

**STATE OF NEW HAMPSHIRE  
PUBLIC UTILITIES COMMISSION**

**DW 08-098**

**In the Matter of:  
Aquarion Water Co.  
Permanent Rate Proceeding**

**Direct Testimony  
of  
James L. Lenihan**

**June 9, 2009**

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

2 **A.** My name is James L. Lenihan, and my business address is 21 South Fruit St. Concord,  
3 New Hampshire 03301. I am employed as a Utility Analyst by the New Hampshire  
4 Public Utilities Commission (Commission). I am a graduate from St. Francis College,  
5 Maine with a B.A. in Economics, and subsequently completed graduate courses at the  
6 University of Maine. In 1985 I attended the Michigan State University Regulatory  
7 Studies Program. During the period 1969-73 I was a Junior High School instructor in  
8 Biddeford, Maine. In the fall of 1973 I joined the Cost of Living Council in Washington,  
9 D.C. From 1974 to 1984 I held various positions in the Federal Energy Office, Federal  
10 Energy Administration and the Department of Energy as an Analyst in the areas of fossil  
11 fuel availability, distribution, and price for the residential, industrial and utility sectors on  
12 a national as well as regional level. In July of 1984 I joined the staff of the New  
13 Hampshire Public Utilities Commission as a utility analyst.

14  
15 **Q. What is the purpose of your Testimony?**

16 **A.** The purpose of my testimony is to offer staff recommendations relating to Aquarion's  
17 rate recovery method for the Company's proposed permanent revenue increase. The  
18 testimony will also include a recommendation regarding a number of new charges  
19 proposed by Aquarion. The Company is proposing to implement a water infrastructure  
20 and conservation adjustment (WICA) surcharge, a System Development Charge (SDC),  
21 conservation rates, and a water balance conservation program.

22

1 **Q. What areas are served by Aquarion?**

2 **A.** Aquarion serves approximately 8,770 customers located in the Towns of Hampton and  
3 North Hampton and in the Rye Beach and Jennings Beach Precincts in the Town of Rye.  
4 About 76% of the customers are located in the Town of Hampton. Approximately 1,000  
5 seasonal customers have their meters installed in the spring and summer and removed in  
6 the fall.

7

8 **Q. What is the petitioner seeking in terms of a revenue increase in this permanent rate  
9 proceeding?**

10 **A.** Aquarion is seeking an increase in its annual gross operating revenue of 21.08% or annual  
11 increase in total revenue of \$1,056,070.

12

13 **Q. Would you describe Aquarion's current rate structure and proposed changes as a  
14 result of this proceeding?**

15 **A.** Aquarion provides a general metered service which is comprised of a monthly or  
16 quarterly customer charge. The current quarterly service charge for a residential 5/8 in.  
17 meter is \$31.39. All year round residential customers are billed on a quarterly basis  
18 (Response to Staff Data Response 2-67, Attachment JLL-1). The consumption charge for  
19 all water is \$3.041 per 100 cubic feet. Seasonal, (those taking service for less than four  
20 consecutive quarters) 5/8 inch metered customers pay \$156.97 per season and a  
21 consumption charge of \$3.767 per 100 cubic feet for all water consumed. The proposed  
22 permanent increase would result in a quarterly service charge for year round residential

1 customer of \$38.07 and a volumetric rate of \$3.447 per 100 cubic feet for the first 1,500  
2 cubic feet and \$3.852 per 100 cubic feet in excess of 1,500 cubic feet. Seasonal  
3 customers' service charge will increase to \$190.35 per season and a consumption charge  
4 of \$4.569 for all water consumed. Aquarion provides private and public fire protection  
5 service. Private fire protection rates are charged in accordance with size of Fire Service  
6 Connection, as shown in the tariff, and public fire protection are charged through a rate  
7 per hydrant.

8  
9 **Q. How did Aquarion propose to recover the increase in revenue proposed in this**  
10 **proceeding?**

11 **A.** When Aquarion filed its petition for an increase in permanent rates, its report of proposed  
12 rate changes reflected, with only a slight variation, the customer class allocations found in  
13 its last submitted Cost of Service Study in DW 05-119. These allocations were retained  
14 for the purposes of recovering the proposed new permanent revenue increase.

15  
16 **Q. Does Aquarion currently have temporary rates in effect?**

17 **A.** Yes, on February 13, 2009, by Commission Order 24,942, Aquarion was allow a 7.65  
18 percent overall temporary increase over the Petitioner's currently authorized annual  
19 revenue for effect on or after February 1, 2009 and temporary rates at current levels,  
20 effective as of December 15 2008. The temporary revenue increase resulted in class  
21 increases ranging from 7.68 to 7.73 percent consistent with the allocations in Aquarion's  
22 last submitted cost of service study. Aquarion's miscellaneous service charges have also

1           been increased by 3.48 percent.

2  
3   **Q.    Do you have an objection to applying the allocations found Aquarion’s last**  
4   **prepared Cost of Service Study to a permanent revenue increase?**

5   **A.**   No. I would not object to applying the same class allocations for permanent rates as  
6   recommended in the last Cost of Service Study should the Commission approve a  
7   permanent increase. Some cost responsibility in all probability will have changed  
8   somewhat since the last study; however, I don’t believe that the expense associated with  
9   an updated cost of service analysis is warranted at this time to document such changes.

10  
11 **Q.    In addition to seeking a proposed increase of 21.08% in annual revenue is the**  
12 **Company proposing any changes to the manner in which it collects its annual**  
13 **revenue?**

14 **A.**   Yes, Aquarion has introduced a number of changes to its tariff including the introduction  
15   of a Water Infrastructure and Conservation Adjustment Surcharge (WICA), the  
16   implementation of System Development Charge (SDC), the introduction of an inclining  
17   block rate to promote water conservation, and finally a proposal to introduce a Water  
18   Balance Plan which is also intended to promote conservation.

19  
20 **Q.    Please explain what is a WICA surcharge. What is its purpose and how would it be**  
21 **calculated and applied to customers?**

22 **A.**   According to the Company, a WICA is an interim rate mechanism to collect funds from

1 ratepayers to systematically replace aging infrastructure (generally water transmission and  
2 distribution mains and related appurtenances) in a timely and cost-effective manner. The  
3 rate would not exceed 5% of revenue in any 12 month period and capped a 7% between  
4 rate cases. The rate would be similar to charges, according to the Company, that have  
5 been implemented in a number of states to increase reliability, improve service, and  
6 reduce water loss due to leakage. The similar surcharge known as a Distribution System  
7 Improvement Charge has been adopted in California, Connecticut, Delaware, Illinois,  
8 Mississippi, New York, Ohio and Pennsylvania. According to Aquarion, the WICA is  
9 intended to extend time periods between rate applications while avoiding high percentage  
10 rate increases and rate shock. The WICA is based upon the Company's capital spending  
11 and calculated as a percentage, based on the original cost of completed eligible projects,  
12 multiplied by the Company's last allowed rate of return grossed up for income taxes, plus  
13 depreciation and property tax.

14  
15 **Q. What would be considered eligible projects?**

16 **A..** As proposed, eligible projects would be mains, valves, services, meters and hydrants,  
17 main cleaning and re-lining projects, relocations not reimbursable, purchase of leak  
18 detection, equipment, installation of production meters, and pressure reading valves.

19  
20 **Q. Who will determine the eligibility of such programs?**

21 **A.** If the surcharge is approved, Aquarion will file and initial infrastructure assessment report  
22 detailing the capital improvement projects eligible for the surcharge. The assessment

1 would take into account asset management (break history, size of pipe, material, water  
2 quality, soil type, age, location, and town paving projects), hydraulic improvements and  
3 the need for redundancy. The report would be updated annually, as needed, and filed  
4 with the Commission. It would be the Company's intention to work with the  
5 Commission in the form of the report, agree on the contents and detail, and have the  
6 Commission approve the proposed projects listed and the amounts contained in the report  
7 that is filed annually with the Commission. Although the Company states the WICA is  
8 not an automatic entitlement, and must be fully justified and supported by the annual  
9 report filed by the Company and reviewed by the Commission. The Company proposes  
10 to file with the Commission within 45 days of the close of the previous six month period,  
11 or by February 15 and August 15, reporting on capital improvement projects eligible for  
12 the WICA surcharge completed and in service in the prior six month period (December  
13 31 and June 30). The adjustment would be implemented following review and approval  
14 by the Commission within 45, days, ideally through an order nisi but also after a hearing  
15 if that is determined to be necessary in any given year. The surcharge would be limited to  
16 5% in any 12 month period and capped at 7.5% in the aggregate before the filing of the  
17 next general rate application, at which time the WICA surcharge would be included in  
18 rates and reset to zero.

19 WICA is intended as a mechanism to address need to replace certain water system  
20 infrastructure, aged infrastructure likely to negatively impact water quality if not  
21 replaced. The Company believes the surcharge is a valuable tool to promote investment  
22 in infrastructure replacement that will provide a benefit to customers' water quality and

1 level of service, mitigate rate shock, and preserve natural resources by reducing lost and  
2 unaccounted for water. Aquarion also contends the surcharge will reduce the frequency  
3 of rate cases, which will impose a cost on customers, the Company and the Commission.  
4

5 **Q. What is your recommendation regarding the implementation of the WICA such a**  
6 **surcharge?**

7 **A.** I would recommend that the proposed WICA surcharge not be allowed for a number of  
8 reasons. The primary reason is the lack of a need to adopt such a charge. The rate setting  
9 process currently allows for replacement for aging plant in a timely manner. The  
10 Company in this rate proceeding is seeking recovery of \$3.1M rate base additions since  
11 the last authorized rate order on July 18, 2006 with a hearing on the merits in this case  
12 scheduled for July 14, 2009 less than three years since the last rate increase. In addition,  
13 Aquarion has had temporary rates in effect since, December 15, 2008. Therefore, the  
14 Petitioner has a timely mechanism to recover the cost of replacing aging infrastructure or  
15 any number of capital improvements since its last rate increase. The Company has not  
16 provided evidence to substantiate its contention that implementation of a WICA will  
17 extend time periods between rate cases, (Response to Staff Data Request 2-53,  
18 Attachment JLL – 2). If there is concern for the age and condition of infrastructure, it  
19 may, behoove the Company to examine replacement policies enacted by the Company.  
20 Furthermore, since the Company is seeking revenue relief between rate cases, some  
21 consideration to an equity adjustment should be given to reflect reduced risk. The  
22 Company, however, does not embrace such a proposition as indicated in its response to

1 Staff Data Request 2- 42 (Attachment JLL-3). Another reason I would not recommend  
2 adoption of such a charge is the fact that ratepayers have been shackled with significant  
3 rate increases in the water industry over the past twenty years due in part to ever  
4 increasing requirements to comply with stricter federal and state water quality standards.  
5 Rarely over the past 20 years have water companies petitioned the Commission for less  
6 that double digit rate increases. The evidence in this proceeding to add still another rate  
7 increase, whatever the percentage increase limitation, has not been overwhelmingly  
8 convincing to me. The twice annual reporting, review, recommendation to the  
9 Commission, public notification and final approval may encounter time limitations to  
10 conduct a thorough and timely review process in addition new administrative costs which  
11 will have to be recovered through the rate payers. A deep concern I have for  
12 recommending adoption of a WICA rate surcharge is that there is a propensity for such  
13 charges to broaden in scope and magnitude in the out years. Furthermore, if this charge is  
14 adopted in this proceeding, there exists the potential for other regulated non water utilities  
15 to request similar rate relief between rate cases. Finally, if the Company is experiencing  
16 extraordinary need for rate relive, it can avail itself of the provisions of RSA 378:9 as it  
17 pertains to the Commission's authority to implement emergency rates. In all I believe  
18 that the current rate setting process provides more than adequate administrative and  
19 economic remedies to address the underlying bases for requesting the proposed WICA  
20 surcharge.

21  
22 **Q. Please explain the proposal know as a System Development Charge Aquarion has**

1 **introduced in this proceeding. What is its purpose and how is this proposed charge**  
2 **to be implemented?**

3 **A.** The Company has proposed for effect what is known as a System Development Charge  
4 (SDC), sometimes referred to as a connection fee. It is intended to offset the cost of  
5 water system improvements to accommodate new customers taking service. The  
6 Company had testified that such charges are more common among municipal water  
7 utilities, however, SDCs have been approved for implementation in privately owned and  
8 Public Utility Commission regulated water companies. Aquarion is aware that three such  
9 water utilities in Massachusetts have been granted approval to apply this charge to its new  
10 water customers. Aquarion identified two approaches to calculating a SDC; both of  
11 which are intended to allocate cost of service between new customers and existing  
12 customers. One way is to focus on the “need to build new capacity” (Bingaman  
13 testimony, page 16, lines 21-23, Attachment JLL-4) and assigns a portion directly to new  
14 customers called the “incremental” approach. The second approach is known as the buy-  
15 in approach. This approach identifies “existing infrastructure which is available to new  
16 customers,” (Bingaman testimony, page 17, lines 2-4 Attachment JLL- 5), the cost of  
17 which has been previously born by existing customers but which is really necessitated by  
18 anticipated growth in the system”. According to the Company, the buy-in approach  
19 proposed by Company, is more equitable for the new customers to help pay the cost of  
20 these facilities, which to date have been borne by existing customers.

21  
22 **Q. How has the Company calculated the proposed SDC to be applied to new**

1 **customers?**

2 **A.** Aquarion identified a need to upsize water mains and related appurtenances to improve  
3 service delivery and fire protection, which would benefit existing customers, but also help  
4 accommodate growth of new customers. The Company assumed standard industry cost  
5 estimates used the differential between the two to estimate the cost for increasing the size  
6 of the mains and related appurtenances in the system to better serve now customers. The  
7 Company estimated a SDC, according to the buy-in approach, of \$799 for a 5/8 inch  
8 residential meter up to \$19,475 for a 4 inch meter. The SDC assigned to meters in excess  
9 of 4 inches, according to the Company, will be determined on a case by case basis. The  
10 proposed fee increases with the meter size and the increases are based on the American  
11 Water Works Association's prescribed meter equivalency ratios. The calculations are  
12 provided as Exhibit LMD 1 attached to Company Witness Linda Discepolo's testimony  
13 and attached hereto as Attachment JLL-6. In response to a question in testimony of Mr.  
14 Bingaman on page 18, lines 4 and 5, "Does the proposed SDC result in new customers  
15 being charged for plant that is not yet in service?" The witness replied:

16 "No. If the SDC is calculated based on the buy-in approach, it will cover  
17 only facilities that are already constructed and providing service to  
18 customers. The charge is intended to reflect the fact that before new  
19 customers can come on to the Company's system, facilities had to be  
20 oversized to serve anticipated new customers. In order to ensure that  
21 existing customer are not charged for plant that would not have been  
22 necessary in the absence of future growth, the SDC is designed to assign a  
23 reasonable portion of these costs to new customers when they come on the  
24 system."  
25

26 **Q. What is your recommendation as to whether or not the Commission should approve**  
27 **the proposed SDC?**

1 A. I would recommend the SDC not be approved for a number of reasons. Among the  
2 reasons objecting to such a charge are the need for such a charge, the potential for over  
3 collecting on plant in service, rate discrimination, and statutory prohibitions on such  
4 rates. By instituting such a charge, the Company would be requiring “new customers” to  
5 provide capital to the company either for plant currently used and useful and providing  
6 service or for plant not currently built but deemed “necessary” to serve new customers.  
7 New customers are thus required to capitalize the company. The current rate setting  
8 process addresses all of the concerns claimed to be addressed by the SDC but in a more  
9 equitable manner than the SDC. The imposition of a SDC charge is discriminatory. It is  
10 discriminatory and a punitive charge, if approved, imposed on a new a customers, simply  
11 due to the unfortunate timing of a customer applying for service after a SDC is adopted.  
12 If a new customer is required to pay for growth and growth has been accounted for in  
13 plant currently in service, a valid question could bc asked why are the new customers’  
14 water rates not adjusted downward to reflect the new customers’ capital contributions to  
15 new facilities? I am concerned that treating new customers in a different manner than  
16 existing customers is not justified and a significant departure from the traditional rate  
17 setting processes. In regard to the response to a question of whether or not the SDC will  
18 result in new customers being charged for plant that is not yet in service, the Company  
19 response states that the SDC covers “only facilities that are already constructed and  
20 providing service to customers,” Bingaman testimony, p. 18, lines 6 & 7 (Attachment  
21 JLL-7. If facilities are used and useful and providing service, they would be included in  
22 the Companies revenue requirement and cost of which is recovered through existing

1 water rates applied to all customers. To charge new customers for these same facilities  
2 would allow for an over recovery. Again, the Company response to Staff Data Request 2-  
3 54, (Attachment JLL-8) states:

4 “the buy in approach focuses on the capacity of existing facilities,  
5 available to new customers, the cost of which has been borne by existing  
6 customer. The types of investments the Company identified for the ‘buy-  
7 in’ approach were those related to the upsizing of water mains and related  
8 appurtenances to improve system delivery and to accommodate growth of  
9 new customers.”

10  
11 I would suggest that all utilities when installing new plant account for a reasonable  
12 amount of growth and are compensated for those expenditures through the rate setting  
13 process. As to a SDC using the incremental approach which focuses the need to build  
14 new capacity for water service in the future, New Hampshire RSA 378:30-a clearly  
15 prohibits the inclusion of such costs in rates.

16  
17 **Q. Would you elaborate on the Company’s proposal to incorporate an inclining rate**  
18 **block to promote conservation?**

19 **A.** The Company currently has a single block or one rate for all water consumed. The  
20 Company is requesting to introduce a second higher rate for water consumed in excess of  
21 1,500 cubic feet of water per quarter and as specified in the proposed tariff page 500  
22 cubic feet per month. The inclining block rate is intended to promote water conservation  
23 in its service area. The Petitioner stated that it has been encouraged by the New  
24 Hampshire DES since it lifted the growth moratorium on the Company in January 2004 to  
25 implement such a rate structure as a way to help manage demand. The DES reiterated  
26 their position on conservation rates in a March 28, 2007 letter as a follow up to the

1 Company's semi-annual update on supply capacity, storage and water conservation. In its  
2 letter the DES stated:

3 "At the meeting, the Department suggested that the Aquarion more  
4 aggressively pursue water efficiency measures .... it is advisable for  
5 Aquarion to look at more advanced water conservation measure part to  
6 meet future water supply needs. Such measures may include: ...  
7 Implementing a rate structure that encourages water conservation  
8 increasing the price of a unit volume used that exceeds certain thresholds  
9 or by using a seasonal rate structure that discourages excessive water use  
10 during the peak summer months."

11  
12 The DES restated its support of conservation rates in a letter to the Company dated  
13 August 26, 2008. In support of the request, Aquarion incorporated in this case a  
14 conservation rate structure of inclining blocks rates that conforms to the request of the  
15 New Hampshire DES.

16 **Q. What is staff's recommendation as to the implementation of an inclining rate block  
17 to promote water conservation?**

18 **A.** Staff would recommend against adopting an inclining rate, and would emphasize at this  
19 time, for the single reason that Aquarion bills all its residential customers on a quarterly  
20 basis and has no current plans to bill on a monthly basis, (response to Staff Data Request  
21 2-68, Attachment JLL – 9). I do not agree that the new inclining rate structure will  
22 immediately, or over time, provide an appropriate price signal to customers when the  
23 customers' consumption is only billed four times a year. Since there will be such a lag  
24 between taking service and being billed for such service, I don't believe application of an  
25 inverted block rate will achieve the desired goal of conserving water. Absent more  
26 specific data, such as price elasticity of demand, I would suggest, all things being equal,  
27 that little if any change in consumption patterns will be obtained due to the higher second

1 block rate. The result would simply be an overall increase in annual revenue to the  
2 Company.

3  
4 **Q. In addition to the above proposed rate and design changes, please explain the**  
5 **Company's proposal to implement a Water Balance Plan.**

6 **A.** In addition to the above changes to the tariff, Aquarion is proposing to add a Water  
7 Balance Plan to encourage water conservation. The goal of the program is to offset  
8 increases in water use created by the addition of new customers (e.g., residential,  
9 commercial, and industrial developments) with decreases in the water use of existing  
10 customers through conservation efforts. The proposed Water Balance Plan would require  
11 owners of new developments that come on to the Company's system to either implement  
12 approved conservation measures or pay a fee that is used to fund conservation programs  
13 that are implemented by the company. The Water Balance Program would apply to all  
14 new and expanded water use developments that are expected to use 100,000 gallons or  
15 more per year with the exception of: (1) residential developments with only a single  
16 service connection, and (2) new or expanded water use developments that are expected to  
17 require less than 100,000 gallons per year of water. Applicants will have several options  
18 to comply with the Water Balance Program including:

19 **Application-Directed Conservation** - Applicant identifies and implements water  
20 conservation activities. These could include retrofitting public buildings with low flow  
21 toilets and other fixtures to offset the projected use; lowering a shallow water main(s) to  
22 eliminate "bleeding" the water main in the winter and thus saving water; installing

1 demand reduction measures, such as independent irrigation systems, decreasing  
2 commercial and industrial consumptive use; or water audits of significant users.

3 **Water Banking** - Applicant provides funding for Water Bank that will be used by  
4 Aquarion to fund conservation efforts. These efforts could include such activities:  
5 funding commercial and residential water use audits; or funding a rebate program to  
6 encourage installation by customers of low flow appliances, etc. Aquarion estimated the  
7 cost of the Water Banking option would be a cost of \$5.00 per gallon of water consumed  
8 per day. For example, at the exclusion limit of 100,000 gallons per year, or 274 gallons  
9 per day, the required funding amount would be \$1,425.

10 **Supplemental Source of Supply** - Applicant identifies and develops a supplemental  
11 source of supply for Aquarion.  
12

13 **Q. Do you have any concerns with the Water Balance Plan?**

14 **A.** Yes. Once again I am concerned about the application of fees, or requirements to be  
15 applied to “new” customers that are not equally applied to all customers. Whether the  
16 discussion centers on main extension policy, rates, or any condition under which service  
17 is applied, it is imperative that all customers are provided service in the most equitable  
18 fashion possible except when it can be clearly demonstrated that a class of customers  
19 demonstrate consumption patterns and or cost that separates them from other customers.  
20 Throughout the history of providing water service, Aquarion and its predecessors have  
21 had to provide service to new customers that required differing levels of water demand.  
22 These customers were provided service by applying the most appropriate rates offered by

1 the utility and if no current rate existed and the new customer had service requirement  
2 characteristics unlike any other customer or customer class then the utility statutes  
3 provide for the utility and customer to petition the Commission for approval of a special  
4 contract to accommodate the unique circumstances applicable to that customer. Simply  
5 to establish a threshold level of “new” usage and assign certain requirements and or fees  
6 appears to be contrary to all sound economic regulatory principles of fairness and equity  
7 among customers. Therefore, I would not recommend the inclusion of the proposed  
8 Water Balance Plan in the Petitioner’s tariff.

9  
10 **Q. Do you have anything further to add to your testimony?**

11 **A.** Yes, I have had the opportunity to work with the representatives of New Hampshire water  
12 companies over the years and including Aquarion and its previous owners and I am aware  
13 that the water utilities serving this state are under enormous pressure from State and  
14 Federal regulators to achieve ever stringent and extremely costly water quality  
15 requirements. Compliance with these requirements is not optional but mandatory.  
16 Additionally, water conservation as with energy conservation matters have taken top  
17 priority in a number of cases before this and many other state Commissions. I understand  
18 also that the utilities are also under pressure to minimize rate increases whenever possible  
19 and it has been my experience that the water utility representatives I have had the  
20 opportunity to work with strive to very hard to achieve both difficult goals. Although I  
21 have not endorsed, at this time, the four proposals set forth by the petitioner in this  
22 proceeding for the reasons stated above, I look forward to working with Aquarion to find

1 as much common ground as possible in order to reach a fair, just and equitable resolution  
2 for all parties involved in this proceeding resulting in rates which will yield a revenue  
3 requirement sufficient to cover Aquarion's costs while minimizing possible "undue  
4 discrimination" in rate relationships while apportioning costs appropriately to all  
5 consumers.

6

7 **Q. Does this conclude your testimony?**

8 **A.** Yes.

AQUARION WATER COMPANY OF NEW HAMPSHIRE

JLL - 1  
p. 2

DW 08-098

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

Data Request Received: March 5, 2009  
Request No.: Staff 2-67

Date of Response: March 26, 2009  
Witness: T. Dixon

REQUEST: How many customers by class are billed on a monthly/quarterly basis?

RESPONSE: See the table below illustrating the frequency of billings for customer counts at 12/31/2008.

	<u>Residential</u>	<u>Commercial</u>	<u>Industrial</u>	<u>Public Authority</u>	<u>Fire</u>	<u>Total</u>
Monthly		115	2	15		132
Quarterly	7,064	446		25	293	7,828
Seasonally	821	83		21		925
Semi Annually					4	4
	<u>7,885</u>	<u>644</u>	<u>2</u>	<u>61</u>	<u>297</u>	<u>8,889</u>

DW 08-098

Aquarion Water Company's Responses to Staff Data Requests- Set 2

Data Request Received: March 5, 2009  
Request No.: Staff 2-53

Date of Response: March 26, 2009  
Witness: L. Discepolo

---

**REQUEST:** On page 13 of Mr. Bingaman's testimony he states that one reason for introducing the WICA similar to the DSIC implemented in a number of states is to extend the time period between rate applications and to avoid high percentage rate increases. Please provide evidence which confirms that the introduction of these charges has reduced the number of rate applications and percentage increases in the eight states listed which have adopted these charges.

**RESPONSE:** The Company can not provide direct evidence that the implementation of a WICA surcharge has extended the time period between rate applications. Other factors, such as a company's non-WICA eligible construction program, increased operating expenses and overall economic and market conditions, contribute to the timing and need for rate relief. Conceptually, the implementation of a WICA would delay the need for rate relief and mitigate the size of increases required by a water company. The costs associated with the WICA eligible utility plant investments would be reflected on a gradual basis in a customer's bill versus postponing recovery until the next general rate filing.

AQUARION WATER COMPANY OF NEW HAMPSHIRE

JLL - 3  
p. 8

DW 08-098

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

Data Request Received: March 5, 2009  
Request No.: Staff 2-42

Date of Response: March 26, 2009  
Witness: L. Discepolo

---

REQUEST: Re: WICA. Please indicate if the company believes that availability of a WICA surcharge reduces the company's overall risk due to the reduction of regulatory lag.

RESPONSE: The Company does not believe this surcharge reduces overall company risk. Although WICA reduces the regulatory lag on WICA-eligible utility plant investments, the Company must first fund those investments and then apply for recovery of those investments after they are used and useful. The purpose of WICA is to encourage additional plant investment to replace aging infrastructure, which is widely recognized as one of the most significant issues facing the water industry today. The Pennsylvania Public Utility Commission ("PA PUC") authorized the DSIC surcharge mechanism in 1996. Based on our review of their most recent litigated water decision, we understand that the DSIC had not been considered to reduce company risk. The PA PUC granted Aqua Pennsylvania, Inc. an 11.0% ROE, effective July 31, 2008.

1 infrastructure that is aged, or in such condition that it is likely to negatively  
2 impact water quality or reliability of service if it is not replaced. We feel it is a  
3 valuable tool to promote investment in infrastructure replacement that will  
4 provide a benefit to our customers' water quality and level of service, mitigate  
5 rate shock, and preserve natural resources by reducing lost and unaccounted for  
6 water. Equally important, it will reduce the frequency of rate cases, which impose  
7 a cost on customers, the Company and the Commission.

8

9 **Q.** Are there other changes in water rates the Company is seeking as part of its  
10 filing?

11 **A.** Yes, the Company is seeking authorization to implement a System Development  
12 Charge (SDC), also called a connection fee, to offset the cost of system  
13 improvements to accommodate new customers in the Company's service areas.  
14 While System Development Charges are more common among municipal water  
15 utilities, we are aware that in Massachusetts there are at least three DPU-regulated  
16 water companies that have received approval to implement a SDC.

17

18 To my knowledge, there are two approaches to calculating a SDC. Both  
19 approaches involve the issue of how to allocate the cost of service between new  
20 customers and existing customers. One approach focuses on the need to build  
21 new capacity. This concept establishes a system of charges that assigns a portion  
22 of the cost of new facilities directly to new customers and has been called the  
23 "incremental" approach.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22

The second approach focuses on the capacity of existing infrastructure available to new customers, the cost of which has previously been borne by existing customers, but which is really necessitated by anticipated growth in the system. This approach has been called the “buy-in” approach.

The Company believes that it is more equitable to ask new customers to help pay the cost of these facilities, which to date have been borne by existing customers. Therefore, we are proposing the buy-in approach for the System Development Connection Charge.

The Company has identified a need to upsize water mains and related appurtenances to improve service delivery and fire protection, which would benefit existing customers, but also help accommodate growth of new customers. We have assumed standard industry cost estimates for eight-inch and 12-inch mains and used the differential between the two to estimate the cost of increasing the size of the mains and related appurtenances in the system to better serve new customers.

The “buy-in” approach calculation of the System Development Charge results in a charge of \$779 for per connection. The SDC for larger meter sizes have been increased using standard American Water Works Association ratios. Ms.

Aquarion Water Company of New Hampshire

SYSTEM DEVELOPMENT CHARGE  
Test Year Ended March 31, 2008

Line  
No.

1				
2				
3	<b>Cost of Upsizing Transmission and Distribution Mains</b>			
4				
5	Total Feet of Main	721,901		
6				
7	Total Number of Customers	8,770		
8				
9	Feet per Customer	82		
10				
11	Adjustment to account for customer			
12	on both sides of road - divide by 2	41	41 ft	
13				
14	Price Differential for Pipe upsizing			
15	Replacing 8" Main with 12" Main		\$ 19	
16				
17	<b>Calculated System Development Charge for a new 5/8" meter customers</b>			<u>\$ 779</u>
18				
19	<b>Proposed System Development Charge for a new 5/8" metered customer</b>			<u>\$ 779</u>

**Design of Charges for Connections Larger Than 5/8"**

Meter Size	Capacity GPM	Ratio to 5/8"	Proposed Fee
5/8"	20	1.00	\$ 779
3/4"	30	1.50	\$ 1,169
1"	50	2.50	\$ 1,948
1 1/2"	100	5.00	\$ 3,895
2"	160	8.00	\$ 6,232
3"	320	16.00	\$ 12,464
4"	500	25.00	\$ 19,475

Note: The Company is proposing that the charge for meters larger than 4 inch be determined on a case by case basis.

Testimony of Larry L. Bingaman

1 Discepolo will further discuss in her testimony the details of how the proposed  
2 SDC was calculated.

3

4 **Q.** Does the proposed SDC result in new customers being charged for plant that is  
5 not in yet in service?

6 **A.** No. If the SDC is calculated based on the buy-in approach, it will cover only  
7 facilities that are already constructed and providing service to customers. The  
8 charge is intended to reflect the fact that before new customers can come onto the  
9 Company's system, the system had to be oversized to serve anticipated new  
10 customers. In order to ensure that existing customers are not charged for plant  
11 that would not have been necessary in the absence of future growth, the SDC is  
12 designed to assign a reasonable portion of these costs to new customers when they  
13 come on the system. Such a charge is somewhat lower than an SDC that is based  
14 on the incremental approach, which would also include future plant and  
15 equipment that are expected to be added to serve new customers. An example of  
16 additional investment that would be included under the incremental approach but  
17 not under the buy-in approach is the cost of developing new sources of supply

18

19 **Q.** Are there other changes in the rate structure the Company is seeking?

20 **A.** Yes. The Company is seeking to implement an inclining block rate to promote  
21 water conservation in its service area. We have been encouraged by the New  
22 Hampshire DES since it lifted the growth moratorium on the Company in January  
23 2004 to implement such a rate structure as a way to help manage demand. The  
24 DES reiterated their position on conservation rates in a March 28, 2007 letter as a

DW 08-098

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

Data Request Received: March 5, 2009  
Request No.: Staff 2-54

Date of Response: March 26, 2009  
Witness: L. Discepolo

---

**REQUEST:** On pages 16 and 17 of Mr. Bingaman's testimony regarding the SDC, please provide specific examples of facilities which would be considered under the "incremental" as well as the "buy-in" approach.

**RESPONSE:** The "incremental" approach focuses on the need to build new capacity for providing water service in the future. Generally, this method is considered most appropriate when a significant portion of the capacity required to serve new customers must be provided by construction of new source of supply facilities. Since the Company is not including the cost of new source development in the SDC, this approach was not proposed.

The "buy-in" approach focuses on the capacity of existing facilities, available to new customers, the cost of which has been borne by existing customers. The types of investments the Company identified for the "buy-in" approach were those related to the upsizing of water mains and related appurtenances to improve system delivery and to accommodate growth of new customers.

AQUARION WATER COMPANY OF NEW HAMPSHIRE

JLL - 9  
p. 13

DW 08-098

Aquarion Water Company's Responses to Staff Data Requests--Set 2

Data Request Received: March 5, 2009  
Request No.: Staff 2-68

Date of Response: March 26, 2009  
Witness: T. Dixon

---

REQUEST: When does the company plan to bill all customers on a monthly basis?

RESPONSE: The Company does not have any current plans to bill on a monthly basis. Switching to monthly meter reading is contingent upon the completion of the automated meter reading program as well as a weighing of perceived benefits against the economic feasibility of reading meters more frequently.