



Northern Utilities, Inc.  
Docket No. DG 17-070  
PUC Staff Information Data Request Set 1

Received: April 5, 2019  
Request No. Staff 4-2

Date of Response: April 9, 2019  
Witness: Kevin Sprague and Christopher LeBlanc

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**Request:**

Ref. Settlement Agreement Exhibit 3, pages 1 & 2 (Bates pages 123-124).

- a) Please provide the 2018 Eligible Facilities Project Detail (same format as 2017 Eligible Facilities Project Detail, Bates p. 124) used to derive the Revenue Requirement Cap of \$4,552,719 (Bates page 123, line 16). The 2018 Eligible Facilities Project Detail total should total \$2,215,273 (Bates p. 124 line 16 less line 17);
- b) Please compare the 2018 Eligible Facilities Detail (2018 budget) with the actual project spending for 2018 eligible facilities;
- c) For each 2018 budgeted project not undertaken in 2018, please explain;
- d) For eligible project undertake in 2018 and not in the 2018 budget, please explain,
- e) For 2018 eligible projects greater than \$200,000, please explain budget to actual cost variance greater than 20%.

**Response:**

Part a)

Please reference Staff 1-2 Attachment 1.

Part b)

Reference Staff 1-2 Attachment 2. This attachment presents the 2018 Eligible Facility costs. Where applicable for these projects, the 2017 costs that were included in the first step adjustment (as identified in DG 17-070 Settlement Agreement Exhibit 3 Bates 124) have been provided.

Many of the projects on this listing are budgeted under an overall blanket authorization, so a specific budget amount is not identified. However, each of these projects has a construction authorization. The project costs for 2017 and 2018 have been compared to the original net authorized cost.

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Part c)

Distribution High Line Dover Phase 1 – This project was delayed due to environmental permitting with the State of New Hampshire. The Company spent approximately \$1.4 million, but the project was not completed and will carryover into 2019.

The Company completed a study to compare the feasibility of a new interconnection between Granite and the Joint Facilities located in Eliot, Maine, as compared to the continued phases of the Dover High Line and the other Rochester reinforcement projects. Through analysis it was determined that a new gate station could defer the need for the additional reinforcement projects and save approximately \$5 million. Therefore, it was decided to defer: 1) Phases 2 and 3 of the Distribution High Line Dover reinforcement project; and 2) the Rochester Reinforcement Projects of Bartlett Ave Station (\$860,000) and the Rochester Reinforcement – Regulator Stations project (\$960,000).

Part d)

The Company did not undertake any non-budgeted, eligible facility projects in 2018.

Part e)

Reference Staff 1-2 Attachment 3 which identifies the 2018 projects greater than \$200,000. The summaries below follow the attachment.

201 Atlantic Ave North Hampton NH - This was a main extension that was started and completed in 2018. This Authorization covered the cost associated with the installation of 3,200 feet of 6" HDPE gas main to the North Hampton Elementary School. This was tied into an existing 6" IP main in Atlantic Ave. The project was originally authorized for \$280,818. A revised authorization was approved in the amount of \$462,579 due to costs associated with ledge removal and additional cut backs and paving required by the NHDOT. Ledge removal and the close proximity of the installed main to the edge of pavement caused the pavement to become undermined and the NHDOT requirements were to cut trench back 1 foot and repave. This required more ledge removal than estimated. The actual project cost of \$523,228 was 186% of the original authorization, and 113% of the revised authorization.

Tuscan Village Project/Pleasant St - This was a main extension that was started in 2017 and completed in 2018. This project consisted of the installation of 6,000 feet of 6" HDPE main in Pleasant St and Mall Rd, 1,600 feet of 4" IPS HDPE on Market St and North Village Way, 1,000 feet of 2" IPS HDPE to supply various townhouses. This

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project was authorized for \$1,006,455. The amount closed to plant in 2017 and included in the 2017 step adjustment is \$455,007<sup>1</sup>. The amount closed to plant in 2018 was \$503,727 for a total project cost of \$958,734 or 95% of the authorized amount.

Whitehouse Rd Rochester NH - This project is a gas highway project. As City and State projects develop, it is often necessary that gas lines be relocated and/or upgraded due to construction conflicts. The City of Rochester planned a very aggressive roadway realignment to remove multiple locations where the roadway rises and falls creating blind spots for drivers. Our existing main was in direct conflict with their full depth reconstruction and change of grade in areas of this road. This project consisted of the replacement of 6,700 feet of 6" coated steel with 6,700 feet of 12" coated steel and the replacement of 25 services with pressure limiting valves. The project was originally authorized for \$2,780,779. A revision in the amount of \$4,300,108 was approved due to unanticipated challenges associated with construction. There was much more ledge encountered in areas that required additional depth due to roadway grade changes and culvert crossings. There were several wet areas that required all spoils to be hauled away and new fill brought back in. This increased the cost of the police and flagging details required for the job as well. A second revised authorization in the amount of \$6,874,485 was approved due to additional costs associated with the extent of ledge in this project which pushed the scheduled finish date back approximately 10 weeks. The reasons for the revision are as follows:

- The original estimate for ledge removal was 6,100 cu/ft. Actual ledge removal was approximately 75,000cu/ft.
- Large excavations with ledge removal were needed every 80' to make room for a shoring box and welder to make daily tie ins.
- The additional ten weeks of construction increased the cost of non-destructive testing (i.e., x-ray) for the welds.
- The additional ten weeks of construction increased the cost of police detail and flaggers for traffic control.
- Ledge removal at each end of the job to facilitate the hydro-testing of the pipeline reduced the width of the road to one travel lane. The City of Rochester required 24-hour traffic detail for each end of the project while there was a restriction in the travel lanes. The duration of this requirement was approximately two weeks.
- The City of Rochester had scheduled the start of their construction project upon the completion of our work and were unable to postpone their project and provided us with a hard deadline to complete our work. This deadline resulted in additional costs as the Company worked to meet this deadline.
- Construction crews were on a six day a week schedule for approximately twenty-six weeks. In September, the last month of the project, the work week was

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<sup>1</sup> Reference DG 17-070 Settlement Agreement Exhibit 3 Bates 124 Line 3

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extended to seven days in order to meet the City of Rochester's deadline. Saturday and Sunday work is paid at a premium, which increased the project cost.

The actual project cost of \$5,418,362 was 195% of the original authorization, 126% of the next revised authorization, and 79% of the final revision.

Barberry Ln/Green St Portsmouth NH - This was a gas highway project. As City and State projects develop it is often necessary that gas lines be relocated and/or upgraded due to construction conflicts. The City of Portsmouth was undertaking a full depth reconstruction of railroad crossings at Barberry Lane and Green Street, and the existing 6" CS main was in direct conflict with proposed construction. This authorization was for the replacement of 1,300' of 6" CS with 1,300' 8" HDPE and the replacement of six (6) services. The project was originally authorized for \$286,262. A revision in the amount of \$442,680 was approved because the Barberry Lane Project had a change of scope. The original area proposed to make the tie in for the replacement main at the existing 6" CS main had coating that was very poor. That required the extension of the tie in location an additional 200' to tie in to the existing main that had adequate coating. This project was completed in conjunction with the City of Portsmouth as they made repairs to an existing rail way. This caused multiple construction delays as our crews were required to work in close proximity with the City of Portsmouth construction crews. There were numerous time when our crews were shut-down and moved to other projects while the City continued their work. Much of this project was charged on a time-and-material basis due to several instances of the City stopping the project, which required us to redeploy our resources onto other projects. The actual project cost of \$393,817 was 138% of the original authorization and 89% of the revised authorization.

Stark St. Bridge Portsmouth - The City of Portsmouth was working on a bridge replacement project. This project was to install gas main across Stark St Bridge during construction so they can complete future work on the Woodbury Avenue Bridge. The original project consisted of the installation of 500 feet of 6" HDPE main and 200 feet of 4" HDPE main crossing Start Street Bridge. The project was originally authorized for \$159,995. A revision in the amount of \$254,045 was approved for costs associated with ledge encountered on a portion of the project at the tie in on Dennett Street. Encountering ledge also increased the amount of time for police detail and welding inspection. The actual project cost of \$230,928 was 144% of the original authorization and 91% of the revised authorization.

Woodbury Ave/Piscataqua Dr Newington NH - This was a gas highway project that was started and completed in 2018. As City and State projects develop it is often necessary that gas lines be relocated and/or upgraded due to construction conflicts. The NHDOT

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was working on Woodbury Avenue and Piscataqua Drive in Newington, and there were direct conflicts with the existing gas main. This original authorization was for the relocation of 700 feet of 6" CS main in Woodbury Avenue, replaced with 700 feet of 6" HDPE. There was also a relocation of 300 feet of 2" HDPE on Piscataqua Drive. The project was originally authorized for \$133,862. A revision in the amount of \$253,672 was approved for costs associated with tie in locations in Woodbury Avenue that were extremely deep (7 feet - 8 feet) and required timber shoring. Both tie ins added several days to the total project. The work area in the front of Newington Mall is very wet and need extensive restoration due to high public visibility. Police detail requirements also increased with the added days on the project. The project was revised again to an amount of \$56,108. Note: This revision was routed for an incremental amount but not the total amount of the authorization. This error was corrected in a subsequent revision in the amount of \$311,713. This revision is for the additional costs associated with a scope change. The tie in for the 4" coated steel main feeding Newington Mall needed to be extended due to poor coating on the existing main. New 4" HDPE was installed to the point where good coating could be found. The actual project cost of \$297,948 was 223% of the original authorization, 117% of the next revised authorization, and 88% of the final revision.

Jackson St/Sylvain St Rochester NH - The City of Rochester was working on a project in Strafford Square and required the Company to cut some main out of the construction area due to conflicts. The main installation in Jackson/Sylvain was re-routed to facilitate the cut off of the main in Strafford Square. The original project consisted of the replacement of 820 feet of 2" HDPE main on Jackson Street with 1,120 feet of 8" HDPE main in Jackson Street and Sylvan Street. This project also included 12 service replacements. The project was originally authorized for \$214,177. A revision in the amount of \$266,376 was approved for costs associated with crossing of North Main St for the tie in to Jackson St. Added depth was required for the crossing of phone and electrical ducts and extra depth at the main tie in. This also increased the police detail by three days. The actual project cost of \$233,793 was 109% of the original authorization and 88% of the revised authorization.

Islington St/Bartlett St Portsmouth NH - This is a gas highway project that was started in 2017 and completed in 2018. The City of Portsmouth was undertaking a full depth reconstruction of Islington Street. There were direct conflicts with the existing gas main. The City of Portsmouth approved a proposed route for the installation of the new gas main. This authorization consisted of the replacement of 3,750 feet of 8" and 10" CI with 3,750 feet of 8" HDPE on Islington Street, 1,300 feet of 4" PE with 1,300 feet of 4" HDPE on Bartlett Street and 700 feet of 4" PE with 2" HDPE in Cate Street. The project was originally authorized for \$1,559,520. A revision in the amount of \$2,382,130 was approved for costs associated with ledge, additional paving from ledge and sidewalk

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along with 100% spoils removal. Service installation cost also increased from 100% spoils removal and work in a congested area. A second revised authorization in the amount of \$2,841,828 was approved for due to additional ledge, additional paving and the installation of a regulator station on McDonough St. This project was originally budgeted and started in 2017 and completed in 2018. The amount closed to plant in 2017 and included in the 2017 step adjustment is \$2,555,926<sup>2</sup>. The amount closed to plant in 2018 was \$324,994 for a total project cost of \$2,880,920 or 185% of the original authorization, 121% of the revised authorization and 101% of the second revised authorization.

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<sup>2</sup> Reference DG 17-070 Settlement Agreement Exhibit 3 Bates 124 Line 51