

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

**Docket No. DW 21-061**

**Aquarion Water Company of New Hampshire, Inc. o/b/o Abenaki Water Company, Inc.**

**Revised Petition of Aquarion Water Company of New Hampshire on behalf of Abenaki Water Company for approval of Financing for Rosebrook Pressure Reduction Project**

Technical Statement of Robyn J. Descoteau, Utility Analyst. Water Group  
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May 2, 2023

Pursuant to RSA 12-P:2, IV, please accept this Technical Statement as the New Hampshire Department of Energy's (DOE) recommendation to the Commission in the above-referenced matter. The DOE has reviewed the Aquarion Water Company of New Hampshire (Aquarion)/Abenaki Water Company, Inc. (Abenaki or Company) January 31, 2023, filing for Approval of Financing from the New Hampshire Department of Environmental Services (DES) Drinking Water and Groundwater Trust Fund (DWGTF). Included with this Technical Statement are the following attachments: Attachment A, Abenaki's Data Responses to DOE Set 1; and Attachment B, DOE Inter-Department Communication letter, dated February 21, 2023, from Joseph Vercellotti, P.E., the DOE's recently retired Engineer.

**Brief History of Rosebrook's Pressure Reduction Project**

The Rosebrook water system, located at the base of Mount Washington in Bretton Woods, New Hampshire, experiences pressure fluctuations and treatment issues within its water system. The DES specifically identified these issues in a Letter of Deficiency (LOD) to Abenaki on December 1, 2020<sup>1</sup>. The DES also issued an amended LOD on October 20, 2021.<sup>2</sup> Three significant deficiencies were identified: (1) Significant Distribution Deficiency: the water system's pressure exceeds the regulatory limit specified in Env-Dw 404.01(a); (2) Significant Treatment Deficiency: there was no chemical containment at the well station for the storage of chemicals or at the bulk mixing tank; and (3) Operation and Maintenance Inadequate: both chemicals used for treatment at the water system are mixed in the same tank. Prior to Aquarion's acquisition of Abenaki on December 1, 2021,<sup>3</sup> the previous owners of Abenaki, New England Service Company (NESC), had been working with the DES and other stakeholders to identify a solution that addressed the deficiencies described in the

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<sup>1</sup> Tab 1, Attachments D. Vaughan, pages 1-3.

<sup>2</sup> See Tab 10, Letter of Deficiency. See also DOE 1-1.

<sup>3</sup> See Docket No. DW 21-090, Tab 97.

LOD. Aquarion, as current owner of Abenaki, has now assumed the responsibility of remedying these issues.

Aquarion retained Tighe & Bond (T&B) of Portsmouth, an engineering consultant, to prepare a technical memorandum dated June 22, 2022, which presented several options for reducing the distribution system water pressures. The evaluation included thirteen improvement options, each with preliminary cost estimates. A hydraulic model was developed and utilized to compare system pressures and resulting fire suppression flows for the two most feasible options. Based on this, Aquarion developed a two-phase approach to address the issues outlined in the LOD. Phase 1 addresses issues identified at the Rosebrook system's wellhouse, including treatment deficiencies and wellhouse pipeline pressure issues. Phase 1 proposes to address operator safety and treatment reliability concerns at the Wellfield Treatment Plant by injecting chemicals into a low-pressure pipe. This is a safer approach than the current system in which the chemical system piping is under a constant high pressure, creating risks of chemical system leaks and the risk of chemicals being sprayed onto staff and wellhouse equipment. Additionally, each chemical will have its own chemical feed and storage system, and each chemical will have its own containment area to contain leaks or spills. These changes are intended to reduce environmental risks and improve operator safety. The proposed facility will eliminate pressure fluctuations in the distribution system with the combination of the clearwell and booster pumps.<sup>4</sup> This first phase is the subject of the proposed financing requested in the Company's January 31, 2023, revised petition.

Phase 2 will address items contained in the merger settlement agreement approved in Docket No. DW 21-090 regarding Rosebrook's high distribution system pressures. It is currently anticipated that design plans for Phase 2 will be submitted to the DES for review and approval in 2024, although Aquarion has already made the DES aware of the need for funds for Phase 2. It should be noted that both phases are required to be completed to fully resolve all issues contained in the LOD.

### **Brief Summary of Company Request**

On January 31, 2023, in response to the NH Public Utilities Commission's (Commission) procedural order dated November 1, 2022, Aquarion provided a revised and updated financing petition with corresponding supporting testimony on behalf of Abenaki. The revised petition requests that the Commission authorize Abenaki to receive financing in the forms of a \$2,520,000 25-year loan and a \$280,000 grant, both from the DWGTF administered by the DES.<sup>5</sup> The current projected interest rate of the loan of 3.17 percent will remain in effect until August 3, 2023, at which time the rate will be reassessed by the DES if the loan agreement has not been finalized. The funding requested by Aquarion will apply to Phase 1 only of the two-phase plan. Aquarion will continue to engage the DES on behalf of Abenaki to seek additional funding for Phase 2.

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<sup>4</sup> Revised Petition, Bates pages 23-24.

<sup>5</sup> Revised Petition, Bates page 1, see also Bates page 27, lines 7-12.

On February 17, 2023, Aquarion filed two supplemental attachments that provided additional information and support related to the public safety concerns to be addressed in Phase 1. The first attachment contained Aquarion's responses to comments posed by the DES on July 26, 2022, pertaining to the design of the proposed improvements.<sup>6</sup> Specifically, Aquarion explained how Phase 1 will improve operator safety and treatment reliability at the Wellfield Treatment Plant while maintaining a delicate balance between the water pressures needed to satisfy the Omni properties and those of residential customers. The second attachment was a letter from the DES dated January 30, 2023, approving the final design plans for the Wellfield Improvements (Phase 1) for bidding.

In support of the public interest standard for the proposed financing, on February 24, 2023, Aquarion filed a letter from the DES, dated February 17, 2023, which stated that the NH Drinking Water and Groundwater Advisory Commission had approved the \$2,520,000 loan and \$280,000 grant for Phase 1. Further, the letter detailed the next steps required of Aquarion to obtain the contemplated funding. Specifically, Aquarion must: (1) attain authority from the Commission to accept the funds; and (2) submit a final application. Upon completion of the final application, Aquarion will enter into a grant and loan agreement with the State, which then must be approved by the Governor and Executive Council.<sup>7</sup>

As of December 31, 2022, Abenaki's calculated debt-to-equity ratio was heavily weighted towards equity, or 14.55 percent debt to 85.45 percent equity. However, following the proposed debt financing, the debt-to-equity ratio will essentially be reversed and weighted more heavily towards debt, or 72.42 percent debt to 27.58 percent equity.<sup>8</sup> In response to DOE 1-4, the Company discussed what it may currently be considering to possibly mitigate its currently projected heavily weighted debt position after the financing. Aquarion stated, "[t]he Company's parent, Eversource Energy, plans to make capital contributions into the Company to help finance the project with an appropriate capital structure. In addition, the cost of the indebtedness...is most likely to be provided at very favorable financing rates."

The Company indicated that the anticipated impact of this loan on its annual revenue requirement would be an increase of \$258,235, or 77.47%.<sup>9</sup> In its response to DOE 1-5, Aquarion presented the impact of this financing on an average single-family residential customer based on the following assumptions: (1) applying currently authorized rates; (2) evenly distributing the impact of the Phase 1 investment on Abenaki's revenue requirement; and (3) using an average annual residential consumption of 15,500 gallons. As a result, Aquarion projects that the net impact of the proposed financing on average single-family residential rates will be an increase of \$214.73 per year, or \$17.89 per month. Aquarion, however, noted that, "[t]here is no rate impact in the absence of a rate case;" meaning that this financing would have no immediate impact on rates.

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<sup>6</sup> Attachment JPW-7, Bates pages 84-85.

<sup>7</sup> Revised Petition, Bates page 24.

<sup>8</sup> Attachment DJS-3, Bates page 89.

<sup>9</sup> Attachment JPW-4, Bates page 81.

## **DOE Recommendation**

The DOE reviewed the Company's filing, as well as the Company's data responses in support of its filing, and believes the purpose of the loan, to fund Phase 1 of the Rosebrook Pressure Reduction Project, is an appropriate use of funds. Despite the fact that the proposed financing will cause Abenaki's debt-to-equity ratio to be heavily-weighted towards debt, the financing will be provided at a favorable interest rate, resulting in anticipated long-term savings. Further, even though the projected net impact of the proposed financing on average single-family residential bills of \$17.89 per month is not insignificant, the actual impact will be explored in greater detail during Abenaki's next rate proceeding.<sup>10</sup> Abenaki's Rosebrook Water System is a relatively small water system with 407 customers. As such, the cost of financing cannot be distributed over as many customers as larger water utilities, thereby resulting in a higher impact on customer rates. During Abenaki's next rate proceeding, the actual costs and benefits of this project will be reviewed and distributed appropriately amongst the customer classes.

The projected impacts on the Company's capital structure and rates are further mitigated substantially, given that the anticipated results of Phase 1, as well as Phase 2 to follow, will be a safer and more reliable water distribution system for all customers, pursuant to the Company's duty under RSA 374:1. The Rosebrook Pressure Reduction Project will improve operator safety and treatment reliability at the Wellfield Treatment Plant while maintaining the delicate balance between the water pressures needed to satisfy the Omni properties and those of residential customers. As supported by Joseph Vercellotti, P.E., DOE's recently retired Engineer, the DOE believes the proposed Phase 1 project and estimated costs appear to be appropriate.

As such, the DOE recommends the Commission approve Aquarion's request on behalf of Abenaki for authorization to receive financing from the DWGTF in the amount of a \$2,520,000 25-year loan and a \$280,000 grant directly related to Phase 1 of the Rosebrook Pressure Reduction Project.

Attachments: Attachment A: Abenaki responses to DOE Data Requests Set 1  
Attachment B: DOE Inter-Department Communication letter from Joseph Vercellotti, P.E. dated February 21, 2023

cc: Service List (Email only)

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<sup>10</sup> The investments made pursuant to the proposed financing are still subject to future prudence review by the Commission after the investments are placed in service and prior to any approval for rate recovery under RSA 378:28.