

STATE OF NEW HAMPSHIRE  
PUBLIC UTILITIES COMMISSION

DOCKET NO. 18-xxx

DIRECT TESTIMONY OF DONALD J.E. VAUGHAN  
ON BEHALF OF ABENAKI WATER COMPANY

January 31, 2018

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**Introduction**

**Q. Mr. Vaughan, please state your full name and business address.**

A. My name is Donald J.E. Vaughan. My business address is 37 Northwest Drive, Plainville, Connecticut 06062.

**Q. By whom are you employed and in what capacity?**

A. I am President and CEO of New England Service Company, Inc. (“NESC”). In that capacity, I am responsible for management oversight of all aspects of the operations of its subsidiaries, namely; Valley Water Systems in Connecticut, Colonial Water Company, Mountain Water Systems and Plymouth Water Company in Massachusetts, and Abenaki Water Company in New Hampshire. My responsibility also includes management of NESC’s non-regulated activities.

**Q. Please describe your educational background and professional experience.**

A. I have a Bachelor of Science degree in Civil Engineering from Northeastern University and a Master of Business Administration from Nichols College. I am a registered professional engineer. From 1976 to 1980, I served as the Director of Water Operations for the City of Worcester. In that capacity, I was involved in all phases of supply and distribution activities. Subsequently, I was employed by Citizen’s Utilities as Assistant General Manager for California Water Properties. I also served as President and General Manager of Southbridge Water Supply and as the Superintendent of Supply Operations for Aquarion Water Company with responsibilities primarily in Connecticut. In 1992, I joined Plainville Water Company (now Valley Water Systems, Inc.). In 1996, I managed the formation of New England Service Company which now holds the subsidiaries noted above.

**Q. Have you previously testified before the New Hampshire Public Utilities Commission or other regulatory bodies?**

1 A. Yes, I have provided testimony to the Massachusetts Department of Public Utilities (“DPU”), the  
2 New Hampshire Public Utility Commission (“PUC”), and the Connecticut Public Utility  
3 Regulatory Authority (“PURA”) on several prior occasions.

4 **Q. Please describe the purpose of your testimony.**

5 A. My testimony is to assist in and provide background for the need of small water companies to be  
6 allowed appropriate regulated returns on their equity capital (“ROE”). Comments made in the  
7 following testimony are directed to focusing on a regulatory formulaic approach for arriving at  
8 small water company ROE’s which recognize the risk premium associated with size. The formulaic  
9 methodologies used by the Connecticut and Massachusetts Commissions are also presented to  
10 illustrate their ROE treatment for small companies.

11 **Q. Why are the ROE’s granted to small water companies a current issue?**

12 A. After the formation of Abenaki Water Company, its first foray into a rate petition was through  
13 Docket 15-199. In the Docket, the company sought a return on equity of 10.75%, clearly stating  
14 that it was making this request without the assistance of a cost of capital expert witness whose fees  
15 would add significant expense to the proceeding.

16 In the context of a 250 customer water company, Abenaki wanted to demonstrate sensitivity and  
17 prudent decision making with respect to rate case expense while providing appropriate and relevant  
18 information to the Commission. Even though the company had an obligation to request market  
19 based returns in the proceeding on behalf of its stockholders, consideration of the risk of criticism  
20 and avoidance of the perception of indifference to cost prevailed in presenting its case without an  
21 expert cost of capital witness.

22 As a consequence, the company confronted an opposing expert witness and was subject to  
23 questioning and data requests significantly beyond its field of expertise. Ultimately, the company  
24 was granted an ROE of 9.4%.

1 **Q. Why should small water companies' receive a size premium?**

2 A. Smaller sized systems dramatically increase risk to investors. Some explanation of this inherent  
3 risk is illustrated in the requested ROE of PUC Docket 17-165.

4 The company firmly believes the one size fits all approach in granting ROE's, vastly underestimates  
5 small company risk. For example, the company offers for consideration that the largest water  
6 company operating under the Commission's jurisdiction has 37 times the customers and 27 times  
7 the revenues as does Abenaki. Accordingly, it is much better positioned to withstand unexpected  
8 revenue or expense impacts. Given approximately the same return on equity, an investor would  
9 unhesitatingly invest one dollar of capital in the larger rather than the smaller utility, all other  
10 factors being equal.

11 **Q. Provide an explanation of the Massachusetts formula and state how it is implemented and**  
12 **provide a copy of the decision that implemented it.**

13 A. The optional cost of capital formula used by the Massachusetts Department of Public  
14 Utilities) "MDPU") was first established in 1985, and intended to facilitate the administrative  
15 process associated with determining returns on equity and reduce litigation costs for all parties  
16 involved in a water rate case, while at the same time produce an allowed ROE that fell within a  
17 zone of reasonableness. Attached is a copy of Generic Cost of Capital Formula for Water  
18 Companies, D.P.U. 85-115 (1985) which describes the method then used to compute the ROE and  
19 which is further detailed in the PFT of Pauline Ahern nearby.

20 In 1997, the MDPU revised the optional cost of capital formula as part of a wider review of its then  
21 effective regulations. The major changes that were ultimately promulgated included (1) use of 30-  
22 year U.S. Treasury bills to define the risk-free rate; (2) a change in the floor ROE from 13.0 percent  
23 to 11.5 percent; (3) a change in the ceiling ROE from 16.5 percent to 14.5 percent; and (4)  
24 additional language clarifying that the MDPU could adjust the allowed ROEs beyond the

1 maximums and minimums provided for in 220 C.M.R. § 31.00, on a case-by-case basis. Attached  
2 is a copy of Generic Cost of Capital formula for Water Companies, D.P.U. 96-90 (1996) and D.P.U.  
3 96-90-A (1997) which describes the current method used to compute ROE, and again further  
4 detailed in the PFT of Pauline Ahern.

5 **Q. Explain how the Massachusetts approach was developed and indicate how often it is**  
6 **computed and updated for financial conditions.**

7 A. The Massachusetts approach was originally adopted through a rulemaking process pursuant to  
8 M.G.L. c.165, § 1B. The MDPU issued a notice of proposed rules and request for comments on  
9 the proposed rule. Comments were received, and a public hearing was held on May 24, 1985 on  
10 the proposed rulemaking. The Department adopted the rule on June 10, 1985.

11 It is our understanding that the data used to compute the allowed ROE under the Massachusetts  
12 formula is maintained on a regular basis by MDPU staff. Because of current U.S. Treasury yields,  
13 the optional cost of capital formula effectively defaults to the minimum ROE of 11.5 percent.

14 **Q. How does the Connecticut approach to ROE determination differ from that of**  
15 **Massachusetts?**

16 A. Both of the above regulatory jurisdictions recognize the size premium correlated with small  
17 company ROE's, however, they are calculated differently. For reference, the CT. Public Utilities  
18 Regulatory Authority (PURA) decision docket 13-01-29, is attached.

19 In summary, PURA averages the most recent allowed ROE's of its two largest water utilities  
20 (Connecticut Water Company and Aquarion) and adds 50 basis points to arrive at the small  
21 company ROE. It then, at its discretion, adds up to 50 more basis points dependent upon such areas  
22 as management efficiency, customer service, and cost containment initiatives. In essence, at least  
23 50 and up to 100 basis points could be added to the average of the ROE's granted to the two largest  
24 water utilities under PURA's jurisdiction.

1 Notably, Abenaki, Hampstead Area, and Lakes Region Water Companies are far smaller than the  
2 Connecticut systems (Torrington, Avon, Valley, and Heritage Village) in the above PURA docket.

3 **Q. What is the value of a formulaic approach to determining ROE?**

4 A. First of all, the absence of a cost of capital witness and a small company's adoption of a formulaic  
5 approach is an immediate example of cost containment. Secondly, this testimony is to suggest that  
6 an optimal choice for small water companies in the determination of requested ROE's could be  
7 available through a Commission sanctioned formulaic methodology. This option might be pursued  
8 notwithstanding existing guidance or protocol for the small companies in the rate making process,  
9 and it has every sign of potentially reducing adjudicatory costs for the benefit of all concerned,  
10 especially customers.

11 As was pointed out in PURA Docket 13-01-29, a formulaic approach could lead to significant cost  
12 savings in the rate case process. Cost savings could include:

- 13 1. Decrease of \$30,000 to \$40,000 in cases to retain cost of capital witnesses per small water  
14 company for each rate case.
- 15 2. Decrease of \$25,000 in costs associated with the consumer advocate hiring an expert witness  
16 in rebuttal.
- 17 3. Reduction in the preparation and processing of discovery, rebuttal, and briefing documents on  
18 the part of the small water companies.
- 19 4. Reduction in cost associated with decrease in hearings and technical sessions.
- 20 5. Savings in rate case legal fees.

21 **Q. What has your experience been in raising capital on behalf of Abenaki?**

22 A. The sources of capital, typically available to small customers such as Abenaki, are through debt  
23 and equity markets involving current shareholders, banks, and through private placements. While  
24 there may be other financing means, Abenaki has chosen to obtain debt through local and regional

1 banks. Abenaki has obtained equity from its parent, the sole stockholder. On the debt side, Abenaki  
2 has raised capital from CoBank. However, as a lender, CoBank recognizes the risk associated with  
3 providing credit to a small system such as Abenaki and therefore has consistently insisted its parent  
4 co-sign on all obligations to receive more favorable terms or otherwise face a higher interest rate.  
5 In this context, please refer to the illustrative exhibit nearby submitted by CoBank detailing risk  
6 related to system viability as they view it. Likewise, Abenaki's stockholder sees the same risk  
7 factors, particularly with respect to size, through a similar lens. These are the reasons and basis for  
8 the petition.

9 In the meantime, Abenaki's customer base is the beneficiary of a lower interest rate due to the  
10 stockholder's co-signing which effectively reduces the cost of capital. If not for the contractual  
11 commitment from the parent, the current cost of capital would not exist.

12 **Q. What do you perceive is the small system risk as viewed by capital markets?**

13 A. Sources of capital, whether from creditors or investors, see small water systems for what they are:  
14 operating entities having vulnerabilities that are generally not present with larger utilities.

15 Aside from the continual susceptibility to adverse impact on financials caused by system  
16 malfunction, breakage, loss or impairment of source supply relative to size, providers of capital  
17 focus on operating and regulatory risk as well as management ability and the business itself. All  
18 that said, they are wary of the many negative consequences or mishaps that will most likely occur  
19 with smaller systems, not the least of which would be the financial stability.

20 As an example, and as recently as January of this year, Abenaki's White Rock system was critically  
21 affected by loss of water due to a very difficult to detect leak. This is a system with aging  
22 infrastructure made up of brittle iron pipe and nylon service fittings. At best, the system would be  
23 described as leak prone.

1 Ultimately, in a matter of a few days, the undetected leak drained the system. Consequently,  
2 Abenaki trucked in over 30,000 gallons of water to restore service and was fortunate to locate and  
3 repair the break shortly thereafter.

4 This incident would never have occurred in a large system with an extensive source of supply and  
5 near immunity to a leak of similar quantity.

6 **Q. What are the most recent ROE's granted to Abenaki's related subsidiaries in Massachusetts  
7 and Connecticut?**

8 The Massachusetts Commission (DPU) allowed both Colonial and Plymouth Water Companies  
9 ROE's of 10.5% on 12/28/2011 and 08/31/2015 respectively. Colonial Water Company is a system  
10 of 623 customers while Plymouth has 826. Both have similar operating and physical characteristics.  
11 While both systems have each about the same customer base as Abenaki does in total (666), the  
12 striking difference is that AWC is composed of 3 much smaller water utilities located many miles  
13 apart with distinctly more challenging operating requirements. In all respects, AWC is a much  
14 riskier system to operate.

15 Valley Water Systems, located in Plainville, Connecticut serves approximately 6,900 customers  
16 and is therefore more than 10 times larger than AWC. On November 3<sup>rd</sup>, 2010, the Connecticut  
17 Commission adjudicated a 10.05% ROE to Valley. Under this regulatory environment, Valley also  
18 operates with a commission sanctioned de-coupling environment that effectively assures realization  
19 of its allowed revenues irrespective of conservation initiatives and/or the effects of climate on water  
20 demand. As mentioned previously, Valley has not had a rate increase since late 2010 and much of  
21 this is due to the influence of the decoupling effect. Even with the steady result on revenues, the  
22 Commission has continued to support Valley's 10.05% ROE still recognizing that it has all the  
23 inherent small system risk than when compared to the large publicly traded water utilities.



1 In the final analysis, the period of time in which Valley has been able to maintain constant rates  
2 has significantly benefitted customers who otherwise would have been subject to rate case expense  
3 in the \$100,000 neighborhood. Much of this interval has been due to Valley realizing adequate  
4 returns all the while being able to support a substantial capital improvement program for system  
5 infrastructure.

6 **Does this conclude your testimony?**

7 A. Yes.