

Aquarion Water Company of New Hampshire

DW 23-011

Aquarion Water Company's Responses to DOE Data Requests—Set 1

Data Request Received: February 28, 2023
Request No.: DOE 1-1

Date of Response: March 14, 2023
Witness: Donald J. Smiarowski

REQUEST: **DOE 1-1**

Ref: Petition, Bates p. 2, para. 4, and Bates p. 5, para. 10

Please provide the projected rate impact the proposed financing is anticipated to have on an average, single-family, residential customer, and the supporting calculations in live excel format for the following scenarios:

- a) Utilizing the estimated 5.42% rate combined with the requested 300 basis point credit spread; and
- b) Utilizing the estimated 5.42 % rate with no credit spread.

RESPONSE:

The Company has requested approval of a credit spread *up to* 300 basis points since spreads are not fixed and can change over time.

The 5.42% rate includes the impact of an estimated 245 basis point credit spread. Therefore the comparable rate assuming a 300 basis point spread would be 5.97%, or 65 basis points higher, as shown in the table below (refer also to DOE 1-1 Attachment 1, page 1 of 4):

10 year U.S. Treasury rates and spread as of January 12, 2023

	No credit spread	Petition	300 bps spread
10 yr Treasury	3.45%	3.45%	3.45%
Credit spread	0.00%	2.45%	3.00%
Estimated coupon rate	3.45%	5.90%	6.45%
Less: Patronage *	-0.48%	-0.48%	-0.48%
Effective Rate	2.97%	5.42%	5.97%

* While the patronage is not guaranteed, it has consistently been paid annually, with the amounts changing from time to time. **Testimony and Attachments of Mr. Smiarowski, Bates p. 11, line 17-18**

Regarding the projected rate impact, there can be no rate impact in the absence of a rate case. The current authorized rates will continue to be in effect. As such, the Company has presented in the table below (refer also to DOE 1-1 Attachment 1, page 2 of 4), for illustrative purposes only, the proforma impact the borrowing

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rate scenarios described above, all else equal, would have on the Company's capital structure and applied that to determine the proforma rate impact on an average, single-family, residential customer.

	<u>Annual</u>
Service Charge	\$ 219.00
<u>Usage Charge</u>	
Rate per TG	\$ 5.861
Usage in TG	50.5
Total usage charge	\$ 295.98
Total annual bill	<u>\$ 514.98</u>

		<u>Impact to bill</u>	
<u>Impact to authorized Return on Rate Base:</u>		<u>Annual</u>	<u>Monthly</u>
Petition vs. current cap structure	103.3%	\$ 17.21	\$ 1.43
300bps spread vs. current cap structure	105.5%	\$ 28.35	\$ 2.36
No credit spread vs. current cap structure	93.7%	\$ (32.45)	\$ (2.70)

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10 year U.S. Treasury rates and spread as of January 12, 2023

	No credit spread	Petition	300 bps spread
10 yr Treasury	3.45%	3.45%	3.45%
Credit spread	0.00%	2.45%	3.00%
Estimated coupon rate	3.45%	5.90%	6.45%
Less: Patronage *	-0.48%	-0.48%	-0.48%
Effective Rate	2.97%	5.42%	5.97%

*While the patronage is not guaranteed, it has consistently been paid annually, with the amounts changing from time to time. Testimony and Attachments of Mr. Smiarowski, Bates p. 11, line 17-18

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Annual Residential Bill Impact @ 50,500 Gallons
Rates effective March 1, 2023 (DW 20-184)

	Annual
Service Charge	\$ 219.00
<u>Usage Charge</u>	
Rate per TG	\$ 5.861
Usage in TG	50.5
Total usage charge	\$ 295.98
Total annual bill	<u>\$ 514.98</u>

Impact to authorized Return on Rate Base:		Impact to bill	
		Annual	Monthly
Petition vs. current cap strucutre	103.3%	\$ 17.21	\$ 1.43
300bps spread vs. current cap structure	105.5%	\$ 28.35	\$ 2.36
No credit spread vs. current cap structure	93.7%	\$ (32.45)	\$ (2.70)

CAPITAL STRUCTURE

Line No.	Description	A	B	C	D	E	F	G	H	I
		Authorized	DW 20-184	[A x B]		[A x D]		[A x F]		[A x H]
		Ratio	Component Cost	Weighted Cost	Component Cost	Weighted Cost	Component Cost	Weighted Cost	Component Cost	Weighted Cost
1										
2	Long Term Debt	45.57%	5.68%	2.59%	6.23%	2.84%	6.59%	3.00%	4.63%	2.11%
3										
4	Preferred Stock	0.01%	6.00%	0.00%		0.00%		0.00%		0.00%
5										
6	Equity	54.42%	9.10%	4.95%		4.95%		4.95%		4.95%
7										
8	Total Capitalization / Return on Rate Base	100.00%		7.54%		7.79%		7.95%		7.06%
9										
			variance to auhtorized Return on Rate Base			103.3%		105.5%		93.7%

WEIGHTED AVERAGE COST OF LONG TERM DEBT

Line No.	Issue	Issuance Date	Maturity	Face Value	Amount Outstanding	Coupon Rate	Cost Rate	Debt Weighting	Weighted Average Cost Rate
1									
2	<u>Authorized DW 20-184</u>								
3	4.45% Private Placement (10 yr)	Jul-12	2022	5,000,000	5,000,000	4.89%	5.09%	36.0%	1.83%
4	7.71% Private Placement (30 yr)	Nov-93	2023	3,000,000	3,000,000	4.89%	5.09%	21.6%	1.10%
5	6.21% Private Placement (30 yr)	Aug-05	2035	5,900,000	5,900,000	6.21%	6.47%	42.4%	2.75%
6					<u>\$ 13,900,000</u>			100.0%	<u>5.68%</u>
7									
8	<u>Petition (245 basis point credit spread)</u>								
9	6.21% Private Placement (30 yr)	Aug-05		5,900,000	5,900,000	6.21%	6.47%	34.91%	2.26%
10	New Issuance			11,000,000	11,000,000	5.90%	6.10%	65.09%	3.97%
11					<u>\$ 16,900,000</u>				<u>6.23%</u>
12									
13	<u>300 basis point credit spread</u>								
14	6.21% Private Placement (30 yr)	Aug-05		5,900,000	5,900,000	6.21%	6.47%	34.91%	2.26%
15	New Issuance			11,000,000	11,000,000	6.45%	6.65%	65.09%	4.33%
16					<u>\$ 16,900,000</u>				<u>6.59%</u>
17									
18	<u>No credit spread</u>								
19	6.21% Private Placement (30 yr)	Aug-05		5,900,000	5,900,000	6.21%	6.47%	34.91%	2.26%
20	New Issuance			11,000,000	11,000,000	3.45%	3.65%	65.09%	2.38%
21					<u>\$ 16,900,000</u>				<u>4.63%</u>
22									

Aquarion Water Company of New Hampshire

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Aquarion Water Company's Responses to DOE Data Requests—Set 1

Data Request Received: February 28, 2023
Request No.: DOE 1-2

Date of Response: March 14, 2023
Witness: Donald J. Smiarowski

REQUEST: **DOE 1-2**

Ref: Petition, Bates p. 1, para. 2, and Testimony of Mr. Smiarowski, Bates p. 12, Line 10

Regarding the planned 2023 Capital Expenditures the Company intends to use the funds for, please provide the following details:

- a) Name of project;
- b) Location;
- c) Estimated Cost;
- d) Estimated Completion Date;
- e) Brief Description of the need for the project.

RESPONSE: Please refer to DOE 1-2 Attachment 1 for the planned 2023 capital expenditures.

PROJECT NAME	LOCATION	EST. START DATE	EST. COMPLETION DATE	EST. 2023 EXPENDITURES	PROJECT DESCRIPTION/NEED
Building Security Upgrades (NH)	Hampton	7/1/2023	7/30/2023	\$25,000	Miscellaneous improvements related to building security, such as lighting, motion sensors, surveillance, security software, alarms, fencing, and other improvements.
Truck Purchase (NH)	Hampton	1/1/2023	12/31/2023	\$60,000	Purchase/replacement of a new fleet truck.
SCADA (NH)	Hampton	1/1/2023	12/31/2023	\$17,362	Miscellaneous SCADA improvements, including software and hardware upgrades.
Hydrant Replacements (NH)	Hampton	1/1/2023	12/31/2023	\$9,648	Replace hydrants that are found to be inoperative by means of local fire departments and hydrant programs.
New Meter Replacements (NH)	Hampton	1/1/2023	12/31/2023	\$41,687	Install meters for new accounts and existing non-metered accounts and replace malfunctioning meters on existing accounts.
Periodic Meter Replacements (NH)	Hampton	1/1/2023	12/31/2023	\$140,309	Replacement and testing of meters to meet regulatory requirements.
New Service Connections (NH)	Hampton	1/1/2023	12/31/2023	\$77,171	New service connections to Aquarion's water mains in New Hampshire. Per customer requests.
Replacements Service Connections (NH)	Hampton	1/1/2023	12/31/2023	\$40,514	Replace customer service lines that are proven to be materially deficient or leaking, due to environmental factors that cause leaking. Also, replace customer inoperable curb valves.
Replacements Valves (NH)	Hampton	1/1/2023	12/31/2023	\$10,610	Reactive replacement of valves that are broken at the time of schedule operations, opportunistic installation of new valves during a main break and as part of valve box raising program, which is directly related to each municipality's paving schedule.
Recurring Capital (NH) - SOS	Hampton	1/1/2023	12/31/2023	\$57,875	Miscellaneous capital improvements including well pumps, remediation, pitless adapters, and other improvements related to source of supply.
Recurring Capital (NH) - Pumping	Hampton	1/1/2023	12/31/2023	\$47,264	Miscellaneous capital improvements including pumps, electrical, transmitters, pressure gauges, and other improvements related to pumping.
Recurring Capital (NH) - Treatment	Hampton	1/1/2023	12/31/2023	\$15,432	Miscellaneous capital improvements including pumps, valves, analyzers, VFDs, motors, generators, and other improvements related to treatment.
Recurring Capital (NH) - T&D	Hampton	1/1/2023	12/31/2023	\$30,870	Miscellaneous capital improvements including meters, PRVs, tank overflow, , and other improvements related to transmission and distribution.
Recurring Capital (NH) - General/Other	Hampton	1/1/2023	12/31/2023	\$16,395	Miscellaneous capital improvements including building improvements, lab equipment, small tools, safety improvements, and other improvements related to general and other.
Capitalized Main Breaks (NH)	Hampton	1/1/2023	12/31/2023	\$19,289	Replace all damaged main sections over 10 feet in length when found beyond repair, during a main break.
Emergency Response Plan Updates	Hampton	2/1/2023	7/30/2023	\$15,000	The Emergency Response Plan (ERP) Updates in NH are needed in order to standardize our emergency response plans/processes/procedures across all systems. The plan is to have all ERPs use on set of standards, which includes implementing an Incident Command System (ICS). An ICS process will enable us to better managed critical events that may occur within the water systems.
COR Main Replacements	Hampton	5/1/2023	5/30/2023	\$2,000	Cost or removal related to main replacement projects.
Main Replacements	Hampton	1/1/2023	12/31/2023	\$196,762	Design and commencement of Execution to replace approximately 450' feet of 8" ductile iron main on Landing Road, with 8" HDPE main and replace approximately 405' of 6" AC main on Emery Lane, with 8" ductile iron main.
Highland Ave, Hampton	Hampton	12/1/2022	12/31/2023	\$103,238	Replacement of approximately 225 feet of 16" concrete main with 16" HDPE main, to improve system reliability.
Mill Rd PS Improvements	Hampton/ North Hampton	3/24/2022	6/30/2025	\$147,338	Improve reliability and efficiency of the Mill Road Booster Station that serves the Hampton and North Hampton water system.
Exeter Road Tank Replacement	Hampton	5/1/2023	12/31/2025	\$95,000	The intent of the project is to replace an existing steel storage tank that has reached the end of its useful life. Design and permitting are planned for 2023, with construction to follow in 2025-2026
Mill Rd Well 22 (w/ Arsenic Removal)	Hampton	9/1/2016	2/28/2025	\$1,500,000	Increase the available supply within the New Hampshire system to meet existing and future demands with an adequate safety of margin, including new treatment building and chemical systems for combined Well 7 & 22. Will include Arsenic removal.
Mill Road Building Dehumidification	Hampton	6/5/2023	12/1/2023	\$95,000	The goal of the project is to install a dehumidification system at a facility that was upgraded for PFAS treatment. There is an issue with excessive condensation off of the PFAS vessels that will be mitigated with the installation of the dehumidification system.
TOTAL:				\$2,763,764	

Aquarion Water Company of New Hampshire

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Aquarion Water Company's Responses to DOE Data Requests—Set 1

Data Request Received: February 28, 2023
Request No.: DOE 1-3

Date of Response: March 14, 2023
Witness: Donald J. Smiarowski

REQUEST: **DOE 1-3**

Ref: Petition Bates p. 1, para 2, and Testimony of Mr. Smiarowski, Bates p. 12, Line 13

The Company describes one of the uses of the bond proceeds is to “Refinance short-term debt”. Is this also understood to mean “converting short-term debt to long-term debt”.

RESPONSE: Yes, the Company intends to refinance/convert short-term debt to long-term debt.

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Aquarion Water Company's Responses to DOE Data Requests—Set 1

Data Request Received: February 28, 2023
Request No.: DOE 1-4

Date of Response: March 14, 2023
Witness: Donald J. Smiarowski

REQUEST: **DOE 1-4**

Ref: Petition, Bates p. 1, para. 2, and Testimony of Mr. Smiarowski, Bates p. 12, Line 13

The Company has requested to refinance \$3.0 million of short-term debt. Please briefly explain, and provide support, as to what comprises that amount.

RESPONSE: This \$3.0 million primarily arose from the maturity of the prior year's long-term debt. But generally, the Company primarily uses short-term debt to fund capital expenditures and working capital before ultimately converting to long-term debt.

Aquarion Water Company of New Hampshire

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Aquarion Water Company's Responses to DOE Data Requests—Set 1

Data Request Received: February 28, 2023
Request No.: DOE 1-5

Date of Response: March 14, 2023
Witness: Donald J. Smiarowski

REQUEST: **DOE 1-5**

Ref: Testimony of Mr. Smiarowski, Bates p. 20, Line 6

Please explain further the ‘special dividend’.

RESPONSE: The special dividend is a non-recurring dividend paid to shareholders in addition to regular quarterly dividends. The purpose of the special dividend is to reduce the equity component of the capital structure resulting in a lower equity ratio.

Aquarion Water Company of New Hampshire

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Aquarion Water Company's Responses to DOE Data Requests—Set 1

Data Request Received: February 28, 2023
Request No.: DOE 1-6

Date of Response: March 14, 2023
Witness: Donald J. Smiarowski

REQUEST: **DOE 1-6**

Ref: Attachments of Mr. Smiarowski, Bates p. 23, Attachment DJS-2

Please provide additional support regarding the following:

- a) The Company's Attorney Fees; and
- b) The Trustee and Trustee Attorney Fees.

RESPONSE: a) \$50,000 is the estimate for outside counsel services to execute and oversee this financing.
b) Please refer to DOE 1-6 Attachment 1 for additional support for the above Trustee and Trustee Attorney Fees.

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DOE 1-6 Attachment 1
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Global Corporate Trust Services

Two Liberty Place
50 S. 16th Street, Suite 2000
EX-PA-WBSP
Philadelphia, PA 19102

Tel: 215-761-9315
Fax 215-761-9412

January 12, 2023

Mr. DJ Smiarowski
Aquarion Water Company of
New Hampshire

via email: dj.smiarowski@eversource.com

RE: Fee Proposal, Aquarion Water Company of New Hampshire, First Mortgage Bond, Series 2023

Dear DJ:

Enclosed please find a Fee Schedule from U.S. Bank Corporate Trust Services to act as Trustee, Paying Agent, Transfer Agent and Registrar for the above-referenced transaction. Thank you for the opportunity.

Our ultimate acceptance of the appointment is contingent upon having in place documentation satisfactory to the Bank. On behalf of U.S. Bank Corporate Trust Services, I thank you for the opportunity to be of service, and invite you to call or write should you have any questions regarding this proposal or any aspect of our services.

Sincerely,

Gregory P. Guim

Gregory P. Guim
Vice President

cc: Annette Marsula – U.S. Bank

Trustee, Transfer Agent, Paying Agent and Registrar for:

Issuer: AQUARION WATER COMPANY OF NEW HAMPSHIRE

Issue: AQUARION WATER COMPANY OF NEW HAMPSHIRE FIRST MORTGAGE BOND, SERIES 2023

Schedule of Fees:

Acceptance Fee:	\$750.00	One-time, In advance
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Annual Administration Fee: (\$1,000. Per Series)	\$900.00	Annually, In advance
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Legal Fees and Expenses:	At Cost – Capped at \$7,500.
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Trustee Counsel: Robert A. Ripin -Partner	Hogan Lovells US LLP 390 Madison Avenue New York, NY 10017
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The Acceptance Fee, Annual Administration Fee, Trustee Fee and Legal Fees are payable at the closing of this transaction. Thereafter, the Annual Administration Fee, Trustee Fee and any out-of-pocket expenses will be billed on the anniversary date of the closing. The Annual Administration Fee will not be pro-rated.

The above-mentioned Fees are basic charges and do not include out-of-pocket expenses, which will be billed in addition to the regular charges as required. Out-of-pocket expenses shall include, but are not limited to: telephone tolls, stationery, travel and postage expenses.

Funds will be invested based on the permitted investments in the Governing documents and as instructed by the client/customer pursuant to the Investment Authorization letter. Unless otherwise directed, all trust funds will be automatically invested into the First American Government Obligations Funds Class Y.

Charges for performing extraordinary or other services not contemplated at the time of the execution of the transaction or not specifically covered elsewhere in this schedule will be determined by appraisal in amounts commensurate with the service to be provided.

In the event of default we will charge an hourly rate for performing extraordinary services in addition to the services covered by our Annual Administration Fee. The hourly rates charged will be those that are published in the Fee Section of our Bond Administration Policy then in effect.

To help the government fight the funding of terrorism and money laundering activities, Federal law requires all financial institutions to obtain, verify and record information that identifies each person who opens an account. For a non-individual person such as a business entity, a charity, a Trust or other legal entity we will ask for documentation to verify its formation and existence as a legal entity. We may also ask to see financial statements, licenses, identification and authorization documents from individuals claiming authority to represent the entity or other relevant documentation.

Our proposal is subject in all aspects to our review and acceptance of the final documents, which set forth our duties and responsibilities, and the approval of this new business by our New Business Acceptance Committee.

AGREED: AQUARION WATER COMPANY OF NEW HAMPSHIRE

Signature: _____

Name: _____

Title: _____

Date: _____

Aquarion Water Company of New Hampshire

DW 23-011

Aquarion Water Company's Responses to DOE Data Requests—Set 1

Data Request Received: February 28, 2023
Request No.: DOE 1-7

Date of Response: March 14, 2023
Witness: Donald J. Smiarowski

REQUEST: **DOE 1-7**

Ref: Testimony and Attachments of Mr. Smiarowski, Bates p. 13, line 1-17, and Bates p. 32, Attachment DJS-8

The “Summary of Terms and Conditions” on Bates p. 32 appears to indicate one of the long-term debt options is an amortizing 20-year term option, with an annual rate of 6.72%. Please explain if the 0.48% rate reduction resulting from the patronage would, or would not, also apply to this option, and if the 6.72% reflects that rate reduction.

RESPONSE: Yes, if cash patronage (referred to as rate reduction above), which is currently 48 bps but is subject to change and not guaranteed to be offered at all, is given, it would apply to any financing from CoBank whether it is a fixed or variable rate, as well as whether it is a bullet or amortizing maturity. However, none of the pricing on the “Summary of Terms and Conditions”, including the pricing option referenced in the question, reflects the 0.48% rate reduction resulting from the patronage.

Aquarion Water Company of New Hampshire

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Aquarion Water Company's Responses to DOE Data Requests—Set 1

Data Request Received: February 28, 2023
Request No.: DOE 1-8

Date of Response: March 14, 2023
Witness: Donald J. Smiarowski

REQUEST: DOE 1-8

Ref: Testimony and Attachments of Mr. Smiarowski, Bates p. 15, Lines 4-10

The testimony appears to reflect that other lenders declined to present offers for the Company's consideration due to the debt issuance being too small or the lenders' inability to compete with non-amortizing loans. Please explain further, and also, if the Company discussed amortizing loans with these lenders.

RESPONSE: Yes, as stated in the testimony, the Company reached out to an existing bondholder. The deal size was too small for the bondholder and it declined to bid on the new financing.

The Company also reached out to two banks which had lent to Aquarion's sister companies in the past. These lenders only discussed offering amortizing loans as an option. While formal offers were not provided, the banks did express to the Company that they could not offer as competitive a bid as CoBank, particularly once taking the patronage credit into account.

Aquarion Water Company of New Hampshire

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Aquarion Water Company's Responses to DOE Data Requests—Set 1

Data Request Received: February 28, 2023
Request No.: DOE 1-9

Date of Response: March 14, 2023
Witness: Donald J. Smiarowski

REQUEST: DOE 1-9

Ref: Petition, Testimony and Attachments of Mr. Smiarowski, Bates p. 15, Line 12+

Please explain further:

- a) Did the Company consider any other types of bond offerings such as serialized; and
- b) Does CoBank offer, and did the Company consider, any other types of long-term debt, such as a traditionally amortizing loan?

RESPONSE: a) Serialized bonds are not used in the taxable private placement market. Other types of bonds were considered, but ultimately the fixed rate bullet maturity proved to be the most cost effective option.

b) Please refer to the Company's response to DOE 1-10. CoBank does offer and the Company would have considered a traditionally amortizing loan if it was less costly than a bullet maturity. However, amortizing loans with the same weighted average maturity as a bullet maturity are not more cost effective given lower investor demand, and so the Company declined to pursue this type of loan.

Aquarion Water Company of New Hampshire

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Aquarion Water Company's Responses to DOE Data Requests—Set 1

Data Request Received: February 28, 2023
Request No.: DOE 1-10

Date of Response: March 14, 2023
Witness: Donald J. Smiarowski

REQUEST: DOE 1-10

Ref: Attachments of Mr. Smiarowski, Bates p. 32, “Prepayment”

- a) Please indicate if any of the loan options under the Company’s consideration contain a variable rate, or if they are all fixed rate; and
- b) If applicable, explain further the prepayment penalty for variable rate loans, what is meant by the term SOFR; and
- c) If applicable, what is the standard prepayment penalty for fixed rate loans.

RESPONSE: a) CoBank does offer variable rate loan options. However, given the rising short-term rate environment, it is currently more cost effective to issue fixed rate debt.

b) Since the variable rate is reset on a regular basis, there is no prepayment penalty. SOFR is the index upon which variable rate loans are priced. The term SOFR is an abbreviation for “Secured Overnight Financing Rate. It is based on the rates that United States financial institutions pay each other for overnight loans. SOFR replaced LIBOR (London Inter-bank Offered Rate) and is considered to be a more accurate and secure benchmark.

c) The standard prepayment penalty for a CoBank fixed rate loan is a break fee which reimburses the lender for the difference between the current rate in the market and the fixed rate of the loan. There is no prepayment penalty if the market rate is higher than the fixed rate of the loan.

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Aquarion Water Company's Responses to DOE Data Requests—Set 1

Data Request Received: February 28, 2023
Request No.: DOE 1-11

Date of Response: March 14, 2023
Witness: Donald J. Smiarowski

REQUEST: DOE 1-11

Ref: Attachments of Mr. Smiarowski, Bates p. 27

The Company indicated that after the proposed bonding is closed, the debt-to-equity ratio would be 40.8% debt to 59.2% equity. The debt-to-equity ratio as approved in the Company's most recent rate case, DW 20-184, was 45.45% debt at a cost of 5.68%, and 54.42% equity at a cost of 9.10%. Please discuss further if the Company is considering any actions to achieve a more balanced capitalization ratio, one that is closer to 50% debt and 50% equity, considering that equity tends to be more costly than debt.

RESPONSE: The Company's actual capital structure on its books is subject to change throughout the year as capital additions are completed, as dividend and equity contributions are made and as retained earnings are accrued, among other potentially influencing factors. These fluctuations can result in a debt to equity ratio other than what is approved in the Company's rate case for a period of time, but the objective is to ultimately maintain the Commission-approved debt to equity ratio. The proposed financing plan will reduce the current equity ratio of 75.3% to 59.2% and the Company expects that the equity ratio will reduce further toward the Commission-approved ratio as a matter of the normal course of utility operations including the factors listed above.

Aquarion Water Company of New Hampshire

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Aquarion Water Company's Responses to DOE Data Requests—Set 2

Data Request Received: March 29, 2023
Request No.: DOE 2-1

Date of Response: April 5, 2023
Witness: Donald J. Smiarowski

REQUEST: **DOE 2-1**

Ref: DOE 1-1

Please modify DOE Attachment 1-1 using the numbers and terms as found in the Company's tariff submitted for PUC consideration on March 14, 2023 ("CCF" instead of "TG") and explain how the Company arrived at the total annual usage number for the average, single-family residential customer, including which class or classes of customers, as found on the tariff, were included in that calculation.

RESPONSE: Please refer to DOE 2-1 Attachment 1, page 2 of 4 which reflects a correction to the previously reported consumption from TG to CCF. The revised consumption reflects an average annual usage of 70 CCF for a residential customer based on 2022 average consumption.

The bill impact was determined based on current rates, which can be found in the Company's current tariff on Sixth Revised Tariff Page 12, "Schedule of Water Rates for Metered Service." These rates are applicable to "all customers, except those using the Company's service for fire service and those who do not take metered water service for twelve consecutive months" (non-seasonal).

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Aquarion Water Company of New Hampshire, Inc.
DOE 2-1 Attachment 1
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10 year U.S. Treasury rates and spread as of January 12, 2023

	No credit spread	Petition	300 bps spread
10 yr Treasury	3.45%	3.45%	3.45%
Credit spread	0.00%	2.45%	3.00%
Estimated coupon rate	3.45%	5.90%	6.45%
Less: Patronage *	-0.48%	-0.48%	-0.48%
Effective Rate	2.97%	5.42%	5.97%

*While the patronage is not guaranteed, it has consistently been paid annually, with the amounts changing from time to time. Testimony and Attachments of Mr. Smiarowski, Bates p. 11, line 17-18

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DOE 2-1 Attachment 1
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Annual Non Seasonal Residential Bill Impact @ 70 CCF
Rates effective March 1, 2023 (DW 20-184)

	Annual
Service Charge for 5/8" meter	\$ 219.00
<u>Usage Charge</u>	
Rate per CCF	\$ 5.861
Usage in CCF	70.0
Total usage charge	\$ 410.27
Total annual bill	\$ 629.27

Impact to authorized Return on Rate Base:		Impact to bill	
		Annual	Monthly
Petition vs. current cap strucutre	103.3%	\$ 21.02	\$ 1.75
300bps spread vs. current cap structure	105.5%	\$ 34.64	\$ 2.89
No credit spread vs. current cap structure	93.7%	\$ (39.65)	\$ (3.30)

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CAPITAL STRUCTURE

Line No.	Description	A		C [A x B]	D		E [A x D]		F		G [A x F]		H		I [A x H]	
		Authorized	DW 20-184		Petition				300 bps credit spread				No credit spread			
		Ratio	Component Cost	Weighted Cost	Component Cost		Weighted Cost		Component Cost		Weighted Cost		Component Cost		Weighted Cost	
1																
2	Long Term Debt	45.57%	5.68%	2.59%	6.23%		2.84%		6.59%		3.00%		4.63%		2.11%	
3																
4	Preferred Stock	0.01%	6.00%	0.00%			0.00%				0.00%				0.00%	
5																
6	Equity	54.42%	9.10%	4.95%			4.95%				4.95%				4.95%	
7																
8	Total Capitalization / Return on Rate Base	100.00%		7.54%			7.79%				7.95%				7.06%	
9																
			variance to auhtorized Return on Rate Base				103.3%				105.5%				93.7%	

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WEIGHTED AVERAGE COST OF LONG TERM DEBT

Line No.	Issue	Issuance Date	Maturity	Face Value	Amount Outstanding	Coupon Rate	Cost Rate	Debt Weighting	Weighted Average Cost Rate
1									
2	<u>Authorized DW 20-184</u>								
3	4.45% Private Placement (10 yr)	Jul-12	2022	5,000,000	5,000,000	4.89%	5.09%	36.0%	1.83%
4	7.71% Private Placement (30 yr)	Nov-93	2023	3,000,000	3,000,000	4.89%	5.09%	21.6%	1.10%
5	6.21% Private Placement (30 yr)	Aug-05	2035	5,900,000	5,900,000	6.21%	6.47%	42.4%	2.75%
6					<u>\$ 13,900,000</u>			100.0%	<u>5.68%</u>
7									
8	<u>Petition (245 basis point credit spread)</u>								
9	6.21% Private Placement (30 yr)	Aug-05		5,900,000	5,900,000	6.21%	6.47%	34.91%	2.26%
10	New Issuance			11,000,000	<u>11,000,000</u>	5.90%	6.10%	65.09%	<u>3.97%</u>
11					<u>\$ 16,900,000</u>				<u>6.23%</u>
12									
13	<u>300 basis point credit spread</u>								
14	6.21% Private Placement (30 yr)	Aug-05		5,900,000	5,900,000	6.21%	6.47%	34.91%	2.26%
15	New Issuance			11,000,000	<u>11,000,000</u>	6.45%	6.65%	65.09%	<u>4.33%</u>
16					<u>\$ 16,900,000</u>				<u>6.59%</u>
17									
18	<u>No credit spread</u>								
19	6.21% Private Placement (30 yr)	Aug-05		5,900,000	5,900,000	6.21%	6.47%	34.91%	2.26%
20	New Issuance			11,000,000	<u>11,000,000</u>	3.45%	3.65%	65.09%	<u>2.38%</u>
21					<u>\$ 16,900,000</u>				<u>4.63%</u>
22									

Aquarion Water Company of New Hampshire

DW 23-011

Aquarion Water Company's Responses to DOE Data Requests—Set 2

Data Request Received: March 29, 2023
Request No.: DOE 2-2

Date of Response: April 5, 2023
Witness: D. Smiarowski

REQUEST: **DOE 2-2**

Ref: DOE 1-1, and Testimony of Mr. Smiarowski, Attachment DJS-8, Bates p. 32

- a) For each year of the financing, please provide the interest “savings” created by comparing the company’s preferred financing option (Bullet 10-year maturity at 6.14%) with the option of an amortizing 20-year maturity at 6.72%. For the savings calculated for each year, please translate each amount into the impact it would have on customer rates.
- b) Also provide a narrative supporting and explaining: 1) any assumptions made in the analysis provided in (a); 2) any differences in structure and treatment of the two options; and 3) implications of those structural/treatment differences whether it’s cost or time (i.e. additional filings, refinancing, etc.)

RESPONSE:

- a) Please refer to DOE 2-2 Attachment 1 for interest “savings” for each year of the financing, created by comparing the company’s preferred financing option (Bullet 10-year maturity at 6.14%) with the option of an amortizing 20-year maturity at 6.72%. The Company would first like to note that there is no rate impact until the completion of a rate case and establishment of new permanent rates. But for illustrative purposes only, the Company has calculated, using current rates, that the Amortizing loan financing would result in a proforma increase to customers of approximately \$18 when compared to the Bullet loan financing, all else being equal. To determine the impact on customer rates it was first necessary to determine the proforma return on rate base for each financing option. Please refer to DOE 2-2 Attachment 2 for the supporting calculations.
- b) Please see the bottom of DOE 2-2 Attachment 1 for this narrative explanation.

Other than this present petition and adjudicative proceeding, there would be at least two additional regulatory filings creating new dockets to receive necessary Commission approvals that would be entailed with the selection of the Amortizing long-term debt compared to the Bullet Maturity in the first ten years. After the Bullet Maturity refinance in year 11, there will be at least two more filings, also requiring separate docketed processes and Commission approvals needed for the Amortizing long-term debt. In total, the Bullet Maturity would require two regulatory filings

Aquarion Water Company of New Hampshire

DW 23-011

Aquarion Water Company's Responses to DOE Data Requests—Set 2

Data Request Received: March 29, 2023
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Witness: D. Smiarowski

(this current filing plus one more in year 11) and the Amortizing long-term debt would require five regulatory filings (current filing plus two in the first ten years and two in the last ten years).

Docket No. DW 23-011
DOE 2-2 Attachment 1

Cost comparison Bullet maturity vs amortizing maturity over 20 years

Total cost Amortizing Loan	\$15,309,000
Total cost Bullet Loan	<u>\$13,718,000</u>
Total Savings from Bullet Loan vs Amortizing Loan	<u>\$1,591,000</u>

Comparison of Bullet vs amortizing			Bullet (6.14%)			Amortizing (6.72%)		
			Interest	Issuance costs	Total cost	Interest	Issuance costs	Total cost
Yr. 1	2023-24		\$675,400	\$105,000	\$780,400	\$739,200	\$105,000	\$844,200
Yr 2	2024-25		675,400	-	675,400	739,200	-	739,200
Yr 3	2025-26		675,400	-	675,400	739,200	-	739,200
Yr 4	2026-27		675,400	-	675,400	739,200	-	739,200
Yr 5	2027-28		675,400	-	675,400	739,200	105,000	844,200
Yr 6	2028-29		675,400	-	675,400	739,200	-	739,200
Yr 7	2029-30		675,400	-	675,400	739,200	-	739,200
Yr 8	2030-31		675,400	-	675,400	739,200	-	739,200
Yr 9	2031-32		675,400	-	675,400	739,200	105,000	844,200
Yr 10	2032-33		675,400	-	675,400	739,200	-	739,200
Yr 11	2033-34		675,400	105,000	780,400	739,200	-	739,200
Yr 12	2034-35		675,400	-	675,400	739,200	-	739,200
Yr 13	2035-36		675,400	-	675,400	739,200	105,000	844,200
Yr 14	2036-37		675,400	-	675,400	739,200	-	739,200
Yr 15	2037-38		675,400	-	675,400	739,200	-	739,200
Yr 16	2038-39		675,400	-	675,400	739,200	-	739,200
Yr 17	2039-40		675,400	-	675,400	739,200	105,000	844,200
Yr 18	2040-41		675,400	-	675,400	739,200	-	739,200
Yr 19	2041-42		675,400	-	675,400	739,200	-	739,200
Yr 20	2042-43		675,400	-	675,400	739,200	-	739,200
Total cost over 20 years			\$ 13,508,000	\$210,000	\$13,718,000	\$14,784,000	\$525,000	\$15,309,000

Bullet Financing Structure vs. Amortizing Loan Financing Structure Assumptions

Assumption	Bullet	Amortizing Structure
Interest Rate	6.14%	6.72%
Amount of Issuance	\$11,000,000	\$11,000,000
Maturity	10 years (2033)	20 years Final Life (2043) 10 years weighted average life
Refinancing Maturity	10 years (2043)	\$550,000 matures annually and is refinanced each year with short-term debt at the same rate, 6.72%. Every 4 years the debt is refinanced long-term until 2043.
Refinancing Rate	6.14%	6.72%
Issuance Costs	\$105,000	\$105,000
Annual interest cost	\$675,400	\$739,200

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Aquarion Water Company of New Hampshire, Inc.
DOE 2-2 Attachment 2
Page 1 of 3

Annual Non Seasonal Residential Bill Impact @ 70 CCF
Rates effective March 1, 2023 (DW 20-184)

	Annual
Service Charge for 5/8" meter	\$ 219.00
<u>Usage Charge</u>	
Rate per CCF	\$ 5.861
Usage in CCF	70.0
Total usage charge	\$ 410.27
Total annual bill	<u>\$ 629.27</u>

		Impact to bill	
Impact to authorized Return on Rate Base:		Annual	Monthly
New Issuance Bullet Loan	104.0%	\$ 25.20	\$ 2.10
New Issuance Amortizing Loan	106.8%	\$ 43.05	\$ 3.59
Impact on Average Bill		\$ 17.85	\$ 1.49

CAPITAL STRUCTURE

Line No.	Description	A	B	C	D	E	F	G
		Authorized	DW 20-184	[A x B]	Bullet (DOE 2-2 Att1, page 3)	[A x D]	Amortizing Loan (DOE 2-2 Att 1, page3)	[A x F]
		Ratio	Component Cost	Weighted Cost	Component Cost	Weighted Cost	Component Cost	Weighted Cost
1								
2	Long Term Debt	45.57%	5.68%	2.59%	6.34%	2.89%	6.81%	3.10%
3								
4	Preferred Stock	0.01%	6.00%	0.00%		0.00%		0.00%
5								
6	Equity	54.42%	9.10%	4.95%		4.95%		4.95%
7								
8	Total Capitalization / Return on Rate Base	100.00%		7.54%		7.84%		8.05%
9								
			variance to auhtorized Return on Rate Base			104.0%		106.8%

WEIGHTED AVERAGE COST OF LONG TERM DEBT

Line No.	Issue	Issuance Date	Maturity	Face Value	Amount Outstanding	Coupon Rate	Cost Rate	Debt Weighting	Weighted Average Cost Rate
1									
2	<u>Authorized DW 20-184</u>								
3	4.45% Private Placement (10 yr)	Jul-12	2022	5,000,000	5,000,000	4.89%	5.09%	36.0%	1.83%
4	7.71% Private Placement (30 yr)	Nov-93	2023	3,000,000	3,000,000	4.89%	5.09%	21.6%	1.10%
5	6.21% Private Placement (30 yr)	Aug-05	2035	5,900,000	5,900,000	6.21%	6.47%	42.4%	2.75%
6					<u>\$ 13,900,000</u>			100.0%	<u>5.68%</u>
7									
8	<u>New Issuance with Bullet Loan</u>								
9	6.21% Private Placement (30 yr)	Aug-05		5,900,000	5,900,000	6.21%	6.47%	34.91%	2.26%
10	New Issuance			11,000,000	11,000,000	6.14%	6.27%	65.09%	4.08%
11					<u>\$ 16,900,000</u>				<u>6.34%</u>
12									
13	<u>New Issuance with Amortizing loan</u>								
14	6.21% Private Placement (30 yr)	Aug-05		5,900,000	5,900,000	6.21%	6.47%	34.91%	2.26%
15	New Issuance			11,000,000	11,000,000	6.72%	6.99%	65.09%	4.55%
16					<u>\$ 16,900,000</u>				<u>6.81%</u>
17									
18									
19	New issuance								
20	Loan	11,000,000	Bullet		Amortizing				
21	Coupon Rate		6.14%		6.72%				
22									
23	Cost Rate		6.27%		6.99%				
24	<u>Net Proceeds</u>	<u>Issuance</u>	<u>Net Cash</u>	<u>Issuance</u>	<u>Net Cash</u>				
25		(105,000)	10,895,000	(105,000)	10,895,000				
26	Year 1		(675,400)		(739,200)				
27	Year 2		(675,400)		(739,200)				
28	Year 3		(675,400)		(739,200)				
29	Year 4		(675,400)		(739,200)				
30	Year 5		(675,400)	(105,000)	(844,200)				
31	Year 6		(675,400)		(739,200)				
32	Year 7		(675,400)		(739,200)				
33	Year 8		(675,400)		(739,200)				
34	Year 9		(675,400)	(105,000)	(844,200)				
35	Year 10		(675,400)		(739,200)				
36	Year 11	(105,000)	(780,400)		(739,200)				
37	Year 12		(675,400)		(739,200)				
38	Year 13		(675,400)	(105,000)	(844,200)				
39	Year 14		(675,400)		(739,200)				
40	Year 15		(675,400)		(739,200)				
41	Year 16		(675,400)		(739,200)				
42	Year 17		(675,400)	(105,000)	(844,200)				
43	Year 18		(675,400)		(739,200)				
44	Year 19		(675,400)		(739,200)				
45	Year 20		(11,675,400)		(11,739,200)				

Aquarion Water Company of New Hampshire

DW 23-011

Aquarion Water Company's Responses to DOE Data Requests—Set 2

Data Request Received: March 29, 2023
Request No.: DOE 2-3

Date of Response: April 5, 2023
Witness: Donald J. Smiarowski

REQUEST: **DOE 2-3**

Ref: DOE 1-11

Please indicate and explain, the target capital structure for the Company, and how this financing will contribute to that goal?

RESPONSE: The target debt to equity structure for the Company is 54.42% equity and 45.45% debt as approved by the Commission in Docket No. DW 20-184. The Commission's approval of the Company's financing proposal will contribute to this goal by reducing the equity ratio from the current 75.3% to 59.2%. As explained in the response to DOE 1-11 and at the technical session, the Company expects that the equity ratio will reduce further toward the target capital structure in the ordinary course of utility operations.

Aquarion Water Company of New Hampshire

DW 23-011

Aquarion Water Company's Responses to DOE Data Requests—Set 2

Data Request Received: March 29, 2023
Request No.: DOE 2-4

Date of Response: April 5, 2023
Witness: Donald J. Smiarowski

REQUEST: **DOE 2-4**

Ref: Testimony of Mr. Smiarowski, Bates p. 11, Line 18

Please clarify whether the requested credit spread is 300 basis points, or up to 300 basis points.

RESPONSE: The requested credit spread is up to 300 basis points.