14.93	4.21%	\$15.55		\$15.55
	Mercury Vapor 63,000	\$25.21	4.21%	\$26.27		\$26.27
	Mercury Vapor 22,000 Flood	\$17.08	4.21%	\$17.79		\$17.79
	Mercury Vapor 63,000 Flood	\$33.06	4.21%	\$34.45		\$34.45
LED-1	<u>LED-1 Fixtures</u>					
	30 Watt Pole Top	\$5.44	4.21%	\$5.66		\$5.66
	50 Watt Pole Top	\$5.67	4.21%	\$5.90		\$5.90
	130 Watt Pole Top	\$8.75	4.21%	\$9.11		\$9.11
	190 Watt Pole Top	\$16.75	4.21%	\$17.45		\$17.45
	30 Watt URD	\$12.67	4.21%	\$13.20		\$13.20
	90 Watt Flood	\$8.62	4.21%	\$8.98		\$8.98
	130 Watt Flood	\$9.90	4.21%	\$10.31		\$10.31
	30 Watt Caretaker	\$4.88	4.21%	\$5.08		\$5.08
	<u>Rates M, LED-1 & LED-2 Pole Accessory Charge</u>					
	Pole -Wood	\$9.47	4.21%	\$9.87		\$9.87
	Fiberglass - Direct Embedded	\$9.81	4.21%	\$10.22		\$10.22
	Fiberglass w/Foundation <25 ft	\$16.65	4.21%	\$17.35		\$17.35
	Fiberglass w/Foundation >=25 ft	\$27.84	4.21%	\$29.01		\$29.01
	Metal Poles - Direct Embedded	\$19.85	4.21%	\$20.68		\$20.68
	Metal Poles with Foundation	\$23.94	4.21%	\$24.95		\$24.95
	<u>Rate M, LED-1</u>					
	All kWh	\$0.03985	4.21%	\$0.04152	0.00008	\$0.04160
	<u>Rate LED-2</u>					
	All kWh	\$0.03985	4.21%	\$0.04152	0.00008	\$0.04160
T	Customer Charge	\$14.74	0.00%	\$14.74		\$14.74
	All kWh	\$0.04631	5.21%	\$0.04872	0.00008	\$0.04880
V	Minimum Charge	\$16.36	4.21%	\$17.04		\$17.04
	All kWh	\$0.05330	4.21%	\$0.05554	0.00008	\$0.05562

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

Liberty Utilities (Granite State Electric) d/b/a Liberty
DE 19-064 2020 Step Adjustment
Project #8830-1933

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>CIAC</u>	<u>Total Spend</u>	<u>Total Budget</u>
2018	\$11,038.52	\$0.00	\$4,504.61	\$12,752.10	\$0.00	\$28,295.23	\$4,500,000
2019	\$3,131.31	\$0.00	\$42,294.18	\$12,680.87	\$0.00	\$58,106.36	\$500,000
<u>2020</u>	<u>\$8,812.38</u>	<u>\$106.44</u>	<u>\$1,235,571.64</u>	<u>\$394,753.87</u>	<u>(\$291,258.00)</u>	<u>\$1,347,986.33</u>	<u>\$1,500,000</u>
Total	\$22,982.21	\$106.44	\$1,282,370.43	\$420,186.84	(\$291,258.00)	\$1,434,387.92	\$6,500,000

2018 budget is for the total project, Phases 1 and 2.



Business Case – IT Projects (>\$100,000)

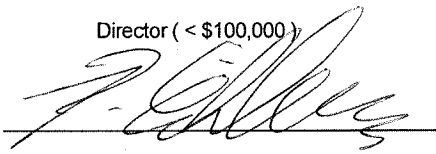
NH Battery Storage Aggregation Project

Prepared By: Heather Tebbetts
Nicole Harris

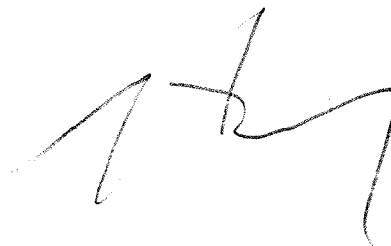
Date: March 15, 2018

Reviewed By: _____
Manager

Approved By: _____
Director (< \$100,000)

Approved By: 
V.P. (< \$251,000)

Approved By: _____
IT Director/s



March 19

- Ability to bill customers on a new residential time-of-use rate and charge associated fees in Cogsdale
- Automated bill presentment through Fiserv, not manual Bill Print
- Reporting for Customer and NHPUC

2.2. Out of Scope

- Commercial & Industrial Customers are not eligible to participate
- Energy storage does not qualify for Renewable Energy Certifications (RECs)

2.3. Project Schedule

- Commission Approval: Unsure
- Customer Enrolled by: 3 months after order
- Ready to Bill by: May31, 2019
- Final Battery Installation: 12 months after first battery is installed

2.4. Anticipates Outcome

- Timely Implementation

2.5. Stakeholders

- Internal
 - Regulatory
 - Customer Care (Sale, Communications, Billing & Customer Service)
- External
 - Commission
 - Customers
 - Vendors
 - Community

2.6. Project Organization & Governance Model

- Project Manager: Heather Tebbetts
- Business Owners/Sponsors: Marcia Spence/Nicole Harris
- NH Business Leads: Heather Tebbetts & Laura Sasso

2.7. Alternatives

There aren't any alternatives to the program at this time.

2.8. Initiative Priority

In addition to the benefits described in 1.1, If approved, Liberty Utilities would be the first Utility in New Hampshire to participate in a study.

3. Project Risk Assessment

If the pilot doesn't get approved, the Company does not have to purchase batteries or meters. Programming for billing purposes will not start until an order has been received approving the pilot program. The risk of the pilot getting approved is a 1 on a scale of 1-5, with 5 being the highest, as all parties have signed the settlement agreement, with the exception of SunRun and Revision Energy, but they do not oppose the agreement. A hearing was held November 29, 2018. Parties are awaiting a Commission Order to approve the settlement agreement.

Business Groups	Allocation	Amount
APCO	0.00%	\$ -
Liberty	100%	\$ 4,556,185
Total	100%	\$ 4,556,185

Liberty - 4 Factor Allocation

Entity	Allocation	Amount
NH Electric	99%	\$ 4,448,685
CALEPCO	1%	\$ 107,500

Note: CALEPCO split is only for the ITRON and Infrastructure cost = $165K + 50K = 215K * 50\% = \$107,500$

5. Risk Assessment

See #3.

6. Assumptions

All assumptions used to determine, both financial and non-financial costs and benefits should be clearly documented.

Please see the direct and supplemental testimony of Heather Tebbetts.

Project Close Out Report

2019

Requesting Region or Group:	Granite State Electric	Date of Closeout (MM/DD/YY):	1/15/2020
Project Name:	GSE Battery Backup Program		
Requesting Region:	East Region	Sponsor (Name):	Charles Rodrigues
Project Champion:	Heather Tebbetts	Project Champion	
Project Status	<input type="checkbox"/> In Service <input type="checkbox"/> Complete <input checked="" type="checkbox"/> Closed		
Project Start Date:	1/1/2019	Project Completion Date:	12/31/19
Requested Capital (\$)	\$1,000,000	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
	Project Lead		1/15/20
	Project Sponsor		2/14/20
	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"/>
2.5	Do you agree the project should be closed? If no, please explain:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Project Close Out Report

2019

Item	Question	Response
	<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, Webspace)	Format
3.4a	Business Case	W:\Regulatory\H & M\001 Dockets\17-189 Battery Storage\business case	<input 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	Budget docs – Finance Invoices - Finance	<input 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 Teamⁱⁱ

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

Project Close Out Report **2019**

Name	Role	Type (e.g., Contractor, Employee)
Heather Tebbetts	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
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
Order not received by 12/31/19 for extension to install batteries	Batteries to be installed in 2020 instead of 2019

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 (\$)	0	0	0
Cost of Materials (\$)	0	0	0
Cost of Construction (\$)	0	0	0

Project Close Out Report 2019

External Costs (\$)	0	0	0
Internal Costs (\$)	\$1,000,000	\$34,199	\$965,801
Other (\$)	0	0	0
AFUDC (\$)	0	0	0
Total Project Costs (\$)	\$1,000,000	\$34,199	\$965,801

Reasons for Variance	Impact
Cause 1 batteries were not installed in 2019	\$965,801
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.

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 Backup Battery Program	Date Prepared:	1/1,2020
Project ID#:	8830-1933 1933 1933	Cost Estimate:	\$1,500,000
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2020
Project Lead:	Heather Tebbetts	Project End Date:	12/31/2020
Prepared By:	Heather Tebbetts	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>Docket No. DE17-189 Request for Approval of Battery Storage Pilot, direct testimony was presented to the NH PUC on November 20, 2017. Subsequent supplemental testimony by Heather Tebbetts was filed on February 9, 2019. The purpose of the testimony was to present Liberty Utilities' proposed pilot to own and install battery storage in customers' homes. The benefits presented is offering the following opportunities:</p> <ul style="list-style-type: none"> • Aligns with the company's strategic direction as it relates to Utility 2.0. • Reduction of transmission costs in the short term • Study the batteries' long-term effects on the distribution system to determine if there are cost deferrals or avoidances for future upgrades. • Support clean Distributed Energy Resources (DER) • Time of Use customer savings through peak load reduction • Provide customers short-term energy security • Local economic opportunities for local installers 			
Background			
(Insert description of current operational arrangement, and brief history of project & asset)			
Recommendation/Objective			
(Insert the unique problem this project is looking to resolve)			
Reduction to transmission 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 not undertake peak reduction for transmission costs through storage.			



Liberty Utilities
 WATER GAS ELECTRIC

Capital Project Business Case

2020
 2018

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?

☒ Yes

☐ No

Regulatory Lag

☐ Less than 6 Months ☐ 6-12 Months ☒ 1 to 3 years ☐ Greater than 3 years

(Click appropriate box)

Equipment (rental equipment)	\$ -	\$ -	\$ -	\$ -	\$ -
Contractor/Subcontractor (including consultants)	\$ -	\$ -	\$ -	\$ -	\$ -
AFUDC (\$)					
Total Project Costs (\$)	\$ 1,500,000	\$ -	\$ -	\$ -	\$ 1,500,000

Unlevered Internal Rate
 of Return:

Click here to enter text.

Basis of Estimate:

Tesla has provided costs associated with batteries. Cogsdale and internal labor costs have been provided internally.

For materials, equipment, 0
 and construction
 requiring Engineering
 drawings please specify
 the percent complete:

Schedule

(List key milestone dates)

Key Milestone Description	Forecast Start Date	Forecast End Date
Approval of pilot	Winter 2020	Summer 2020

Risk Assessment

(Please describe the risk of not completing the project)

If the Company doesn't receive the requested extension to install batteries, the pilot will not move forward.

Trade Finance

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

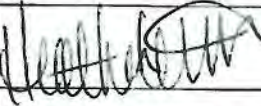
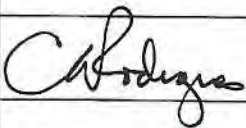

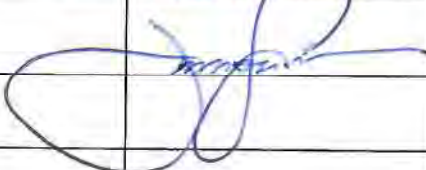
no

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)

Docket No. DE 17-189 provides all documentation of the project

Approvals and Signatures [†]

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Heather Tebbetts Manager, Rates & Regulatory Affairs		2/14/20
Senior Manager: :	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering		2/14/20
Senior Vice President/ Vice President	Up to \$500,000	Richard MacDonald Vice President, Operations		
State President:	Up to \$500,000	Susan Fleck President, NH		3/12/2020
Regional President:	Up to \$3,000,000	James Sweeney President, East Region		5/5/2020
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		

[†] 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

2020

Project Name:	GSE Backup Battery Program		
Financial Work Order (FWO):		Project ID #:	8830-2093 1933
Requesting Region or Group:	Granite State Electric Co.	Date of Request (MM/DD/YY):	1/9/2020
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2020
Project Lead:	Heather Tebbetts	Project End Date:	12/31/2020
Prepared by:	Heather Tebbetts	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 type="checkbox"/> Mandated <input type="checkbox"/> Growth <input type="checkbox"/> Regulatory Supported <input checked="" type="checkbox"/> Discretionary		

Details of Request

Project description This project is to provide funding for the Battery Storage Pilot approved by the NH PUC in Docket No. DE 17-189. 100 customers will receive 2 batteries and a gateway device, along with a cellular meter, to participate in the pilot program. The batteries and gateway will be installed behind the meter by Tesla.
--

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 from the towns may be required. Tesla will be handling all permitting as the authorized installer for the batteries.
--

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. <i>Original Cost of Plant to be removed (if known):</i> None. 2. <i>What is the replacement cost of the plant being removed (if original cost not known)?</i> None. 3. <i>Original Work Order of Plant to be removed (if known):</i> None. 4. <i>Is the Plant being removed reusable?</i> None. 5. <i>What is the year of original installation of the plant being removed</i> None.



Capital Project Expenditure Form

2020

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 For materials, equipment, and construction requiring Engineering drawings please specify the percent complete: ¹	<input checked="" type="checkbox"/> Fixed or Firm Price <input checked="" type="checkbox"/> Estimate – Internal <input type="checkbox"/> Estimate – External <input type="checkbox"/> Other (specify details) The Company has an agreement with Tesla to sell each install for \$16,700.		
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 Signatures¹¹


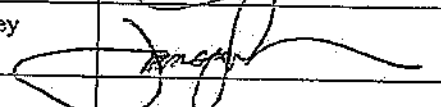
Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Heather Tebbetts		February 20, 2020
Senior Manager:	Up to \$50,000			Click here to enter a date.
Senior Director/Director:	Up to \$250,000	Charles Rodrigues		Click here to enter a date.
Senior VP/VP:	Up to \$500,000			



Liberty Utilities
WATER GAS FIBER

Capital Project Expenditure Form

2020

State President:	Up to \$500,000	Susan Fleck		Click here to enter a date. 3/12/20
Regional President:	Up to \$3,000,000	James Sweeney		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 Overview

Reason for Change: (Please Provide a brief explanation for the cause of the change order)

Project ID:	8830-1933	Project Name:	GSE Battery Backup
Change Order Name:		Date Prepared:	6/24/2020
Change Order #:		Financial Work Order (FWO):ⁱ	
Project Sponsor:	Charles Rodrigues	Revised Start Date:	N/A
Project Lead:	Heather Tebbetts	Revised End Date:ⁱⁱ	12/31/2020
Prepared By:	Heather Tebbetts	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			\$50,000	50,000
Materials	\$1,500,000		\$166,000	1,660,000
Equipment				
Contractor/Subcontractor				
Burdens/Overheads			\$467,000	\$467,000
AFUDC				
CIAC			(\$131,382)	(\$131,382)
Total Project Cost	\$1,500,000	\$1,500,000	\$683,000	\$2,051,618

Updated Unlevered Internal Rate of Return:

Basis of Current Change Order Amount:

Provide brief explanation on basis of the requested amount (i.e. revised contract amount, estimate based on revised engineering design, etc)

In 2019, the budget for the battery program was \$500,000, but due to the request to the NH PUC on an extension to install batteries in November 2019 not being approved until March 2020, that money was not spent and the budget for 2020 was already approved at \$1,500,000. The additional funding provides for the costs that should have been incurred in 2019 being incurred in 2020 due to the delay in approval from the NH PUC.

Schedule Impacts

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

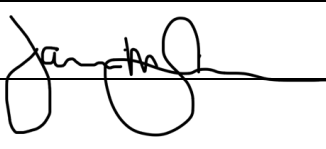
Baseline Schedule (BL)	New Forecast (NF)	Variance (BL – NF)
N/A		



Change Order Form

2020

Approvals and Signatures^v

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Heather Tebbetts	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: 2020.07.27 09:58:45 -04'00'</small>	
Senior Manager: :	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2020.07.27 09:58:45 -04'00'</small>	
State President / Senior VP / VP:	Up to \$500,000	Susan Fleck	Susan Fleck <small>Digitally signed by Susan Fleck Date: 2020.07.27 11:20:55 -04'00'</small>	
Regional President:	Up to \$3,000,000	James Sweeney		7/27/2020
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 2020 Step Adjustment
Project #8830-1946 2019 REP Carryover

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>Total Spend</u>	<u>Total Budget</u>
<u>2020</u>	<u>\$8,582.08</u>	<u>(\$18,106.26)</u>	<u>\$468,804.26</u>	<u>\$284,284.82</u>	<u>\$743,564.90</u>	<u>\$875,000</u>
Total	\$8,582.08	(\$18,106.26)	\$468,804.26	\$284,284.82	\$743,564.90	\$875,000

The budget amount comes from canceling the Enhanced Bare Conductor project and transferring those dollars to the carryover of this project.

Project Close Out Report **2020**

Requesting Region or Group:	Granite State Electric Co.	Date of Closeout (MM/DD/YY):	03/10/2021
Project Name:	Bare Conductor Replacement Program		
Project ID#:	8830-2046	Requesting Region:	East Region
Project Lead:	Anthony Strabone	Project Sponsor:	Charles Rodrigues
Project Status	X In Service C Complete <input type="checkbox"/> Closed		
Project Start Date:	01/01/2020	Project Completion Date:	12/31/2020
Requested Capital (\$)	\$ 1,700,000	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
Anthony Strabone	Project Lead	<i>Anthony Strabone</i>	03/29/2021
Charles Rodrigues	Project Sponsor	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.03.30 08:28:48 +04'00'</small>	
Mark Parker	Operations Manager		
Phil Greene	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 2020

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, Webspace)	Format
3.4a	Business Case	W:\Engineering\Electric Engineering\Electric Planning Engineering\2 - Planning	<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 Teamⁱⁱ

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

Project Close Out Report **2020**

Name	Role	Type (e.g., Contractor, Employee)
Anthony Strabone	Engineering	Employee
Joel Rivera	Engineering	Employee
William Sullivan	Construction Coordinator	Contractor
Tim Fitzgerald	Construction Coordinator	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
Carry Over costs from previous years	Continue to work with the project team to ensure charges associated with projects that occur near year end are completed in a timely manner so they can be captured in the current budget year and not carryover and impact the upcoming year's budget.

Section 8. Project Cost Summary

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

Project Close Out Report **2020**

Cost Category	1- Budget	2- Actual	3 = 1 -2 Variance
Cost of Design & Engineering (\$)		\$ 0	
Cost of Materials (\$)		\$ 257,552.76	
Cost of Construction (\$)		\$ 0	
External Costs (\$)		\$ 1,247,772.19	
Internal Costs (\$)		\$ 3,648.23	
Other (burdens \$)		\$ 661,122.54	
CIAC		\$ 0	
AFUDC		\$ 13,330.66	
Total Project Costs (\$)	\$ 1,700,000	\$ 2,183,426.38	\$ (483,426.38)

Reasons for Variance	Impact
See Change Order#1	\$ 800,000
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)
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.



Capital Project Business Case

2019

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:	1/9/2019
Project ID#:	8830-1946	Cost Estimate:	\$1,450,000
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2019
Project Lead:	Anthony Strabone	Project End Date:	12/31/2019
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 checked="" 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>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 2019 the scope of this strategy includes the replacement of approximately 20,000ft of bare wires along Sullivan St Charlestown and Shaker Hill Rd Enfield.</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> <p>This project is part of the reliability enhancement program and is consistent with the requirements to the Settlement Agreement in Docket No. DE 13-063 (the "Settlement Plan") that was approved by the Commission in Order No. 25,638 (March 17, 2014).</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)			
None			



Capital Project Business Case

2019

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?

☒ 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	2018	2019	Beyond 2019	Total
Internal Labour (including labour and travel)	\$ -	\$ -	\$ 50,000	\$ -	\$ 50,000
Materials (including consumables)	\$ -	\$ -	\$ 550,000	\$ -	\$ 550,000
Equipment (rental equipment)	\$ -	\$ -	\$ -	\$ -	\$ -
Contactor/Subcontractor (including consultants)	\$ -	\$ -	\$ 850,000	\$ -	\$ 850,000
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	2/1/2019	5/1/2019
Construction	8/1/2019	12/31/2019

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



Capital Project Business Case

2019

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	Joel Rivera		3/5/19
Senior Manager :	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering		3/5/19
Senior Vice President/ Vice President	Up to \$500,000	Richard MacDonald Vice President, Operations		3/6/19
State President:	Up to \$500,000	Susan Fleck President, NH		3/25/19
Regional President:	Up to \$3,000,000	James Sweeney President, East Region		4/2/19
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		4/2/19

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

2019

Project Name:	Bare Conductor Replacement Program		
Financial Work Order (FWO):		Project ID #:	8830-1946
Requesting Region or Group:	Granite State Electric Co.	Date of Request (MM/DD/YY):	1/9/2019
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2019
Project Lead:	Anthony Strabone	Project End Date:	12/31/2019
Prepared by:	Joel Rivera	Requested Capital (\$)	\$1,450,000
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
<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. In 2019 the scope of this strategy includes the replacement of approximately 20,000ft of bare wires along Sullivan St Charlestown and Shaker Hill Rd Enfield.</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?
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 recondutored 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?
None

What are the risks and consequences of not approving this expenditure?
<p>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.</p>



Capital Project Expenditure Form

2019

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		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: 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 (\$)			



Capital Project Expenditure Form

2019

Approvals and Signatures ⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Joel Rivera Joel Rivera		3/5/19
Senior Manager:	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering		3/5/19
Senior VP/VP:	Up to \$500,000	Richard MacDonald Vice President, Operations		3/6/19
State President:	Up to \$500,000	Susan Fleck President, NH		3/25/19
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		4/2/19

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 **2019**

Requesting Region or Group:	Granite State Electric Co.	Date of Closeout (MM/DD/YY):	03/10/2020
Project Name:	Bare Conductor Replacement Program		
Project ID#:	8830-1946	Requesting Region:	East Region
Project Lead:	Anthony Strabone	Project Sponsor:	Charles Rodrigues
Project Status	X In Service C Complete <input type="checkbox"/> Closed		
Project Start Date:	01/01/2019	Project Completion Date:	12/31/2019
Requested Capital (\$)	\$ 1,450,000	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
Anthony Strabone	Project Lead		03/30/2020
Charles Rodrigues	Project Sponsor	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2020.03.31 08:02:19 -04'00'</small>	
Mark Parker	Operations Manager		
Phil Greene	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 2019

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)	4/5
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, Webspace)	Format
3.4a	Business Case	W:\Engineering\Electric Engineering\Electric Planning Engineering\2 - Planning	<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 **2019**

Name	Role	Type (e.g., Contractor, Employee)
Anthony Strabone	Engineering	Employee
Joel Rivera	Engineering	Employee
Jeff Watson	Construction Coordinator	Contractor
Tim Fitzgerald	Construction Coordinator	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

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 (\$)		\$ 0	
Cost of Materials (\$)		\$ 187,193.41	
Cost of Construction (\$)		\$ 1,870.10	

Project Close Out Report **2019**

External Costs (\$)		\$ 754,851.61	
Internal Costs (\$)		\$ 0	
Other (burdens \$)		\$ 345,055.85	
CIAC		\$ 0	
AFUDC		\$ 6,629.47	
Total Project Costs (\$)	\$ 1,450,000	\$ 1,295,600.44	\$ 154,399.56

Reasons for Variance	Impact
The 2019 actual charges were less than budgeted amount.	\$ 0
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.

Project Close Out Report 2020

Requesting Region or Group:	Granite State Electric Co.	Date of Closeout (MM/DD/YY):	03/10/2021
Project Name:	Bare Conductor Replacement Program		
Project ID#:	8830-2046	Requesting Region:	East Region
Project Lead:	Anthony Strabone	Project Sponsor:	Charles Rodrigues
Project Status	X In Service C Complete <input type="checkbox"/> Closed		
Project Start Date:	01/01/2020	Project Completion Date:	12/31/2020
Requested Capital (\$)	\$ 1,700,000	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
Anthony Strabone	Project Lead	<i>Anthony Strabone</i>	03/29/2021
Charles Rodrigues	Project Sponsor	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.03.30 08:28:48 +04'00'</small>	
Mark Parker	Operations Manager		
Phil Greene	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 2020

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, Webspace)	Format
3.4a	Business Case	W:\Engineering\Electric Engineering\Electric Planning Engineering\2 - Planning	<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 Teamⁱⁱ

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

Project Close Out Report 2020

Name	Role	Type (e.g., Contractor, Employee)
Anthony Strabone	Engineering	Employee
Joel Rivera	Engineering	Employee
William Sullivan	Construction Coordinator	Contractor
Tim Fitzgerald	Construction Coordinator	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
Carry Over costs from previous years	Continue to work with the project team to ensure charges associated with projects that occur near year end are completed in a timely manner so they can be captured in the current budget year and not carryover and impact the upcoming year's budget.

Section 8. Project Cost Summary

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

Project Close Out Report **2020**

Cost Category	1- Budget	2- Actual	3 = 1 -2 Variance
Cost of Design & Engineering (\$)		\$ 0	
Cost of Materials (\$)		\$ 257,552.76	
Cost of Construction (\$)		\$ 0	
External Costs (\$)		\$ 1,247,772.19	
Internal Costs (\$)		\$ 3,648.23	
Other (burdens \$)		\$ 661,122.54	
CIAC		\$ 0	
AFUDC		\$ 13,330.66	
Total Project Costs (\$)	\$ 1,700,000	\$ 2,183,426.38	\$ (483,426.38)

Reasons for Variance	Impact
See Change Order#1	\$ 800,000
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)
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 2020 Step Adjustment
 Project #8830-1958 Install Service to Tuscan Village South

<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>Total Budget¹</u>
2018	\$3,121.56	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,121.56	\$0.00
2019	\$25,471.14	\$279,591.70	\$283,689.49	\$306,056.34	(\$21,019.83)	\$16,969.67	\$890,758.51	\$1,200,000
2020	\$149,772.24	\$453,920.46	\$459,661.90	\$772,537.58	(\$94,415.57)	\$73,208.90	\$1,814,685.51	\$900,000
<u>2021</u>	<u>\$3,904.24</u>	<u>\$528.04</u>	<u>\$2,875.78</u>	<u>\$21,657.14</u>	<u>\$0.00</u>	<u>\$8,180.07</u>	<u>\$37,145.27</u>	<u>\$0</u>
Total	\$182,269.18	\$734,040.20	\$746,227.17	\$1,100,251.06	(\$115,435.40)	\$98,358.64	\$2,745,710.85	\$2,100,000

¹ Change order form for 2020 was to request an additional \$1.3m for a total budget of \$2,200,000

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:	2/3/2020
Project ID#:	8830-1958	Cost Estimate:	\$900,000
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 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 underground commercial distribution (UCD) facilities including transformers, conduit, cable, switchgears, manholes, etc. to supply new business commercial growth in the southern portion of the Tuscan Village Development.			
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. This project addresses specific commercial service requests within the development and installs the necessary UCD infrastructure to provide a "looped" distribution system.			
Recommendation/Objective			
(Insert the unique problem this project is looking to resolve)			
It is recommended to install a new UG conduit loop system with associated switchgears, cables and conduits for the purposes of supplying new commercial load growth in the southern portion of the Tuscan Village Development.			
Alternatives/Options			
(Describe all reasonably viable alternatives. Discuss the viability of each and provide reasons if rejected)			
Do Nothing – This project is customer driven and is required to supply new commercial business growth. As such doing nothing or deferring is not an option. Other Alternatives were not considered.			
Financial Assessment/Cost Estimates			
(Double click embedded excel file to update; include contingency allowance in excel file)			



Capital Project Business Case

2020

Next Anticipated Test Year

2021

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	2020	2021	Beyond 2021	Total
Internal Labour (including labour and travel)	\$ -	\$ 50,000	\$ -	\$ -	\$ 50,000
Materials (including consumables)	\$ -	\$ 400,000	\$ -	\$ -	\$ 400,000
Equipment (rental equipment)	\$ -	\$ -	\$ -	\$ -	\$ -
Contractor/Subcontractor (including consultants)	\$ -	\$ 450,000	\$ -	\$ -	\$ 450,000
AFUDC (\$)					
Total Project Costs (\$)	\$ -	\$ 900,000	\$ -	\$ -	\$ 900,000

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	2/1/2020	6/1/2020
Construction	6/1/2020	12/31/2020

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. This project has a risk score of 50.

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)



Capital Project Business Case

2020

Please reference the following supporting documents:

[DRAFT Conceptual Layout 120 rev15.pdf](#)

Approvals and Signatures¹

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Anthony Strabone <i>Manager, Electric Engineering</i>		03/04/2020
Senior Manager: :	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering		2/25/2020
Senior Vice President/ Vice President	Up to \$500,000	Richard MacDonald Vice President, Operations		2/21/2020
State President:	Up to \$500,000	Susan Fleck President, NH		2/26/2020
Regional President:	Up to \$3,000,000	James Sweeney President, East Region		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			
Finance (East) – Vice President, Finance & Administration	All Requests	Peter Dawes VP, Finance & Administration		

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

2020

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):	1/10/2020
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2020
Project Lead:	Anthony Strabone	Project End Date:	12/31/2020
Prepared by:	Joel Rivera	Requested Capital (\$)	\$900,000
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 approximately 1.5 miles of 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?

***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

The scope of this project is to install new underground conductor in a manhole and duct system. There will be no equipment removed associated with this project. Therefore, this section does not apply.

What alternatives were evaluated and why were they rejected?

Do Nothing – This project is customer driven and is required to supply new commercial business growth. As such doing nothing or deferring is not an option.

Other Alternatives were not considered.

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

2020

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


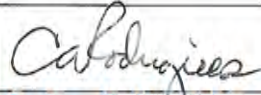

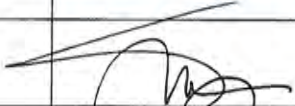
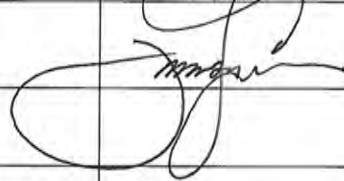
Next Anticipated Test Year		Was this Capital Project included in the current year's Board Approved Budget?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Regulatory Lag (Click appropriate box)	<input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 – 12 months <input type="checkbox"/> 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 (\$)	\$900,000		



Capital Project Expenditure Form

2020

Approvals and Signatures ⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Anthony Strabone Manager, Electric Engineering		03/04/2020
Senior Manager:	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering		2/25/2020
Senior VP/VP:	Up to \$500,000	Richard MacDonald Vice President, Operations		2/24/2020
State President:	Up to \$500,000	Susan Fleck President, NH		2/26/2020
Regional President:	Up to \$3,000,000	James Sweeney President, East Region		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			
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 Overview

Reason for Change: Budget Increase to fund project to accommodate work associated with Tuscan Development

Project ID:	8830-1958	Project Name:	Install Service to Tuscan Village South Line
Change Order Name:	Budget Increase	Date Prepared:	07/27/2020
Change Order #:	8830-1958-01	Financial Work Order (FWO):ⁱ	Various
Project Sponsor:	Charles Rodrigues	Revised Start Date:	
Project Lead:	Anthony Strabone	Revised End Date:ⁱⁱ	12/31/2020
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}	2020 Capital Budget

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	\$900,000		\$700,000	\$1,600,000

Updated Unlevered Internal Rate of Return:

Basis of Current Change Order Amount:

Provide brief explanation on basis of the requested amount (i.e. revised contract amount, estimate based on revised engineering design, etc)
 Over expenditure is being driven by carry over of 2019 charges and burdens and a higher than anticipated burden rate for 2020.

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

Approvals and Signatures^v

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Anthony Strabone Manager, Electric Engineering	<i>Anthony Strabone</i>	07/27/2020
Senior Manager: :	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2020.07.28 07:21:29 -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: 2020.07.31 09:23:20 -04'00'</small>	
Regional President:	Up to \$3,000,000	Susan Fleck President, NH		
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 Overview

Reason for Change: Budget Increase to fund project to accommodate work associated with Tuscan Development

Project ID:	8830-1958	Project Name:	Install Service to Tuscan Village South Line
Change Order Name:	Budget Increase	Date Prepared:	11/19/2020
Change Order #:	8830-1958-02	Financial Work Order (FWO):ⁱ	Various
Project Sponsor:	Charles Rodrigues	Revised Start Date:	
Project Lead:	Anthony Strabone	Revised End Date:ⁱⁱ	12/31/2020
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}	2020 Capital Budget

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	\$900,000	\$700,000	\$600,000	\$2,200,000

Updated Unlevered Internal Rate of Return:

Basis of Current Change Order Amount:

Provide brief explanation on basis of the requested amount (i.e. revised contract amount, estimate based on revised engineering design, etc)

Over expenditure is being driven by two drivers. The first driver is carry over of 2019 charges, burdens and a higher than anticipated burden rate for the first two months of 2020. The second driver is the increase scope of work for 2020. Original scope of work for 2020 was identified in late 2019 with input from the Tuscan Village Development Team. As 2020 progressed, the Tuscan Village Team increase their scope of work associated with the development of the South Village and Liberty needed to increase our scope of work to install the electrical infrastructure to provide electrical service in the development.

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

Approvals and Signatures^v

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Anthony Strabone Manager, Electric Engineering	<i>Anthony Strabone</i>	11/19/2020
Senior Manager: :	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2020.11.19 11:18:26 -05'00'</small>	11/19/2020
State President / Senior VP / VP:	Up to \$500,000	Richard MacDonald, VP Operations	Richard MacDonald <small>Digitally signed by Richard MacDonald Date: 2020.12.01 09:49:21 -05'00'</small>	
Regional President:	Up to \$3,000,000	Susan Fleck President, NH	<i>James Sweeney</i> 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			

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 2020 Step Adjustment
Project #8830-1969 Mall Road Underground

Charges by Work Order

<u>Year</u>	<u>Work Order</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>AFUDC</u>	<u>Total Spend</u>	<u>Total Budget</u>
2019	301911-01010	\$30,651.80	\$9,384.07	\$27,532.46	\$61,819.97	\$1,237.14	\$130,625.44	\$520,000
2020	301911-01010	\$26,553.47	\$4,313.37	\$27,897.78	\$66,331.24	\$14,031.52	\$139,127.38	\$400,000
2021	<u>301911-01010</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$1,465.98</u>	<u>\$1,465.98</u>	<u>\$0</u>
	Total	\$57,205.27	\$13,697.44	\$55,430.24	\$128,151.21	\$16,734.64	\$271,218.80	\$920,000
2019	301969-01001	\$0.00	\$0.00	\$312,510.00	\$109,077.08	\$0.00	\$421,587.08	\$500,000
2020	301969-01001	\$1,554.64	\$3,108.81	\$98,218.00	\$35,666.57	\$0.00	\$138,548.02	\$400,000
2021	<u>301969-01001</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0</u>
	Total	\$1,554.64	\$3,108.81	\$410,728.00	\$144,743.65	\$0.00	\$560,135.10	\$400,000

Total Charges by Year

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>AFUDC</u>	<u>Total Spend</u>	<u>Total Budget</u>
2019	\$30,651.80	\$9,384.07	\$340,042.46	\$170,897.05	\$1,237.14	\$552,212.52	\$1,020,000
2020	\$28,108.11	\$7,422.18	\$126,115.78	\$101,997.81	\$14,031.52	\$277,675.40	\$400,000
2021	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$1,465.98</u>	<u>\$1,465.98</u>	<u>\$0</u>
	\$58,759.91	\$16,806.25	\$466,158.24	\$272,894.86	\$16,734.64	\$831,353.90	\$1,420,000



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:	Mall Rd- Street Lights	Date Prepared:	7/02/2019
Project ID#:	8830-1969	Cost Estimate:	\$500,000
Project Sponsor:	Charles Rodrigues	Project Start Date:	8/01/2019
Project Lead:	Anthony Strabone	Project End Date:	12/31/2019
Prepared By:	Anthony Strabone	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 scope of this project is to replace the direct buried underground primary and secondary street light circuit along Mall Rd in Salem. The scope of work will include relocation of street lights, distribution pad-mount transformers, installation of underground conduit and new underground primary and secondary electrical cable.</p>			
Background			
(Insert description of current operational arrangement, and brief history of project & asset)			
<p>The Town of Salem and the New Hampshire Department of Transportation has requested the Developers of Tuscan Village to reconstruction Mall Road to include signals and turn lanes to accommodate the expected vehicle traffic. As a result of the proposed improvements, Liberty's equipment (street lights and transformers) will be located in the traveled way and thus need to be relocated.</p>			
Recommendation/Objective			
(Insert the unique problem this project is looking to resolve)			
<p>The recommendation is to complete this project as not to impede the proposed road improvements.</p>			
Alternatives/Options			
(Describe all reasonably viable alternatives. Discuss the viability of each and provide reasons if rejected)			
<p>No alternatives exists as if this work is not performed, Liberty will have electrical equipment (pad-mounted transformers and street lights) located within the travel lanes of Mall Rd.</p>			
Financial Assessment/Cost Estimates			
(Double click embedded excel file to update; include contingency allowance in excel file)			



Capital Project Business Case

2018

Next Anticipated Test Year

2021

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

Materials (including consumables)	\$ -	\$ -	\$ 100,000	\$ -	\$ 100,000
Equipment (rental equipment)	\$ -	\$ -	\$ -	\$ -	\$ -
Contractor/Subcontractor (including consultants)	\$ -	\$ -	\$ 350,000	\$ -	\$ 350,000
AFUDC (\$)					
Total Project Costs (\$)	\$ -	\$ -	\$ 500,000	\$ -	\$ 500,000

Unlevered Internal Rate of Return:

Basis of Estimate: *The cost estimate is based on a system generated estimate and actual spending of similar projects*

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
Construction	August 2019	October 2019

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

By not completing this project, Liberty will have electrical assets such as transformers and street lights located within the travel lanes of Mall Road.

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

Unknown


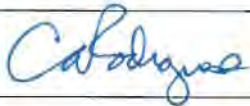
Supporting Documentation (Reference drawings, condition assessment reports, vendor quotations, etc. Attach document or where possible include hyperlink to file located on shared server or SharePoint)



Capital Project Business Case

2018

Approvals and Signaturesⁱ

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Anthony Strabone		8/15/19
Senior Manager: :	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering		8/15/19
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			
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


Project Close Out Report **2019**

Requesting Region or Group:	Granite State Electric Co.	Date of Closeout (MM/DD/YY):	03/10/2020
Project Name:	GSE Mall Road - Street Lights		
Project ID#:	8830-1969	Requesting Region:	East Region
Project Lead:	Anthony Strabone	Project Sponsor:	Charles Rodrigues
Project Status	X In Service C Complete <input type="checkbox"/> Closed		
Project Start Date:	01/01/2019	Project Completion Date:	12/31/2019
Requested Capital (\$)	\$ 500,000	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
Anthony Strabone	Project Lead		03/30/2020
Charles Rodrigues	Project Sponsor	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2020.03.31 08:13:32 -04'00'</small>	
Mark Parker	Operations Manager		
Phil Greene	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 **2019**

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)	4/5
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, Webspace)	Format
3.4a	Business Case	W:\Engineering\Electric Engineering\Electric Planning Engineering\2 - Planning	<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 **2019**

Name	Role	Type (e.g., Contractor, Employee)
Anthony Strabone	Engineering	Employee
Joel Rivera	Engineering	Employee
Melvin Emerson	Engineering	Employee
Mark Parker	Operations	Employee
Tim Fitzgerald	Construction Coordinator	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

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 (\$)		\$ 0	
Cost of Materials (\$)		\$ 0	
Cost of Construction (\$)		\$ 0	

Project Close Out Report **2019**

External Costs (\$)		\$ 312,510.00	
Internal Costs (\$)		\$ 0	
Other (burdens \$)		\$ 109,077.08	
CIAC		\$ 0	
AFUDC		\$ 0	
Total Project Costs (\$)	\$ 500,000	\$ 421,587.08	\$ 78,412.92

Reasons for Variance	Impact
Actual costs were less than budget.	\$ 78,412.92
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)
301969-01001

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.



Capital Project Business Case

2020

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:	Mall Rd/Rockingham Park BLVD– Street Lights	Date Prepared:	2/10/2020
Project ID#:	8830-1969	Cost Estimate:	\$400,000
Project Sponsor:	Charles Rodrigues	Project Start Date:	8/01/2019
Project Lead:	Anthony Strabone	Project End Date:	12/31/2020
Prepared By:	Anthony Strabone	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		
Project Scope Statement			
(Insert the scope of work, major deliverables, assumptions, and constraints)			
<p>The scope of this project is to replace the direct buried underground primary and secondary street light circuit along Rockingham Park Blvd in Salem NH. The scope of work will include relocation of underground facilities and the installation of distribution pad-mount transformers, underground conduit and new underground primary and secondary electrical cables.</p>			
Background			
(Insert description of current operational arrangement, and brief history of project & asset)			
<p>The Town of Salem and the New Hampshire Department of Transportation has requested the Developers of Tuscan Village to reconstruct Mall Road to include signals and turn lanes to accommodate the expected increase in vehicle traffic. As a result of the proposed improvements, Liberty's equipment (street lights and transformers) will be located in the traveled way and thus will need to be relocated.</p>			
Recommendation/Objective			
(Insert the unique problem this project is looking to resolve)			
<p>It is recommended to address this DOT public requirement and relocate existing underground Company assets to accommodate a wider turning lane.</p>			
Alternatives/Options			
(Describe all reasonably viable alternatives. Discuss the viability of each and provide reasons if rejected)			
<p>Do Nothing – Doing nothing is not an option. Due to the road widening project, Liberty's facilities (pad-mounted transformers and street lights) will be located in the proposed roadway and need to be relocated.</p>			
Financial Assessment/Cost Estimates			
(Double click embedded excel file to update; include contingency allowance in excel file)			



Capital Project Business Case

2020

Next Anticipated Test Year	2021	Was this Capital Project included in the current year's Board Approved Budget?	<input type="checkbox"/> Yes <input checked="" 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	2020	2021	Beyond 2021	Total
Internal Labour (including labour and travel)	\$ -	\$ 50,000	\$ -	\$ -	\$ 50,000
Materials (including consumables)	\$ -	\$ 100,000	\$ -	\$ -	\$ 100,000
Equipment (rental equipment)	\$ -	\$ -	\$ -	\$ -	\$ -
Contractor/Subcontractor (including consultants)	\$ -	\$ 250,000	\$ -	\$ -	\$ 250,000
AFUDC (\$)					
Total Project Costs (\$)	\$ -	\$ 400,000	\$ -	\$ -	\$ 400,000

Unlevered Internal Rate of Return:

Basis of Estimate: *The cost estimate is based on a system generated estimate and actual spending of similar projects*

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	1/1/2020	2/1/2020
Construction	7/1/2020	10/1/2020

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 safe and reliable electric service to the facilities within and around the proposed widened intersection. Also, if Liberty does not complete the relocation of our underground facilities, the Town will not be able to proceed with their plans of reconstructing this area.
 This project has a risk score of 50. Public Requirements – Mandated

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)

Please reference the following supporting documents:

[Mall Rd-Rock Blvd Lights Relocation.pdf](#)



Capital Project Business Case

2020

Approvals and Signatures¹

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Anthony Strabone <i>Manager, Electric Engineering</i>	<i>Anthony Strabone</i>	03/04/2020
Senior Manager: :	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering	<i>CRodrigues</i>	2/25/2020
Senior Vice President/ Vice President	Up to \$500,000	Richard MacDonald Vice President, Operations	<i>Richard MacDonald</i>	2/21/2020
State President:	Up to \$500,000	Susan Fleck President, NH	<i>Susan Fleck</i>	2/26/2020
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		

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

2020

Project Name:	Mall Rd/Rockingham Park BLVD– Street Lights		
Financial Work Order (FWO):		Project ID #:	8830-1969
Requesting Region or Group:	Granite State Electric Co.	Date of Request (MM/DD/YY):	1/10/2020
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2020
Project Lead:	Anthony Strabone	Project End Date:	12/31/2020
Prepared by:	Joel Rivera	Requested Capital (\$)	\$400,000
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

The scope of this project is to replace the direct buried underground primary and secondary street light circuit along Rockingham Park Blvd in Salem NH. The scope of work will include relocation of underground facilities and the installation of distribution pad-mount transformers, underground conduit and new underground primary and secondary electrical cables.

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 will be required with both the Town of Salem and NHDOT for the Company to install underground man-holes and conduits.

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

It is assumed that direct buried underground cables will be abandoned in place. The existing transformers and vaults will be removed. At this time answers to questions 1, 2, 3 and 5 is unknown. The plant being removed is not usable.

What alternatives were evaluated and why were they rejected?

Do Nothing – Doing nothing is not an option. Due to the road widening project, Liberty's facilities (pad-mounted transformers and street lights) will be located in the proposed roadway and need to be relocated.



Capital Project Expenditure Form

2020

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 safe and reliable electric service to the facilities within and around the proposed widened intersection. Also, if Liberty does not complete the relocation of our underground facilities, the Town will not be able to proceed with their plans of reconstructing this area.

This project has a risk score of 50. Public Requirements – Mandated

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

All work associated with this project will be performed in accordance with Liberty Safety/Health policies and procedures as well as good industry work 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	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?			
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 (\$)			

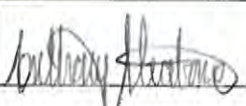
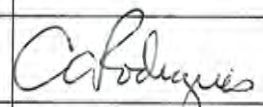



Capital Project Expenditure Form

2020

Total Project Costs (\$)	\$400,000	
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Approvals and Signatures ⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Anthony Strabone Manager, Electric Engineering		03/04/2020
Senior Manager:	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering		2/25/2020
Senior VP/VP:	Up to \$500,000			
State President:	Up to \$500,000	SUSAN FUELL PRESIDENT NHT		2/26/2020
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 **2019**

Requesting Region or Group:	Granite State Electric Co.	Date of Closeout (MM/DD/YY):	03/10/2021
Project Name:	GSE Mall Road - Street Lights		
Project ID#:	8830-1969	Requesting Region:	East Region
Project Lead:	Anthony Strabone	Project Sponsor:	Charles Rodrigues
Project Status	X In Service C Complete <input type="checkbox"/> Closed		
Project Start Date:	01/01/2020	Project Completion Date:	12/31/2020
Requested Capital (\$)	\$ 400,000	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
Anthony Strabone	Project Lead	<i>Anthony Strabone</i>	03/29/2021
Charles Rodrigues	Project Sponsor	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.03.30 08:25:42 -04'00'</small>	
Mark Parker	Operations Manager		
Phil Greene	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 **2019**

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, Webspace)	Format
3.4a	Business Case	W:\Engineering\Electric Engineering\Electric Planning Engineering\2 - Planning	<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 Teamⁱⁱ

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

Project Close Out Report **2019**

Name	Role	Type (e.g., Contractor, Employee)
Anthony Strabone	Engineering	Employee
Joel Rivera	Engineering	Employee
Melvin Emerson	Engineering	Employee
Mark Parker	Operations	Employee
Tim Fitzgerald	Construction Coordinator	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

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 (\$)		\$ 0	
Cost of Materials (\$)		\$ 7,422.18	
Cost of Construction (\$)		\$ 0	

Project Close Out Report **2019**

External Costs (\$)		\$ 125,455.78	
Internal Costs (\$)		\$ 24,771.36	
Other (burdens \$)		\$ 88,747.05	
CIAC		\$ 0	
AFUDC		\$ 14,031.52	
Total Project Costs (\$)	\$ 400,000	\$ 260,427.89	\$ 139,572.11

Reasons for Variance	Impact
Actual project costs were less than budget and therefore this project came in under-budget.	\$ 139,572.11
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)
301969-01001
301911-01010

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 2020 Step Adjustment
Project #8830-2011 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>	<u>Total Budget</u>
2017	\$264.74	\$0.00	\$0.00	\$759.18	\$0.00	\$0.00	\$1,023.92	\$505,000
2018	\$97.62	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$97.62	\$725,000
2019	\$37,235.49	\$4,487.85	\$13,347.63	\$60,438.47	\$0.00	\$1,963.39	\$117,472.83	\$630,000
<u>2020</u>	<u>\$204,647.53</u>	<u>\$70,265.14</u>	<u>\$213,407.77</u>	<u>\$435,428.30</u>	<u>(\$9,517.67)</u>	<u>\$2,776.12</u>	<u>\$917,007.19</u>	<u>\$1,000,000</u>
Total	\$204,647.53	\$70,265.14	\$213,407.77	\$435,428.30	(\$9,517.67)	\$2,776.12	\$1,035,601.56	\$2,860,000

*Total for 2020 is different from Project Close Out form as not all of the projects in the required close out form are in service.

The 2017, 2018, 2019 and 2020 represents the total dollars for projects that went in service as of 12/31/2020.



Liberty UtilitiesSM
WATER GAS ELECTRIC

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

PROJECT TITLE: **GSE-DIST-PUBLIC REQUIREMENTS' BLANKET**

PROJECT SPONSOR: **CHRIS BROUILLARD**

PROJECT LEAD: **ANTHONY STRABONE**

DATE: **9/6/2016**

PROJECT ID: **8830-1711**

BUSINESS PLAN NUMBER:

Business Case

RECOMMENDATION:

This Blanket Project is for Public Requirements

BACKGROUND

This blanket project will provide for public requirement to cover DOT / Municipal requirements necessitating relocation, removal or installation of our facilities.

Includes:

- 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
- Environmental Expenditures.

ALTERNATIVES/OPTIONS

None

FINANCIAL ASSESSMENT

This blanket project is based on historical spending trends and anticipated year ahead activity in this investment category.

RISK ASSESSMENT AND QUALITATIVE EVALUATION

None

IMPLEMENTATION/ACTION PLAN

The construction will take place under individual jobs numbers throughout the year.

REVIEWED BY:

PROJECT LEADER:

DIRECTOR/VP: *C.P. Grumillo*

FINANCE: *Joshua Sanderson 11/17*

Business Case



Liberty UtilitiesSM
WATER GAS ELECTRIC

LIBERTY UTILITIES - CAPITAL PROJECT EXPENDITURE APPLICATION

DIVISION/COMPANY: Capital / Granite State Electric Co.	HOME OFFICE REF #: 8830-1711
PROJECT TITLE: GSE-Dist-Public Requirements'	EXPECTED PROJECT TOTAL: \$387,000
PROJECT TYPE (circle one): System Maint / System Project / Growth /	
PROJECT START DATE: 1/1/2017	PROJECT END DATE: 12/31/2017
CURRENT UTILITY EARNINGS STATUS:	JOB COST/FWO #:
Type of Capital Project: <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <input type="checkbox"/> Growth <input type="checkbox"/> Improvement Upgrades <input checked="" type="checkbox"/> Infrastructure Replacement </div>	
PROJECT DESCRIPTION & LOCATION: This Blanket Project is to cover DOT/Municipal requirements necessitating relocation, removal or installation of our facilities.	
IS THIS PROJECT GROWTH RELATED? IF "YES", DESCRIBE THE SPECIFIC LOCATION (MAP) AND LIST APPLICABLE DEVELOPERS WHERE GROWTH WILL OCCUR (CONSULT WITH DEVELOPMENT SERVICES REGARDING FUNDING). No	
PERMITTING REQUIREMENTS, INCLUDING POTENTIAL IMPACT ON EXISTING PERMITS, AND TIMING OF AND RISKS ASSOCIATED WITH OBTAINING APPROPRIATE PERMITS FOR PROJECT. Pole Licensing and Environmental Permitting as required.	
COST ESTIMATE FOR TOTAL PROJECT, NATURE OF ESTIMATE (FIRM FIXED PRICE, INTERNALLY OR EXTERNALLY GENERATED), TIMING OF SPENDING BY QUARTER, AND RISKS ASSOCIATED WITH COST ESTIMATES. Cost estimates will be calculated on an individual job basis.	
WILL THERE BE ASSETS GREATER THAN \$5,000 THAT ARE CURRENTLY IN SERVICE REMOVED AS A RESULT OF THIS PROJECT? Yes, Asset Removal will be calculated on a job specific basis.	

Attachment:



Liberty UtilitiesSM
WATER | GAS | ELECTRIC

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

PROJECT TITLE: **GSE-DIST-PUBLIC REQUIREMENTS' BLANKET**

PROJECT SPONSOR: **CHARLES RODRIGUES**

PROJECT MANAGER: **ANTHONY STRABONE**

DATE: **10/18/2017**

PROJECT ID: **8830-1811**

BUSINESS PLAN NUMBER:

Business Case

RECOMMENDATION:

This Blanket Project is for Public Requirements

BACKGROUND

This blanket project will provide for public requirement to cover DOT / Municipal requirements necessitating relocation, removal or installation of our facilities.

Includes:

- 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
- Environmental Expenditures.

ALTERNATIVES/OPTIONS

None

FINANCIAL ASSESSMENT

This blanket project is based on historical spending trends and anticipated year-ahead activity in this investment category.

RISK ASSESSMENT AND QUALITATIVE EVALUATION

None

IMPLEMENTATION/ACTION PLAN

The construction will take place under individual jobs numbers throughout the year.

REVIEWED BY:

PROJECT LEADER:

Anthony Strabane / Anthony Strabane

DIRECTOR/VP:

CHARLES RODRIGUES / Charles Rodrigues

FINANCE:

Jisha Sandersten 12/21/17

Business Case



Liberty UtilitiesSM
WATER GAS ELECTRIC

LIBERTY UTILITIES - CAPITAL PROJECT EXPENDITURE APPLICATION

DIVISION/COMPANY: Capital / Granite State Electric Co.	HOME OFFICE REF #: 8830-1811
PROJECT TITLE: GSE-Dist-Public Requirements'	EXPECTED PROJECT TOTAL: \$520,000
PROJECT TYPE (circle one): System Maint / System Project / Growth /	
PROJECT START DATE: 1/1/2018	PROJECT END DATE: 12/31/2018
CURRENT UTILITY EARNINGS STATUS:	JOB COST/FWO #:
Type of Capital Project: <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <input type="checkbox"/> Growth <input type="checkbox"/> Improvement Upgrades <input checked="" type="checkbox"/> Infrastructure Replacement </div>	
PROJECT DESCRIPTION & LOCATION: This Blanket Project is to cover DOT/Municipal requirements necessitating relocation, removal or installation of our facilities.	
IS THIS PROJECT GROWTH RELATED? IF "YES", DESCRIBE THE SPECIFIC LOCATION (MAP) AND LIST APPLICABLE DEVELOPERS WHERE GROWTH WILL OCCUR (CONSULT WITH DEVELOPMENT SERVICES REGARDING FUNDING). No	
PERMITTING REQUIREMENTS, INCLUDING POTENTIAL IMPACT ON EXISTING PERMITS, AND TIMING OF AND RISKS ASSOCIATED WITH OBTAINING APPROPRIATE PERMITS FOR PROJECT. Pole Licensing and Environmental Permitting as required.	
COST ESTIMATE FOR TOTAL PROJECT, NATURE OF ESTIMATE (FIRM FIXED PRICE, INTERNALLY OR EXTERNALLY GENERATED), TIMING OF SPENDING BY QUARTER, AND RISKS ASSOCIATED WITH COST ESTIMATES. Cost estimates will be calculated on an individual job basis.	
WILL THERE BE ASSETS GREATER THAN \$5,000 THAT ARE CURRENTLY IN SERVICE REMOVED AS A RESULT OF THIS PROJECT? Yes, Asset Removal will be calculated on a job specific basis.	

Business Case

F YES, PLEASE DETAIL THE SPECIFIC ASSETS THAT WILL BE REMOVED;

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**

PROPOSED SOURCE OF FUNDS (COMPANY, DEVELOPER LXA, HUF, ETC.)

The 2018 Approved Capital Budget.

CATEGORY & STATUS OF PROJECT (tick as appropriate)		FINANCIAL SUMMARY																																						
		NEXT ANTICIPATED TEST YEAR	2018																																					
		Rate Recovery (over 18 months)	X																																					
Safety		Will this, and other approved projects, cause a rate shock	No																																					
Mandated	X		If yes, is customer affordability an issue?																																					
Impending Regulatory Obligation																																								
Rate Recovery-Immediate Return		Have Health & Safety implications been considered?	Yes																																					
Rate Recovery (3 to 6 months)		Has Environmental Compliance review been done?	Yes																																					
Rate Recovery (6 to 12 months)		Has Tech Services review been done?	Yes																																					
Rate Recovery (12 to 18 months)																																								
Was this Capital Expenditure included in the Annual Budget?	Yes																																							
ANALYSIS OF PROJECT VALUE		CAPITAL EXPENDITURE BUDGET UTILIZATION																																						
Design/Engineering			Authorized Amount	To be spent in:																																				
				Current Year																																				
External contractor costs				Future Years																																				
Internal costs		(A) Capital budget	\$520,000	\$520,000																																				
Other costs (contingency)		(B) Over (under) run vs. Budget																																						
Working capital requirements		(C) (A+B) Total Estimated Project Cost																																						
		(D) Less Approved Spend to Date																																						
		(E) Less Future Approval Requests																																						
Project Total Cost	\$520,000	(F) (C-D-E) Approval Amount Requested (current application)																																						
<table border="1"> <thead> <tr> <th></th> <th>Name</th> <th>Signature</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>Requesting Party</td> <td>Anthony Strabone</td> <td></td> <td>11/30/17</td> </tr> <tr> <td>Director of Engineering</td> <td>Charles Rodrigues</td> <td></td> <td>11/30/17</td> </tr> <tr> <td>VP Engineering & Operations</td> <td>Craig Jennings</td> <td></td> <td></td> </tr> <tr> <td>President - LU Central</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Director Finance</td> <td>Tisha Sanderson</td> <td></td> <td>12/21/17</td> </tr> <tr> <td>CFO</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CEO</td> <td></td> <td></td> <td></td> </tr> <tr> <td>NH President</td> <td>Susan Fleen</td> <td></td> <td>12/20/17</td> </tr> </tbody> </table>						Name	Signature	Date	Requesting Party	Anthony Strabone		11/30/17	Director of Engineering	Charles Rodrigues		11/30/17	VP Engineering & Operations	Craig Jennings			President - LU Central				Director Finance	Tisha Sanderson		12/21/17	CFO				CEO				NH President	Susan Fleen		12/20/17
	Name	Signature	Date																																					
Requesting Party	Anthony Strabone		11/30/17																																					
Director of Engineering	Charles Rodrigues		11/30/17																																					
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President - LU Central																																								
Director Finance	Tisha Sanderson		12/21/17																																					
CFO																																								
CEO																																								
NH President	Susan Fleen		12/20/17																																					

Attachment:



Capital Project Expenditure Form

2019

Project Name:	GSE-Dist-Public Require Blanket		
Financial Work Order (FWO):		Project ID #:	8830-1911
Requesting Region or Group:	Granite State Electric Co.	Date of Request (MM/DD/YY):	1/9/2019
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2019
Project Lead:	Anthony Strabone	Project End Date:	12/31/2019
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

This project will provide for public requirements to cover DOT / Municipal requirements necessitating relocation, removal or installation of our facilities which includes:

- 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?

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

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**



Capital Project Expenditure Form

2019

What alternatives were evaluated and why were they rejected?

Alternatives will be considered on a case by case basis.

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	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?			
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 (\$)	\$520,000		



Capital Project Expenditure Form

2019

Approvals and Signatures ⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Anthony Strabone		3/4/19
Senior Manager:	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering		3/6/19
Senior VP/VP:	Up to \$500,000	Richard MacDonald Vice President, Operations		3/6/2019
State President:	Up to \$500,000	Susan Fleck President, NH		3/25/19
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		4/2/19

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 Expenditure Form

2020

Project Name:	GSE-Dist-Public Require Blanket		
Financial Work Order (FWO):		Project ID #:	8830-2011
Requesting Region or Group:	Granite State Electric Co.	Date of Request (MM/DD/YY):	1/10/2020
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2020
Project Lead:	Anthony Strabone	Project End Date:	12/31/2020
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

This project will provide for public requirements to cover DOT / Municipal requirements necessitating relocation, removal or installation of our facilities which includes:

- 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?

***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:

Answers to questions 1, 2,3 and 5 are unknown at this time. The Plant being removed/replaced will most likely not be reusable due to age or asset condition.



Capital Project Expenditure Form

2020

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

2020

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?			
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 (\$)	\$520,000		

Approvals and Signatures ⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Anthony Strabone Manager, Electric Engineering		09/04/2020
Senior Manager:	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering		2/25/2020

LUCo Capital Project Expenditure Form

Page 3

Rev. 00



Capital Project Expenditure Form

2020

Senior VP/VP:	Up to \$500,000	Richard MacDonald Vice President, Operations	<i>Richard MacDonald</i>	2/21/2020
State President:	Up to \$500,000	Susan Fleck President, NH	<i>Susan Fleck</i>	2/26/2020
Regional President:	Up to \$3,000,000	James Sweeney President, East Region	<i>James Sweeney</i>	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			
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 Overview

Reason for Change: Budget Increase to fund project to accommodate work requested from Local Towns

Project ID:	8830-2011	Project Name:	GSE-Dist-Public Require Blanket
Change Order Name:	Budget Increase	Date Prepared:	06/24/2020
Change Order #:	8830-2011-01	Financial Work Order (FWO):ⁱ	Various
Project Sponsor:	Charles Rodrigues	Revised Start Date:	
Project Lead:	Anthony Strabone	Revised End Date:ⁱⁱ	12/31/2020
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}	2020 Capital Budget

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	\$520,000		\$480,000	\$1,000,000

Updated Unlevered Internal Rate of Return:

Basis of Current Change Order Amount:

Provide brief explanation on basis of the requested amount (i.e. revised contract amount, estimate based on revised engineering design, etc)

The Company has received requests from local Towns to relocate our assets to accommodate Town improvement projects. Examples of these requests are; relocation of poles and anchors to accommodate road improvement projects; sewer replacement projects; installation of sidewalks and bus stops (public transit).

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

Approvals and Signatures^v

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Anthony Strabone Manager, Electric Engineering	<i>Anthony Strabone</i>	07/06/2020
Senior Manager: :	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2020.07.06 08:52:53 -04'00'</small>	07/06/2020
State President / Senior VP / VP:	Up to \$500,000	Richard MacDonald, VP Operations	Richard MacDonald <small>Digitally signed by Richard MacDonald Date: 2020.07.31 09:32:10 -04'00'</small>	
Regional President:	Up to \$3,000,000	Susan Fleck President, NH		
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 **2019**

Requesting Region or Group:	Granite State Electric Co.	Date of Closeout (MM/DD/YY):	03/10/2021
Project Name:	GSE-Dist-Public Require Blanket		
Project ID#:	8830-2011	Requesting Region:	East Region
Project Lead:	Anthony Strabone	Project Sponsor:	Charles Rodrigues
Project Status	X In Service C Complete <input type="checkbox"/> Closed		
Project Start Date:	01/01/2020	Project Completion Date:	12/31/2020
Requested Capital (\$)	\$ 520,000	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
Anthony Strabone	Project Lead		03/29/2021
Charles Rodrigues	Project Sponsor	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.03.30 08:16:21 -04'00'</small>	
Mark Parker	Operations Manager		
Phil Greene	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 **2019**

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)	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, Webspace)	Format
3.4a	Business Case	W:\Engineering\Electric Engineering\Electric Planning Engineering\2 - Planning	<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 Teamⁱⁱ

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

Project Close Out Report **2019**

Name	Role	Type (e.g., Contractor, Employee)
Anthony Strabone	Engineering	Employee
Mark Parker	Overhead Line Operations	Employee
Ryan Tsantoulis	Engineering	Employee
Melvin Emerson	Engineering	Employee
Richard Huntley	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

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 (\$)		\$ 0	
Cost of Materials (\$)		\$ 80,587.37	
Cost of Construction (\$)		\$ 0	

Project Close Out Report **2019**

External Costs (\$)		\$ 378,277.10	
Internal Costs (\$)		\$ 206,105.61	
Other (burdens \$)		\$ 456,372.08	
CIAC (\$)		\$ (9,517.67)	
AFUDC		\$ 2,776.12	
Total Project Costs (\$)	\$ 520,000	\$ 1,114,600.61	\$ (594,600.61)

Reasons for Variance	Impact
Actual project costs were greater than budgeted. See Change Order Form	\$ (594,600.61)
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 2020 Step Adjustment
Project #8830-2012 Damage/Failure Blanket

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>Total Spend</u>	<u>Total Budget</u>
2018	\$102.99	\$0.00	\$712.36	\$476.46	\$1,291.81	\$800,000
2019	\$19,023.87	\$737.64	\$3,520.00	\$5,853.30	\$29,134.81	\$1,100,000
<u>2020</u>	<u>\$360,430.41</u>	<u>\$84,307.60</u>	<u>\$237,899.33</u>	<u>\$714,752.38</u>	<u>\$1,397,389.72</u>	<u>\$1,000,000</u>
Total	\$360,430.41	\$84,307.60	\$237,899.33	\$714,752.38	\$1,427,816.34	\$2,900,000

*Total for 2020 is different from Project Close Out form as not all of the projects in the required close out form are in service.

The 2018, 2019 and 2020 represents the total dollars for projects that went in service as of 12/31/2020.



Liberty UtilitiesSM
WATER GAS ELECTRIC

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

PROJECT TITLE: **GSE-DIST-DAMAGE & FAILURE BLANKET**

PROJECT SPONSOR: **CHARLES RODRIGUES**

PROJECT MANAGER: **ANTHONY STRABONE**

DATE: **10/18/2017**

PROJECT ID: **8830-1812**

BUSINESS PLAN NUMBER:

Business Case

RECOMMENDATION:

This Blanket Project is to Replace Damaged Equipment due to Damage and/or Failure

BACKGROUND

To replace damaged equipment found on inspection and equipment about to fail, including repairs as occurs throughout the year.

Includes:

- Replacement due to storm damage
- Replacement due to damage caused by vehicle
- Replacement due to damage caused by vandalism
- Replacement due to failure caused by age, fatigue, and/or deterioration

ALTERNATIVES/OPTIONS

None

FINANCIAL ASSESSMENT

This blanket project is based on historical spending trends and anticipated year-ahead activity in this investment category.

RISK ASSESSMENT AND QUALITATIVE EVALUATION

None

IMPLEMENTATION/ACTION PLAN

The construction will take place under individual jobs numbers throughout the year.

REVIEWED BY:

DIRECTOR/VP: *CHARLES RODRIGUES / C. Rodrigues.*

FINANCE: *Jishay Sanderson 12/29/17*

Project Manager *Anthony Strabone / Anthony Strabone*

[Signature]
12/29/17

Business Case



Liberty UtilitiesSM
WATER GAS ELECTRIC

LIBERTY UTILITIES - CAPITAL PROJECT EXPENDITURE APPLICATION

DIVISION/COMPANY: Capital / Granite State Electric Co.	HOME OFFICE REF #: 8830-1812
PROJECT TITLE: Dist-Damage & Failure Blanket	EXPECTED PROJECT TOTAL: \$800,000
PROJECT TYPE (circle one): System Maint / System Project / Growth /	
PROJECT START DATE: 1/1/2018	PROJECT END DATE: 12/31/2018
CURRENT UTILITY EARNINGS STATUS:	JOB COST/FWO #:
Type of Capital Project: <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <input type="checkbox"/> Growth <input type="checkbox"/> Improvement Upgrades <input checked="" type="checkbox"/> Infrastructure Replacement </div>	
PROJECT DESCRIPTION & LOCATION: This Blanket Project is to replace damaged equipment found on inspection and equipment about to fail, including repairs as occurs throughout the year.	
IS THIS PROJECT GROWTH RELATED? IF "YES", DESCRIBE THE SPECIFIC LOCATION (MAP) AND LIST APPLICABLE DEVELOPERS WHERE GROWTH WILL OCCUR (CONSULT WITH DEVELOPMENT SERVICES REGARDING FUNDING). No	
PERMITTING REQUIREMENTS, INCLUDING POTENTIAL IMPACT ON EXISTING PERMITS, AND TIMING OF AND RISKS ASSOCIATED WITH OBTAINING APPROPRIATE PERMITS FOR PROJECT. Pole Licensing and Environmental Permitting as required.	
COST ESTIMATE FOR TOTAL PROJECT, NATURE OF ESTIMATE (FIRM FIXED PRICE, INTERNALLY OR EXTERNALLY GENERATED), TIMING OF SPENDING BY QUARTER, AND RISKS ASSOCIATED WITH COST ESTIMATES. Cost estimates will be calculated on an individual job basis.	
WILL THERE BE ASSETS GREATER THAN \$5,000 THAT ARE CURRENTLY IN SERVICE REMOVED AS A RESULT OF THIS PROJECT? Yes, Asset Removal will be calculated on a job specific basis.	

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**

The 2018 Approved Capital Budget.

Attachment:



Capital Project Expenditure Form

2019

Project Name:	Dist-Damage&Failure Blanket		
Financial Work Order (FWO):		Project ID #:	8830-1912
Requesting Region or Group:	Granite State Electric Co.	Date of Request (MM/DD/YY):	1/9/2019
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2019
Project Lead:	Anthony Strabone	Project End Date:	12/31/2019
Prepared by:	Anthony Strabone	Requested Capital (\$)	\$700,000
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? <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): 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
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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.
--



Capital Project Expenditure Form

2019

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	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?			
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 (\$)	\$700,000		



Capital Project Expenditure Form

2019

Approvals and Signatures ⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Anthony Strabone		3/6/19
Senior Manager:	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering		3/6/19
Senior VP/VP:	Up to \$500,000	Richard MacDonald Vice President, Operations		3/6/19
State President:	Up to \$500,000	Susan Fleck President, NH		3/25/19
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		4/2/19

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 Expenditure Form

2020

Project Name:	Dist-Damage&Failure Blanket		
Financial Work Order (FWO):		Project ID #:	8830-2012
Requesting Region or Group:	Granite State Electric Co.	Date of Request (MM/DD/YY):	1/10/2020
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2020
Project Lead:	Anthony Strabone	Project End Date:	12/31/2020
Prepared by:	Anthony Strabone	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 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:

- 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?

***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:

Answers to questions 1, 2,3 and 5 are unknown at this time. The Plant being removed/replaced will most likely be damaged and not reusable.



Capital Project Expenditure Form

2020

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 considered.

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

2020

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?			
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		

Approvals and Signatures ⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Anthony Strabone Manager, Electric Engineering		03/04/2020
Senior Manager:	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering		2/25/2020



Capital Project Expenditure Form

2020

Senior VP/VP:	Up to \$500,000	Richard MacDonald Vice President, Operations		2/24/2020
State President:	Up to \$500,000	Susan Fleck President, NH		2/26/2020
Regional President:	Up to \$3,000,000	James Sweeney President, East Region		2/26/20
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 Overview

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

Project ID:	8830-2012	Project Name:	Dist-Damage&Failure Blanket
Change Order Name:	Budget Increase	Date Prepared:	07/27/2020
Change Order #:	8830-2012-01	Financial Work Order (FWO):ⁱ	Various
Project Sponsor:	Charles Rodrigues	Revised Start Date:	
Project Lead:	Anthony Strabone	Revised End Date:ⁱⁱ	12/31/2020
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}	2020 Capital Budget

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	\$1,000,000		\$600,000	\$1,600,000

Updated Unlevered Internal Rate of Return:

Basis of Current Change Order Amount:

Provide brief explanation on basis of the requested amount (i.e. revised contract amount, estimate based on revised engineering design, etc)

Over expenditure is being driven by costs associate with work identified needing to be addressed under the Damage- Failure Blanket. Taking into account the current spend rate and historic spend rates of July through 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.

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

Approvals and Signatures^v

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Anthony Strabone Manager, Electric Engineering	<i>Anthony Strabone</i>	07/27/2020
Senior Manager: :	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2020.07.28 07:28:54 -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: 2020.07.31 09:33:18 -04'00'</small>	
Regional President:	Up to \$3,000,000	Susan Fleck President, NH		
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 **2019**

Requesting Region or Group:	Granite State Electric Co.	Date of Closeout (MM/DD/YY):	03/10/2021
Project Name:	Dist-Damage&Failure Blanket		
Project ID#:	8830-2012	Requesting Region:	East Region
Project Lead:	Anthony Strabone	Project Sponsor:	Charles Rodrigues
Project Status	X In Service C Complete <input type="checkbox"/> Closed		
Project Start Date:	01/01/2020	Project Completion Date:	12/31/2020
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
Anthony Strabone	Project Lead	<i>Anthony Strabone</i>	03/29/2021
Charles Rodrigues	Project Sponsor	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.03.30 08:17:12 -04'00'</small>	
Mark Parker	Operations Manager		
Phil Greene	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 **2019**

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)	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, Webspace)	Format
3.4a	Business Case	W:\Engineering\Electric Engineering\Electric Planning Engineering\2 - Planning	<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 Teamⁱⁱ

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

Project Close Out Report **2019**

Name	Role	Type (e.g., Contractor, Employee)
Anthony Strabone	Engineering	Employee
Mark Parker	Overhead Line 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
N/A	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 (\$)		\$ 0	
Cost of Materials (\$)		\$ 94,955.39	
Cost of Construction (\$)		\$ 0	

Project Close Out Report **2019**

External Costs (\$)		\$ 288,488.06	
Internal Costs (\$)		\$ 326,586.97	
Other (burdens \$)		\$ 691,707.56	
CIAC		\$ (2,724.91)	
AFUDC		\$ 14.55	
Total Project Costs (\$)	\$1,000,000	\$ 1,399,028	\$ (399,028)

Reasons for Variance	Impact
Actual Project costs were greater than budgeted. See Change Order Form	\$ (399,028)
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 2020 Step Adjustment
Project #8830-2039 IE-NN URD Cable 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>	<u>Total Budget</u>
2020	\$81,477.25	\$44,559.57	\$201,683.78	\$176,359.86	(\$40,000.00)	\$3,876.99	\$467,957.45	\$450,000
Total	\$81,477.25	\$44,559.57	\$201,683.78	\$176,359.86	(\$40,000.00)	\$3,876.99	\$467,957.45	\$450,000

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:	IE-NN URD Cable Replacement	Date Prepared:	1/30/2020
Project ID#:	8830-2039	Cost Estimate:	\$1,150,000
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 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>The URD Cable Replacement Strategy aims to provide resolution and/or improve reliability and address pocket problems in URD/UCD and includes the following options:</p> <ul style="list-style-type: none"> Injection of cable rejuvenation fluids to extend the operating life of poor performing cable Replacement of poor performing cable to reduce interruptions Installing short runs of primary cable to create loop feed arrangements Installing fault location equipment to facilitate restoration <p>In 2020 Blueberry Cir Pelham and Hidden Valley Charlestown URDs will be targeted for improvement and will include cable injection, installation of cable in conduit, replacement of sub-surface equipment and installation of fault sensing equipment. In addition Hodges Development in Lebanon will be targeted for improvements to take advantage of existing upgrades from the customer.</p>			
Background			
(Insert description of current operational arrangement, and brief history of project & asset)			
<p>URDs and UCDs have historically been served by 15kV class, #2 or 1/0, solid dielectric cables. Through the years a number of different insulations have been employed across the company including XLPE, and EPR cables. Likewise these cables have been installed directly buried or in conduit systems.</p> <p>Direct buried solid dielectric cables installed from the late 1960's through the late 1980's have shown the most susceptibility for failure. Failure mechanisms have ranged from improper backfill material during initial installation, damage from third party excavations, and an incomplete understanding of XLPE failure mechanisms by the industry (water trees, electrical trees, CN corrosion, etc) during this period. These cable types have also shown a susceptibility to neutral corrosion. These types of cables tend to be XLPE or PE insulated and are in excess of twenty years of age.</p> <p>Since 2012, there have been six cable failures in the Blueberry Cir Pelham URD and 4 since 2017. There have been 3 cable failures in the Hidden Valley Charlestown URD. This has resulted in extended outages and challenges with restoring load given the abnormal conditions and repairs made through the years. The subsurface nature of some of the equipment raises concerns with public and employee safety.</p>			
Recommendation/Objective			
(Insert the unique problem this project is looking to resolve)			

The URD Cable Strategy recommends that an entire URD or UCD be assessed for cable replacement or cable insulation injection if three failures occur within a three year time frame. Cable sections are also to be replaced or rehabilitated once two cable faults within the same cable section have occurred. This strategy limits the number of repeated interruptions seen by customers within a given URD or UCD. Since URD or UCD cable failures impact a limited number of customers, this strategy has a minor impact on reliability metrics. It impacts customer service and mitigates potential safety issues with aging underground equipment. In 2020 it is recommended to rebuild the Blueberry Cir Pelham URD due to issues with asset condition and repeat cable failures.

Alternatives/Options

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

Do Nothing – This option is not recommended given the safety risks, poor condition of the equipment and risk of repeated interruptions in these developments.

Alternatives considered are complete replacement of all underground cable within a URD with either a new conduit system and underground cable; or cable injection into existing cable to extend cable life or installing a cable in conduit solution.

Injection will be considered as an alternative to replacing cables given the amount of repair-splices and condition of neutral wire.

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?

☒ 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	2020	2021	Beyond 2021	Total
Internal Labour (including labour and travel)	\$ -	\$ -	\$ 100,000	\$ -	\$ 100,000
Materials (including consumables)	\$ -	\$ -	\$ 250,000	\$ -	\$ 250,000
Equipment (rental equipment)	\$ -	\$ -	\$ -	\$ -	\$ -
Contractor/Subcontractor (including consultants)	\$ -	\$ -	\$ 800,000	\$ -	\$ 800,000
AFUDC (\$)					
Total Project Costs (\$)	\$ -	\$ -	\$ 1,150,000	\$ -	\$ 1,150,000

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

Basis of Estimate: *This estimate is of investment grade and will be updated during the detailed engineering process.*

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	2/1/2020	4/1/2020
Construction	5/1/2020	11/1/2020



Capital Project Business Case

2020

Risk Assessment
(Please describe the risk of not completing the project)
<p>URD/UCD cable failures contribute a relatively small fraction of the overall reliability and affect the customer or group of customers fed by the development. This strategy allows for the implementation of a reactive approach when dealing with URD/UCD cable failures. Therefore, if not completed, these cable faults will not be minimized and it may result in a high number of cable failures affecting a single customer or group of customers. Some URDs have been identified as being a safety hazard due to deteriorated equipment, abnormal conditions from previous faults and corrosion in the neutral wires.</p> <p>There is a risk that the upgrade for Hodges Dev Lebanon will not take place due to customer timeline and budget. If so, the Company will look for injection opportunities as an alternative.</p> <p>This project has a risk score of 36.</p>
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)
<p>Please reference the following supporting documents:</p> <p>DAS - 014 URD/UCD Cable Strategy</p> <p>Hidden Valley Blueberry Cir URD one-lines.pdf</p> <p>Crafts Hill - Beechwood Pine Tree URD sketch.pdf</p>

Approvals and Signatures¹

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Anthony Strabone <i>Manager, Electric Engineering</i>		12/04/2020
Senior Manager: :	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering		2/25/2020
Senior Vice President/ Vice President	Up to \$500,000	Richard MacDonald Vice President, Operations		2/21/2020
State President:	Up to \$500,000	Susan Fleck President, NH		2/26/2020
Regional President:	Up to \$3,000,000	James Sweeney President, East Region		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			



Capital Project Business Case

2020

Finance (East) – Vice President, Finance & Administration	All Requests	Peter Dawes VP, Finance & Administration		
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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

2020

Project Name:	IE-NN URD Cable Replacement		
Financial Work Order (FWO):		Project ID #:	8830-2039
Requesting Region or Group:	Granite State Electric Co.	Date of Request (MM/DD/YY):	1/10/2020
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2020
Project Lead:	Anthony Strabone	Project End Date:	12/31/2020
Prepared by:	Joel Rivera	Requested Capital (\$)	\$1,150,000
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		
Spending Rationale:	<input type="checkbox"/> Growth <input type="checkbox"/> Improvement <input checked="" type="checkbox"/> Replenishment		

Details of Request

Project description The URD Cable Replacement Strategy aims to provide resolution and/or improve reliability and address pocket problems in URD/UCD and includes: <ul style="list-style-type: none"> • Injection of cable rejuvenation fluids to extend the operating life of poor performing cable • Replacement of poor performing cable to reduce interruptions • Installing short runs of primary cable to create loop feed arrangements • Installing fault location equipment to facilitate restoration In 2020 underground cables and sub-surface transformers will be replaced at Blueberry Hill Rd Pelham. In addition Hodges Development in Lebanon will be targeted for improvements to take advantage of existing upgrades from the customer.
--

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 It is assumed that direct buried underground cables will be abandoned in place. In some cases the existing transformers and vaults will be removed. At this time answers to questions 1, 2, 3 and 5 is unknown. The plant being removed is not usable.

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.



Capital Project Expenditure Form

2020

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

URD/UCD cable failures contribute a relatively small fraction of the overall reliability and affect the customer or group of customers fed by the development. This strategy allows for the implementation of a reactive approach when dealing with URD/UCD cable failures. Therefore, if not completed, these cable faults will not be minimized and it may result in a high number of cable failures affecting a single customer or group of customers. Some URDs have been identified as being a safety hazard due to deteriorated equipment, abnormal conditions from previous faults and corrosion in the neutral wires.

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		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 (\$)			

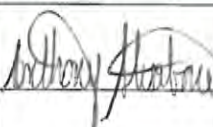

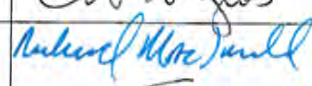
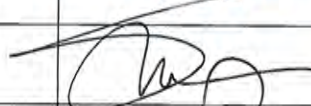
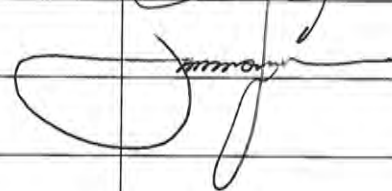


Capital Project Expenditure Form

2020

Other (\$)		
AFUDC (\$)		
Total Project Costs (\$)	\$1,150,000	

Approvals and Signatures ⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Anthony Strabone Manager, Electric Engineering		03/04/2020
Senior Manager:	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering		2/25/2020
Senior VP/VP:	Up to \$500,000	Richard MacDonald Vice President, Operations		2/21/2020
State President:	Up to \$500,000			2/26/2020
Regional President:	Up to \$3,000,000			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			
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 **2020**

Requesting Region or Group:	Granite State Electric Co.	Date of Closeout (MM/DD/YY):	03/10/2021
Project Name:	IE-NN URD Cable Replacement		
Project ID#:	8830-2039	Requesting Region:	East Region
Project Lead:	Anthony Strabone	Project Sponsor:	Charles Rodrigues
Project Status	X In Service C Complete <input type="checkbox"/> Closed		
Project Start Date:	01/01/2020	Project Completion Date:	12/31/2020
Requested Capital (\$)	\$ 450,000	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
Anthony Strabone	Project Lead	<i>Anthony Strabone</i>	03/29/2021
Charles Rodrigues	Project Sponsor	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.03.30 08:02:13 +04'00'</small>	
Mark Parker	Operations Manager		
Phil Greene	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 2020

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, Webspace)	Format
3.4a	Business Case	W:\Engineering\Electric Engineering\Electric Planning Engineering\2 - Planning	<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 Teamⁱⁱ

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

Project Close Out Report **2020**

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

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 (\$)		\$ 0	
Cost of Materials (\$)		\$ 44,559.41	
Cost of Construction (\$)		\$ 0	

Project Close Out Report | 2020

External Costs (\$)		\$ 199,376.27	
Internal Costs (\$)		\$ 79,682.18	
Other (burdens \$)		\$ 173,470.95	
CIAC		\$ (40,000.00)	
AFUDC		\$ 3,876.99	
Total Project Costs (\$)	\$ 450,000	\$ 460,965.80	\$ (10,965.80)

Reasons for Variance	Impact
Project scope was revised in 2020 to include cable injection and emergency repair of a failed URD in Hanover. Actual 2020 charges were slightly greater than estimated due actual charges associated with internal labor and outside resources being greater than originally estimated	\$ (10,965.80)
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)
301939-01001
301939-01003

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 2020 Step Adjustment
Project #8830-2068 Main St Salem - Overhead Line Relocation

<u>Year</u>	<u>Internal Labor</u>	<u>Materials</u>	<u>Vendors</u>	<u>Overheads</u>	<u>AFUDC</u>	<u>Total Spend</u>	<u>Total Budget</u>
2020	\$10,928.40	\$194,230.88	\$751,141.19	\$346,164.32	\$7,529.17	\$1,309,993.96	\$1,200,000
Total	\$10,928.40	\$194,230.88	\$751,141.19	\$346,164.32	\$7,529.17	\$1,309,993.96	\$1,200,000



Capital Project Business Case

2020

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:	Main St Salem - Overhead Line Relocation	Date Prepared:	2/3/2020
Project ID#:	8830-2072 8830-2068 <small>Ryan Patnode Digitally signed by Ryan Patnode</small>	Cost Estimate:	\$1,200,000
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2020
Project Lead:	Anthony Strabone	Project End Date:	12/31/2020
Prepared By:	Anthony Strabone	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		
Project Scope Statement			
(Insert the scope of work, major deliverables, assumptions, and constraints)			
Due to a road widening project, the Company is required to relocate the overhead facilities in the intersection of Main St and Broadway in the Town of Salem from overhead to underground. The scope of work will include the installation of 1000 MCM UG cables, manholes and conduit system. This project also includes the removal of the overhead facilities in and around this intersection.			
Background			
(Insert description of current operational arrangement, and brief history of project & asset)			
The town of Salem, NH intends to reconfigure the intersection of Main St and Broadway. Their plans include widening both roads to accommodate turning lanes. The addition of turning lanes will result in the existing overhead facilities being located in the proposed roadway.			
Recommendation/Objective			
(Insert the unique problem this project is looking to resolve)			
The recommended plan is to install a manhole and conduit system to accommodate the relocation of overhead Company assets from overhead to underground. The scope of work will also include the installation of 1000 MCM UG cable and removal of the overhead facilities in and around the Main Street and Broadway Intersection.			
Alternatives/Options			
(Describe all reasonably viable alternatives. Discuss the viability of each and provide reasons if rejected)			
Do Nothing – This is not an option. It is good utility practice to comply with all industry standards and support state/local design criteria. Due to the road widening project, Liberty's facilities will be located in the proposed roadway and need to be relocated. The alternative of relocating the overhead facilities onto new poles was evaluated but determined not to be feasible due to insufficient right-of-way for poles to accommodate set back requirements from edge of pavement; inability to meet NESC clearances for electrical overhead equipment to building structures and the inability to secure easements from private land owners for placement of poles and guys/anchors. In addition to these reasons, the Town of Salem has also indicated they will not grant a pole license for any new proposed poles within 200 FT of the intersection and thus underground is the only alternative for relocation of Company assets located in the intersection.			
Financial Assessment/Cost Estimates			
(Double click embedded excel file to update; include contingency allowance in excel file)			



Capital Project Business Case

2020

Next Anticipated Test Year

2021

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	2020	2021	Beyond 2021	Total
Internal Labour (including labour and travel)	\$ -	\$ 15,000	\$ -	\$ -	\$ 15,000
Materials (including consumables)	\$ -	\$ 385,000	\$ -	\$ -	\$ 385,000
Equipment (rental equipment)	\$ -	\$ -	\$ -	\$ -	\$ -
Contractor/Subcontractor (including consultants)	\$ -	\$ 800,000	\$ -	\$ -	\$ 800,000
AFUDC (\$)					
Total Project Costs (\$)	\$ -	\$ 1,200,000	\$ -	\$ -	\$ 1,200,000

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	1/1/2020	5/1/2020
Construction	8/1/2020	11/1/2020

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 safe and reliable electric service to the customers within and around the Main Street and Broadway Intersection. Also, if Liberty does not complete the relocation of our overhead facilities, the Town will not be able to proceed with their plans of reconstructing this intersection.
 This project has a risk score of 50. Public Requirements – Mandated

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)



Capital Project Business Case

2020

Please reference the following supporting documents:
[Depot Intersection One Line - DRAFT.pdf](#)

Approvals and Signatures¹

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Anthony Strabone Manager, Engineering		03/04/2020
Senior Manager: :	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering		2/25/2020
Senior Vice President/ Vice President	Up to \$500,000	Richard MacDonald Vice President, Operations		2/21/2020
State President:	Up to \$500,000	Susan Fleck President, NH		2/26/2020
Regional President:	Up to \$3,000,000	James Sweeney President, East Region		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			
Finance (East) – Vice President, Finance & Administration	All Requests	Peter Dawes VP, Finance & Administration		

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

2020

Project Name:	Main St Salem - Overhead Line Relocation		
Financial Work Order (FWO):		Project ID #:	8830-2072 8830-2068
Requesting Region or Group:	Granite State Electric Co.	Date of Request (MM/DD/YY):	1/10/2020 Ryan Patnode
Project Sponsor:	Charles Rodrigues	Project Start Date:	1/1/2020
Project Lead:	Anthony Strabone	Project End Date:	12/31/2020
Prepared by:	Joel Rivera	Requested Capital (\$)	\$1,200,000
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 checked="" type="checkbox"/> Improvement <input type="checkbox"/> Replenishment		

Details of Request

Project description

Due to a road widening project, the Company is required to relocate the overhead facilities in the intersection of Main St and Broadway in the Town of Salem from overhead to underground. The scope of work will include the installation of 1000 MCM UG cables, manholes and conduit system. This project also includes the removal of the overhead facilities in and around this intersection.

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 with the Town of Salem and NHDOT will be required for the company to install new poles, underground conduit and man-holes.

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. As part of this program overhead assets will be removed. 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.

What alternatives were evaluated and why were they rejected?

Do Nothing – This is not an option. It is good utility practice to comply with all industry standards and support state/local design criteria. Due to the road widening project, Liberty's facilities will be located in the proposed roadway and need to be relocated. The alternative of relocating the overhead facilities onto new poles was evaluated but determined not to be feasible due to insufficient right-of-way for poles to accommodate set back requirements from edge of pavement; inability to meet NESC clearances for electrical overhead equipment to



Capital Project Expenditure Form

2020

building structures and the inability to secure easements from private land owners for placement of poles and guys/anchors. In addition to these reasons, the Town of Salem has also indicated they will not grant a pole license for any new proposed poles within 200 FT of the intersection and thus underground is the only alternative for relocation of Company assets located in the intersection.

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 safe and reliable electric service to the customers within and around the Main Street and Broadway Intersection. Also, if Liberty does not complete the relocation of our overhead facilities, the Town will not be able to proceed with their plans of reconstructing this intersection.

This project has a risk score of 50. Public Requirements – Mandated

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

All work associated with this project will be performed in accordance with Liberty Safety/Health policies and procedures as well as good industry work practices.

This project will also mitigate the impact to public safety by removing the Company's assets out of the proposed traveled way.

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?			
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)



Capital Project Expenditure Form

2020

Cost of Design & Engineering (\$)			
Cost of Materials (\$)			
Cost of Construction (\$)			
External Costs (\$)			
Internal Costs (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)		\$1,200,000	

Approvals and Signatures ⁱⁱ

Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Anthony Strabone Manager, Electric Engineering		03/04/2020
Senior Manager:	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering		2/25/2020
Senior VP/VP:	Up to \$500,000			2/21/2020
State President:	Up to \$500,000	SUSAN FUERK		2/20/2020
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 Overview

Reason for Change: Budget Increase to fund project to accommodate scope change revision and increase traffic costs

Project ID:	8830-2068	Project Name:	Main St Salem - Overhead Line Relocation
Change Order Name:	Budget Increase	Date Prepared:	11/04/2020
Change Order #:	8830-2068-01	Financial Work Order (FWO):ⁱ	302068-01001
Project Sponsor:	Charles Rodrigues	Revised Start Date:	
Project Lead:	Anthony Strabone	Revised End Date:ⁱⁱ	12/31/2020
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}	2020 Capital Budget Project

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		\$300,000	\$1,500,000

Updated Unlevered Internal Rate of Return:

Basis of Current Change Order Amount:

Over expenditure is being driven by two factors. The first cause is actual cost of traffic control greater than originally estimated due to need of additional Police officers needed to direct traffic in the intersection. The second driver of the over-expenditure is due to a change in scope due to a relocation of riser pole as requested by the Town of Salem

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

Approvals and Signatures^v

Approved By:				
Role	Approval Authority Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000	Anthony Strabone Manager, Electric Engineering	<i>Anthony Strabone</i>	11/04/2020
Senior Manager: :	Up to \$50,000			
Senior Director/Director:	Up to \$250,000	Charles Rodrigues Director, Engineering	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2020.11.05 08:04:35 -05'00'</small>	
State President / Senior VP / VP:	Up to \$500,000	Richard MacDonald, VP Operations	Richard MacDonald <small>Digitally signed by Richard MacDonald Date: 2020.11.18 17:06:06 -05'00'</small>	
Regional President:	Up to \$3,000,000	Susan Fleck President, NH	<i>[Signature]</i>	
Corporate - Sr VP Operations:	Up to \$5,000,000		<i>[Signature]</i>	
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 2020

Requesting Region or Group:	Granite State Electric Co	Date of Closeout (MM/DD/YY):	03/10/2021
Project Name:	Main St Relocate OH to UG -8830-2068		
Requesting Region:	East Region	Sponsor (Name):	Charles Rodrigues
Project Champion:	Anthony Strabone	Project Champion	Charles Rodrigues
Project Status	X In Service X Complete <input type="checkbox"/> Closed		
Project Start Date:	01/01/2020	Project Completion Date:	12/31/2020
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
Anthony Strabone	Project Lead		03/29/2021
Charles Rodrigues	Project Sponsor	Charles Rodrigues <small>Digitally signed by Charles Rodrigues Date: 2021.03.30 08:31:36 -04'00'</small>	
Mark Parker	Operations Manager		
Phil Greene	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 2020

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	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	W:\Engineering\Electric Engineering\Electric Planning Engineering\2 - Planning	<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 Teamⁱⁱ

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

Project Close Out Report 2020

Name	Role	Type (e.g., Contractor, Employee)
Anthony Strabone	Engineering	Employee
Joel Rivera	Engineering	Employee
Ryan Tsantoulis	Engineering	Employee
Tim Fitzgerald	Construction	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

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 (\$)		\$ 0	
Cost of Materials (\$)		\$ 194,231.39	
Cost of Construction (\$)		\$ 0	

Project Close Out Report **2020**

External Costs (\$)		\$ 971,196.81	
Internal Costs (\$)		\$ 10,611.18	
Burdens (\$)		\$ 350,334.35	
AFUDC (\$)		\$ 7,850.05	
Total Project Costs (\$)	\$1,200,000	\$1,534,224	\$ (334,223.78)

Reasons for Variance	Impact
Change order #1	\$ 300,000
Change order #2	\$ 34,224
Cause 3	\$ 0

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)
302068-01001

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 2020 Step Adjustment
Project #8830-2091 Meter Purchases

<u>Year</u>	<u>Internal Labor</u>	<u>Vendors</u>	<u>Overheads</u>	<u>Total Spend</u>	<u>Total Budget</u>
2020	<u>\$395,624.24</u>	<u>\$271,902.60</u>	<u>\$179,666.75</u>	<u>\$847,193.59</u>	<u>\$840,000</u>
	\$395,624.24	\$271,902.60	\$179,666.75	\$847,193.59	\$840,000

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 Purchases - Electric	Date Prepared:	17-Jan-2020
Project ID#:	8830-2091	Cost Estimate:	\$ 840,000
Project Sponsor:	Mark Parker	Project Start Date:	17-Jan-2020
Project Lead:	Richard Foley	Project End Date:	31-Dec-2020
Prepared By:	Richard Foley	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 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 electric meters required for Liberty Utilities (Granite State Electric) Corp. The scope is for the purchase and receipt of meters and includes the precapitalized installation costs.</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 the obligation of replacement units and support any new requirements 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

(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?

☒ 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	2020	2021	Beyond 2021	Total
Internal Labor					
Materials					
Equipment		840,000			
Contractor/ Subcontractor					
AFUDC					
Total Project Cost		840,000			

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 Meters	01-01-2020	06-30-2020
Receive Meters	01-01-2020	09-30-2020

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)

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		1-30-2020
Senior Vice President/ Vice President	Up to \$500,000	Richard MacDonald		3/9/2020
State President:	Up to \$500,000	Susan Fleck		2/5/2020
Regional President:	Up to \$3,000,000	James Sweeney		
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 Name:	Meter Purchases - Electric		
Financial Work Order (FWO):	TBD	Project ID #:	8830-2091
Requesting Region or Group:	New Hampshire-Granite State Electric	Date of Request (MM/DD/YY):	1/17/2020
Project Sponsor:	Mark Parker	Project Start Date:	1/17/2020
Project Lead:	Richard Foley	Project End Date:	12/31/2020
Prepared by:	Richard Foley	Requested Capital (\$)	
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		

Details of Request

Project description This Project represents the annual purchases of electric meters for Liberty Utilities (Granite State Electric) Corp. We are required to provide new meters as part of our replacement program 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.



Liberty Utilities
WATER GAS ELECTRIC

Capital Project Expenditure Form

2020

What alternatives were evaluated and why were they rejected?

We have an obligation to perform meter testing to confirm the accuracy of the metering 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 standard operating procedures.

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

No



Capital Project Expenditure Form

2020

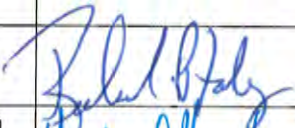
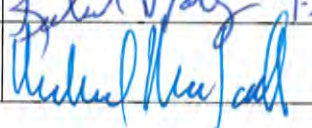
Complete the Financial Summary table only if:

- 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 checked="" 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?	Rate Case		
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 (\$)	\$ 840,000		
Cost of Construction (\$)			
External Costs (\$)			
Internal Costs (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)			

Approvals and Signaturesⁱⁱ


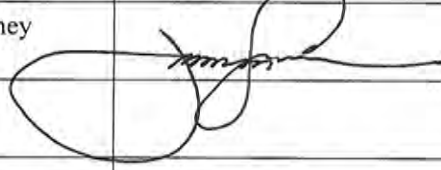
Approved By:				
Role	Approval Limit	Name	Signature	Date
Manager / Staff (requisitioner/buyer):	Up to \$25,000			Click here to enter a date.
Senior Manager:	Up to \$50,000			Click here to enter a date.
Senior Director/Director:	Up to \$250,000	Richard Foley		January 23, 2019
Senior VP/VP:	Up to \$500,000	Richard MacDonald		1/31/2020



Liberty Utilities
WATER GAS ELECTRIC

Capital Project Expenditure Form

2020

State President:	Up to \$500,000	Susan Fleck		Click here to enter a date. 2/5/2020
Regional President:	Up to \$3,000,000	James Sweeney		Click here to enter a date. 2/6/2020
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.

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 **2020**

Requesting Region or Group:		Date of Closeout (MM/DD/YY):	12-31-2020
Project Name:	01659 Granite St Meter Purchases 8830-2091		
Requesting Region:		Sponsor (Name):	Richard Foley
Project Champion:	Mark Parker	Project Champion	
Project Status	<input type="checkbox"/> In Service <input checked="" type="checkbox"/> Complete <input type="checkbox"/> Closed		
Project Start Date:		Project Completion Date:	
Requested Capital (\$)	\$840,000	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		
Richard Foley	Project Sponsor	Richard Foley	Digitally signed by Richard Foley DN: cn=Richard Foley, o=Liberty Utilities, ou, email=richard.foley@libertyutilities.com, c=US Date: 2021.03.16 19:03:30 -04'00'
	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 <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 2020

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, Webspace)	Format
3.4a	Business Case	Finance Sharepoint Site	<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	Accounts Payable – Great Plains -	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4d	Status Reports	Finance Sharepoint Site	<input checked="" 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 2020

Name	Role	Type (e.g., Contractor, Employee)
Shawn Furey	Meter Supervisor – Client	Employee
Mark Parker	Director, Electric Operations	Employee
Richard Foley	Director, Supply Chain – East	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 **2020**

External Costs (\$)			
Internal Costs (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	\$840,000	\$ 846,550	(\$6,550)

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)
302091-77001

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 2020 Step Adjustment
Project #8830-2092 Transformer Purchases

<u>Year</u>	<u>Vendors</u>	<u>Overheads</u>	<u>Total Spend</u>	<u>Total Budget</u>
2020	\$447,941.15	\$148,385.85	\$596,327.00	\$600,000
Total	\$447,941.15	\$148,385.85	\$596,327.00	\$600,000

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 Purchases – Electric	Date Prepared:	17-Jan-2020
Project ID#:	8830-2092	Cost Estimate:	\$ 600,000
Project Sponsor:	Mark Parker	Project Start Date:	17-Jan-2020
Project Lead:	Richard Foley	Project End Date:	31-Dec-2020
Prepared By:	Richard Foley	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 purchases of electric transformers for Liberty Utilities (Granite State Electric) Corp. The scope is for the purchase and receipt of transformers to support equipment failures 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 service to customers. Additionally transformers 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 transformers 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

2020

Next Anticipated Test Year

2021

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	2020	2021	Beyond 2021	Total
Internal Labor					
Materials					
Equipment		600,000			
Contractor/ Subcontractor					
AFUDC					
Total Project Cost		600,000			

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	01-01-2020	06-30-2020
Receive Transformers	01-01-2020	09-30-2020

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.


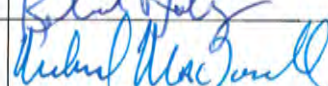
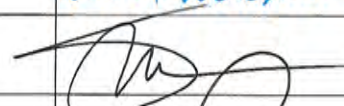
Trade Finance

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

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		1-30-2020
Senior Vice President/ Vice President	Up to \$500,000	Richard MacDonald		1/31/2020
State President:	Up to \$500,000	Susan Fleck		2/5/2020
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 Name:	Electric Transformers		
Financial Work Order (FWO):	TBD	Project ID #:	8830-2092
Requesting Region or Group:	New Hampshire-Granite State Electric	Date of Request (MM/DD/YY):	1/17/2020
Project Sponsor:	Mark Parker	Project Start Date:	1/17/2020
Project Lead:	Richard Foley	Project End Date:	12/31/2020
Prepared by:	Richard Foley	Requested Capital (\$)	
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		

Details of Request

Project description

This Project represents the annual purchases of electric transformers for Liberty Utilities (Granite State Electric) Corp. We are required to provide replacement transformers for equipment failures as well as transformers required to support 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 transformers on our system are required in the event of equipment failure. To support our efforts to provide continuous reliable service, transformers are purchased and maintained on hand to support any failures. Additionally to support residential and commercial development along our distribution lines, transformers are needed to support this expansion.

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?

***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*



Capital Project Expenditure Form

2020

Yes there will be some plant removed. The exact plant removed will be contingent upon the arrival of the new equipment and the locations where equipment failures take place as well as new growth.

What alternatives were evaluated and why were they rejected?

None

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

Transformers are required to support the ongoing operations and growth to provide safe electrical services to the customer.

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

Transformer installation follows company safety standard operating procedures.

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

No

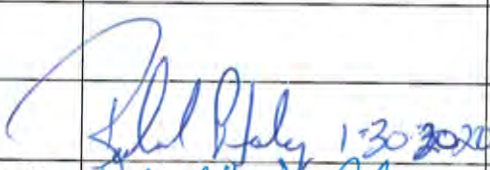

Complete the Financial Summary table only if:

- 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 checked="" 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?	Rate Case		
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 (\$)	\$ 600,000		
Cost of Construction (\$)			
External Costs (\$)			
Internal Costs (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)			


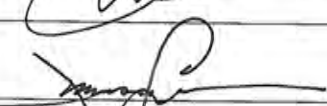
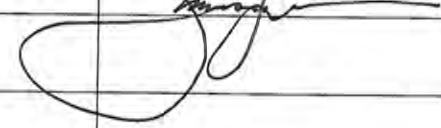
Approvals and Signaturesⁱⁱ

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			Click here to enter a date.
Senior Director/Director:	Up to \$250,000	Richard Foley		January 23, 2019
Senior VP/VP:	Up to \$500,000	Richard MacDonald		3/9/2020



Capital Project Expenditure Form

2020

State President:	Up to \$500,000	Susan Fleck		Click here to enter a date. 2/5/2020
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.

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 **2020**

Requesting Region or Group:		Date of Closeout (MM/DD/YY):	12-31-2020
Project Name:	01660 Granite St Transformer Purchases 8830-2092		
Requesting Region:		Sponsor (Name):	Richard Foley
Project Champion:	Mark Parker	Project Champion	
Project Status	<input type="checkbox"/> In Service <input checked="" type="checkbox"/> Complete <input type="checkbox"/> Closed		
Project Start Date:		Project Completion Date:	
Requested Capital (\$)	\$600,000	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		
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: 2021.03.16 19:04:43 -04'00'</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 2020

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	Finance Sharepoint Site	<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	Accounts Payable – Great Plains	<input checked="" type="checkbox"/> Electronic <input type="checkbox"/> Manual
3.4d	Status Reports	Finance Sharepoint Site	<input checked="" 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 **2020**

Name	Role	Type (e.g., Contractor, Employee)
Anthony Strabone	Manger – Electric Engineering	Employee
Mark Parker	Director – Electric Operations	Employee
Richard Foley	Director – Supply Chain	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 **2020**

External Costs (\$)			
Internal Costs (\$)			
Other (\$)			
AFUDC (\$)			
Total Project Costs (\$)	\$600,000	\$592,686	\$ 7,314

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)
302092-99001
302092-99002

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
Project List
In Service as of December 31, 2021

<u>2020 Project #</u>	<u>Project Description</u>	<u>Priority</u>	<u>Budget</u>	<u>FERC</u>	<u>Book Rate</u>	<u>Book Amt</u>	<u>MACRS</u>	<u>Tax Amt</u>
8830-1933	Battery Pilot	4. Regulatory Programs	\$600,000	371	10.00%	\$ 60,000	14.29%	\$ 85,740
8830-1944	Golden Rock Substation ¹	3. Growth	\$400,000	362	3.00%	\$ 12,000	3.75%	\$ 15,000
8830-1958	Install Service to Tuscan Village South	3. Growth	\$1,000,000	364	3.64%	\$ 36,400	3.75%	\$ 37,500
8830-1960	Golden Rock Underground	3. Growth	\$160,000	364	3.64%	\$ 5,824	3.75%	\$ 6,000
8830-2095	Tuscan Village EV Chargers	4. Regulatory Programs	\$400,000	392	7.50%	\$ 30,000	3.75%	\$ 15,000
8830-2069	Golden Rock Feeder 19L2 ¹	3. Growth	\$2,100,000	364	3.64%	\$ 76,440	3.75%	\$ 78,750
8830-2108	SCADA & Distribution Automation	5. Discretionary	\$200,000	397	4.17%	\$ 8,340	3.75%	\$ 7,500
8830-1966	Install 9L2 9L3 Tie Line	5. Discretionary	\$356,405	364	3.64%	\$ 12,973	3.75%	\$ 13,365
8830-2014	3rd Party Attachment Blanket	2. Mandated	\$170,667	364	3.64%	\$ 6,212	3.75%	\$ 6,400
8830-2111	Public Requirements Blanket	2. Mandated	\$520,000	364	3.64%	\$ 18,928	3.75%	\$ 19,500
8830-2112	Damage/Failure Blanket	2. Mandated	\$1,200,000	364	3.64%	\$ 43,680	3.75%	\$ 45,000
8830-2113	Distribution Asset Replacement Blanket	2. Mandated	\$200,000	364	3.64%	\$ 7,280	3.75%	\$ 7,500
8830-2121	Distribution Reliability Blanket	2. Mandated	\$161,540	364	3.64%	\$ 5,880	3.75%	\$ 6,058
8830-2114	3rd Party Attachment Blanket	2. Mandated	\$125,000	364	3.64%	\$ 4,550	3.75%	\$ 4,688
8830-2124	LED Street Light Conversion	2. Mandated	\$125,000	364	3.54%	\$ 4,425	3.75%	\$ 4,688
8830-2139	URD Cable Replacement	5. Discretionary	\$500,000	364	3.64%	\$ 18,200	3.75%	\$ 18,750
8830-2146	Bare Conductor Replacement Program	4. Regulatory Programs	\$1,000,000	364	3.64%	\$ 36,400	3.75%	\$ 37,500
8830-2191	Meter Purchases	5. Discretionary	\$250,000	370	5.00%	\$ 12,500	3.75%	\$ 9,375
8830-2192	Transformer Purchases	2. Mandated	\$420,000	368	3.51%	\$ 14,742	3.75%	\$ 15,750
8830-2190	Transportation Fleet & Equip Blanket	5. Discretionary	\$1,000,000	392	7.50%	\$ 75,000	3.75%	\$ 37,500
Total			\$10,888,612			\$ 489,774		\$471,563
						4.50%		4.33%

¹ Project in original 2020 Step Adjustment list in Settlement Agreement, but was postponed to 2021

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First Revised Page 21
Superseding Original Page 21
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LIBERTY UTILITIES

38. Reliability Enhancement Program Capital Investment Allowance

Distribution base rates are subject to adjustment on an annual basis for a Reliability Enhancement Program Capital Investment Allowance pursuant to the Settlement Agreement in Docket DE 19-064.

39. Transmission Charge

The Transmission Charge will recover, on a fully reconciling basis, the costs incurred by the Company for transmission related services, and other reconciling charges as noted below. These costs include charges billed to the Company by Other Transmission Providers; third party charges billed to the Company for transmission related services such as charges relating to the stability of the transmission system which the Company is authorized to recover by order of the regulatory agency having jurisdiction over such charges; and transmission-based assessments or fees billed by or through regulatory agencies, including those associated with the ISO-NE, regional transmission group, an independent system operator, an RTO and their successors, or other such body with the oversight of regional transmission, in the event that any of these entities are authorized to bill the Company directly for their services.

The Transmission Charge shall be established annually based on a forecast of includable costs, and shall also include a full reconciliation with interest for any over recovery or under recovery occurring in the prior year. The Company may file to change the rates at any time if a significant over recovery or under recovery occurs. Interest on over recoveries or under recoveries shall be calculated at the prime rate.

Any changes to rates determined under the charge shall only be made following a notice filed with the Commission setting forth the amount of the increase or decrease, the new rates for each rate class, and the effective date of such new rates.

The Transmission Charge includes the Regional Greenhouse Gas Initiative ("RGGI") refund as required by RSA 125-O:23,II and Order No. 25,664 dated May 9, 2014, which directs the Company to refund RGGI auction revenue it receives to its customers.

The Revenue Decoupling Adjustment Clause (RDAC) will be included in the transmission charge annual rate filing for reconciliation. The RDAC is further described in Section 39A of the Tariff.

39A. Revenue Decoupling Adjustment Clause

Purpose

The purpose of the Revenue Decoupling Adjustment Clause ("RDAC") is to establish procedures that allow the Company subject to the jurisdiction of the NHPUC to adjust, on an annual basis, its rates for firm sales in order to reconcile Actual Base Revenue per Customer with Benchmark Base Revenue per Customer. The Company's Revenue Decoupling Adjustment eliminates the link between customer sales and Company revenue in order to align the interests of the Company and customers with respect to changing customer usage.

Issued: XX XX, XXXX

Issued by: /s/ Susan L. Fleck

Susan L. Fleck

Effective: July 1, 2021

Title: President

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Effective Date

The Revenue Decoupling Adjustment Factor (“RDAF”) shall be effective on the first day of the Decoupling Year.

Applicability

The Revenue Decoupling Adjustment Factor shall apply to all of the Company’s tariff Rate Schedules, subject to the jurisdiction of the Commission, as determined in accordance with the provisions of this Tariff.

Definitions

- i. The following definitions shall apply throughout the Tariff:
 1. Actual Base Revenue per Customer is the actual revenue derived from the Company’s base rates divided by the number of customers for a given year for a Customer Class.
 2. Actual Number of Customers is the actual number of customers for the applicable Customer Class for the most recently completed year. Actual Number of Customers shall be calculated by summing the monthly equivalent bills for a given year for a Customer Class and dividing by the number of months in that year.
 3. Customer Class is the group of all customers taking service pursuant to the same Rate Schedule.
 4. Decoupling Year. The first Decoupling Year shall be the 12-month period from July 1, 2021 to June 30, 2022. Each subsequent Decoupling Year shall be the twelve months commencing July 1 through June 30.
 5. Benchmark Base Revenue per Customer is the monthly allowed distribution revenue per Equivalent Bill for a given Decoupling Year for a given Customer Class, reflecting the distribution revenue level and approved equivalent bills from the Company’s most recent rate case or other proceeding that results in an adjustment to base rates. Benchmark Base Revenue per Customer will be calculated for each month based on the distribution rates in effect at the start of the Decoupling Year and the calculation will be revised for the remaining months of each Decoupling Year if there is a distribution rate change that occurs following the beginning month of each Decoupling Year.

Calculation of Revenue Decoupling Adjustment

- i. Description of Revenue Decoupling Adjustment

At the Decoupling Year, the Company shall calculate a Decoupling Revenue Adjustment to be used to determine the RDAF for the next corresponding season.

The Revenue Decoupling Adjustment shall be determined by calculating the difference between the actual Revenue per Customer and the Benchmark Base Revenue per Customer and multiplying that difference by the Actual Number of Customers for the applicable Customer

Issued: XX XX, XXXX

Issued by: /s/ Susan L. Fleck

Effective: July 1, 2021

Susan L. Fleck
Title: President

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Class. The Revenue Decoupling Adjustment shall equal the sum of the adjustments calculated for all Customer Classes and shall include a reconciliation component. There shall be a 3% cap on the amount refunded or charged to customers. The 3% cap shall be equal to 0.03 times the allowed revenue requirement subject to annual adjustments. The decoupling amount will be recovered or refunded during the following year up to the 3% cap. Any amounts in excess of the 3% cap will be deferred and recovered or refunded in future periods, as determined by the Commission. Any amounts deferred will be added to the aggregate decoupling adjustment amount of the following periods until recovered or refunded such that there is a maximum adjustment of 3% refunded or charged each year. Any over- or under-collection shall carry interest at the prime rate.

The amounts to be refunded or collected under this decoupling mechanism shall be calculated annually using monthly accruals. These monthly accruals will be summed for each decoupling year and presented in the annual reconciliation filing. Monthly decoupling accruals are calculated as follows:

a) The monthly target revenues per customer ("Monthly Target RPC") amounts will be determined for each of the Company's rate classes by:

i) allocating each years' allowed revenue requirement to each rate class, by month, in proportion to the test year with the following exceptions:

(1) Rate classes M, LED-1, and LED-2 will not be included in the decoupling calculations;

(2) Rate classes D-11 and EV, will not be included in the decoupling calculations as they are new rate classes. The inclusion of those rate classes will be reevaluated in the next rate case; and

ii) dividing each class monthly target revenue number by the number of monthly customer bills from the test year.

b) The Monthly Actual RPC will be calculated as the actual monthly revenues by rate class divided by the actual number of bills for each rate class rendered during that month.

c) The Monthly Actual RPC will be compared to the Monthly Target RPC for each rate class. The difference between the Monthly Actual RPC and the Monthly Target RPC for each rate class will then be multiplied times the actual number of bills rendered for each rate class to determine the monthly revenue shortfall/surplus for each class, the sum of which will constitute the total monthly revenue shortfall/surplus.

d) At the end of the reconciliation period, the monthly amounts will be summed to determine the cumulative annual revenue shortfall/surplus.

e) Subject to the cap described above, the Annual Allowed Adjustment revenue

Issued: XX XX, XXXX

Issued by: /s/ Susan L. Fleck

Effective: July 1, 2021

Susan L. Fleck
Title: President

NHPUC NO. 21 - ELECTRICITY DELIVERY
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shortfall/surplus, will be allocated to the classes using the Rate Class Allocation as detailed on Line 115 of Attachment 5, page 4 of the Settlement Agreement in Docket No. DE 19-064.

f) The amount allocated to each rate class will be allocated to the kWh and kW rate adjustments for each class on the basis of the actual kWh and kW's of the decoupling year.

ii. Revenue Decoupling Adjustment Formulas

$$RD_T = \sum_{CC=1}^{CC=3} [(BRPC_{T-1}^{CC} - ARPC_{T-1}^{CC}) \times ACUSTS_{T-1}^{CC}]$$

And

$$RDAF = \frac{RD}{FV}$$

Where the terms in the above equation have the following meanings:

$ACUSTS_{T-1}^{CC}$: The actual number of customers for the applicable Customer Class for the most recently completed Decoupling Year. Actual number of customers for each Decoupling Year shall be the average number monthly customers in that season, calculated by summing the number of billed customers in each month of the most recently completed Decoupling Year, and dividing by the number of months in that year.

$ARPC_{T-1}^{CC}$: The Actual Base Revenue Per Customer for the applicable Customer Class Group for the most recently completed Decoupling Year (T-1), as defined in Section i.

$BRPC_{T-1}^{CC}$: The Benchmark Base Revenue Per Customer for the applicable Customer Class Group as determined in accordance with Section i.2. for the most recently completed Decoupling Year (T-1).

cc Customer Classes as defined in Section i.3.

RD The Revenue Decoupling adjustment to revenues.

$RDAF_T$: The Revenue Decoupling Adjustment Factor.

FV Forecast sales volumes for the Billing Year.

Issued: XX XX, XXXX

Issued by: /s/ Susan L. Fleck

Effective: July 1, 2021

Susan L. Fleck
President

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1.0 Application of the RDAF to Customer Bills

The RDAF (\$ per kWh) shall be truncated at the nearest one one-hundredth of a cent per kWh. The RDAF will be applied to the monthly tariff sales for each customer.

2.0 Information to be Filed with the Commission

Information pertaining to the RDAF will be filed annually with the Commission consistent with the filing requirements of all costs and revenue information included in the Tariff. Such information shall include:

1. The calculation of the applicable revenue decoupling revenue dollar adjustment for the Decoupling Year by Customer Class Group.
2. The calculation of the proposed decoupling rate per kWh for all firm rates to be applied in the Billing Year.
3. The calculation of the monthly Benchmark Base Revenue per Customer, to be utilized in the upcoming Decoupling Year. If distribution rates change during the Decoupling Year, the monthly Benchmark Base Revenue per Customer for the remaining months of the Decoupling Year will be revised and filed with the Commission.

40. Electricity Consumption Tax Charge

All Customers shall be obligated to pay the Electricity Consumption Tax Charge in accordance with New Hampshire Statute RSA Chapter 83-E, which may be revised from time to time, in addition to all other applicable rates and charges under this Tariff. The Electricity Consumption Tax Charge shall appear separately on all Customer bills. Any discounts provided for under a Special Contract shall not apply to the Electricity Consumption Tax Charge.

41. System Benefits Charge

All customers taking delivery service shall pay the System Benefits Charge as required by New Hampshire law and approved by the Commission. The System Benefits Charge shall recover the

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Issued by: /s/ Susan L. Fleck

Effective: July 1, 2021

Susan L. Fleck
Title: President