STATE OF NEW HAMPSHIRE

PUBLIC UTILITIES COMMISSION

DW 12-085

In the Matter of:
Aquarion Water Company of New Hampshire, Inc.
Petition for Permanent Rates and Step Increase

Direct Testimony

of

Mark A. Naylor
Director, Gas and Water Division

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State of New Hampshire

Public Utilities Commission

Aquarion Water Company of New Hampshire, Inc.

DW 12-085

Petition for Permanent Rates

Testimony of Mark A. Naylor

Q. Please state your name, occupation, and business address.

A. My name is Mark A. Naylor, and I am Director of the Gas & Water Division of the New Hampshire Public Utilities Commission. My business address is 21 South Fruit Street, Suite 10, Concord, New Hampshire.

Q. Please describe your qualifications.

A. My qualifications are attached to this testimony as Attachment MAN-6.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to offer Staff comments and recommendations with respect to several issues raised in this case. These issues include the request of Aquarion Water Company of New Hampshire, Inc. (Aquarion or the Company) to make permanent its Water Infrastructure and Conservation Adjustment (WICA) tariff provision; Aquarion's cost of capital request, including the proposed return on equity and the Company's exclusion of $1 million of debt from the calculation of its weighted average cost of debt; the use of a step adjustment to "zero out" its current WICA surcharge and move those revenues into base rates at the conclusion of this rate case; the impact of the decline in Aquarion's water sales; and issues related to fire protection rates.

Q. What is the Staff's view of the Aquarion WICA, which was implemented as a pilot program in Aquarion's last rate case, DW 08-098?

A. Staff believes that three years has not been adequate time for a full evaluation of the effectiveness of the WICA program. One objective of the program has been achieved; one other can be said to not have been achieved, and is unlikely to be. Staff is not able to evaluate other objectives.

Q. Please summarize the original objectives of the WICA.

A. The WICA was implemented as a pilot program in order to further certain objectives:

a) Accelerate the replacement of aging infrastructure;

b) Extend the time between full rate cases;

c) Lessen rate shock to customers; and

d) Reduce water loss and enhance reliability of the distribution system

Ancillary to these objectives is that the WICA process encourages long-term infrastructure planning, coordination with municipal projects to gain efficiencies and save costs, and provides a vehicle for the involvement of stakeholders in the planning process.

Q. What objective of the WICA do you believe has been achieved?

A. Staff believes that Aquarion, under the incentives of the WICA (i.e. enhanced cash flows through the surcharge mechanism) has been able to accelerate the rate of replacement of infrastructure within its distribution system. The Company was asked to provide evidence of this in discovery, and provided responses which Staff believes are indicative of meeting this goal. The Company's responses are attached to this testimony as Attachment MAN-1 and MAN-2.

Q. What objective has not been achieved?

A. The establishment of a WICA program in 2009 has not extended the time between rate cases. Indeed, Aquarion has stated in its filing that it anticipates the need to file for rate relief every three years, regardless of the WICA. The Company is no longer suggesting that extending the time between rate cases is an objective of its WICA.

Q. What are the objectives of the WICA program that cannot be evaluated to this point?

A. The existence of a WICA program serves to lessen rate shock to customers, given that a portion of the rate increase resulting from a full rate case has already been in place through the WICA surcharge. In Staff's view, however, the value of this mitigation of rate shock depends to a large degree on the level of rate increase a customer will see once a rate case is concluded. A rate increase of 20%, for example, is still a significant increase even if, say 5% of that increase has been in place through the WICA for the prior two or three years. While the existence of a WICA surcharge can be accepted as a mechanism that *reduces* the rate of increase that results from a full rate case, that is a different measurement than stating that rate shock is *minimized*. Staff believes there is value in the WICA in this regard, but a longer period of experience will provide more information as to just how much value there is.

As for reduction of water loss and greater reliability of the distribution system, it is simply too soon to evaluate whether the capital improvements under the WICA program have met these objectives[1]. It seems intuitive that the acceleration of infrastructure replacement would lead to reduced water loss and enhanced reliability, but Staff believes actual measurement of that reliability can only take place over a more extended period of time.

Q. What is Staff's recommendation with respect to making the WICA permanent?

[1] Aquarion has been conducting regular leak detection surveys which have identified leaks for repair. This effort is outside the WICA process.

A. Staff is not prepared to recommend conversion of the WICA to a permanent program. A full evaluation of the benefits of the WICA, keeping in mind the Commission's responsibility to balance the interests of the utility and its customers, remains incomplete. Staff is willing to support a continuation of the WICA as a pilot program for an additional rate case cycle. This support, however, is based on a return on equity set at a level more appropriate than the 10.25% Aquarion seeks in this case.

Q. Why is Staff's support for the WICA tied to the equity return?

A. Staff testified in Aquarion's last rate case, DW 08-098, that it believed mechanisms such as a WICA reduce overall risk for a utility. The relevant portions of my testimony are included as Attachment MAN-3. Risk associated with regulatory lag is reduced with a WICA mechanism in place because WICA speeds up a utility's cash flow. For the capital investments made under WICA, a utility does not have to wait until the next full rate case to put those investments into rates; it begins to earn a return soon after placing the assets into service (as well as receiving reimbursement for costs associated with those assets such as depreciation and taxes). The equity return incorporates and reflects a utilities' level of operating risk, based substantially on analysis of cash flows. It is therefore appropriate in this proceeding, with Staff's recommendation that Aquarion be permitted to continue the WICA for another rate case cycle, that the equity return for Aquarion be less than that awarded to the company previously. That is why Staff ties its support for a continuation of the WICA as a pilot program to a lower, more reasonable return.

Q. Before you return to the discussion of rate of return, are there other issues with respect to WICA that you wish to discuss?

A. Yes. Aquarion has requested the Commission approve a step adjustment to permanent rates for its current WICA revenues, with the WICA surcharge reset to zero, at the conclusion of

this proceeding[2]. Staff believes that this proposal is consistent with the company's tariff and Staff supports and recommends this treatment[3]. Because the 2010 and 2011 WICA capital investments and associated revenues have been included in the calculation of permanent rates in this docket, Staff believes that only the WICA revenues resulting from the 2012 capital improvements should form the basis of this step adjustment. However, and consistent with the tariff provision just cited in the footnote with respect to "prospective recovery", the revenues should be recalculated to reflect the approved cost of capital in this rate case, and not the cost of capital established in DW 08-098, the Company's prior rate case.

One additional issue remains to be resolved in the event the Commission ends the WICA program. The Commission will need to make a determination as to recovery of the revenues related to the 2013 WICA capital expenditures, assuming the Commission approves those expenditures in Docket No. DW 12-325[4]. Staff believes that it would be appropriate to provide Aquarion a step adjustment to its permanent rates, effective with service rendered on and after January 1, 2014, for recovery of the 2013 expenditures if the WICA is ended. These capital expenditures are undertaken within the context of the existing WICA program, and Staff believes that a step adjustment to reflect their recovery would be consistent with the intent of the July 10, 2009 settlement agreement in DW 08-098. That settlement agreement was approved by the Commission in its Order No. 25,019 (September 25, 2009). Section II.H.7. reads, in relevant part, "Notwithstanding the Settling Parties' agreement that implementation of the WICA is on a

[2] See the prefiled testimony of Troy M. Dixon at page 29.
[3] Aquarion tariff page 18, III. Safeguards. New Base Rates. The WICA charge will be reset at zero as of the effective date of new base rates that provide for prospective recovery of the annual costs that had theretofore been recovered under the WICA. Thereafter, only the fixed costs of new eligible plant additions, that have not previously been reflected in the Company's rate base, would be reflected in the annual updates of the WICA.
[4] An order is pending as of the date of this testimony. Staff and Aquarion have recommended the Commission approve a 2013 WICA budget of $801,140, of which $654,566 would be eligible for inclusion in a 2014 surcharge. That spending level would result in a surcharge of approximately 1.3046%, an increase of about $1.71 per quarter to an average residential customer.

pilot basis and may be modified or discontinued by the Commission, *the inclusion of any project in the WICA* shall constitute authorization for the Company to continue to collect such amount through its rates on a continuing basis without regard to any subsequent decision by the Commission to discontinue or modify the WICA process." Emphasis added.

Q. In the recent Docket No. DW 12-325 regarding Aquarion's WICA, the Office of the Consumer Advocate (OCA) filed a letter indicating that it opposed recovery of the costs of "emergency repairs" as well as meter upgrades in the WICA process. Does Staff have comments regarding this?

A. Yes. The OCA opposes recovery through the WICA process of what it terms "emergency repairs". Staff understands that OCA is specifically referring to the replacement of hydrants, valves and service lines that are found to be broken or inoperable. In response to a Staff data request in Docket No. DW 12-325, Aquarion indicated that the actual number of replacements "is primarily driven by how many broken or defective units are discovered in any given period of time." See Aquarion's response to Staff data request 1-5 in Docket No. DW 12-325, included as Attachment MAN-4 to this testimony. Staff believes Aquarion's approach to these replacements, and inclusion of the costs in the WICA, is appropriate. Given that one of the primary goals of the WICA is the replacement of aging infrastructure, it does not make sense that such replacements be restricted to hydrants, valves, and services that have *not yet* broken. As to the issue of meter upgrades, Aquarion has undertaken a program of meter replacement that began with the first year of the WICA program. The Company is moving to radio read meters in place of older meters. This, too, is a process of replacing older infrastructure, and has been in place for all three years of the program. If the Commission decides to continue the WICA, Staff would support continued recovery of the costs of the meter replacement program within the WICA.

Q. Now returning to issues related to cost of capital, did Aquarion submit a Discounted Cash Flow (DCF) study to support its request for a 10.25% equity return?

A. No. The Company points to returns earned by utilities in other states as support for its request. Mr. Dixon's testimony at page 22 explains the Company's position. Mr. Dixon's attachment TMD-1 illustrates equity returns in other jurisdictions.

Q. What is Staff's recommendation with respect to the cost of equity capital for Aquarion?

A. Staff is utilizing a cost of equity of 9.25% in calculating Staff's revenue requirement recommendation, assuming continuation of the WICA. This is lower than recently approved equity returns to reflect the reduction in risk with the WICA[5]. It is Staff's understanding that the Town of Hampton has engaged the services of a cost of capital consultant to provide testimony in this case.

Q. Are there any other issues regarding cost of capital you wish to address?

A. Yes. Aquarion in its filing has accounted for a recent $5 million debt issue in its capital structure, but has excluded $1 million of it from the calculation of its weighted average cost of debt. The Company has done so because it states that the $1 million has not yet been deployed. This exclusion causes an increase in the Company's cost of capital. Staff does not believe this is appropriate, and has included the $1 million in debt in Staff's recommended capital structure.

Q. Why does Staff believe the exclusion of this $1 million is inappropriate?

A. It is inappropriate because the loan is on the Company's books and Aquarion is responsible for repayment of the loan and the interest thereon. In the Commission docket in

[5] The most recently approved equity return granted by this Commission for water utilities has been 9.75% in a number of dockets. None of those dockets have had DCF analysis presented, and were settled cases. In other industries recent returns have been 9.5% for Northern Utilities (Order No. 25,352 dated April 24, 2012 in DG 11-069); 9.67% for EnergyNorth Natural Gas (Order No. 25,202 dated March 10, 2011 in DG 10-017); and 9.54% for PSNH (Order No. 25,123 dated June 28, 2010 in DE 09-035).

which the Company sought approval for this $5 million loan (Docket No. DW 12-098), the Company indicated that a benefit of Commission approval was that the new financing would reduce the Company's cost of long term debt to 6.05%. The Commission cited this fact in its order approving the borrowing (Order No. 25,369, May 24, 2012). Adding in the fact that at least some of these funds have been used for 2012 WICA projects, and are therefore in service, makes it further appropriate to include the $1 million in Aquarion's capital structure.

Q. Part of the reason for Aquarion's revenue deficiency in its test year is the decline in total water sales. What is Staff's view of this?

A. Declining water usage is a national trend and the reasons are many. Among these reasons are changing attitudes toward conservation, greater use of low flow appliances, changing demographics including smaller households, economic conditions, greater use of bottled water, and customer response to the rising cost of water resulting in part from regulatory requirements such as the Safe Drinking Water Act (SDWA). The resulting reduction in sales volumes creates upward pressure on customer rates. However, by law the Commission must set rates that afford the utility an opportunity to recover its costs and earn a reasonable return on its invested capital. For that portion of the revenue requirement that is to be recovered through volumetric charges, using any other sales volume than that of the test period would be inconsistent with Commission authorities.

Q. Are there benefits to reducing water sales volumes?

A. Unquestionably. The most significant of these benefits is that lower overall water consumption, over the long term, can effectively delay new investment in source capacity, which benefits customers.

Q. Why does using a different sales volume than that of the test period deny the utility an opportunity to earn a reasonable return?

A. In the short run, sales volumes can vary year to year for a number of reasons. These reasons include weather variations, customer growth in a utility's franchise area, and general economic conditions. Because there is no accurate way to predict future sales, the Commission relies on a historical test year concept to evaluate a utility's earnings in order to set future rates. An important factor in a utility's earnings is its level of sales volume. The Commission simply cannot ignore the test year sales volume because of its rate impact. In the opposite situation from that of Aquarion in this case, if a utility's test year sales volume was higher than in its previous test year, that volume would still have to be used as a part of setting new rates. Customers would then benefit from a lower per-gallon or per-cubic foot cost. Regulatory commissions must be consistent in applying the concepts of test year methodologies[6].

Q. Are there ways to mitigate the impact of declining sales volumes?

A. There are no rate design options that do not create inequities. A simple way would be to rely less on recovering costs through the volumetric charge, and shift more of the cost recovery to fixed charges. This approach would reduce exposure to sales volatility, for both the utility and its customers, but would result in larger water users paying proportionately less than users of smaller volumes. More reliance on fixed charges also results in distorted price signals. The "flatter" the rate, the less incentive there is to conserve and to avoid wasteful use. Other ways of attempting to mitigate the rate impact of sales declines, such as decoupling sales from revenues,

[6] See Attachment MAN-5. The company was asked to provide documentation of its sales decline, and this response to Staff data request 2-25 illustrates residential consumption for the years 2007 through 2011. Since the company's last rate case used a test year of 2007, any year selected as a test year subsequent to 2007 would reflect reduced sales volumes.

are not recommended by Staff as they do not appropriately balance the interests between customers and the utility.

Q. One of the issues that the Commission requested the Company to address at hearing is regarding the cost of fire protection. Can you provide some comments on this issue?

A. One of the fire protection issues raised at the public comment hearing on November 28, 2012 is the so-called "hydrant rate". This is actually a misunderstanding of how the costs of fire protection service are allocated. Total costs for providing fire service are identified in a Cost of Service Study, which Aquarion last completed and filed in its 2005 rate case. Fire protection costs generally consist of production, storage, pumping and transmission costs related to the assets that support the capability of a water system to provide fire flows. It is this nature of fire protection service, also known as a "stand-by" capability, that make it different in character from metered water service. While fire protection service may not be called upon for long stretches of time, it does not mean there are no costs associated with it. The vast majority of costs of providing fire protection service are inherent in the infrastructure of the water system, and its capability to deliver substantial fire flows whenever needed.

Fire protection service is further identified as public (municipal) service, and private fire service. Private fire protection service is for sprinkler systems designed to protect individual properties. Once fire service costs are identified in a Cost of Service Study, those costs need to be further allocated to public and private service. The public fire service costs are allocated to the customer-municipalities. One of the ways to allocate those costs is to use a count of hydrants, as a measure of the extent of public fire service provided in the municipality. This allocation method is useful in Aquarion's case since the Company provides municipal fire protection to four separate municipal entities. There are other ways of allocating these costs. An

example is the inch-foot charge, which is calculated based on the aggregate size and length of water mains above a certain size limit, say six inch diameter mains. Mains below that threshold are assumed to have minimal fire protection capability and the associated costs are therefore allocated to metered service. An inch-foot charge can also be combined with a "hydrant rate" as another way of allocating costs to the customer-municipality.

Q. Can "hydrant rates" be compared from one town to the next, to gauge the cost-effectiveness of a utility's service?

A. No. Whether it is fire protection charges or metered service rates, it is particularly difficult to compare rates of investor owned utilities like Aquarion with rates charged by publicly owned water systems. There are numerous factors that can go into what makes up a "hydrant rate". Some municipal systems may recover a portion of their fire protection service costs through its taxing authority, and some may have received grant money that lowered their overall costs. Some systems may not have needed extensive investment in water exploration and production. Some systems may have excellent raw water quality and therefore do not have as much expense for water treatment. Newer systems have generally lower operation and maintenance costs than older ones. These are some of the factors that make rate comparisons difficult, and cause rate levels to vary substantially in various systems.

Q. Does this conclude your testimony?

A. Yes it does.