The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 11-43 March 30, 2012

Petition of Aquarion Water Company of Massachusetts, Inc., pursuant to G.L. c. 164, § 94, G.L. c. 165, § 2, and 220 C.M.R. § 5.00 et seq., for Approval of a General Rate Increase as set forth in Tariff M.D.P.U. No. 2.

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I. INTRODUCTION

A. Procedural History

On May 13, 2011, Aquarion Water Company of Massachusetts ("Aquarion" or "Company") filed a petition with the Department of Public Utilities ("Department") pursuant to G.L. c. 164, § 94, and G.L. c. 165, § 2, for a general increase in water rates of $2,801,403. The Company based its proposed increase on a test year ending December 31, 2010 (Exh. AQR-TMD at 3). During the proceedings, Aquarion revised its revenue deficiency to $2,522,056 (RR-DPU-6, 2nd Supp., Sch. 1). The Department docketed the petition as D.P.U. 11-43 and suspended the effective date of the Company's tariff M.D.P.U. No. 2 until April 1, 2012, for further investigation. Aquarion's last general rate increase was approved by the Department on April 1, 2009. Aquarion Water Company of Massachusetts, D.P.U. 08-27 (2009).

The outstanding common stock of Aquarion is owned by Aquarion Water Company, a wholly owned subsidiary of Aquarion Company, which is in turn owned by Macquarie Utilities, Inc. ("MUI") (Exhs. DPU-AQ 1-9, Att. A at 1; DPU-AQ 1-70).[1] Aquarion serves approximately 18,900 customers in six communities comprising two service areas. Service Area A includes: (1) the town of Cohasset ("Cohasset"), with approximately 325 customers; (2) the town of Hingham ("Hingham"), with approximately 7,800 customers; and (3) the town

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[1] Aquarion Company is the parent company of the regulated and non-regulated entities in New England (Exh. DPU-AQ 1-70; Tr. 1, at 138-141). Aquarion Company owns three affiliates in New England: (1) Aquarion; (2) Aquarion Water Company of Connecticut; and (3) Aquarion Water Company of New Hampshire (Exh. AQ-HCH at 4-5; Tr. 1, at 141).

of Hull ("Hull"), with approximately 4,575 customers (Exhs. AQ-HCH at 5; Hingham/Hull 2-29, Att. A at 93).[2] Service Area B includes: (1) the town of Millbury ("Millbury"), with approximately 3,550 customers; and (2) the town of Oxford ("Oxford"), with approximately 2,600 customers (Exhs. AQ-HCH at 5-7; Hingham/Hull 2-29, Att. A at 200, 201).

On June 10, 2011, the Department granted intervention status as a full party to Oxford. On June 28, 2011, the Department granted intervention status as full parties to Hingham and Hull.[3] Pursuant to notice duly issued, the Department held two public hearings: (1) in Millbury on June 27, 2011; and (2) in Hingham on June 28, 2011. The Department held five days of evidentiary hearings between November 16, 2011, and November 22, 2011.

On January 15, 2011, Hingham and Hull submitted a joint initial brief ("Hingham/Hull Brief"),[4] Oxford submitted an initial brief ("Oxford Brief"), and Hull issued a separate initial brief outlining certain distinct concerns ("Hull Brief"). On January 9, 2012, Aquarion submitted an initial brief ("Company Brief"). On January 18, 2012, Hingham and Hull submitted a joint reply brief ("Hingham/Hull Reply Brief"), and Oxford submitted a reply brief ("Oxford Reply Brief"). On January 27, 2012, Aquarion submitted a reply brief

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2 While Aquarion has limited infrastructure in Norwell, the Company does not serve any customers within Norwell (Exh. DPU-AQ 2-1).

3 Although Hingham and Hull submitted separate petitions to intervene, the two towns issued joint discovery and briefs (see, e.g., Hingham/Hull 1-1).

4 On January 16, 2012, Hingham and Hull resubmitted their joint initial brief to correct certain word-processing-related problems that occurred with the brief filed on January 15, 2012.

("Company Reply Brief"). The evidentiary record consists of 576 exhibits and responses to 21 record requests.

In support of its filing, Aquarion sponsored the testimony of four witnesses: (1) Harry C. Hibbard, vice president in charge of operations for Aquarion; (2) Troy M. Dixon, director of rates and regulation for Aquarion Water Company of Connecticut ("Aquarion-CT"); (3) Joshua A. Unger, senior regulatory compliance specialist for Aquarion-CT; and (4) Donald J. Tata, president of Tata & Howard, Inc ("Tata & Howard").[5] Hingham and Hull sponsored the testimony of: (1) Ted C. Alexiades, town administrator in Hingham; (2) Lawrence B. Rabuffo, Selectman in Hingham; and (3) David F. Russell, owner and founder of Russell Consulting.

B. Procedural Rulings

1. Appeal of Hearing Officer Ruling on Substitution Motion

a. Introduction

On October 24, 2011, Aquarion filed a motion to substitute witnesses as identified in footnote 5 ("Substitution Motion"). On October 31, 2011, Hingham and Hull filed an opposition to the Substitution Motion. On November 2, 2011, the Hearing Officer issued a written ruling granting Aquarion's Substitution Motion ("Ruling on Substitution Motion"). On

5 Initially, Aquarion sponsored the testimony of Robert L. Roland, Aquarion's then-director of operation. On November 2, 2011, the Hearing Officer granted the Company's motion to substitute Harry C. Hibbard and Donald J. Tata as witnesses for Mr. Roland due to his leaving Aquarion's employ. As part of the substitution, Mr. Hibbard and Mr. Tata adopted the prefiled testimony that was included as part of the Company's initial filing. Hingham and Hull appealed the Hearing Officer's ruling granting the substitution (see Section I.B.1.).

November 7, 2011, pursuant to 220 C.M.R. § 1.06(6)(d)(2), Hingham and Hull appealed the Hearing Officer's ruling to the Commission ("Substitution Appeal").[6] On November 10, 2011, the Department issued an Interlocutory Order and found that there was no evidence that the Hearing Officer abused her discretion in granting the Substitution Motion. Thus, we affirmed the Hearing Officer's Ruling and denied Hingham and Hull's appeal.[7] In the Interlocutory Order, we noted that the analysis outlining our reasons for affirming the Ruling on the Substitution Motion and denying Hingham and Hull's appeal would be provided in the final Order in this proceeding. We provide such analysis below.

b. Positions of the Parties

Hingham and Hull assert that the Hearing Officer abused her discretion in granting the Substitution Motion. Hingham and Hull argue that the Hearing Officer granted the Substitution Motion without a hearing (Substitution Appeal at 1). Hingham and Hull also submit that the substitution of witnesses prejudices Hingham and Hull (Substitution Appeal at 2, 3). Specifically, Hingham and Hull maintain that Aquarion gave no justification for the witness change other than to note that Mr. Roland was no longer employed by Aquarion (Substitution Appeal at 1-2). For example, Hingham and Hull assert that Aquarion did not claim that Mr. Roland was unavailable or unwilling to testify (Substitution Appeal at 2).

6 Aquarion did not provide a response to the Substitution Appeal.

7 Pursuant to the Department's Procedural Rules, the Hearing Officer's Ruling on the Substitution Motion would have remained in effect absent the Interlocutory Order. 220 C.M.R. § 1.06(6)(d)(2).

Hingham and Hull also argue that Aquarion did not disclose why Mr. Roland left the employ of Aquarion (Substitution Appeal at 2). In addition, Hingham and Hull assert that as a long-term employee of Aquarion, Mr. Roland was the most knowledgeable person to provide testimony on the topics at issue, and, without the opportunity to cross-examine him, important information may not be obtained (Substitution Appeal at 2). Hingham and Hull also maintain that Aquarion delayed disclosure that Mr. Roland would no longer be the witness (Substitution Appeal at 2).

Finally, Hingham and Hull maintain that the substitute witnesses are not qualified to adopt Mr. Roland's testimony (Substitution Appeal at 2). That is, Hingham and Hull assert that Mr. Hibbard does not appear to have any operational experience with a water company prior to 2009, and Mr. Tata's testimony provides no specific background that establishes his suitability to adopt Mr. Roland's testimony (Substitution Appeal at 2). No other party commented on the matter.

c. Analysis and Findings

The Department has held that a Hearing Officer[8] has the authority to conduct a proceeding in an efficient manner and to make decisions regarding procedural matters that may arise during the course of the proceeding. 220 C.M.R. § 1.06(6)(a); Bay State Gas Company, D.T.E. 05-27, Interlocutory Order at 5-6 (2005); see also Tofias v. Energy Facilities Siting Board, 435 Mass. 340, 349-50 (2001). Where there is no evidence that the Hearing Officer

[8] A Hearing Officer is formally assigned by the Commission to hear, examine, and investigate matters before the Department. G.L. c. 25, § 4.

abused his or her discretion in ruling on a pleading, motion, petition, or request, the Hearing Officer's decision must be affirmed. National Grid/KeySpan Merger, D.P.U. 07-30, at 40-41 (2010); D.T.E. 05-27, Interlocutory Order at 6; The Berkshire Gas Company, D.T.E. 01-56, at 6-7 (2002).

In this case, Hingham and Hull have not presented any evidence that the Hearing Officer abused her discretion. Instead, Hingham and Hull simply reiterate the arguments previously made by them in opposition to Aquarion's Substitution Motion and analyzed by the Hearing Officer in her Ruling. The only new argument raised by Hingham and Hull is that the Hearing Officer abused her discretion by granting the Substitution Motion without a hearing (Substitution Appeal at 1).

A Hearing Officer can rule on a motion based on the content of the motion and any responsive pleading without the need for a hearing. See 220 C.M.R. § 1.11(2). The evidence shows that the Hearing Officer considered the arguments made by Aquarion and Hingham and Hull and found it appropriate to grant Aquarion's Substitution Motion (Ruling on Substitution Motion at 2-4). Thus, we find that the Hearing Officer did not abuse her discretion in making her ruling.

Nonetheless, as the Hearing Officer noted, this is a case of first impression for the Department in that substitutions of witnesses have previously occurred without objection (Ruling on Substitution Motion at 2, citing Fitchburg Gas and Electric Light Company, D.P.U. 11-01/D.P.U. 11-02, at 5 n.3 (2011); Milford Water Company, D.P.U. 10-78 (2011); Boston Edison Company, Cambridge Electric Light Company, and Commonwealth Electric

Company, D.T.E./D.P.U. 06-107-B at 2 n.8 (2009)). Thus, we find it appropriate to expound on the Ruling on the Substitution Motion in more detail. In doing so, we adopt the Hearing Officer's findings as our own.

The Hearing Officer noted, and we agree, that a company submitting a rate case filing before the Department pursuant to G.L. c. 164, § 94, has the affirmative burden of proof on all issues relevant to its rate filing (Ruling on Substitution Motion at 2, citing Massachusetts Electric Company/Nantucket Electric Company, D.P.U. 09-39, at 294 (2010); D.T.E. 05-27, at 93-96; Fitchburg Gas and Electric Light Company, D.T.E. 02-24/25, at 13 (2002); Bay State Gas Company, D.P.U. 1535-A at 17 (1983); see also Metropolitan Dist. Commission v. Dept. of Public Utilities, 352 Mass. 18, 24 (1967), citing Wannacomet Water Co. v. Dept. of Pub. Util., 346 Mass. 453, 463 (1963)). Thus, the company is permitted to put on its case in the manner it chooses, including deciding which witnesses to call to prove its case (Ruling on Substitution Motion at 2, citing D.P.U. 09-39, at 294).

The Hearing Officer noted that the substitute witnesses that Aquarion proposed to present adopted the substantive portions of the prefiled testimony and discovery responses with no changes (Ruling on Substitution Motion at 2-3, citing Exh. AQ-HCH & DJT at 6-7).[9] She then noted that Hingham and Hull asserted that the substitute witnesses did not have the appropriate experience or background (Ruling on Substitution Motion at 3). Nonetheless, the Hearing Officer determined, and we affirm, that Hingham and Hull made no showing that the

9 The only portions of the prefiled testimony not adopted by the witnesses are those that outline Mr. Roland's personal information, i.e., his educational and professional background (Exh. AQ-HCH & DJT at 4, 6).

substitute witnesses would be unable to testify competently to the facts stated in the adopted direct testimony (Ruling on Substitution Motion at 3). The Hearing Officer also noted that if there were issues with the competence or credibility of the substitute witnesses during the evidentiary phase of this proceeding, the Company bore the risk that it might fail to meet its burden of proof (Ruling on Substitution Motion at 3). While the intervenors argued on brief that Aquarion failed to meet is burden of proof with respect to certain issues, no intervenor argued that the alleged failure of the Company to meet its burden of proof on any issue was related to the substitution of witnesses (see, generally, Hingham/Hull Brief; Hingham/Hull Reply Brief; Hull Brief; Oxford Brief; Oxford Reply Brief).

The Hearing Officer also determined, and we affirm, that the interests of justice supported Aquarion's request to substitute witnesses because there was no undue burden on Hingham and Hull (Ruling on Substitution Motion at 3). Specifically, she noted that testimony from the substitution witnesses was provided prior to the close of discovery and Hingham and Hull had an opportunity to issue information requests to the witnesses (Ruling on Substitution Motion at 3, citing Eagan v. Marr Scaffolding Co., 14 Mass.App.Ct. 1036, 1037 (1982); see also Todisco v. Pesin, 1995 WL 1146841 (Mass. Super. Ct. 1995); Nardone v. Town of Watertown 1996 WL 1353305 (Mass. Super. Ct. 1996)). She also noted that the substitute witnesses would be present at the evidentiary hearings and Hingham and Hull would be given an opportunity to cross examine the substitute witnesses on the direct testimony and discovery responses (Ruling on Substitution Motion at 3, citing 14 Mass.App.Ct. 1036, 1037; see also Todisco v. Pesin, 1995 WL 1146841 (Mass. Super. Ct. 1995); Nardone v. Town of

Watertown 1996 WL 1353305 (Mass. Super. Ct. 1996)). The substitute witnesses did attend the hearings and the intervenors and the Department were provided with the opportunity to conduct cross-examination of the witnesses on all of Mr. Roland's testimony that they adopted (see Tr. 1 through Tr. 4).

The Hearing Officer also found, and we agree, that there was no evidence of bad faith on the part of Aquarion in seeking to provide substitute witnesses for a departing employee (Ruling on Substitution Motion at 3, citing Beaupre v. Cliff Smith & Associates, 50 Mass.App.Ct. 480, 488 (2000); 14 Mass.App.Ct. 1036, 1037).

Finally, Hingham and Hull argue that the Hearing Officer abused her discretion by making a Ruling without first holding a hearing. Although the Department's Procedural Rules recognize that there may be oral argument, the decision to grant or deny permission to argue is reserved to the presiding officer (i.e., the Hearing Officer or the Commission) as a matter of his or her own discretion. 220 C.M.R. § 1.11(2). The Department has not made oral argument a matter of typical procedure, particularly where a written motion and response are the subject of a ruling. Here, we find that the Hearing Officer did not abuse her discretion by ruling on a written motion without first permitting oral argument. Thus, having found that the Hearing Officer did not abuse her discretion, Hingham and Hull's appeal of the Ruling on the Substitution Motion is denied.

2. Appeal of Hearing Officer Rulings on Motions for Confidential Treatment

a. Introduction

During the proceeding, Aquarion submitted ten motions for confidential treatment.[10] The Hearing Officer stamp-granted three unopposed motions and issued two written rulings on the remaining seven motions.[11] First, on November 9, 2011, the Hearing Officer issued a ruling on five motions in which she granted in part and denied in part confidential treatment to certain documents ("First Ruling on Confidential Motions").[12] On November 14, 2011, Hingham and Hull submitted an appeal of the Ruling pursuant to 220 C.M.R. § 1.06(6)(d)(2) ("First Confidential Appeal"). Hingham and Hull stated that they are appealing only the portions of the ruling granting the motions for confidential treatment (First Confidential Appeal at 1). On November 17, 2011, Aquarion submitted a response to the Confidential Appeal ("First Aquarion Response").

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[10] On November 10, 2011, Aquarion submitted an eleventh motion, but the Department considered it moot as it was duplicative of a previously filed motion. See D.P.U. 11-43, Hearing Officer Ruling on Motions for Confidential Treatment at 1 n.2 (January 9, 2012).

[11] Pursuant to G.L. c. 25, § 5D, the Department may protect "from public disclosure, trade secrets, confidential, competitively sensitive or other proprietary information provided in the course of proceedings."

[12] These documents contain information in the following four categories: (1) compensation-related information for management, non-management, and service company personnel; (2) performance audits; (3) state income tax forms; and (4) bids and expenses related to legal services for this case (First Ruling on Confidential Motions at 1).

Second, on January 9, 2012, the Hearing Officer issued a ruling in which she granted confidential treatment to the documents covered by the remaining two motions ("Second Ruling on Confidential Motions").[13] On January 13, 2012, Hingham and Hull submitted an appeal of the Ruling pursuant to 220 C.M.R. § 1.06(6)(d)(2) ("Second Confidential Appeal"). On January 19, 2012, Aquarion submitted a response to the Confidential Appeal ("Second Aquarion Response"). Oxford did not comment on any of Aquarion's motions for confidential treatment.

b. Positions of the Parties

i. Hingham and Hull

Hingham and Hull assert that the Hearing Officer abused her discretion in granting the motions (First Confidential Appeal at 1; Second Confidential Appeal at 1). Specifically, Hingham and Hull assert that the Hearing Officer granted the motions without a hearing (First Confidential Appeal at 1; Second Confidential Appeal at 1). In addition, Hingham and Hull maintain that, with respect to certain documents, the Company made wholesale redactions in the public versions of the documents that make it impossible to conduct a meaningful analysis (First Confidential Appeal at 1-4; Second Confidential Appeal at 1-3). With respect to the confidential treatment granted to billing rates and estimated cost information provided in response to the legal service request for proposals ("RFP") and contained in

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[13] These documents contain information in the following two categories: (1) expenses related to the ongoing Oxford litigation (see Section III.H., below); and (2) bids and expenses related to services rendered for this case (see Section III.D., below) (Second Ruling on Confidential Motions at 1).

Exhibit DPU-AQ 2-34, Hingham and Hull argue that legal service providers often respond to government-related RFPs and Aquarion provided no explanation of how responses to RFPs issued in a rate case differ from responses to government-related RFPs (First Confidential Appeal at 4-5). Hingham and Hull also assert that the invoices for legal services contained in Exhibit DPU-AQ 7-2 provide summaries and should, instead, disclose the hourly rates and detailed explanations of work performed by the attorneys supporting Aquarion's rate case filing (Second Confidential Appeal at 2). In addition, Hingham and Hull assert that the number of hours spent and the hourly rates related to revenue requirement testimony should be unredacted on Exhibits DPU-AQ 8-11 and DPU-AQ 8-12 (Second Confidential Appeal at 2).

In sum, Hingham and Hull assert that allowing the motions would undermine the efficacy of the Department's rate setting, weaken public confidence in the meaningfulness of the Department's review, and prevent the Department, intervenors, and the public from reviewing relevant and important information based on generalized assertions of harm (First Confidential Appeal at 1-2; Second Confidential Appeal at 1-2).

ii. Company

Aquarion asserts that Hingham and Hull's appeals should be denied because the basis for the appeals lacks merit and the Hearing Officer did not abuse her discretion (First Aquarion Response at 3, 8; Second Aquarion Response at 3). Aquarion further contends that the First and Second Rulings on Confidential Motions were well reasoned and based on considerable Department precedent on protective treatment matters (First Aquarion Response at 3; Second Aquarion Response at 3). In addition, the Company contends that most of Hingham and Hull's arguments do not include any reasons why the materials are not confidential pursuant to G.L. c. 25, § 5D (First Aquarion Response at 4; Second Aquarion Response at 3). The Company notes that, in her ruling, the Hearing Officer stated that the Department requires contentions to be accompanied by reasons of fact and that a bare assertion of an issue does not support a claim (First Aquarion Response at 4, citing First Ruling on Confidential Motions at 5 n.4).

In addition, Aquarion maintains that, contrary to Hingham and Hull's assertions, the general basis of the appeal is that the materials granted confidential treatment should be provided to the intervenors and their experts, not that the materials should be made public (First Aquarion Response at 3). The Company contends that the intervenors had an opportunity to execute a non-disclosure agreement, which would have given them access to the confidential materials (First Aquarion Response at 3-4). Aquarion notes that during the evidentiary hearings, certain parties became signatories to a non-disclosure agreement and were provided the confidential materials (Second Aquarion Response at 3-4).

The Company also interprets Hingham and Hull's appeals as disputing the confidential treatment granted to certain of the exhibits (First Aquarion Response at 2; Second Aquarion Response at 4). Aquarion maintains that the Hearing Officer appropriately granted confidential treatment to certain exhibits because the material fell within the parameters of information protected under G.L. c. 25, § 5D (First Aquarion Response at 3; Second Aquarion Response at 4-6). For example, the Company asserts that the internal audit information contained in Exhibit DPU-AQ 1-2 and the income tax return contained in Exhibit DPU-AQ 1-61 include information related to Aquarion's non-Department-regulated parent and affiliates (First Aquarion Response at 4-5). With respect to responses to the legal services RFP contained in Exhibit DPU-AQ 2-34, Aquarion maintains that the Company bears no burden under G.L. c. 25, § 5D to explain how the responses to its RFP for legal service differ from those responding to government-related RFPs, as asserted by Hingham and Hull (First Aquarion Response at 5-6). Aquarion further maintains that, with respect to legal services invoices provided in Exhibits DPU-AQ 2-36 and DPU-AQ 7-2, Hingham and Hull's argument on appeal has no relevance to the attorney-client privilege that is at stake with respect to the redacted narrative descriptions (First Aquarion Response at 7; Second Aquarion Response at 4-5). Aquarion notes that the towns did not argue in their oppositions to the motions for confidential treatment and do not argue on appeal that the attorney-client privilege does not attach to the redacted information in the legal invoices (First Aquarion Response at 7).

c. Analysis and Findings

The Department has held that a Hearing Officer has the authority to conduct a proceeding in an efficient manner and to make decisions regarding procedural matters that may arise during the course of the proceeding. 220 C.M.R. § 1.06(6)(a); D.T.E. 05-27, Interlocutory Order at 5-6; see also 435 Mass. at 349-350. Where there is no evidence that the Hearing Officer abused his or her discretion in ruling on a pleading, motion, petition, or request, the Hearing Officer's decision must be affirmed. D.P.U. 07-30, at 40-41; D.T.E. 05-27, Interlocutory Order at 6; D.T.E. 01-56, at 6-7.

In this case, Hingham and Hull have not presented any evidence that the Hearing Officer abused her discretion in granting certain portions of the motions for confidential treatment. Instead, Hingham and Hull simply assert that the Hearing Officer abused her discretion and then seek to reargue before the Department the issues raised before the Hearing Officer and analyzed by the Hearing Officer in her Rulings. The only new argument raised by Hingham and Hull in their appeal is that the Hearing Officer abused her discretion by granting the motions for confidential treatment without a hearing (First Confidential Appeal at 1; Second Confidential Appeal at 1).

The evidence shows that the Hearing Officer considered the arguments made by Aquarion and Hingham and Hull and found it appropriate to grant certain of Aquarion's motions for confidential treatment. D.P.U. 11-43, Hearing Officer Ruling on Confidential Treatment at 4-11 (November 9, 2011); Hearing Officer Ruling on Confidential Treatment at 3-7 (January 9, 2012). A review of the Rulings shows that the Hearing Officer gave thoughtful consideration to all of the arguments raised by the intervenors.[14]

Further, as stated previously, the decision to grant or deny permission to argue is reserved to the presiding officer as a matter of his or her own discretion. 220 C.M.R. § 1.11(2). And, as emphasized in Section I.B.1.c., above, the Department has not made oral argument a matter of typical procedure, particularly where a written motion and

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[14] For example, Hingham asserted that Aquarion should be required to demonstrate how it differs from government entities that maintain RFPs from legal service providers as public documents. D.P.U. 11-43, Hearing Officer Ruling on Confidential Treatment at 10 n.11.

response are the subject of a ruling. See 220 C.M.R. § 1.11(2). In this case, we find that the Hearing Officer did not abuse her discretion by ruling on written motions without first permitting oral argument. In sum, we find that the Hearing Officer did not abuse her discretion in making her Rulings, and Hingham and Hull's appeals of the Hearing Officer Rulings on motions for confidential treatment are denied.

We also note that because the parties had difficulty negotiating a mutually agreeable non-disclosure agreement, the Hearing Officer provided a path by which the intervenors could access the confidential materials. Specifically, on November 17, 2011, the Hearing Officer issued a Protective Order that provided the parameters under which the intervenors could view the information that had been granted confidential treatment following execution of a non-disclosure certificate. Following issuance of the Protective Order, Hull and Oxford signed the non-disclosure certificate and were provided unredacted copies of the materials that had been granted confidential treatment by Aquarion. Hingham declined to sign the non-disclosure certificate and, thus, did not obtain the unredacted materials.

II. RATE BASE

A. Introduction

Between December 31, 2007,[15] and December 31, 2010, Aquarion placed into service $9,938,101 in plant (Exhs. AQ-RLR at 4; DPU-AQ 3-11, Att. A at 4; Hingham/Hull 1-7, at 2). Of this amount, $6,053,998 consisted of mains financed through contributions in aid of

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15 December 31, 2007, was the end of the test year from Aquarion's last rate case. D.P.U. 08-27, at 1.

construction ("CIAC"),[16] and $3,293,141 represented projects with a total cost greater than $25,000 (Exhs. AQ-RLR at 4; AQ-RLR-2, at 2; Hingham/Hull 1-7, at 1-2).[17] The largest main projects completed during this period were: (1) Phases One and Two of the Atlantic Avenue water main replacement project in Hull ("Atlantic Avenue project"), completed at a total cost of $349,433; (2) the South Street water main replacement project in Hingham, completed at a total cost of $58,016; and (3) the Clark Road water main replacement project in Hingham, completed at a total cost of $41,243 (Exhs. AQ-RLR at 5-6; DPU-AQ 1-4, Att. A at 1, 21). In addition, the Company placed into service during this period a number of other plant additions, most of which pertain to improvements at its water treatment and communications facilities, along with new meters and service lines (Exhs. AQ-RLR at 6-12; Hingham/Hull 1-7).

Aquarion provided the work orders and closing reports for all capital projects in excess of $25,000 that were completed between January 1, 2008, and December 31, 2010 (Exhs. AQ-RLR-2; DPU-AQ 1-4). The information included project execution plans, project report cards, alternative analyses, and project goal worksheets, along with various supplemental memoranda (Exhs. AQ-RLR-2; DPU-AQ 1-4).

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16 CIAC is company-owned plant that is financed by cash contributions from customers for extension or upgrade of service to the customers. See Milford Water Company, D.P.U. 11-99, at 3 n.3 (2011); D.T.E. 02-24/25, at 63.

17 The remaining balance of $590,962 represents projects that cost less than $25,000 (Exhs. AQ-RLR at 4; Hingham/Hull 1-7, at 1).

In the Company's previous rate case, Aquarion sought to include in rate base approximately $1.25 million in post-test year costs associated with the upgrade of Free Street Well Number 4 ("Free Street 4") to a permanent source of supply, plus associated upgrades at the Company's Fulling Mill and Scotland Street wells (collectively, "Free Street 4 project"). D.P.U. 08-27, at 21-24. The Department excluded $548,937 of post-test year additions related to the Free Street project because the Company had failed to provide sufficient clear and reviewable evidence to support these plant additions. D.P.U. 08-27, at 32-34. In recognition of the status of the Free Street 4 project as a post-test year addition, Aquarion was permitted to seek recovery of the undepreciated portion of the excluded $548,937 in Free Street 4 project costs through rate base as part of the Company's next rate case, upon a showing by satisfactory evidence that these project costs were prudently incurred. D.P.U. 08-27, at 32, 34. As discussed further below, the Company now seeks to include the previously excluded portion of Free Street 4 in rate base (Exhs. AQ-RLR at 17; AQ-RLR-3).

B. Standard of Review

For costs to be included in rate base the expenditures must be prudently incurred and the resulting plant must be used and useful to ratepayers. Western Massachusetts Electric Company, D.P.U. 85-270, at 20 (1986). The prudence test determines whether cost recovery is allowed at all, while the used and useful analysis determines the portion of prudently incurred costs on which the utility is entitled to a return. D.P.U. 85-270, at 25-27.

A prudence review involves a determination of whether the utility's actions, based on all that the utility knew or should have known at that time, were reasonable and prudent in light of the extant circumstances. Such a determination may not properly be made on the basis of hindsight judgments, nor is it appropriate for the Department merely to substitute its own judgment for the judgments made by the management of the utility. Attorney General v. Department of Public Utilities, 390 Mass. 208, 229-230 (1983). A prudence review must be based on how a reasonable company would have responded to the particular circumstances and whether the company's actions were in fact prudent in light of all circumstances that were known, or reasonably should have been known, at the time a decision was made. Boston Gas Company, D.P.U. 93-60, at 24-25 (1993); D.P.U. 85-270, at 22-23; Boston Edison Company, D.P.U. 906, at 165 (1982). A review of the prudence of a company's actions is not dependent upon whether budget estimates later proved to be accurate but rather upon whether the assumptions made were reasonable, given the facts that were known or that should have been known at the time. Massachusetts-American Water Company, D.P.U. 95-118, at 39-40 (1996); D.P.U. 93-60, at 35; Fitchburg Gas and Electric Light Company, D.P.U. 84-145-A at 26 (1985).

The Department has cautioned utility companies that, as they bear the burden of demonstrating the propriety of additions to rate base, failure to provide clear and cohesive reviewable evidence on rate base additions increases the risk to the utility that the Department will disallow these expenditures. Massachusetts Electric Company, D.P.U. 95-40, at 7 (1995); D.P.U. 93-60, at 26; The Berkshire Gas Company, D.P.U. 92-210, at 24 (1993);

see also Massachusetts Electric Company v. Department of Public Utilities, 376 Mass. 294, 304 (1978); 352 Mass. at 24.[18] In addition, the Department has stated that:

> In reviewing the investments in main extensions that were made without a cost-benefit analysis, the [c]ompany has the burden of demonstrating the prudence of each investment proposed for inclusion in rate base. The Department cannot rely on the unsupported testimony that each project was beneficial at the time the decision was made. The [c]ompany must provide reviewable documentation for investments it seeks to include in rate base.

D.P.U. 92-210, at 24.

C. Allowance for Funds Used During Construction

1. Introduction

Allowance for funds used during construction ("AFUDC") is an accounting and ratemaking convention that allows companies to recover the costs of financing a construction project by capitalizing the carrying charges associated with financing the project during construction, and including those costs in rate base as a part of plant in service. Plymouth Water Company, D.T.E./D.P.U. 06-53, at 7-8 (2007); Fitchburg Gas and Electric Light Company, D.P.U. 19084, at 8 (1977): Boston Edison Company, D.P.U. 18515, at 53 (1976).

For those projects with a cost of greater than $25,000, the Company reported total AFUDC accruals of $116,947, of which $4,252 was associated with Phases I and II of the

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18 The burden of proof is the duty imposed on a proponent of a fact whose case requires proof of that fact to persuade the fact finder that the fact exists, or where a demonstration of non-existence is required, to persuade the fact finder of the non-existence of that fact. Boston Gas Company, D.T.E. 03-40, at 52 n.31 (2003), citing D.T.E. 01-56-A at 16; Fitchburg Gas and Electric Light Company, D.T.E. 99-118, at 7 (2001).

Atlantic Avenue project (Exhs. AQ-RLR-2, at 3-117; Hingham/Hull 1-11 Supp., Att. A).[19] In addition to these post-2007 AFUDC accruals, the Company recorded $202,089 in AFUDC for the Free Street 4 project (Exhs. AQ-RLR-3; Hingham/Hull 1-63, Att. B at 6). Aquarion accrues monthly AFUDC by multiplying the weighted average cost of capital ("WACC") as approved in its most recent rate case by the monthly average construction balance associated with a project, and dividing that result by twelve (Exhs. Oxford 2-2; Oxford 2-23, Att. A; Tr. 3, at 607-610). Aquarion used an AFUDC rate of 9.53 percent for 2007 and 2008 (Exh. Hingham/Hull 1-38, Att. A). See Massachusetts-American Water Company, D.T.E. 00-105, at 3 (2001). Because the Company's WACC approved in the Company's last rate case was 7.96 percent, Aquarion's current AFUDC rate is 7.96 percent. See D.P.U. 08-27, at 233.

2. Positions of the Parties

a. Hingham and Hull

Hingham and Hull maintain that the Company's AFUDC rate fails to take into account the opportunities associated with lower-cost borrowings available from its parent company or other affiliates (Hingham/Hull Brief at 10). Hingham and Hull contend that the Company is able to borrow from its parent company at an interest rate of two percent (Hingham/Hull Brief at 10, 19). Therefore, Hingham and Hull propose that the Department reduce Aquarion's AFUDC accruals associated with the Free Street 4 project by approximately 75 percent, or

[19] Because property financed through CIAC does not require any direct outlay by a company, AFUDC is not accrued on plant financed through CIAC.

$150,000, resulting in a reduction to the Company's proposed rate base of $150,000 (Hingham/Hull Brief at 10). In addition, Hingham and Hull propose that the AFUDC accruals associated with the Atlantic Avenue project be reduced by a corresponding proportion (Hingham/Hull Brief at 19).

b. Company

Aquarion maintains that it has correctly calculated its AFUDC associated with the Atlantic Avenue and Free Street 4 projects (Company Reply Brief at 12, 21). The Company points out that AFUDC is a long-recognized imputed cost that consists of two components: (1) a debt portion, representing interest expense on borrowed money; and (2) an equity portion, representing the opportunity cost incurred when the utility finances construction with its own internally generated funds (Company Reply Brief at 12, citing Boston Edison Company v. Department of Public Utilities, 375 Mass. 1, 33 (1978); Milford Water Company, D.P.U. 84-135, at 12 (1985)). The Company contends that its use of an AFUDC rate equal to its WACC is appropriate, and that no adjustment is warranted (Company Reply Brief at 12).

3. Analysis and Findings

The Department has long recognized the propriety of including AFUDC as a component of construction costs, and will permit its inclusion in rate base provided that the associated plant satisfies the Department's prudent used and useful test. See Western Massachusetts Electric Company, D.P.U. 558, at 40 (1981); D.P.U. 19084, at 8: D.P.U. 18515, at 53. AFUDC consists of a debt component and an equity component; the distinction between these components relates to the calculation of tax liabilities.

D.P.U. 85-270, at 131-132A; D.P.U. 84-135, at 12; D.P.U. 906, at 244-247; Boston Edison Company, D.P.U. 18200, at 24-26 (1975).[20]

Aquarion finances plant additions with a combination of equity and debt, including both long-term and short-term debt (Tr. 3, at 727-728). See also Aquarion Water Company of Massachusetts, D.P.U. 11-55; Tr. at 54, 62, 85 (2011)).[21] While Hingham and Hull's proposed AFUDC rate overlooks the role of equity in financing capital projects, Aquarion's AFUDC rate overlooks the role of short-term debt in meeting its construction needs. Therefore, the Department rejects both proposals. Instead, the Department will recalculate Aquarion's AFUDC rate.

In order to recalculate Aquarion's AFUDC, the Department has examined the Company's Annual Returns for the years 2008 through 2010. For each year, the Department has taken the annual interest expense represented by the sums of Accounts 576 and 577,[22] then divided that amount by the year-end balance of outstanding debt for both long-term and short-term debt (Exh. Hingham/Hull 2-29, Att. A at 5, 8, 11, 111, 114, 117, 218, 221, 224). The Department finds that this method recognizes the actual interest expense incurred by the

20 There are exceptions to this practice, for example, Plymouth Water Company's AFUDC rate is based entirely on common equity because that company meets all of its financing requirements through internally generated funds. D.T.E./D.P.U. 06-53, at 8.

21 The Department incorporated the transcript of the evidentiary hearing in D.P.U. 11-55 into the record of this proceeding (Tr. 5, at 981). See 220 C.M.R. § 1.10(3).

22 Account 576 represents interest on bonds and coupon notes, and Account 577 represents miscellaneous interest deductions such as interest on demand notes. 220 C.M.R. § 52.00 et seq.

Company, and takes into account the variability of Aquarion's short-term debt rates, including the 2.94 percent rate charged for short-term debt by the Company's parent during Fall 2011 (Tr. 3, at 722). D.P.U. 11-55, at 23. This calculation produces composite debt rates of 5.09 percent for 2008, 4.04 percent for 2009, and 4.55 percent for 2010.

Using these rates, the Department has recomputed Aquarion's WACC for 2008, 2009, and 2010 based on: (1) its year-end capitalization balances, using the debt costs derived above; (2) an 11.5 percent cost of equity for 2008 based on the Company's rate settlement approved in D.T.E. 00-105, at 3; and (3) the 10.5 percent cost equity approved in D.P.U. 08-27, at 137-138, for 2009 and 2010. This calculation produces an overall WACC, including short-term debt, of 7.59 percent for 2008, 6.55 percent for 2009, and 6.95 percent for 2010. The Department finds that these revised costs of capital provide a reasonable proxy for the Company's AFUDC rates. Therefore, the Department finds that the appropriate AFUDC rates are 7.59 percent for 2008, 6.55 percent for 2009, and 6.95 percent for 2010.

To determine the effect of these revised AFUDC rates on Aquarion's rate base, the Department has examined the closing reports provided in Exhibit DPU-AQ 1-4, Attachment A, and compared them to the project expenditures provided in Exhibit AQ-RLR-2. Based on this analysis, the Department concludes that the 2008 plant additions included $96,895 in AFUDC (Exhs. AQ-RLR-2; DPU-AQ 1-4).[23] The Company's 2009 plant additions included $17,096 in AFUDC, and the 2010 plant additions included $2,956 in AFUDC, for a total AFUDC accrual

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23 The Department will address any AFUDC adjustments relative to Free Street 4 in Section II.F.3.d, below.

of $116,947 (Exhs. AQ-RLR-2; DPU-AQ 1-4).[24] Based on a proration of the revised AFUDC rates determined above versus the Company's AFUDC rates in effect for 2008 through 2010, the Department finds that the disallowable AFUDC accruals on those capital projects consists of: (1) $19,725 for 2008; (2) $3,028 for 2009; and (3) $375 for 2010, for a total of $23,128.[25] Therefore, the Department reduces Aquarion's proposed rate base by $23,128.

Consistent with the above adjustment to AFUDC, corresponding reductions to the Company's depreciation reserve and depreciation expense are appropriate. Boston Gas Company/Essex Gas Company/Colonial Gas Company, D.P.U. 10-55, at 193-194 (2010); D.P.U. 08-27, at 16; Boston Gas Company, D.T.E. 03-40, at 71 (2003). The Department has already determined that the disallowed AFUDC consists of $19,728 associated with 2008 plant additions, $3,027 associated with 2009 plant additions, and $375 associated with 2010 plant additions. Aquarion's composite depreciation rate during 2009 and 2010 was 2.47 percent on depreciable plant (Exh. DPU-AQ 1-8, Att. A at 1-2). The Department finds that this accrual rate provides a reasonable proxy for depreciation taken on AFUDC since the end of the test year used in Aquarion's previous rate case. Therefore, to determine the accumulated depreciation associated with the disallowed AFUDC, the Department multiplied the disallowed AFUDC accruals by the composite depreciation rate, then multiplied that product by the

24 Given the size and type of projects costing less than $25,000 (Exh. Hingham/Hull 1-7, at 1), the Department is satisfied that the AFUDC accruals on those smaller projects would be minimal.

25 This calculation is as follows: ($96,895 x (1-(7.59/9.53))) + ($17,096 x (1-(6.55/7.96))) + ($2,956 x (1-(6.95/7.96))) = $23,128.

respective period between the year the plant was installed and the end of the test year in this proceeding, using the half-year convention (i.e., 2.5 years for plant installed in 2008, 1.5 years for plant installed in 2009, and 0.5 years for plant installed in 2010).[26] Based on this analysis, the Department calculates an associated depreciation reserve for ratemaking purposes of $1,335.[27] The Department finds that the $1,335 provides a reasonable proxy for the accumulated depreciation associated with the disallowed AFUDC. Accordingly, the Department reduces the Company's depreciation reserve by $1,335.

Of these total AFUDC and depreciation reserve adjustments, $662 represents AFUDC associated with Phases I and II of the Atlantic Avenue project addressed in Section II.E.3.e., below, and $11 represents accumulated depreciation.[28] To avoid double counting any additional disallowances associated with this project, the Department will net these reductions against any rate base adjustments related to this project in that section of the Order, i.e., Section II.E.3.e. and Section II.E.3.g., below. Finally, the Department will incorporate these findings in any depreciation expense adjustments in Section III.M., below.

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[26] The half-year convention is commonly used in depreciation accounting. Under the half-year convention, plant additions made during a given year accrue six months of depreciation for that initial year, while plant that is retired during a given year accrues six months of depreciation in the retirement year (RR-DPU-10).

[27] This calculation is as follows: ($19,725 x .0247 x 2.5 years) + ($3,028 x 0.0247 x 1.5 years) + ($375 x 0.0247 x 0.5 years) = $1,335.

[28] The Atlantic Avenue AFUDC calculation is as follows: ($2,436 x (1 - (0.0655/.0796))) + ($1,817 x (1-(0.0695/.0796))) = $662. The depreciation reserve associated with Atlantic Avenue' s AFUDC is derived as follows: ($2,436 x (1-(0.0655/.0796)) x 0.0142 x 1.5) + ($1,817 x .(1-(0.0695/.0796)) x 0.0142) x 0.5) = $11.

The Department directs Aquarion to develop a method of computing AFUDC that fully takes into consideration the role played by long-term debt, short-term debt, and common equity in financing construction. The Company shall provide this analysis as part of its initial filing in its next rate case.

D. General Overhead

1. Introduction

During the test year, Aquarion capitalized approximately $117,000, or 7.5 percent of its payroll expense, along with approximately $73,000, or 6.1 percent, in benefits expense (Exh. DPU-AQ 1-23). A portion of the Company's capitalized payroll and benefits expense, as well as a related portion of payroll taxes, represents direct labor costs associated with employees working directly on a particular capital project (Exh. DPU-AQ 3-35; Tr. 3, at 594-695). Other overhead charges, or indirect labor costs, are associated with employees working on capital projects when the work cannot be linked to a specific particular capital project (Exhs. DPU-AQ 3-35; Oxford 2-1; Oxford 2-2; Tr. 2, at 372; Tr. 3, at 593).[29] These general overheads are charged to capital projects with some limited exceptions, such as meters, services, hydrants, valves, and one-time expenditures such as vehicle purchases (Exhs. Oxford 2-4, Att. A; Oxford 2-8; Oxford 2-17; Tr. 2, at 445-446; RR-DPU-12).

From January 2007 through March 2009, costs attributed to general overhead were spread out among all eligible projects proportionately based on the cost of each project

[29] For example, a portion of the vice president of operations' time is associated with capital planning not identified with specific capital projects (Tr. 3, at 593-594).

(Exh. Oxford 2-1; Tr. 3, at 597). Beginning in April 2009, when the Company implemented its integrated software package ("SAP") systems, a fixed overhead percentage was established and applied to all direct costs (Exh. Oxford 2-1). Under the current overhead system, the Company's accountant sets a fixed capital overhead percentage at the beginning of each year, based on projected capital and labor data (Exh. Oxford 2-1; Tr. 2, at 372-377; Tr. 3, at 600; RR-DPU-12). Each month, overhead charges are accumulated on the balance sheet at this rate, and charged off against capital projects (Exh. Oxford 2-1; Tr. 2, at 375-376). Variances between these forecasts and actual results are monitored throughout the year and the overhead factor is adjusted as necessary to ensure that the general overhead account clears at the end of the year (Exh. Oxford 2-1; Tr. 3, at 598-599).

For the year 2010, the Company first estimated from budget data that it would incur $270,344 in labor and benefits expenses and $11,143 in transportation expense, for a total of $281,487, that would be charged to overhead for that year (RR-DPU-12).[30] Aquarion then determined that the estimated capital spending for 2010 would be $990,000 and subtracted from that amount the calculated general overhead of $281,487, as well as $26,220 in projected AFUDC accruals, thus producing a net capital outlay of $682,293 (RR-DPU-12). Dividing the $281,487 by the $682,293 produced a general overhead factor of 41 percent, which the Company then rounded to 40 percent for purposes of its SAP (RR-DPU-12). Because actual experience during 2010 indicated that the 40 percent rate was resulting in an overbooking of

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30 The benefits component of the labor and benefits charge consists of all associated benefits and payroll taxes, each of which is expressed as a percentage of gross wages (Tr. 3, at 594).

overhead costs, Aquarion reduced this overhead rate to a negative two percent in December 2010 (Exh. Oxford 2-4, Att. A at 3; Tr. 3, at 598-599).

2. Positions of the Parties

a. Hingham and Hull

Hingham and Hull criticize the Company for what they consider to be a lack of complete disclosure with respect to the calculation of overhead charges (Hingham/Hull Brief at 4). According to Hingham and Hull, the Company initially stated that overhead charges were based on employee hours derived from timesheets (Hingham/Hull Brief at 4, citing Tr. 3, at 565-566). Hingham and Hull point out, however, that the Company shortly thereafter explained that its overhead charges were based on a formula-driven allocation policy (Hingham/Hull Brief at 4-5, citing Tr. 3, at 597, 599). Hingham and Hull then contend that notwithstanding the Company's explanation, Aquarion's vice president of operations does not employ any form of timesheet to record his work hours, and instead relies on an arbitrary percentage to apportion his time (Hingham/Hull Brief at 5-6, citing Tr. 3, at 677-678). Hingham and Hull argue that the manner by which Aquarion calculates overhead charges represents an "arbitrary and cavalier" attitude on the part of the Company (Hingham/Hull Brief at 4). Therefore, Hingham and Hull recommend that the Department disallow Aquarion's overhead charges to the extent that they are not determined on a rational basis, and direct the Company to implement a new overhead charge protocol that is based on the actual time spent on a project (Hingham/Hull Brief at 6).

b. Oxford

Oxford contends that the Company's overhead allocation practices constitute "mysterious and potentially arbitrary shifts" in overhead rates (Oxford Brief at 27). Oxford points out that a review of Aquarion's annual payroll and overhead calculations indicates that while the lowest percentage of labor charged to overhead occurred in 2010, the test year used in this rate case, the highest percentages occurred in 2008 and 2009, which were not test years (Oxford Brief at 27, citing Exhs. DPU-AQ 1-23; DPU-AQ 3-35; Oxford Reply Brief at 22-23).

Oxford argues that because Aquarion's allocation method was developed before the Company's new management team was hired, the allocations may not represent actual capital-related work (Oxford Brief at 27, citing Tr. 3, at 678; Oxford Reply Brief at 22). Oxford reasons that because the Company's general overhead account includes activities such as participating in planning meetings, capital efficiency studies, and budget analysis, it is unclear whether some of this time should have been expensed, or whether some costs may be associated with capital projects that were ultimately deemed as not used or useful (Oxford Brief at 27, citing Tr. 3, at 681; Oxford Reply Brief at 22). Oxford also asserts that Aquarion's overhead allocation rates established at the beginning of each year are suspect because they are rounded numbers (i.e., 20 percent, 25 percent, 40 percent, and 50 percent) (Oxford Brief at 27, citing Exh. Oxford 2-4, Att. A at 2-3; Oxford Reply Brief at 22). Oxford urges the Department to review the Company's overhead policies, verify if the overhead charges have corresponding reductions to personnel expense included in operations and maintenance

("O&M") expense, and review whether Aquarion's overhead accounting practices result in an unreasonable level of rates to customers (Oxford Brief at 27-28).

c. Company

Aquarion maintains that its overhead allocation method is consistently applied based on accepted accounting practices (Company Brief at 14-15). According to Aquarion, its method of calculating overheads is thoroughly supported by the evidence and ensures that capital overheads are fully and appropriately allocated across all projects (Company Brief at 15-16; Company Reply Brief at 22, citing Exh. Oxford 2-1; Tr. 2, at 372-377; Tr. 3, at 606; RR-DPU-12). Aquarion argues that the intervenors have failed to identify a single error in the Company's allocation method, and appear to ignore the fact that if the disputed overheads are expensed, the Company's revenue requirement would actually increase (Company Brief at 15, citing Tr. 4, at 783-784, 808). The Company considers the intervenors' objections to be based on a lack of understanding the nature of utility accounting processes (Company Brief at 15-16; Company Reply Brief at 22). Therefore, Aquarion concludes that it has met its burden of proof with respect to overhead costs (Company Brief at 16).

3. Analysis and Findings

The Department has long recognized that a reasonable portion of payroll and benefits paid to officers and administrative personnel may be appropriately booked to capital projects. Nantucket Electric Company, D.P.U. 88-161/168, at 63-64 (1989); Reclassification of Accounts of Gas and Electric Companies, D.P.U. 4240, Introductory Letter (May 19, 1941)

(Plant Investment-General Equipment Note 9).[31] To the extent that overhead charges cannot be linked to specific projects, the Department requires companies to determine these charges using rational and objective criteria. Cf. Cape Cod Gas Company/Lowell Gas Company, D.P.U. 18571/D.P.U. 18572, at 10 (1976) (Department faulted companies for use of overheads determined "without having to go to the necessity of bookkeeping").

Hingham and Hull accuse Aquarion of being less than candid about its general overhead allocation method, alleging that the Company first stated that overheads were based on timesheets, only to state later on that construction overheads were formula-driven (Hingham/Hull Brief at 4-5). A review of the transcript and underlying exhibits, however, demonstrates that the timesheets at issue are those of employees of Aquarion-CT who are performing rate case work on behalf of the Company (Exhs. DPU-AQ 2-35; DPU-AQ 8-16; Tr. 3, at 563-566). The Company's capitalized overheads are a distinctly separate issue from rate case expense.[32] Therefore, the Department finds that there is no inconsistency in Aquarion's testimony on this point.

Turning to the merits of Aquarion's general overhead allocation method, the Company's previous overhead allocation procedure required a number of assumptions, which added to the complexity of project budgeting (Exhs. Oxford 2-1; Oxford 2-5). Consequently, the procedure resulted in significant overhead charges being allocated to projects constructed

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31 To the extent that expenses are capitalized, those costs would be removed from O&M expense (Exhs. Oxford 2-30; Oxford 2-36). Assabet Water Company, D.P.U. 95-92, at 7 (1996).

32 The Company's rate case expense is discussed in Section III.D, below.

outside of the peak construction season (i.e., summer and autumn), further compounding the difficulties of project budgeting (Exh. Oxford 2-1; Tr. 2, at 508-510). The Company's revised allocation system facilitates the budgeting process and produces a more equitable apportionment of overhead charges throughout the year (Exh. Oxford 2-1; Tr. 2, at 508-510; Tr. 3, at 597-598). Most significantly, Aquarion's current overhead allocation method continues to ensure that all overhead charges are properly cleared to plant accounts at the end of the year (Exh. Oxford 2-1; Tr. 3, at 599-600, 602; RR-DPU-12).

From April 2009, when Aquarion first implemented the revised overhead cost allocation system, through December 2009, the overhead factor increased from 20 percent in April to a high of 50 percent for the months of November and December (Exhs. Oxford 2-1; Oxford 2-4, Att. A at 2). These periodic revisions were necessitated by the Company's actual experience over 2009, based on improved recognition of patterns of variability that occur over the year, and Aquarion now considers itself able to predict overhead costs throughout the year (Tr. 3, at 602-604).[33] The Company's evaluation is borne out by its actual experience during 2010, when the overhead factor was 40 percent through November 2010, and then decreased to a negative two percent in December 2010 (Exh. Oxford-2-4, Att. A at 3; Tr. 3, at 598-599). The Department finds that the Company's method of allocating overhead expense over the year is reasonable and reliably tracks overhead costs to capital activities. In reaching this finding, however, the Department acknowledges that the Company rounded down its general overhead

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33 Because of year-to-year fluctuations in construction activities and employee compensation, the percentage of capitalized overhead will inevitably vary as well. D.T.E. 03-40, at 117-118.

allocator for SAP recording purposes (RR-DPU-12). To ensure that the overhead allocation method is properly applied, the Department directs the Company to avoid rounding the results of its overhead allocation computation unless such rounding is either supported by the actual calculation (i.e., a calculation of 39.98 percent), or is necessary in order to clear the overhead account by the end of the year.[34]

Oxford expresses its concern that a portion of the expenses Aquarion includes in its overhead costs may be either more appropriately expensed or associated with projects that never come to fruition (Oxford Brief at 27). The Company's capital planning process evaluates which projects are required over the next five years, taking into consideration multiple factors such as asset age and the ability to meet critical needs in the communities served (Exhs. AQ-RLR at 2-4; AQ-RLR-1; Tr. 3, at 680-682). The priority accorded to these projects may change based on developing circumstances, and may require the deferral of some intended projects (Tr. 3, at 680-681). To the extent that a particular project is deferred, the associated overheads remain in construction work in progress ("CWIP")[35] and are thus excluded from rate base until such a time that the project is completed and in service. Oxford Water Company, D.P.U. 1219, at 4 (1983); D.P.U. 906, at 208-209. If a project is cancelled,

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34 Avoiding the use of rounded numbers may also have an intangible benefit in that the Department and intervenors would have an additional level of assurance regarding the transparency of the overhead allocation factor.

35 CWIP is a temporary holding account used to collect costs during the design and construction of a capital project. 220 C.M.R. § 52.00 eq seq. For accounting purposes, CWIP is represented as an asset; for ratemaking purposes, CWIP may not be included in rate base until the project is completed and in service. 220 C.M.R. § 52.00 eq seq.

or removed from rate base, the Department's long-standing accounting procedures and general regulatory accounting policies provide for the appropriate disposition of such plant. If a project is ultimately cancelled, the company would write off the cost of that project. Assabet Water Company, D.P.U. 95-92, at 8 (1996); D.P.U. 88-161/168, at 79. Similarly, if a project is ultimately excluded from rate base through regulatory action, all of the associated costs, including any allocated overheads, are excluded from rate base. D.P.U. 93-60, at 41-44.

The Department has reviewed the types of activities that the Company considers as related to overhead, including Aquarion's project management committee and capital efficiency plan (Exhs. Oxford 2-1; Oxford 2-18; Tr. 3, at 593-594, 675-676). Based on our review, we find that the underlying costs are used and useful in providing service to customers, and we are satisfied that these activities are appropriately capitalized. D.P.U. 88-161/168, at 60-64. There is no evidence that Aquarion's overhead method results in rate recovery prior to the associated plant investments being placed into service. On this basis, the Department finds that Aquarion has appropriately booked capital-related expenditures to its capital accounts.

Turning to the actual components of Aquarion's general overhead charge, the Company's overhead allocation factor for 2010 was based on an estimate that $270,344 in labor and benefits would be charged to capital for that year (RR-DPU-12). The labor component is calculated based on a predetermined percentage of employee labor costs that are assigned to capital activities, and the benefits component is determined based on the prorated portion of the Company's associated employee benefits expense for the prior year (Tr. 3, at 594, 677-679). Despite this information, however, the Company only capitalized $117,000 in labor and $73,000 in benefits during the test year, for a total of $190,000 (Exh. DPU-AQ 1-23). Because a portion of these capitalized labor and benefits costs have been directly attributed to capital projects, the portion of labor and benefits costs that would be assigned to general overhead would be less than $190,000 (Exh. DPU-AQ 3-35). Even allowing for the Company's adjustment of its general overhead factor to a negative number in December 2010, we are unable to reconcile the estimated labor and benefits for 2010 of $270,344 (RR-DPU-12) with either the actual 2010 labor and benefits of $190,000 (Exh. DPU-AQ 1-23) or the monthly general overhead data provided in Exhibit Oxford 2-4, Attachment A. Although the Company was given the opportunity to provide the full calculations supporting its annual general overhead rate, it failed to do so (Tr. 3, at 604-606; RR-DPU-12). Therefore, the Department finds that the Company has failed to support its general overhead allocation factor.

In recognition of the fact that certain Aquarion employees devote a portion of their time to activities of a general capital nature, the Department will not exclude the entire test year general overhead costs from rate base. Instead, the Department will apply the test year level of labor of $70,558 booked to general overhead accounts as provided in Exhibit Hingham/Hull 2-16, Attachment A at 1, plus a 62 percent benefits adder based on the ratio of payroll to benefits provided in Exhibit DPU-AQ 1-23. This calculation produces a revised general overhead cost of $114,304 (i.e., $70,558 x 1.62). Accordingly, the Department reduces the Company's proposed rate base by $156,040.[36]

Consistent with this adjustment, corresponding reductions to the Company's depreciation reserve and depreciation expense are appropriate. D.P.U. 10-55, at 193-194; D.P.U. 08-27, at 16; D.T.E. 03-40, at 71. Therefore, to determine the accumulated depreciation reserve associated with the disallowed general overhead costs, the Department multiplied the disallowed general overhead costs by the composite depreciation rate of 2.47 percent (Exh. DPU-AQ 1-8, Att. at 1-2), then multiplied that product by 0.5, representing depreciation taken on this plant using the half-year convention described above. Based on this analysis, the Department calculates an associated depreciation reserve for ratemaking purposes of $1,927.[37] Accordingly, the Department reduces the Company's depreciation reserve by $1,927.

Of these adjustments for general overhead and accumulated depreciation, $21,201 represents plant and $15 represents accumulated depreciation associated with Phase Two of the Atlantic Avenue project addressed in Section II.E.3.b. and Section II.E.3.g., below.[38] To avoid double counting any additional disallowances associated with this project, the Department will net these reductions against any rate base adjustments related to this project in

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[36] The calculation is $270,344 – ($70,558 x 1.62).

[37] This calculation is as follows: ($156,040 x 0.0247 x 0.5 years) = $1,927.

[38] The Atlantic Avenue plant calculation is as follows: ($36,731 x ($156,040/270,340)) = $21,201. The associated depreciation reserve is calculated as follows: ($21,201 x 0.0142 x 0.5) = $150.

that section of the Order. The Department will also address all rate base adjustments related to the Free Street project in Section II.F., below. Finally, the Department will incorporate these findings in any depreciation expense adjustments in Section III.M., below.

E. Atlantic Avenue Main

1. Introduction

The Atlantic Avenue project was a multi-phase project that involved the replacement of a six-inch water main in Hull with a twelve-inch main (Exh. AQ-RLR at 5). Phase One, consisting of the replacement of 468 feet of main, was completed in October 2009 at a total cost of $211,822 (Exhs. AQ-RLR at 5; DPU-AQ 1-4, Att. A at 1; Hingham/Hull 1-11 Supp., Att. A). Phase Two, consisting of the replacement of 285 feet of main, was completed in December 2010 at a total cost of $137,612 (Exhs. AQ-RLR at 5; DPU-AQ 1-4, Att. A at 21; Hingham/Hull 1-11 Supp., Att. A). Phase Three, consisting of the replacement of 1,340 feet of main, was completed in November 2011 at a total cost of $572,566 (Exhs. AQ-RLR at 5; Hingham/Hull 1-11 Supp., Att. A; Tr. 1, at 212).[39]

Aquarion estimated a total post-design cost of $166,643 for Phase One of the Atlantic Avenue project (Exh. DPU-AQ 1-4, Att. A at 1). When the Company initially developed its cost estimates, the Company expected that standard trench width repaving would be required (Tr. 4, at 835; RR-Hull-1). The Company anticipated that it could install the main and pave the road with an overlay because, at that time, Hull was seeking to obtain federal funding for

39 The section of main associated with Phase Three went into service in June 2011; the final service line tie-ins and trench paving was completed in November 2011 (Exhs. AQ-RLR at 5; Hingham/Hull 1-11 Supp., Att. A; Tr. 1, at 212).

street restoration (Tr. 1, at 319; Tr. 4, at 835). As a condition of the street opening permit, however, Hull requested that the Company do full-depth roadway reconstruction,[40] along with sidewalk restoration, improved roadway markings, and crosswalk markings (Exh. DPU-AQ 1-4, Att. A at 1, 17; Tr. 1, at 220, 290-291, 314-316; Tr. 4, at 835; RR-Hull-1). The total increase in Phase One project costs over the initial estimate represented a variance of 27 percent (Exh. DPU-AQ 1-4, Att. A at 1; Hingham/Hull 1-11 Supp., Att. A).

The Company estimated a total post-design cost of $205,038 for Phase Two of the Atlantic Avenue project (Exh. DPU-AQ 1-4, Att. A at 17). Although the Company estimated that it would be able to do standard width paving with full overlay on this section, Hull required the Company to do full-depth reconstruction for Phase Two as well (Tr. 1, at 319, 323-324; Tr. 4, at 835). Nevertheless, the total Phase Two cost came in at $157,612, including $20,000 in removal costs for the old main,[41] and represented a variance of negative 23 percent (Exh. DPU-AQ 1-4, Att. A at 17, 21; Hingham/Hull 1-11 Supp., Att. A).

For Phase Three, the Company anticipated it would be required to do a full-width overlay, but was concerned that Hull would require full-depth roadway reconstruction (Tr. 1, at 324-325). Hull ultimately determined that the Company would be required to perform only curb-to-curb repaving for this phase (Tr. 1, at 324).

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40 Full-depth road reconstruction is a more extensive road restoration process where the road is grinded down and rebuilt (Tr. 4, at 836).

41 Removal costs are not booked to plant accounts, but instead are credited against the depreciation reserve. 220 C.M.R. § 52.00 et seq., Plant Investment Accounts.

2. Positions of the Parties

a. Hingham and Hull

Hingham and Hull argue that the total costs associated with the Atlantic Avenue project are excessive, and that the Department should reduce them significantly (Hingham/Hull Brief at 11). As an initial matter, Hingham and Hull assert that Phase Three of the Atlantic Avenue project fails to meet the Department's post-test-year standard and should not be included in rate base (Hingham/Hull Brief at 12).

Hingham and Hull contend that the Atlantic Avenue project costs were excessive on a per-foot basis (Hingham/Hull Brief at 14). Hingham and Hull assert that the total project cost of $922,200 represents an average per-foot cost of $483 (Hingham/Hull Brief at 15). Hingham and Hull maintain that an average per-foot cost of $483 is excessive based on statements by the Company's engineering witness that he had only seen one main project with a per-foot cost of more than $400 (Hingham/Hull Brief at 15). Hingham and Hull also argue that the information on the record does not support the per foot cost of $483 (Hingham/Hull Brief at 14-15, citing Exh. Hingham/Hull 1-11 Supp., Att. A). Hingham and Hull maintain that a more reasonable measure of cost-per-foot would be about $200 to $300 per foot, which Hingham and Hull contend provides for a 20 percent contingency factor, full-width paving, and the extensive presence of ledge (Hingham/Hull Brief at 14). Using this data, Hingham and Hull maintain that a cost of $300 per foot would be expected for the Atlantic Avenue project, thus warranting a rate base reduction of $350,100 ($922,200 - $572,100) (Hingham/Hull Brief at 14). In the alternative, Hingham and Hull contend that, assuming the updated cost data provided by Aquarion is reliable, a maximum cost of $350 per foot would be expected for the Atlantic Avenue project, thus warranting a rate base reduction of $255,000 ($922,200 - $667,000) (Hingham/Hull Brief at 14-15).

Hingham and Hull go on to defend the actions of Hull concerning the scope of roadway restoration required as part of the street permit process (Hingham/Hull Brief at 15). Hingham and Hull maintain that it is not unusual for municipalities to require utilities as well as their own municipal departments to undertake full road restoration as part of projects involving street excavation (Hingham/Hull Brief at 15, citing Tr. 5, at 1047-1048). Hingham and Hull argue that these requirements were made known to the Company at the onset of the process, and should not have been any surprise to Aquarion (Hingham/Hull Brief at 15). Turning to the issue of sidewalk restoration costs, Hingham and Hull dispute the Company's claim that Hull required sidewalk restoration as part of the project planning and bidding process (Hingham/Hull Brief at 16). Instead, Hingham and Hull maintain that the sidewalk restoration became necessary because the Company's contractor chose to store heavy construction equipment on the sidewalks (Hingham/Hull Brief at 16).

Hingham and Hull also dispute the Company's assertion that Aquarion was ordered to halt construction during the summer season (Hingham/Hull Brief at 17). Hingham and Hull argue that the Company had originally scheduled each project phase such that construction work would be completed by Memorial Day of each year (Hingham/Hull Brief at 17-18). Hingham and Hull assert that although the Company failed to meet these construction goals, it was allowed to engage in construction into June of each year, with Aquarion voluntarily suspending construction prior to the Fourth of July holidays (Hingham/Hull Brief at 18). Nonetheless, Hingham and Hull argue that Aquarion was not required to obtain the approval of the Board of Selectmen prior to resuming construction at the end of the summer season, but inexplicably chose to delay the resumption of construction until November (Hingham/Hull Brief at 18). Hingham and Hull allege that by attributing the higher costs to Hull's demands, the Company simply seeks to deflect attention from what they consider to be the real causes of the problem; i.e., poor project management, along with excessive charges for direct labor, general overhead, and AFUDC (Hingham/Hull Brief at 18).

Turning to these specific project cost components, Hingham and Hull argue that Aquarion mishandled its competitive bidding process by only contacting three bidders for Phase One of the project, and for failing to follow up on the reasons why only one contractor out of seven contacted responded for Phase Two and Phase Three (Hingham/Hull Brief at 16-17). According to Hingham and Hull, current economic conditions have led contractors to be eager for work and willing to offer competitive bids (Hingham/Hull Brief at 17). Despite what they consider to be a currently competitive environment, Hingham and Hull fault Aquarion for failing to leverage those conditions to obtain the most favorable bids, and for deciding to bid out the three project phases through separate solicitations instead of as a single project (Hingham/Hull Brief at 17). Hingham and Hull contend that having multiple contractors doing the same work on a project is not sound engineering or construction practice; while Hingham and Hull do not question the qualifications of the Company's contractor, they suggest that Aquarion's solicitation practice could have potentially led to problems had multiple contractors been used on the Atlantic Avenue project (Hingham/Hull Brief at 17).

Hingham and Hull also point out that of the total cost of the Atlantic Avenue project of approximately $922,200, approximately $245,000 was attributed to general overhead and direct labor costs (Hingham/Hull Brief at 12). Hingham and Hull contend that because the project was bid out to a private contractor, the level of general overhead and direct labor costs incurred by Aquarion should have been far less (Hingham/Hull Brief at 12-13).[42] Moreover, Hingham and Hull argue that the Company provided updated cost data for the Atlantic Avenue project just prior to the last days of evidentiary hearings, thus preventing a full examination of those costs (Hingham/Hull Brief at 13, citing Exhs. Hingham/Hull 1-11, Att. A; Hingham/Hull 1-11 Supp., Att. A).

Hingham and Hull further argue that the Company's AFUDC charges of $18,253 appear to be excessive (Hingham/Hull Brief at 19). Hingham and Hull state that although Aquarion used an interest rate of 7.96 percent in calculating its AFUDC charges, the Company is able to borrow money from its parent company at an interest rate of two percent (Hingham/Hull Brief at 19).

b. Company

Aquarion argues that Phase Three of the Atlantic Avenue project was in service as of June 2011, and was fully completed as of November 2011 (Company Brief at 11; Company

42 For example, Hingham and Hull argue that Aquarion was hard pressed to identify any specific tasks performed by Company employees related to this project other than some periodic site visits by Aquarion's vice president (Hingham/Hull Brief at 12-13).

Reply Brief at 8 n.5, citing Tr. 1, at 212-213). The Company maintains that Phase Three represents about five percent of its additional investment in plant, twelve percent of additional Company funds invested in rate base, and 44 percent of the total net increase in rate base since its last rate case (Company Brief at 11, citing Exhs. AQ-RLR at 4; AQ-TMD at 2). Furthermore, Aquarion maintains that the Company's post-test year additions, such as Phase Three, are important capital additions because they replace existing aging infrastructure, which are necessary for the Company to continue to provide reliable water service, and thus warrant inclusion in rate base (Company Brief at 12).

The Company contests Hingham and Hull's analysis of average unit costs per foot as a basis for evaluating Aquarion's cost containment efforts (Company Brief at 12; Company Reply Brief at 9). Specifically, Aquarion argues that the average cost per foot has little or no relevance to the cost of a project, because other factors such as project site conditions and local paving requirements can be the main drivers of total expenditures (Company Brief at 12). Aquarion argues that there is ample evidence supporting the reasons for the costs associated with the Atlantic Avenue project (Company Brief at 12, citing Tr. 1, at 317-322; RR-Hull-1; RR-Hull-2; Company Reply Brief at 8, citing Exh. Hingham/Hull 1-11 Supp.; Tr. 1, at 321; Tr. 4, at 835-836; Tr. 5, at 989-991, 1046-1048; RR-Hull-1; RR-Hull-2). The Company claims that high project costs alluded to by Hingham and Hull are the result of Hull's considerable construction reclamation demands imposed on Aquarion (Company Brief at 12, citing Tr. 1, at 317-322; RR-Hull-1; RR-Hull-2; Company Reply Brief at 8).

In support of its position, Aquarion points to the town's requirements to repave the road to full-depth reclamation as well as the replacement of sidewalks as contributing factors for the overall costs associated with the Atlantic Avenue project (Company Brief at 13; Company Reply Brief at 8). The Company argues that the evidence clearly demonstrates that the paving requirements imposed by Hull were the most significant driver of the cost associated with Atlantic Avenue (Company Reply Brief at 9). The Company maintains that regardless of whether Hull's requirements were warranted, the fact remains that Aquarion was obligated to comply with Hull's conditions, and that the underlying issue has no relevance to whether such costs were prudent (Company Brief at 13; Company Reply Brief at 8). Aquarion also cites Hull's failure to properly locate and mark sewer lines, as well as an increased volume of ledge encountered on the opposite side of the road, as additional reasons for the higher costs (Company Brief at 14; Company Reply Brief at 8).

Aquarion defends its competitive bid solicitation process as reasonable. According to the Company, the expenditures associated with Atlantic Avenue are largely based on the unit pricing information contained in a competitively bid construction contract (Company Brief at 12, citing Exh. Hingham/Hull 2-26; Tr. 1, at 212-213, 325; Tr. 4, at 831-834). The Company contends that there is no evidence in the record to suggest that either its competitive solicitation process somehow resulted in inflated costs or that potential contractors were eager to bid on the Atlantic Avenue project (Company Reply Brief at 10-11). Aquarion argues that its desire to obtain current price data warranted the bidding out of the Atlantic Avenue project in three separate phases, and suggests that, had it put the Atlantic Avenue project out as a single bid, Hingham and Hull would be arguing instead for the merits of separate bids for each phase (Company Reply Brief at 11). The Company also argues that Hingham and Hull have failed to provide any evidence to suggest that the bid solicitation process for the Atlantic Avenue project was somehow flawed (Company Reply Brief at 11-12).

Aquarion maintains that Hingham and Hull's criticisms of the Company's overhead allocations to Atlantic Avenue are unsupported and indicative of a lack of understanding of the nature of utility accounting processes (Company Brief at 15-16; Company Reply Brief at 22). The Company argues that it has applied its overhead allocation method in a manner consistent with accepted accounting practices, and that its method of calculating overheads is thoroughly supported by the evidence (Company Brief at 15-16, citing Exh. Oxford 2-1; Company Reply Brief at 22, citing Exh. Oxford 2-1; Tr. 2, at 372-377; Tr. 3, at 606; RR-DPU-12).

Regarding AFUDC charges, Aquarion claims that the use of its WACC is appropriate for calculating these charges (Company Reply Brief at 12). Aquarion argues that a proper calculation of AFUDC charges should take into account both debt and equity (Company Reply Brief at 12). Aquarion argues that it has included these two components in its AFUDC calculation, and thus booked the correct amount of AFUDC charges (Company Reply Brief at 12, citing 375 Mass. at 33; D.P.U. 84-135, at 12).

3. Analysis and Findings

a. Post-Test Year Addition

The Department does not recognize post-test year additions or retirements to rate base, unless the utility demonstrates that the additions or retirements represent a significant investment that has a substantial effect on its rate base. D.P.U. 96-50-C at 16-18, 20-21; D.P.U. 95-118, at 56, 86; D.P.U. 85-270, at 141 n.21. See also Southbridge Water Supply Company, v. Dep't of Pub. Utils., 368 Mass. 300 (1975). As a threshold requirement, a post-test year addition to plant must be known and measurable, as well as in service. Dedham Water Company, D.P.U. 84-32, at 17 (1984); D.P.U. 906, at 7-11.

Phase Three of the Atlantic Avenue project was placed into service in June 2011, with final paving and service connections completed in November 2011 (Exhs. AQ-RLR at 5; Hingham/Hull 1-11 Supp., Att. A; Tr. 1, at 212). Therefore, the Department finds that Phase Three is providing service to Aquarion's customers, and is thus used and useful. Moreover, the Department finds that Phase Three represents a significant increase to year-end rate base made for the purpose of providing reliable water service (Exhs. Hingham/Hull 1-11, Att. A.; Hingham/Hull 1-11 Supp., Att. A; RR-DPU-6, 2nd Supp., exh. 5, Sch. 1). D.P.U. 95-118, at 56; D.P.U. 95-92, at 21; D.P.U. 85-270, at 141. Accordingly, the Department finds that these costs meet the threshold criteria for consideration of inclusion in rate base.

b. Cost Comparisons and Permit Requirements

By the Company's own admission, the Atlantic Avenue project was completed at a higher cost than what is generally associated with other main replacement projects (Tr. 1, at 300-301; RR-Hull-1; RR-Hull-2). The Department has long recognized that main construction costs may differ significantly from original cost estimates for a variety of reasons, such as changes in materials cost changes and site conditions. See, e.g., New England Gas Company, D.P.U. 10-114, at 84-87 (2011); D.T.E. 05-27, at 81 n.59.

Hingham and Hull propose to evaluate the Atlantic Avenue project costs using a per-foot cost analysis (Exh. HH-DFR at 34-37). While Hingham and Hull's analysis seeks to factor in road restoration and ledge removal costs, their approach does not fully account for the variety of site-specific conditions that may significantly affect the final cost of a particular project (Tr. 1, at 217-220). Further analysis of specific situations, including permit conditions, road and sidewalk restoration costs, the need for service line replacement, and the presence of ledge would be necessary to evaluate the comparative costs of construction projects. See D.P.U. 95-118, at 43. Therefore, while the construction cost information provided by Hingham and Hull offers some general value on water main construction costs, the Department declines to rely solely on this data in evaluating the prudency of the Company's actions with respect to the Atlantic Avenue project. To make our findings on the costs of the Atlantic Avenue project, the Department determines that it is appropriate to examine the nature of the cost components and the reasons for the increased costs. We review the specific issues raised by the parties, then assess the resulting costs, including the cost comparison data, in light of our findings on the individual issues.

As discussed above, the Company expected that standard trench width repaving, with a full-width overlay, would be sufficient when it developed the costs estimate for Atlantic Avenue (Tr. 1, at 317-325; Tr. 4, at 835; RR-Hull-1). As a condition of the street opening permit, however, Hull requested that the Company do full-depth reconstruction for Phase One and Phase Two, but allowed more limited curb-to-curb repaving for Phase Three (Exh. DPU-AQ 1-4, Att. A at 1, 17; Tr. 1, at 220, 290-291, 314, 324; Tr. 4, at 835;

RR-Hull-1). While Record Request Hull-1 reports that the additional paving requirements resulted in a project cost increase of $125,554 over standard industry practice, Aquarion's response relies on the assumption that trench width paving, which it represents is common in the industry, would have been used on the Atlantic Avenue project (RR-Hull-1). The Company's own cost estimates, however, were based on the assumption that an overlay would also be required (Tr. 4, at 835). Because the cost comparisons in Record Request Hull-1 use a base scenario that trench paving would be used, the Department finds that the cost comparisons provided in Record Request Hull-1 overstate the cost differentials. Using the full-width overlay cost of $32.97 per foot provided in Exhibit Hingham/Hull 1-11 Supplemental, the Department concludes that the incremental cost associated with trench and full overlay paving versus trench paving alone is approximately $33,700 for Phase One and Phase Two, with no incremental cost for Phase Three. With the addition of a prorated share of the $88,796 in general overhead and AFUDC associated with these two project phases, representing 25.4 percent of the total Phase One and Phase Two costs (Exh. Hingham/Hull 1-11, Supp., Att. A), the Department finds that the additional paving requirements resulted in a project cost increase of approximately $42,200. In addition, the Company expended $7,000 in additional construction cost because of difficulties encountered while marking the road for sewer lines (Tr. 4, at 776).[43] Finally, the Company encountered more ledge than originally anticipated (Tr. 1, at 218). While precise quantification of the additional cost of ledge removal is not

43 Aquarion and Hull offer differing views on the circumstances behind the need to remark the sewer lines (Tr. 5, at 1019-1025). The Department considers Hull to have made good-faith efforts to locate the sewer line.

possible, approximately 850 cubic yards of ledge were encountered by Aquarion during construction (Exh. Hingham/Hull 2-26).

The parties have raised numerous arguments with regard to conditions placed upon the Atlantic Avenue project in the course of securing the appropriate street permits. Atlantic Avenue represents a major regional connector, and the roadway was in poor condition (Tr. 4, at 781-782; Tr. 5, at 991). Moreover, because of the physical condition of the road, trench paving would not create a suitable bond between old and new pavement, thus leaving the road vulnerable to sinking and degradation of the road around the trench area (Tr. 5, at 989-990). It is unnecessary for the Department, in this instance, to examine the reasonableness of Hull's street opening permit requirements. See Street Restoration Standards, D.T.E. 98-22 (1999).[44] Nonetheless, the Department finds the Company's costs related to this matter were prudently incurred.

Turning to the issue of sidewalk restoration costs, the Company's contractor chose to locate its heavy equipment at the jobsite in order to avoid the additional effort associated with transporting it back to its facilities each night (Tr. 5, at 996-997). Aquarion was informed by Hull that if the contractor's actions resulted in damage to the sidewalk, the Company would be obligated to restore the sidewalk to its previous condition (Tr. 5, at 997). The Company stated that the additional cost associated with repairing the sidewalk was $13,800 (RR-Hull-1). In

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44 The Department acknowledges that permit conditions resulting in increased road restoration costs will affect the availability of funds for main replacement (RR-Hull-2). Because capital is a finite resource, however, the appropriation of funds for various projects will always require a balancing of competing interests.

this situation, Aquarion made a conscious decision to allow the contractor to store its equipment on-site. While the cost of restoration may have been less than the additional costs associated with transporting the equipment, there is no evidence that the contractor's bid made any allowance for this type of restoration cost. Moreover, the Company has failed to provide any evidence that the additional cost of transport would have exceeded the cost of replacing the sidewalk. The burden of proof rests with Aquarion as the proponent of recovery of these costs. D.P.U. 05-27-A at 39-48; D.P.U. 05-27, at 93-96. That burden having not been sustained, the Department is unable to establish whether the cost associated with sidewalk restoration was prudently incurred. On this basis, the Department finds that Aquarion has failed to demonstrate that the $13,800 additional cost associated with replacing the sidewalk was a prudent investment. Therefore, the Department reduces the Company's proposed rate base associated with Atlantic Avenue by $13,800.

c. Competitive Bidding Process

While the Department has not mandated that companies engage in competitive bidding processes for construction activities, the value and importance of thorough analyses of all major expenditures, including those deemed necessary and non-discretionary, through analytical techniques such as cost-benefit analyses cannot be underestimated. D.T.E. 05-27, at 90; D.P.U. 95-118, at 48-49; D.P.U. 93-60, at 27. Moreover, the Department has consistently emphasized the need to obtain competitive bids for outside services as an important part of a company's overall strategy to contain costs. D.P.U. 08-27, at 69.

Aquarion entered into separate competitive bidding processes for each of the three phases of the Atlantic Avenue project (Exh. Hingham/Hull 2-26; Tr. 1, at 212-214; Tr. 4, at 831-834). The Company sent bid solicitations for Phase One to three contractors who Aquarion considered as qualified to perform the work (Tr. 4, at 832-833). The Company received bids from all three contractors, and selected the lowest bidder (Exh. Hingham/Hull 2-26). For Phase Two and Phase Three, Aquarion sent out bid solicitations to seven contractors and received one response (Exh. Hingham/Hull 2-26; Tr. 4, at 832-833). While Hingham and Hull fault the Company for bidding out the project as separate phases and for performing what they consider to have been a limited solicitation process, the Company's bid solicitation process ensured that it would obtain the most current prices possible for a multi-year project (Tr. 1, at 216).

Concerning the number of bid responses received for Phase Two and Phase Three, the Department recognizes that the Company's decision to bid the Atlantic Avenue Project out in three separate phases may have influenced the number of contractors interested in bidding on Phase Two and Phase Three (Tr. 4, at 780). Nonetheless, there are relatively few contractors who do the type of work needed by Aquarion, and the Company follows the standard industry practice of limiting bid solicitations to a small number of contractors who are known to have the necessary qualifications for the particular work (Tr. 4, at 779, 781, 833-834). Moreover, the Company has also experienced a lack of interest from contractors in bidding on projects located in Hull because of its geographic location and the relative size of projects in that community (Tr. 1, at 301-302). On this basis, there is no evidence that the Company's solicitation process was inadequate. Based on the record evidence, we find that Aquarion engaged in a structured, objective, and competitive bidding process.

d. General Overhead and Direct Labor

Aquarion has included $187,812 in general overhead in its total Atlantic Avenue project costs, of which $84,542 is associated with Phase One and Phase Two, and $103,270 is associated with Phase Three (Exh. Hingham/Hull 1-11 Supp., Att. A; Tr. 3, at 637-638). As discussed in Section II.D.3., above, the Department has reduced the Company's Phase Two Atlantic Avenue general overhead by $21,201 based on the ratio of excluded general overhead of $156,040 to total general overhead expense of $270,344, or 57.72 percent. Consistent with this treatment, the Department will apply this ratio to the Company's general overhead accruals for Phase Three of $103,270. Therefore, the Department reduces the Company's general overhead by an additional $59,607.[45]

The Company also incurred $57,086 in direct labor and benefits on the project (Exh. Hingham/Hull 1-11 Supp., Att. A; Tr. 3, at 640; RR-Hull-5, Att. A) The Department has examined the documentation supporting the direct labor and benefits expenditures (RR-Hull-5, Att. A). Aquarion computes these charges using employee time sheet data for the labor component, plus benefits and payroll tax adders that are based on the previous year's experience (RR-Hull-5, Att. A at 1-3; Tr. 3, at 594). Based on our review, the Department finds that supporting documentation is satisfactory to support the proposed project

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45 This calculation is $103,270 x 57.72 percent.

expenditures. Accordingly, we include the $57,086 direct labor and benefits in the Company's rate base.

e. AFUDC

Aquarion has included $18,253 in AFUDC accruals in its total Atlantic Avenue project costs, of which $4,252 is associated with Phase One and Phase Two, and $14,001 is associated with Phase Three (Exh. Hingham/Hull 1-11 Supp., Att. A). As discussed in Section II.C.3., above, the Department has reduced Aquarion's AFUDC accruals associated with Phase One and Phase Two by $662. In the matter of Phase Three, the Department accepts the AFUDC rate of 6.95 percent as described above as a proxy for 2011 AFUDC accruals for ratemaking purposes. The difference between the Company's 7.96 percent AFUDC accrual rate and our accepted rate of 6.95 percent is 1.01 basis points, or 12.69 percent. Therefore, the Department finds it appropriate to reduce the $14,001 in AFUDC accruals associated with Phase Three by an additional 12.69 percent, or $1,777. Accordingly, the Department reduces the Company's proposed rate base by $1,777, for a total of $2,429.

f. Evaluation of Total Costs

The three phases of the Atlantic Avenue project involved the laying of 2,093 feet of main at a total cost of $922,200 (Exh. Hingham/Hull 1-11 Supp., Att. A at 1). Thus, the total cost of the project was $441 per foot. As discussed above, the Department has identified $49,200 in incremental project costs associated with the project, consisting of $42,200 in additional paving costs and $7,000 in costs related to locating sewer lines. While these particular activities did result in increased project costs for Aquarion, the Department has found them to be prudent and, to an extent, unavoidable. The Department has also made a number of findings with respect to the prudency of the project costs, and has excluded from rate base a total of $97,037, consisting of $13,800 in sidewalk restoration costs, $80,808 in general overhead costs, and $2,429 in AFUDC. The Department has also taken into consideration the higher unit cost associated with shorter lengths, particularly for Phase One and Phase Two (Tr. 1, at 300-301). Based on this analysis, the Department finds that no further rate base adjustments related to the Atlantic Avenue project are warranted.

g. Conclusion

In total, the Department has excluded from rate base $97,037 associated with the Atlantic Avenue project, consisting of $13,800 in sidewalk restoration costs, $80,808 in general overhead costs, and $2,429 in AFUDC. Because the Department has already excluded $662 in AFUDC associated with Phase One and Phase Two, as well as $21,201 in general overhead associated with Phase Two in Section II.C.3. and Section II.D.3., above, respectively, the net disallowance associated with Atlantic Avenue is $75,183. Because the Department's cost of service schedules combine all plant in service adjustments as a single entry, we have included the full disallowance of $97,037 in our schedules.

Consistent with this disposition, corresponding reductions to the Company's depreciation reserve are appropriate. D.P.U. 10-55, at 193-194; D.P.U. 08-27, at 16; D.T.E. 03-40, at 71. Aquarion's depreciation accrual rate for Account 343, transmission and distribution mains, was 1.42 percent throughout the period that Phase One and Phase Two of the Atlantic Avenue project went into service; because Phase Three was a post-test year addition, the Company test year-end depreciation reserve would not include any deprecation associated with Phase Three (Exh. DPU-AQ 1-8, Att. A at 1). Because the record does not contain sufficient information to identify all disallowances with their in-service dates, the Department will multiply the accrual rate by the average number of years, i.e., two years, to determine the accumulated depreciation. Based on this analysis, the Department finds that the accumulated depreciation associated with the Atlantic Avenue project is $2,756.[46] Accordingly, the Department reduces the Company's depreciation reserve for Atlantic Avenue by $2,756.

F. Free Street Number 4 Well

1. Introduction

Free Street 4, located in Hingham, was constructed in 1983 (Exhs. AQ-RLR at 17; Oxford 1-17, Att. B at 12). In 1995, Free Street 4 was reclassified as an emergency source of supply because the Company did not own or control a 400-foot radius around the well as required by the Massachusetts Department of Environmental Protection ("DEP"). D.P.U. 08-27, at 21; see also D.P.U. 95-118, at 5 n.10. Under the terms of a then-effective administrative consent order ("ACO") with DEP, the Company was prohibited from exceeding by more than 100,000 gallons per day ("GPD") its registered threshold limit of 3.51 million gallons per day ("MGD") for Service Area A. D.P.U. 08-27, at 21.[47]

46 This calculation is as follows: ($97,037 x 0.0142 x 2.0 years) = $2,756.

47 DEP lifted the ACO in 2006 because the Company had satisfied its terms. D.P.U. 08-27, at 21 n.12.

To address the ACO's restrictions, the Company explored several options, including purchasing water from other systems and developing a new source of supply. D.P.U. 08-27, at 21. Based on this review, Aquarion decided in late 2003 to change Free Street 4's status from an emergency source to an active source of supply. D.P.U. 08-27, at 21. In 2004, Aquarion petitioned DEP to change the designation of Free Street 4 to an active source and increase the available yield. D.P.U. 08-27, at 21. Aquarion's proposal was the subject of extensive DEP and Massachusetts Water Resources Commission review, including an environmental notification form ("ENF"). See D.P.U. 08-27, at 22. After the ENF was completed and reviewed, the Executive Office of Energy and Environmental Affairs determined that the proposed expansion of Free Street 4 would involve a new and significant interbasin transfer of water, and thus required the preparation of an environmental impact report ("EIR"). D.P.U. 08-27, at 22. The Company's consulting engineers, Tata & Howard, recommended that Aquarion conduct a comprehensive water supply and demand analysis before submitting its EIR to DEP. D.P.U. 08-27, at 22. As a result of that analysis, it was determined that Aquarion's Free Street Number 2, Scotland Street, and Fulling Mill wellsites would need to be redeveloped in order to obtain DEP approval of the Company's Free Street 4 petition. D.P.U. 08-27, at 23. Aquarion undertook and completed the redevelopment initiative, these replacement wells went into service during 2007 and 2008, and Free Street 4 was thereafter approved by DEP as an active source of supply in November 2008 (Exh. Oxford 1-17, Att. B at 12; Tr. 1, at 285-286). D.P.U. 08-27, at 24.

As of December 31, 2007, the end of the test year used in D.P.U. 08-27, the total cost associated with the Free Street 4 project was $1,248,252 (Exh. AQ-RLR-3). D.P.U. 08-27, at 24.[48] Of this amount, the Department approved $699,315 for inclusion in rate base as a post-test year plant addition. D.P.U. 08-27, at 34-35. The balance of $548,937 was disallowed by the Department because Aquarion failed to provide sufficient evidence to warrant a finding that these costs had been prudently incurred. D.P.U. 08-27, at 32-34. The excluded costs included: (1) $222,252 representing a difference between a July 15, 2004 cost estimate of $1,026,000 and the final project costs as identified in D.P.U. 08-27 of $1,248,252; (2) $162,000 for an EIR; (3) $152,108 in project costs associated with an alternatives analysis; and (4) $12,577 in associated overhead and contingency costs (Exh. AQ-RLR at 17). D.P.U. 08-27, at 32-34. In view of the post-test year nature of Free Street 4, the Department permitted the Company to seek recovery of the entire net undepreciated balance associated with Free Street 4 in rate base upon a showing of sufficient evidence in its next rate case. D.P.U. 08-27, at 32-34. Aquarion now proposes to include the entire net undepreciated investment in Free Street 4 costs in rate base.

2. Positions of the Parties

a. Hingham and Hull

Hingham and Hull point out that in D.P.U. 08-27, it was established that the Free Street 4 project cost the Company three to four times as much as it cost Aquarion to develop

48 An additional $93,175 was expended on the Free Street 4 project after 2007 (Exh. AQ-RLR-2, at 1, 6).

and redevelop other wells on its system of comparable size and yields (Hingham/Hull Brief at 9). Hingham and Hull contend that despite this apparent disparity in costs, the information provided by the Company relative to the Free Street 4 expenditures is still incomplete, and thus insufficient to warrant the inclusion of these project costs in rate base (Hingham/Hull Brief at 9). According to Hingham and Hull, Aquarion has failed to substantiate $644,901 in costs related to (1) labor, (2) overheads, (3) AFUDC, and (4) consulting engineer fees (Hingham/Hull Brief at 9-11).

Regarding labor costs, Hingham and Hull maintain that the Company's employee records lack important information such as specific tasks undertaken by employees and the time spent on such tasks by each employee (Hingham/Hull Brief at 9). As a result, Hingham and Hull argue that it is not possible to link this expense to the Free Street 4 project, and thus maintain that the Company's proposed rate base be reduced by $56,588 (Hingham/Hull Brief at 9).

On the issue of overhead costs, Hingham and Hull contend that Aquarion failed to provide information needed to ascertain how these expenses were calculated or whether these expenses were allocated in a direct or general manner (Hingham/Hull Brief at 9-10). Moreover, Hingham and Hull argue that without the details on labor costs discussed above, exclusion of overhead costs is warranted (Hingham/Hull Brief at 10). Therefore, Hingham and Hull assert that the Company's proposed rate base be further reduced by $68,455 (Hingham/Hull Brief at 10).

Turning to the issue of AFUDC, Hingham and Hull claim that out of a total of $202,000 in AFUDC, only one-quarter of this amount, or $52,000, should be allowed in rate base because Aquarion used an excessive interest rate when calculating these expenses (Hingham/Hull Brief at 10). For the reasons described in Section II.C., above, Hingham and Hull contend that the Company's proposed rate base should be further reduced by approximately $150,000 (Hingham/Hull Brief at 10).

On the issue of professional fees, Hingham and Hull argue that $714,702 in work conducted by Comprehensive Environmental, Inc. ("CEI") should be reduced by half for the following reasons: (1) the work was not competitively bid; (2) the charges comprise almost 80 percent of the direct costs associated with this project; and (3) many of the line items listed on all of the invoices do not appear to be directly related to this project (e.g., the descriptions provided for three of the four project numbers do not show any link to the Free Street 4 project) (Hingham/Hull Brief at 10-11). Therefore, Hingham and Hull assert that the Company's proposed rate base be reduced by $357,351 (Hingham/Hull Brief at 10-11). Similarly, Hingham and Hull argue that out of a total of $37,635 in fees paid to Tata & Howard only $25,578 should be included in rate base on the grounds that is the only portion that can be traced directly to Free Street 4, and thus the Company's proposed rate base should be further reduced by $12,507 (Hingham/Hull Brief at 11).

Based on these considerations, Hingham and Hull conclude that Aquarion has failed to substantiate $644,901 in Free Street 4 costs (Hingham/Hull Brief at 11). Recognizing that the Department had previously approved $699,321 in Free Street 4 costs in D.P.U. 08-27, Hingham and Hull propose that the reduction to rate base should be limited to the difference between the original amount of $1,248,258 and the previously allowed amount of $699,321 in D.P.U. 08-27, or $548,943 (Hingham/Hull Brief at 11). Therefore, Hingham and Hull assert that the Department should reduce the Company's proposed rate base by $548,943 (Hingham/Hull Brief at 11).

b. Company

Aquarion contends that it has met its burden with respect to expenses disallowed in D.P.U. 08-27, by providing extensive documentary support to justify the allowance of all the expenses in relation to the Free Street 4 project (Company Brief at 16, citing Exh. Hingham/Hull 1-63; Company Reply Brief at 19). In addition, Aquarion maintains that the Department already concluded that Free Street 4 well was used and useful (Company Reply Brief at 19, citing D.P.U. 08-27, at 30). Aquarion maintains that the directive from the Department in D.P.U. 08-27 was not an invitation to reopen the issue of prudence for the entire Free Street 4 project costs (Company Reply Brief at 20). Rather, according to Aquarion, the Department directed the Company to provide further clarification and documentation with respect to certain specific costs associated with this project before determining whether these costs could be included in rate base (Company Reply Brief at 19-20).

Aquarion maintains that Free Street 4 remains used and useful, and that the Company provided extensive documentation supporting the project costs (Company Brief at 16; Company Reply Brief at 20, citing Exh. Hingham/Hull 1-63, Atts. A, B). The Company focuses on the costs associated with the ENR, arguing that the ENR process was consistent with the extensive permitting requirements of DEP, and that given the costs associated with an EIR, its decision to conduct a comprehensive water supply and demand analysis was prudent (Company Brief at 17-19). The Company defends the costs associated with the ENF, contending that the work was technical and substantial, and that much of the work done prior to the comprehensive water supply and demand analysis was necessary to determine the appropriate course of action (Company Brief at 18-19, citing Tr. 1, at 286-287). Aquarion argues that the Free Street 4 project costs identified as a concern by the Department in D.P.U. 08-27 were prudently incurred based on the facts and circumstances facing the Company at that particular time (Company Brief at 19-20, citing D.P.U. 95-118, at 39).

Turning to Hingham and Hull's specific criticisms, Aquarion first argues that the majority of the expenses billed by CEI were allowed by the Department in D.P.U. 08-27 (Company Reply Brief at 20). The Company contends that Hingham and Hull have misread the project numbers on CEI's bills, and erroneously assumed that certain costs were unrelated to Free Street 4 when in actuality the project numbers merely represent subcategories of the overall project (Company Reply Brief at 20, citing Exh. Hingham/Hull 1-63, Att. A at 13, 85, 97). Aquarion maintains that the only outstanding issue relative to CEI's billings is $162,000 associated with the ENR, which the Company argues it has amply demonstrated was a prudently incurred expense (Company Reply Brief at 20). Concerning the billings from Tata & Howard Aquarion argues that while some of the invoices referenced by Hingham and Hull include non-Free Street 4 project costs, only those costs related to Free Street 4 have been included n the total project costs (Company Reply Brief at 21, <u>citing</u> Exhs. AQ-RLR-3; Hingham/Hull 1-63).

The Company defends its overhead and AFUDC expenses as appropriate and correctly calculated for the same reasons stated in Section II.C. and Section II.D., above (Company Reply Brief at 21). Moreover, the Company claims that because AFUDC was not identified by the Department as one of the issues left open from D.P.U. 08-27, Hingham and Hull are precluded from raising arguments about the propriety of the Company's AFUDC calculation in this proceeding insofar as it relates to Free Street 4 (Company Reply Brief at 21).

Aquarion asserts that if the Department were to adopt Hingham and Hull proposal and exclude certain expenses related to Free Street 4 from rate base, it would send a negative message to utilities that they are at risk for cost disallowance where they pursue a more cost-effective alternative in response to new and changing information (Company Brief at 20). The Company contends that this outcome would be directly contrary to the regulatory incentives that would best serve the public interest (Company Brief at 20).

Aquarion considers that its efforts to develop Free Street 4 were prudent, and that the project costs of $548,937 that had been deferred from consideration in D.P.U. 08-27 have now been demonstrated as appropriate (Company Brief at 16; Company Reply Brief at 22). Therefore, the Company concludes that these costs should now be allowed and properly included in rate base (Company Brief at 16; Company Reply Brief at 22).

3. Analysis and Findings

a. Overview

In the Company's last rate case, the Department excluded $548,937 in Free Street 4 costs from rate base, but determined that Aquarion could include the undepreciated balance of this plant in rate base as part of the Company's next rate case, upon a showing by satisfactory evidence that these project costs were prudently incurred. D.P.U. 08-27, at 32-34. As discussed above, the $548,937 consists of: (1) $222,252, representing the difference between the $1,026,000 project estimate as of July 15, 2004 and the final cost of $1,248,252; (2) $162,000 for an EIR; and (3) $164,685, representing $152,108 associated with the Company's alternative analysis, plus $4,972 in overhead costs and $7,605 in contingency costs. D.P.U. 08-27, at 32-34.

In D.P.U. 08-27, at 30, the Department found that Aquarion's decision to undertake the Free Street 4 project was reasonable and prudent, and further that Free Street 4 was in service and providing benefits to ratepayers, thus satisfying the used and useful standard. As a general rule, the Department will not relitigate the used or usefulness of an investment once it has been included in rate base, but this policy does not preclude a review of used and usefulness where extraordinary circumstances are found to exist. D.P.U. 93-60, at 43; D.P.U. 92-210-B at 13-14. Here, we find that the circumstances do not rise to the level of being extraordinary or warranting re-examination. Thus, the issue before us is not whether Free Street 4 is used and useful. Rather, the issue is whether Aquarion has provided enough reviewable evidence to demonstrate that the $548,937 in Free Street 4 costs that were previously excluded were prudently incurred and may now be included in the Company's rate base. In this case, nevertheless, the issues identified by the Department in D.P.U. 08-27 are not readily identifiable or separable from the overall Free Street 4 project costs. For example, in order to evaluate the $222,252 project cost differential identified above, it is necessary to examine the factors that gave rise to that difference, regardless of their origins. It is not practical, however, to classify the evidence provided on project costs using the project stage-based evaluation conducted in D.P.U. 08-27, especially with respect to overhead and AFUDC costs. While Aquarion contends that all of the necessary information is contained in the invoices provided, it is not intuitive from the evidence that a chronological or project phase-based analysis can be conducted (Exh. Hingham/Hull 2-27). Therefore, the Department will not limit its evaluation of the Free Street 4 project costs to the scope sought by Aquarion. Instead, the Department finds it appropriate to evaluate the Free Street 4 project costs in their entirety, while bearing in mind that $699,315 in overall project costs has been included in rate base.

b. Labor Charges

Concerning the $56,588 in Company labor costs, Aquarion incurred these costs between February 2003 and December 2006 (Exh. AQ-RLR-3). Company employees working on a specific capital project directly charge their time to that project number through their timesheets (Tr. 2, at 424). Aquarion provided employee names, amounts paid, and dates of service, along with category and department numbers (Exh. Hingham/Hull 1-63, Att. B at 1-4). While Hingham and Hull question the validity of the data on the basis that there is no description of the day-to-day activities of individual employees, the Department is satisfied that the day-to-day expense tabulations taken from employee timesheets provide a sufficient basis to evaluate the propriety of these charges. Based on our review, the Department finds that the Company has provided sufficient and reviewable evidence to demonstrate that these expenses were prudently incurred (Exhs. Hingham/Hull 1-63, Att. B at 1-4; Tr. 2, at 424). Accordingly, the Department includes the $56,588 in labor expenses in rate base.

c. Overhead Charges

Aquarion's Free Street 4 expenses include $68,460 in general overhead costs (Exh. AQ-RLR-3). As discussed in Section II.D.3., above, the Department has reduced the Company's general overhead costs for 2010. Because Free Street 4 was placed into service prior to 2010, the Department accepts the Company's general overhead calculation for this plant. Thus, we decline to reduce the Free Street 4 project expenditures for general overhead. Accordingly, we include the $68,460 in rate base.

d. AFUDC

Aquarion has included $202,089 in AFUDC accruals in its total Free Street 4 costs (Exh. AQ-RLR-3). Development work on Free Street 4 began in 2002, with the bulk of expenses incurred prior to 2006 (Exh. AQ-RLR-3). As discussed in Section II.C., above, the AFUDC rate corresponds to the Company's WACC as determined from time to time. Although Aquarion maintains that the AFUDC associated with Free Street 4 was previously approved by the Department (Company Reply Brief at 21), the Department included $222,252 in undifferentiated expenses related to project cost estimates in the amounts excluded from rate base. D.P.U. 08-27, at 32-34. A portion of those costs would indisputably include AFUDC.

Because these costs are undifferentiated, were not addressed in D.P.U. 08-27, and did not exist at the time of the Company's 2001 rate case in D.T.E. 00-105, the Department finds that there is no bar to the consideration of AFUDC associated with Free Street 4 in this proceeding.

As stated above, the Company's policy is to use its WACC to determine its AFUDC rate, which resulted in an AFUDC rate of 9.53 percent through 2008 and 7.96 percent thereafter.[49] The Department has found that Aquarion's failure to consider short-term debt in its AFUDC calculation overstates the cost of plant, including Free Street 4, and has computed revised AFUDC rates of 7.59 percent for 2008, 6.55 percent for 2009, and 6.95 percent for 2010. See Section II.C.3., above. In view of the fact that the bulk of work on Free Street 4 occurred prior to 2009, the Department finds that the revised 2008 AFUDC rate of 7.59 percent is a reasonable proxy for AFUDC accruals associated with Free Street 4. The difference between the Company's calculated 9.53 percent AFUDC rate and the Department's revised 7.59 percent AFUDC rate is 1.94 basis points, or 20.36 percent less than the 9.53 percent used by Aquarion. Therefore, the Department finds it appropriate to reduce the AFUDC accruals associated with Free Street 4 by 20.36 percent, or $41,145. Accordingly, the Department reduces the Company's proposed rate base by $41,145.

e. Consulting Engineers

Turning to the expenses related to the Company's two consulting engineers, CEI was originally engaged by the Company's previous management to "permit" Free Street 4 as a new

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49 For the Company's WACC through March 2008, see Exhibit Hingham-Hull 1-38, Attachment A at 1. For the Company's WACC of 7.96 percent after March 2008, see D.P.U. 08-27, at 233.

source of supply at an increased yield, while Tata & Howard was later engaged to change the designation of Free Street 4 from an emergency backup source to a regular source (Exh. Hingham/Hull 1-63). The Department will first address the $162,000 EIR expenses excluded from rate base in D.P.U. 08-27, then address the remaining arguments raised by the parties.

In the Company's previous rate case, Aquarion had included in its Free Street 4 expenses $162,000 representing the cost of an EIR. D.P.U. 08-27, at 33. The Department determined that given the timing of DEP's rejection of Aquarion's initial petition to reactivate Free Street 4 in 2005, it was unclear whether an EIR was actually completed and submitted to DEP. D.P.U. 08-27, at 33. In this case, the Company has submitted supporting invoices documenting CEI's activities through March of 2005, including those related to the ENF, and has also explained the nature of those activities (Exh. Hingham/Hull 1-63, Att. A at 3-104; Tr. 1, at 286-288). Aquarion initially sought to convert Free Street 4 to a permanent source of supply at an increased annual yield. D.P.U. 08-27, at 21-22. Based on the results of the pump tests derived during the ENF process, conversations with DEP, and the need for an EIR, a revised project scope was necessary (Tr. 1, at 287). Specifically, the Company decided to put the Free Street 4 project on hold, seek to maximize existing sources of supply and engage in water conservation activities, and then seek additional source capacity if necessary (Tr. 1, at 286-287). In reaching this conclusion, Aquarion availed itself of the ENF work done prior to 2005, which included pump testing, environmental impacts such as the draw-down potential to the Weir River, and aquifer assessments (Tr. 1, at 287-288).

The Department has reviewed the CEI invoices and finds that the Company never incurred the EIR expense of $162,000, but instead that it represented a budget item estimate that was never actualized (Exh. Hingham/Hull 1-63, Att. A at 3-104). While the need for an EIR was obviated by the 2005 decision to change the scope of the Free Street 4 project in favor of redeveloping the Scotland Street and Fulling Mill wellsites, the Department is persuaded that the $162,000 that had been budgeted for an EIR was ultimately subsumed into other Free Street 4 project expenditures. Therefore, the Department finds that our concern about the nature of the $162,000 at issue in D.P.U. 08-27 has been resolved, and that no further disallowance is warranted.[50]

Turning to the expenses incurred by CEI, Hingham and Hull first assert that the selection of CEI was not made on the basis of a competitive bidding process. The Department has, however, previously found that Aquarion had engaged in a competitive bidding process for Free Street 4. D.P.U. 08-27, at 34. Therefore, the Department is satisfied that the Company had used a competitive bidding process to select CEI.

Hingham and Hull next point to the magnitude of the CEI billings in relation to the total cost of the Free Street 4 project. While it is undisputed that the CEI billings constitute over half of the overall cost of the Free Street 4 project, this fact in isolation is insufficient to support a finding of imprudence on the part of Aquarion. Under DEP's regulations, the

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[50] As the Department stated in D.P.U. 08-27, at 31 n.17, well-organized and fully documented information on capital additions facilitates Department and intervenor review. Had Aquarion provided clear and reviewable information on Free Street 4 in its previous rate case, there likely would have been little need to disallow the $162,000 in Free Street 4 costs in D.P.U. 08-27.

original proposal to activate Free Street 4 as a permanent supply at an increased yield triggered extensive DEP and MWRC review because of: (1) DEP's permitting process for new sources of supply; (2) the interbasin transfer of water as defined by the Interbasin Transfer Act, G.L. c. 21, § 8C; and (3) potential environmental impacts on the Weir River basin. D.P.U. 08-27, at 22. The Department also recognizes that the level of permit expenditures depends upon the responses to comments received as well as the number of appeals, neither of which can be quantified in advance. D.P.U. 08-27, at 31 n.18. As the Department concluded in D.P.U. 08-27, at 28-35, there is no evidence that the Company's actions regarding its decision to embark on the Free Street 4 project were imprudent.

Concerning the different project numbers identified by Hingham and Hull on brief, the Department has examined the CEI invoices provided in Exhibit Hingham/Hull 1-63. Based on our review of the description of work provided, the invoice dates, and our understanding of consulting engineer billing practices, the Department finds that the different project numbers on the CEI invoices actually represent subcomponents of the same overall Free Street 4 project. The Department further finds that the Company has provided sufficient and reviewable evidence to demonstrate that these expenses, including the $152,108 reported in D.P.U. 08-27 as being associated with the alternatives analysis, were prudently incurred (Exhs. AQ-RLR-3; Hingham/Hull 1-63, Att. A; Tr. 1, at 285-288, 297-299). Accordingly, the Department includes in rate base the $774,683 in expenses related to CEI.

Turning to the $37,635 in billings from Tata & Howard, the Department has reviewed the associated invoices (Exh. Hingham/Hull 1-63, Att. A at 120-149). Tata & Howard assigned all of the Free Street 4-related invoices to project number 1819, with an additional $42,439 in water supply and distribution study costs booked to project number 1819 (Exh. Hingham/Hull 1-63, Att. A at 125, 127-128, 137, 142, 144, 146, 148). While certain projects are indisputably unrelated to Free Street 4 (see, e.g., Exh. Hingham/Hull 1-63, Att. A at 130, 132, 135), it is unclear whether additional project invoices relate to Free Street 4. The Department has identified $25,592 in billings from Tata & Howard that are marked as being related to Free Street 4 (Exh. Hingham/Hull 1-63, Att. A at 126, 127, 129, 136, 138-139, 143, 145, 147, 149). Based on the record before us, we are unable to reconcile the Company's claim of $37,635 in billings with the $25,592 in invoices. Therefore, the Department finds that Aquarion has failed to substantiate its payments to Tata & Howard. Accordingly, the Department reduces the Company's proposed rate base associated with Free Street 4 by $12,043 ($37,635 - $25,592).

f. Other Vendor Expenses

In addition to the CEI and Tata & Howard expenses, the Company booked another $166,766 in other vendor expenses to Free Street 4 (Exh. AQ-RLR-3). The Department has reviewed the underlying cost documentation, including the invoices provided in Exhibit Hingham/Hull 1-63, Attachments A and B. As an initial matter, the Department has reviewed the vendor payments for amounts less than $9,000, which include such services as monitoring wells, laboratory fees, copying fees, and police details (Exh. AQ-RLR-3). The Department is familiar with the types of activities associated with developing additional sources of supply. Based on our review, we find that the costs associated with those vendors, totaling

$45,849, were reasonable and prudently incurred. Therefore, the Department finds that these costs may be included in rate base. Furthermore, the Department has reviewed the remaining vendor invoices totaling $120,917 related to (1) the use of a portable generator, (2) well set-up and pump rental, and (3) pump and piping rental (Exhs. AQ-RLR; Hingham/Hull 1-67, Att. A at 1-2, 105-113, 114-119). Based on this review, we find that the costs associated with those vendors were reasonable and prudently incurred. Therefore, the Department finds that these costs may also be included in rate base.

g. Conclusion

In total, the Department has excluded from rate base $53,188 associated with Free Street 4, consisting of $41,145 in AFUDC and $12,043 in consulting engineer fees. Consistent with this disposition, corresponding reductions to the Company's depreciation reserve are appropriate. D.P.U. 10-55, at 193-194; D.P.U. 08-27, at 16; D.T.E. 03-40, at 71. Aquarion's depreciation accrual rate for Account 104, Wells and Springs, was 1.59 percent prior to April 1, 2009 and 1.73 percent thereafter (Exh. DPU-AQ 1-8, Att. at 1). Under the half-year convention used by the Company, no depreciation would have been taken on Free Street 4 during 2008. Weighting these accrual rates by month from January 1, 2009, through the date of this Order, produces a composite accrual rate of 1.72 percent, which the Department finds provides a reasonable proxy for depreciation taken on Free Street 4. Therefore, in order to determine the accumulated depreciation associated with Free Street 4, the Department multiplied the disallowed portion of Free Street 4 by the composite depreciation rate, then multiplied that product by 2.25 years, representing the period between

January 1, 2009, and the date of this Order. Based on this analysis, the Department finds that the associated depreciation reserve for ratemaking purposes is $2,058.[51] Accordingly, the Department reduces the Company's depreciation reserve by $2,058.

G. Capitalized Main Repairs

1. Introduction

Prior to 2009, Aquarion's main repair and replacement policy was to expense main repairs where the section of main replaced was less than 20 feet in length, and to capitalize all repairs involving a greater length of main (Exhs. Hingham/Hull 1-48; Hingham/Hull 2-31). In 2009, the Company revised its policy such that, as a general rule, emergency repairs involving the replacement of less than ten feet of main would be expensed, with all repairs involving a greater amount of main to be capitalized (Exh. Hingham/Hull 2-31; Tr. 1, at 130; Tr. 2, at 359-360). The Company states that it departs from this general policy on occasion based on the particular circumstances (RR-Hull-3).[52]

2. Positions of the Parties

a. Hingham and Hull

Hingham and Hull argue that, notwithstanding Aquarion's revised policy, the Company has improperly capitalized a number of main replacement and repair projects since its last rate case (Hingham/Hull Brief at 7). Hingham and Hull maintain that during this period, the

[51] This calculation is as follows: ($53,188 x .0172 x 2.25 years) = $2,058.

[52] By way of example, the Company points to several capitalized projects where less than ten feet of main were replaced because more extensive replacement would have also affected distribution system line gates or customer service lines (RR-Hull-3).

Company had capitalized at least four main replacement and repair projects with a total cost of $85,475 where the replaced main was ten feet or less (Hingham/Hull Brief at 7, citing Exh. DPU-AQ 3-11, Att. A). In addition to these projects, Hingham and Hull identify at least three additional main replacement and repair projects totaling $106,941 involving replacement of between ten and 20 feet in length that had been capitalized by the Company, as well as five capitalized main replacement and repair projects where the lengths of main were not specified, with a total cost of $122,053 (Hingham/Hull Brief at 7-8, citing Exh. DPU-AQ 3-11, Att. A).

Hingham and Hull contend that the Company's former threshold of 20 feet to determine whether to capitalize or expense a main replacement and repair project results in savings to ratepayers (Hingham/Hull Brief at 8-9). Therefore, Hingham and Hull propose that the Department require Aquarion to reinstate its former policy of expensing any project involving the replacement of less than 20 feet of main (Hingham/Hull Brief at 9). Moreover, Hingham and Hull request that the Department exclude at least $192,416 in main replacements and repairs from rate base, and exclude as much as $314,469 from rate base depending upon the extent to which the length of main affected can be determined for those five projects where the associated lengths were not readily identifiable (Hingham/Hull Brief at 9).

b. Company

Aquarion argues that its accounting treatment of main replacements and repairs is appropriate (Company Reply Brief at 12-13). According to the Company, intergenerational equity requires that the main replacements and repairs represent long-term assets whose costs should be borne by those customers who benefit from the investments, not only by current customers (Company Reply Brief at 12-13, citing Tr. 4, at 783-784). The Company maintains that its approach is both reasonable and provides an equitable means of allocating the cost of long-term assets among ratepayers (Company Reply Brief at 13, citing Tr. 2, at 366-367; Tr. 4, at 783-784). In the alternative, the Company requests that if the Department accepts Hingham and Hull's proposals, that the Department make a corresponding increase to test year operating expense to recognize the resulting increase in main replacement and repair expense (Company Reply Brief at 13).

3. Analysis and Findings

Utility investments that constitute capital improvements may be included in rate base and recovered in rates through both depreciation expense and a return on the undepreciated portion of the investment. D.P.U. 95-92, at 8; D.P.U. 88-161/168, at 79; Wylde Wood Water Works, D.P.U. 86-93, at 11 (1987). While the Uniform System of Accounts for Water Companies, codified as 220 C.M.R. § 52.00 et seq., does not prescribe a threshold for determining whether a main replacement or repair should be capitalized, the Department has long recognized a distinction between capitalized and expensed repair activities. Boston Gas Company, D.P.U. 88-67 (Phase I) at 128-132 (1988).

Hingham and Hull's proposal that the Company expense all replacement and repair activities involving less than 20 feet of main appears to be driven more by desired results than on sound accounting or regulatory principles. By requiring current customers to bear the full cost of upgrades that benefit future customers, acceptance of Hingham and Hull's proposal would result in significant intergenerational inequities among customers (Tr. 4, at 783-784).

The Department has evaluated each of the twelve main projects identified by Hingham and Hull. Seven of these projects had a total cost greater than $25,000; of these, one was a planned and budgeted activity and the other six were unbudgeted main replacements necessitated by water main breaks (Exhs. AQ-RLR-2, at 1-2; DPU-AQ 3-11, Att. A; Hingham/Hull 1-67). The remaining five projects had a total cost of less than $25,000 (Exhs. AQ-RLR-2, at 1-2; DPU-AQ 3-11, Att. A). Based on the record evidence, the Department finds that each of these projects constituted replacements that extended the life of the Company's distribution system, and is thus appropriately capitalizable. See Kings Grant Water Company, D.P.U. 91-252, at 12 (1992); D.P.U. 88-67 (Phase I) at 131-132. The Department finds that the Company's current ten-foot policy strikes a reasonable balance between the need for intergenerational equity and the need to track costs related to relatively small projects.

We now turn to those four projects identified by Hingham and Hull as having been capitalized in a departure from the Company's policy. Of these projects, one project involved the replacement of ten feet of main on Rockland Street in Hingham following a main break, and thus falls within the Company's policy (Exhs. AQ-RLR-2, at 1; DPU-AQ 3-11, Att. A). For each of the remaining three projects, Aquarion would have conducted more extensive replacement, and thus capitalized these projects, had it not been for specific local conditions (RR-Hull-3). The Department finds that, in light of Aquarion's desire to avoid disrupting individual customers and to avoid the additional expense associated with valving, the Company's decision to replace smaller sections in these instances was reasonable. The

Department also accepts the Company's decision to capitalize these projects in recognition of the permanent nature of these replacements. Aquarion is directed to review its accounting policies and to clarify its capitalization threshold in order to ensure that any departures from established Company policy remain based on sound reasoning.

H. Customer Deposits and Advances

1. Introduction

As of the end of the test year, Aquarion's customer advances balance was $80,331 (Exh. Hingham/Hull 2-29, Att. A at 9). The Company proposed to reduce its rate base by this amount (RR-DPU-6, 2nd Supp., exh. 5, Sch. 1). No party commented on the Company's proposal on brief.

2. Analysis and Findings

Customer deposits are refundable amounts held against future bills that may go unpaid when an account is closed. See D.T.E. 02-24/25, at 25; Boston Edison Company, D.P.U. 1720, at 90-91 (1984); D.P.U. 906, at 24. Similarly, customer advances, also known as refundable construction advances, are refundable amounts given to the utility by a customer or potential customer for the purpose of constructing facilities intended to serve that particular customer. D.T.E. 03-40, at 102-103; D.T.E. 02-24/25, at 29; Hingham Water Company, D.P.U. 1590, at 10 (1984); Western Massachusetts Electric Company, D.P.U. 18370, at 5 (1977).

Because customer deposits and customer advances provide the utility with cost-free sources of capital, the Department requires that customer deposits and customer advances be included as offsets to rate base. The offset is calculated by using the year-end balance of the customer deposit and customer advance accounts. D.P.U. 10-114, at 109; Housatonic Water Works Company, D.P.U. 86-235, at 5 (1987); D.P.U. 1590, at 10-11; D.P.U. 906, at 24. While the Company has appropriately reduced its rate base for customer advances, Aquarion also had $750 in customer deposits as of the end of the test year (Exh. Hingham/Hull 2-29, Att. A at 5). The Company has not proposed any adjustment for customer deposits (RR-DPU-6, 2nd Supp., exh. 5, Sch. 1). Therefore, the Department reduces the Company's proposed rate base by $750 in customer deposits.

The Department's regulations require utility companies to pay interest on any deposit, represented by cash or cash-equivalent securities that are held for more than six months. 220 C.M.R. § 26.09. The interest rate is equal to the rate paid on two-year U.S. Treasury notes for the preceding twelve months ending December 31st of each year, as published by the Federal Reserve System in the Federal Reserve Statistical Release G.13 (415), "Selected Interest Rates" during the first week of January of 2012. 220 C.M.R. § 26.09(2).[53] The interest rate on two-year U.S. Treasury notes for the year ending December 31, 2011, was 0.45 percent. Federal Reserve Statistical Release H.15, "Selected Interest Rates." www.federalreserve.gov/releases/h15/data/Annual/H15_TCMNOM_Y2.txt.

Consistent with this policy, the Department finds it appropriate to include in Aquarion's cost of service the interest expense associated with these deposits. D.P.U. 10-114, at 163;

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[53] The Federal Reserve discontinued publishing G.13 (415) as of January 8, 2002; the information in that publication remains available in Federal Reserve Statistical Release H.15, "Selected Interest Rates."

D.P.U. 1720, at 90-91; Boston Edison Company, D.P.U. 1350, at 20-21 (1983); D.P.U. 906, at 24. Therefore, the Department will apply the interest rate of 0.45 percent to the aggregate test year-end balance of customer deposits and advances of $81,081 producing a net interest expense for Aquarion of $365. Accordingly, the Company's proposed cost of service will be increased by $365.

III. OPERATIONS AND MAINTENANCE EXPENSES

A. Employee Compensation

1. Introduction

In determining the reasonableness of a company's employee compensation expense, the Department reviews the company's overall employee compensation expense to ensure that its employee compensation decisions result in a minimization of unit-labor costs. D.P.U. 10-55, at 234; Boston Gas Company, D.P.U. 96-50 (Phase I) at 47 (1996); Cambridge Electric Light Company, D.P.U. 92-250, at 55 (1993). This approach recognizes that different components of compensation (e.g., wages and benefits) are to some extent substitutes for each other and that different combinations of these components may be used to attract and retain employees. D.P.U. 92-250, at 55. In addition, the Department requires a company to demonstrate that its total unit-labor cost is minimized in a manner supported by its overall business strategies. D.P.U. 92-250, at 55.

A company is required to provide a comparative analysis of its compensation expenses to enable a determination of reasonableness by the Department. D.P.U. 96-50 (Phase I) at 47. The Department evaluates the per-employee compensation levels, both current and proposed, relative to the companies in the utility's service territory and utilities in the region that compete for similarly skilled employees. D.P.U. 96-50 (Phase I) at 47; D.P.U. 92-250, at 56; Bay State Gas Company, D.P.U. 92-111, at 103 (1992); Massachusetts Electric Company, D.P.U. 92-78, at 25-26 (1992).

Aquarion's employee compensation program includes base pay, incentive compensation, vacation and holiday pay, medical and dental insurance, life insurance, disability insurance, matching contributions to a 401(k) savings plan,[54] and a pension and post retirement benefits other than pension plan ("Pension and PBOP") (Exhs. AQ-TMD, at 11-14; AQ-2, Schs. 3-6; DPU-AQ 1-17; DPU-AQ 1-18; DPU-AQ 3-34, Att. A).

2. Payroll Expense

a. Introduction

The Company claimed $1,588,200 in union and non-union current annualized wages, representing the sum of test year payroll costs as well as known and measurable increases that took place in April 2011 (Exh. AQ-2, Sch. 3). Aquarion then raised this total to include a pro forma increase to current annualized wages of $59,808, resulting in a gross pro forma payroll of $1,648,008 (Exh. AQ-2, Sch. 3). This additional $59,808 represents three percent wage increases scheduled to take effect for Millbury union employees and overtime shift differentials for Hingham and Millbury in August 2011, as well as three percent wage

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[54] A 401(k) plan is a type of tax qualified deferral compensation plan in which an employee can elect to have the employer contribute a portion of his or her cash wages to the plan on a pretax basis. www.irs.gov/taxtopics/tc424.html; see 26 U.S.C. § 401(k).

increases scheduled to take effect for Hingham and Millbury union and non-union employees in April 2012 and August 2012 (Exhs. AQ-TMD at 11; AQ-2, Sch. 3). This increase is composed of $45,456 and $14,351 in union and non-union payroll increases, respectively (Exh. AQ-2, Sch. 3).[55] Because a portion of these costs are capitalized, multiplying these payroll increases by the Company's expense allocator of 87.86 percent results in proposed pro forma increases to union and non-union payroll expense of $39,937 and $12,609, respectively (Exh. AQ-2, Sch. 3). Aquarion then multiplied this pro forma gross payroll amount by 87.86 percent to determine the amount to be charged to expense, resulting in a pro forma test year wage expense of $1,447,940, an increase of $77,645 above the test year wage expense of $1,370,295 (Exh. AQ-2, Sch. 3).

In its updated filing of November 17, 2011, the Company included additional pro forma increases to test year salary and wage expenses of $15,238, resulting in a new proposed pro forma gross payroll of $1,663,246, which includes a three percent increase for union and non-union employees effective April 1, 2012, and represents $53,448 above the revised gross payroll as of August 2011 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 3). This $53,448 proposed pro forma adjustment is composed of $38,948 and $14,500 in union and non-union payroll increases, respectively (Exhs. DPU-AQ 1-24; DPU-AQ 1-25, Atts. A at 9; B at 9; DPU-AQ 5-1; RR-DPU-6, 2nd Supp., exh. 2, Sch. 3). Multiplying these payroll increases by the Company's expense allocator of 87.86 percent results in proposed pro forma increases to

55 The Department calculates these figures by taking the values in the pro forma wages column for each wage type and subtracting them from the respective current annualized wages.

union and non-union expense of $34,219 and $12,740, respectively (RR-DPU-6, 2nd Supp., exh. 2, Sch. 3).

Multiplying the new pro forma gross payroll by the expense allocator of 87.86 percent results in a new pro forma total of $1,461,328, which is a total adjustment of $91,033 above the initial amount charged to payroll expense during the test year (RR-DPU-6, 2nd Supp., exh. 2, Sch. 3).

b. Position of the Parties

Aquarion argues that it has adhered to Department precedent by including only proposed payroll increases that take effect before the mid-point of the first twelve months after the Department's Order is slated to go into effect, that are known and measurable, and that are reasonable in amount (Company Brief at 22, citing Exh. AQ-TMD at 11-12; Tr. 3, at 657-658; RR-DPU-8). In support of its claim that its union payroll expense is reasonable in amount, Aquarion argues that its July 2011 compensation study is a reliable tool for measuring the compensation packages it offers against that of similar companies (Company Brief at 22-23, citing RR-DPU-8).

In support of its claim that its non-union payroll expense is reasonable in amount, Aquarion maintains it has shown an historical correlation between union and non-union payroll increases on the order of 2.5 to 3 percent (Company Brief at 24, citing Exh. DPU-AQ 5-1). Further, the Company points to its 2012 budget allowing for the proposed non-union payroll increases as proof of its commitment from management to grant said increases (Company Brief at 24, citing Exhs. AQ-TMD at 11-12; DPU-AQ 5-1). No other party commented on this issue on brief.

c. Analysis and Findings

i. Standard of Review

The Department's standard for union payroll adjustments requires that three conditions be met: (1) the proposed increase must take effect before the midpoint of the first twelve months after the rate increase; (2) the proposed increase must be known and measureable (i.e., based on signed contracts between the union and the company); and (3) the company must demonstrate that the proposed increase is reasonable. D.P.U. 96-50 (Phase I) at 43; D.P.U. 95-40, at 20; D.P.U. 92-250, at 35; Western Massachusetts Electric Company, D.P.U. 86-280-A at 73-74 (1987).

To recover an increase in non-union wages, a company must demonstrate that: (1) there is an express commitment by management to grant the increase; (2) there is a historical correlation between union and non-union raises; and (3) the non-union increase is reasonable. D.P.U. 96-50 (Phase I) at 42; D.P.U. 95-40, at 21; Fitchburg Gas and Electric Light Company, D.P.U. 1270/1414, at 14 (1983). In addition, only non-union salary increases that are scheduled to become effective no later than six months after the date of the Order may be included in rates. Boston Edison Company, D.P.U. 85-266-A/271-A at 107 (1986).

ii. Union Wage Increases

With respect to Aquarion's union payroll increases, the proposed adjustments appropriately include only those increases that have been granted or will be granted before the midpoint of the first twelve months after the Department's Order in this proceeding (i.e., through September 1, 2012) (Exh. DPU-AQ 1-25, Atts. A, B; RR-DPU-6, 2nd Supp., exh. 2, Sch. 3). Also, the union payroll increases are based on a signed collective bargaining agreement and, therefore, are known and measurable (Exhs. DPU-AQ 1-25, Atts. A at 9; Att. B at 9). In addition, the Company provided a 2011 compensation survey of New England investor-owned water utility companies that demonstrates that the wages Aquarion paid to union employees are reasonable (Exh. DPU-AQ 3-34, Att. A; RR-DPU-8, Att. A).[56] Finally, the Company also takes into consideration wages paid to comparable employees in surrounding communities (Tr. 2, at 466-472; Tr. 3, at 657-662).

Based on the foregoing, the Department finds that the proposed pro forma adjustments to the test year for union payroll increases comply with Department precedent. Thus, the proposed adjustment is allowed. Accordingly, we accept the Company's proposed increase to test year payroll expense of $34,219 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 3).

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56 The compensation survey, conducted and reported by Saje Consulting Group, Inc., presents a comprehensive analysis of compensation data including total cash compensation, base salary, bonuses, long-term incentives, and compensation trends (RR-DPU-8, Att. A).

iii. Non-Union Wage Increases

Aquarion's additional pro forma non-union wage increase of $12,740 corresponds to a three percent increase that Aquarion has represented will take place on April 1, 2012 (Exh. DPU-AQ 1-26; RR-DPU-6, 2nd Supp., exh. 2, Sch. 3). The Company provided sufficient evidence of an historical correlation between union and non-union increases (Exhs. DPU-AQ 1-24; DPU-AQ 5-1). Nonetheless, when asked to provide documentation from management regarding the April 1, 2012 non-union wage increase, the Company declined to do so, citing the lack of a contract with non-union employees and historical correlations with union wage increases (Exh. DPU-AQ 5-1). The Department has previously stated that while a contract for non-union workers is not required, a company must provide evidence of an express commitment to non-union employees to grant a payroll increase. D.P.U. 09-39, at 130; Bay State Gas Company, D.P.U. 09-30, at 191 (2009). At a minimum, this evidence must be in the form of a written document that affirms a company's intent to grant a non-union wage increase, signed by a company representative with appropriate authority. D.P.U. 09-39, at 130; D.P.U. 09-30, at 191. Therefore, as there is no documented commitment from management to grant this increase, the Department concludes that Aquarion has not demonstrated that the proposed increase is known and measurable, and thus we exclude the increase from the Company's cost of service. Thus, the proposed adjustment is disallowed. Accordingly, the Department reduces the Company's proposed cost of service by $12,740.

3. Reimbursed Employee Expenses

a. Introduction

During the test year, Aquarion booked $17,219 in employee reimbursements made to officers and directors of over $50 (Exh. DPU-AQ 1-21, Atts. A, C). These employee expenses reimbursed by Aquarion include items such as air and ground transportation, lodging, automobile-related expenses, and meals (Exh. DPU-AQ 1-21, Atts. A, B, C). During the proceeding, the Company removed $249 from its proposed reimbursed employee expense because Aquarion determined that the cost represented a lobbying expense (Tr. 1, at 111).[57]

b. Position of the Parties

i. Hingham and Hull

Hingham and Hull claim that the aforementioned expenses reflect a high degree of imprudence (Hingham/Hull Brief at 31). Specifically, Hingham and Hull argue that expenses such as certain airline tickets, lodging, automobile accessories, and meals with an executive's spouse are imprudently charged to the Company and, by extension, ratepayers (Hingham/Hull Brief at 31). Hingham and Hull claim there is no evidence in the record to support such expenses and that the expenses were neither reasonable nor necessary for Aquarion's job performance or that of their executives (Hingham/Hull Brief at 32). Therefore, Hingham and Hull ask the Department to disallow these expenses (Hingham/Hull Brief at 32).

[57] Aquarion incorporated this reduction as part of its overall miscellaneous expense adjustment (see RR-DPU-6, 2nd Supp., exh. 2, Sch. 31).

ii. Company

Aquarion asserts that the Company's meal and travel expenses were incurred for the benefit of ratepayers and should be allowed (Company Reply Brief at 13). Among the expenses the Company claims are reasonable are travel for ratemaking conferences and dinners with other corporate personnel (Company Reply Brief at 13, citing Tr. 1, at 117). Further, Aquarion argues that its vice president's individual expenses benefit customers because his duties require him to spend much time away from his residence (Company Reply Brief at 14). As such, the Company contends that the vice president's travel on behalf of customers requires him to expend monies on meals, lodging, and vehicle maintenance (Company Reply Brief at 14).

c. Analysis and Findings

The Department has stated that in order for a company to include expenses such as employee reimbursements in its test year cost of service, the company bears the burden of demonstrating that the costs benefit Massachusetts ratepayers, are reasonable, and were prudently incurred. D.T.E. 03-40, at 140-141; Oxford Water Company, D.P.U. 1699, at 13 (1984).

The Department finds that $9,915 in employee reimbursement expenses are allowable in the Company's cost of service. Nonetheless, the Company has not demonstrated that certain reimbursed employee expenses benefit Massachusetts ratepayers. These include: (1) hotel expenses in Connecticut ($4,206); (2) negotiations with Aquarion-CT's union ($436); (3) personal meals where the location or dining participants are not clarified ($1,283);

(4) "G2G" meetings in Connecticut ($931); and (5) miscellaneous supplies ($199) (Exh. DPU-AQ 1-21, Att. A). In addition, some of the documentation simply includes reference to the reimbursement for expenses incurred either (1) during a specific time period or (2) for "meetings" with no further delineation or explanation (see, e.g., Exh. DPU-AQ 1-21, Att. A). Further, the bulk of the hotel costs are simply labeled "meetings" and no further explanation is provided as to the purpose of the hotel stay, other than the fact that it may be in the Company's service area (Exh. DPU-AQ 1-21, Atts. A, B; Tr. 1, at 117). While there may be a benefit to Massachusetts ratepayers where the officers and directors participate in industry conferences, the benefit to Massachusetts ratepayers where the officers and directors participate in a rate case or proceeding that occurs in a service territory outside of Massachusetts is more attenuated. D.P.U. 10-55, at 457. Aquarion bears the burden of demonstrating that it seeks recovery for only reimbursed employee expenses that benefit Massachusetts ratepayers. D.P.U. 10-55, at 455-456; D.T.E. 03-40, at 140-141. The Company has failed to do so in the foregoing instances.

Thus, for the reasons discussed above, the Department disallows the following employee reimbursement expenses: (1) $5,415 in hotel expenses; (2) $1,441 related to meal expenses; and (3) $199 for supplies (Exh. DPU-AQ 1-21, Att. A). Therefore, the Department reduces the Company's proposed cost of service by $7,055.

4. Incentive Compensation

a. Introduction

The Company offers two incentive compensation programs for exempt, non-exempt, and non-union employees. The first plan is the Aquarion Water Company Employee Incentive Plan ("Incentive Plan") and is open to all non-union employees (Exhs. DPU-AQ 5-2; DPU-AQ 5-3). The second plan is the Aquarion Water Company Long-Term Incentive Plan ("Long-Term Plan") in which only key executives are eligible to participate (Exh. DPU-AQ 5-3, Att. B at 3).[58]

Under the Incentive Plan, employees of Aquarion are eligible for an annual target incentive award equal to the following: (1) 1.5 percent of their salary for non-exempt employees; (2) three percent of their salary for exempt employees; (3) ten percent of their salary for directors; (4) 20 to 30 percent of their salary for vice presidents; and (5) 60 percent of their salary for the president and chief executive officer ("CEO") (Exh. DPU-AQ 5-3, Att. A at 6). The Incentive Plan was implemented in 2002, and includes the following performance goals: (1) earnings before income taxes ("EBIT") as determined at the beginning of the calendar year by Aquarion Water Company's board of directors; (2) call center abandonment rate; (3) number of total customer service complaints; (4) number of product

58 Under the Long-Term Plan, key executives are defined as identified employees who have a "significant role in the effective execution of [Aquarion Water Company's] Business Plan (Exh. DPU-AQ 5-3, Att. B, at 2). During the test year, the Company did not pay bonuses related to the Long-Term Plan, and Aquarion does not seek to recover any costs related to the Long-Term Plan in this rate case proceeding (Exhs. DPU-AQ 1-18; DPU-AQ 1-18, Supp. 2). Thus, the Department makes no findings as to the reasonableness of the Long-Term Plan.

compliance violations per year; (5) number of water quality complaints; and (6) the OSHA[59] incident rate (Exh. DPU-AQ 5-3, Att. A at 3). These performance objectives are evaluated based upon three levels of achievement upon which different payout levels are established: (1) an EBIT threshold level that, if not met, results in zero funding for the entire Incentive Plan; (2) team measures for overall service and product quality, which account for 100 percent of the non-discretionary performance measures for non-exempt and exempt employees, and 50 percent of the performance measures for directors, vice presidents, and the president and CEO; (3) individual employee goals and objectives (key executives only); and (4) an individual performance modifier allowing for an employee's award to be increased or decreased by 25 percent, set at the discretion of the CEO and the compensation committee (Exh. DPU-AQ 5-3, Att. A, at 3-4). As a result of this determination, a total Incentive Plan award of $29,470 was paid out in 2010 (Exh. DPU-AQ 1-18; RR-DPU-6, 2nd Supp., exh. 2, Sch. 2).

b. Position of the Parties

i. Hull

Hull argues that the Department should disallow all bonuses paid by the Company to its employees (Hull Brief at 2). Hull claims that it is inappropriate for the Company to pay

59 OSHA is the Federal Occupational Safety and Health Administration, and directs national compliance initiatives in occupational safety and health to assure safe and healthful working conditions. See Occupational Safety and Health Act of 1970, 29 U.S.C. § 651 eq seq. (2011) (effective December 29, 1970).

bonuses to any Aquarion employee due to prevailing macroeconomic conditions (Hull Brief at 2).

ii. Company

Aquarion argues that it has fully complied with Department precedent regarding its incentive compensation programs (Company Reply Brief at 1). The Company claims that its programs are designed to encourage good employee performance by tying payouts to safety, reliability, and customer satisfaction goals (Company Reply Brief at 2, citing Exh. DPU-AQ 5-3). The Company argues that the inclusion of a financial target is intended only to provide another threshold for payout that complies with Department precedent, and, therefore, the incentive compensation paid by the Company should be allowed (Company Reply Brief at 2).

c. Analysis and Findings

The Department has traditionally allowed incentive compensation expenses to be included in a utility's cost of service if they are: (1) reasonable in amount; and (2) paid in accordance with incentive plans that are reasonably designed to encourage good employee performance. Fitchburg Gas and Electric Light Company, D.P.U. 07-71, at 82-83 (2008); Massachusetts Electric Company, D.P.U. 89-194/195, at 34 (1990). For an incentive plan to be reasonable in design, it must both encourage good employee performance and result in benefits to ratepayers. D.P.U. 07-71, at 83; D.P.U. 93-60, at 99.

The Department must first determine whether Aquarion's Incentive Plan is reasonable in design. A portion of the Company's Incentive Plan is tied to meeting financial performance objectives, such as EBIT (Exh. DPU-AQ 5-3, Att. A, at 3). The Department has articulated its expectations on the use of financial targets in incentive plans and the burden required to justify the recovery of such costs in rates. D.P.U. 10-55, at 253-254. Specifically, where companies seek to include financial goals as a component of incentive compensation design, the Department expects to see the attainment of such goals used as a threshold component, with job performance standards designed to encourage good employee performance (e.g., safety, reliability, and/or customer satisfaction goals) used as the basis for determining individual incentive compensation awards. See D.P.U. 10-55, at 253-254. In the present case, Aquarion appropriately uses financial incentives solely as the threshold component and then uses job performance measures as the basis for determining individual compensation awards (Exh. DPU-AQ 5-3, Att. A at 3). These performance measures include objectives related to safety, reliability, and customer satisfaction (Exh. DPU-AQ 5-3, Att. A at 3). We have previously found that these types of performance measures are appropriate as they are directly aligned with the interests of ratepayers. Western Massachusetts Electric Company, D.P.U. 10-70, at 104 (2011). Based on the above factors, we find the Incentive Plan to be reasonable in design.

With respect to whether the Company's Incentive Plan expenses are reasonable, the results of the compensation study indicate that Aquarion's incentive compensation target levels and actual payout amounts are at or below the market median (Exh. DPU-AQ 1-18;

RR-DPU-6, 2nd Supp., exh. 2, Sch. 2; RR-DPU-8, Att. A).[60] Therefore, the Department finds that the costs of $29,470 associated with the Incentive Plan are reasonable. Accordingly, the Department will include Aquarion's Incentive Plan costs in the Company's cost of service.

5. Employee Levels

a. Introduction

The Company has reduced its employee levels from 29.8 full-time employees ("FTEs") in 2002 to 22.0 FTEs in 2010 (Exh. AQ-HCH at 14). Of this work force reduction, 2.0 FTEs were eliminated since the Company's last rate case through an early retirement program (Exhs. AQ-HCH at 14; AQ-TMD at 5). Aquarion estimates that these reductions since the last rate case have saved the Company approximately $229,000 on an annual basis (Exh. AQ-HCH at 14). In addition, two senior employees have recently left the Company and management has re-structured executive responsibilities (Exhs. DPU-AQ 8-4; DPU-AQ 8-5; Tr. 1, at 98-99; Tr. 2, at 456-458; RR-DPU-5). The Company intends to hire replacements for the two senior positions at roughly the same compensation level paid to the managers who left the old positions (Tr. 2, at 458). The Company hired a recruitment agency that has received a number of resumes from applicants, but has not provided the Company with a list of potential

[60] With respect to Hingham and Hull's assertion that no bonuses should be permitted, the Department is aware of current economic conditions. Nonetheless, in a regulated monopoly environment, companies compete with other regulated and non-regulated companies to attract and retain employees. D.P.U. 93-60, at 108. Accordingly, regulated monopolies must offer employee compensation packages that are competitive with other companies. Incentive compensation is a component of an employee's overall compensation package, and the Department has allowed the inclusion of expenses related to well-designed incentive compensation programs in a utility's cost of service. D.P.U. 07-71, at 82-83; D.P.U. 89-194/195, at 34.

interviewees at the time of evidentiary hearings (Tr. 3, at 737-738). The Company expects to fill these positions "as soon as possible" (Tr. 3, at 738). Consequently, the Company has included the sum of $155,528 in its cost of service, representing the test year levels of the departed employees' wages and bonuses[61] (RR-DPU-5).

b. Position of the Parties

i. Hingham and Hull

Hingham and Hull disagree with the Company's assertion that its recent staffing changes have resulted in a more efficient staffing organization (Hingham/Hull Brief at 22, citing Exh. AQ-TMD at 12). Instead, Hingham and Hull maintain that the recent departure of employees is indicative of disorganized management (Hingham/Hull Brief at 23). Hingham and Hull also assert that it is unclear whether cost savings and benefits have been achieved (Hingham/Hull Brief at 23).

ii. Company

The Company claims that the intervenors possess a fundamental misunderstanding of the Company's cost savings relating to its staff reductions (Company Reply Brief at 2). The Company asserts that the $229,000 saved as a result of the elimination of 2.0 FTEs, which happened since the last rate case and that these savings are already incorporated in rates (Company Reply Brief at 3). Aquarion contends that the departure of two managers, represented by the $155,528, does not relate to these savings. The Company assets that it will

61 When asked to provide incentive compensation expenses, the Company listed them as "bonuses" (Exh. DPU-AQ 1-18). The Department will use the terms interchangeably in this proceeding.

be replacing these two managers with new hires at similar levels of compensation, which will result in no net savings (Company Brief at 25, citing Tr. 2, at 458; RR-DPU-5; Company Reply Brief at 3, citing Exh. DPU-AQ 8-5; Tr. 3, at 672-673, 711).

c. Analysis and Findings

Employee levels routinely fluctuate because of retirements, resignations, hirings, terminations, and other factors. Massachusetts-American Water Company, D.P.U. 88-172, at 12 (1989); D.P.U. 1270/1414, at 16-17. In recognition of this variability, the Department generally determines payroll expense on the basis of test year employee levels, unless there has been a significant post-test year change in the number of employees that falls outside the normal ebb and flow of a company's workforce. The Berkshire Gas Company, D.P.U. 90-121, at 80-81 (1990); D.P.U. 88-172, at 12.

In the present case, the record shows the departed management employees left after the test year; hence this constitutes a post-test year change in the number of employees (Tr. 2, at 434; RR-DPU-5). The record also shows that the positions associated with the departed management employees were still vacant at the close of the evidentiary record (Tr. 3, at 737-738). Nonetheless, Aquarion has demonstrated that it fully intends to fill the presently vacant positions (Tr. 2, at 456-457; Tr. 3, at 672-673; Tr. 4, at 771-773). The Company has contracted a recruiting firm that is actively seeking recruits for the restructured positions, the cost of which the Company is not proposing to include in rates (RR-DPU-5). At the close of the evidentiary record, Aquarion stated that this recruiting firm was currently vetting candidates, although it had not presented any potential hires to the Company directly (Tr. 3, at 738). Thus, the Company provided sufficient indicia of its intent to fill the vacant positions.

Aquarion further stated that its expected compensation level for these replacement positions will be roughly the same as the total compensation of the managers who recently left, but very well may be higher (Tr. 2, at 456-457; RR-DPU-5). Due to the uncertainty surrounding the final compensation packages of the new positions, Aquarion proposes to keep the test year levels of these expenses in rates (RR-DPU-5). The Department further finds that the two post-test year departures do not represent a structural change in the Company's workforce but rather represent a staffing fluctuation within the ebb and flow of employee levels.

For the above reasons, the Department finds that the responsibilities covered and the costs for the new positions are similar enough to the positions being replaced that these vacancies adhere to the normal ebb and flow of a company's workforce. Therefore, the Department allows the proposed $155,528 in Aquarion's cost of service.

6. Group Medical, Dental, Life, and Disability Insurance Expense

a. Introduction

During the test year, the Company booked $444,195 in medical and dental insurance costs (RR-DPU-6, 2nd Supp., exh. 2, Sch. 4). The Company then removed the employee contribution level of $27,485 from this amount and multiplied the remaining $416,710 by the expense allocator of 87.86 percent to determine the amount booked to test year expense, i.e., $366,121 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 4). The Company proposed to increase the cost for medical insurance by $28,054, based on actual premiums billed by the Company's health insurance provider (RR-DPU-6, 2nd Supp., exh. 2, Sch. 4; RR-DPU-8, Att. A).

During the test year, the Company also booked $4,886 and $3,603 in life and disability insurance costs, respectively (RR-DPU-6, 2nd Supp., exh. 2, Sch. 4). The Company then multiplied these amounts by the Company's expense allocator of 87.86 percent to arrive at $4,293 and $3,166, respectively, for its test year expense (RR-DPU-6, 2nd Supp., exh. 2, Sch. 4). The Company proposed to increase these expenses by $746 and $613 for life and disability insurance, respectively (RR-DPU-6, 2nd Supp., exh. 2, Sch. 4).

The Company's proposed adjustments to medical, dental, life, and disability insurance expenses, represent an increase to Aquarion's test year cost of service of $29,413 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 4). No party commented on this issue on brief.

b. Analysis and Findings

To be included in rates, medical and dental insurance expenses must be reasonable. D.P.U. 92-78, at 29; Nantucket Electric Company, D.P.U. 91-106/91-138, at 53 (1991). Finally, any post-test year adjustments to health care expense must be known and measurable. D.T.E. 01-56, at 60; D.P.U. 96-50 (Phase I) at 46; North Attleboro Gas Company, D.P.U. 86-86, at 8 (1986). Further, companies must demonstrate that they have acted to contain their health care costs in a reasonable, effective manner. D.T.E. 01-56, at 60; D.P.U. 96-50 (Phase I) at 46; D.P.U. 92-78, at 29; D.P.U. 91-106/91-138, at 53.

The Department finds that Aquarion has taken reasonable and effective measures to contain its health care costs. For example, the Company has: (1) increased deductibles for both individual and family coverage plans; (2) introduced co-pays for prescription drugs at varying cost levels; and (3) increased co-pays for doctor visits, hospital admissions, and procedures (Exh. DPU-AQ 1-35). These changes took effect on January 1, 2011 and Aquarion estimates these changes have saved $84,000 in costs (Exh. DPU-AQ 1-35). In addition, the Company has shifted from a flat-fee system for employee contributions towards total health care spending to a percentage-based system, beginning at nine percent of total costs in 2011 and 2012 and rising to ten percent in 2013 (Exh. DPU-AQ 1-35).

Regarding provider costs, the Company consolidated its health care insurance and prescription drug plans from Harvard Pilgrim Health Care and CIGNA Corporation, respectively, to Tufts Health Plan (Exh. DPU-AQ 1-35). In addition, Aquarion has provided a number of incentives for employees to reduce costs to the Company, including: (1) providing a subsidy for employees to enroll in plans unaffiliated with the Company, such as those of a spouse; (2) providing a subsidy for employees to enroll in health and wellness programs, so as to potentially reduce health care costs in the long run; and (3) requiring employees to pay a greater proportion of their health care premiums going forward (Exh. DPU-AQ 1-35). Based on the above, we find that Aquarion has demonstrated that it is attempting to contain its health care costs on both the provider and employee fronts.

Therefore, the Department finds that the Company's proposed adjustments are known and measurable and reasonable in amount. See D.P.U. 11-01/D.P.U. 11-02, at 213-214; D.P.U. 10-114, at 154-155; D.P.U. 10-55, at 256-257. Finally, the Department finds the Company's life and disability insurance expenses are reasonable in amount, having dropped significantly in expense over the past two years (Exh. DPU-AQ 1-33, Att. A). Thus, the Company's proposed adjustments related to its medical, dental, life, and disability insurance plans are allowed. Accordingly, we allow the Company's test year cost of service adjustment of $29,413.

B. Pension and Post-Retirement Benefits Expense

1. Introduction

a. Background

In Aquarion's last rate case, the Department allowed the Company to continue its practice of recording the difference between its test year level of pension and PBOP expenses[62] and its actual pension and PBOP expense as a regulatory asset or a regulatory liability. D.P.U. 08-27, at 58-59.

As of the end of the test year, the Company had a deferred pension cost balance of $430,488 and a deferred PBOP balance of $216,015 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 7). Aquarion proposes to add an additional $285,099 in deferred pension costs and $96,565 in deferred PBOP costs to these amounts, representing the difference between the allowed and the actual expenses (RR-DPU-6, 2nd Supp., exh. 2, Sch. 7). Taken together, these four amounts total $1,028,167, which the Company proposes to amortize over three years (Exh. AQ-TMD

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62 Aquarion refers to these expenses as other post-retirement benefits, or OPEB (Exh. AQ-TMD at 14; RR-DPU-6, 2nd Supp., exh. 2, Sch. 5). To minimize customer confusion, the Department finds it appropriate to continue a standard nomenclature for all Department filings. See D.P.U. 09-39, at 225-226; Massachusetts Electric Company, D.P.U. 85-146, at 106-107 (1986); D.P.U. 84-145-A at 133-134. As such, the Company should instead refer to these expenses as "post-retirement benefits other than pension" or "PBOP." The Department directs Aquarion to incorporate such language into all future Department filings (e.g., rate case filings).

at 14; RR-DPU-6, 2nd Supp., exh. 2, Sch. 7). Amortizing this total over a three-year period would result in a proposed expense of $342,722, representing an increase of $88,846 to the test year cost of service (RR-DPU-6, 2nd Supp., exh. 2, Sch. 7).

b. Pension Expense

During the test year, Aquarion booked $127,754 to pension expense (RR-DPU-6, 2nd Supp., exh. 2, Sch. 6). The Company's actuary calculates that the Company has accrued a cost of $405,000 for 2011, of which $355,833 would be charged to expense, based on the Company's 87.86 percent expense multiplier (RR-DPU-6, 2nd Supp., exh. 2, Sch. 6). See Section III.A.2.c.ii, above. This total represents a $228,079 pro forma increase from the Company's test year expense (RR-DPU-6, 2nd Supp., exh. 2, Sch. 6).

c. PBOP Expense

During the test year, the Company booked $143,277 to PBOP expense (RR-DPU-6, 2nd Supp., exh. 2, Sch. 5). The Company's actuary calculates that the Company has accrued a cost of $251,000 for 2011, of which $220,529 would be charged to expense, based on the Company's 87.86 percent expense multiplier (RR-DPU-6, 2nd Supp., exh. 2, Sch. 5). This represents a $77,252 increase to the Company's test year expense (RR-DPU-6, 2nd Supp., exh. 2, Sch. 5).

2. Position of the Parties

a. Hingham and Hull

Hingham and Hull claim that the Company's proposed pension and PBOP expenses are insufficiently justified (Hingham/Hull Brief at 23). In addition, Hingham and Hull argue that Aquarion should normalize its deferred pension and PBOP expenses over a six-year period, claiming a three-year amortization is inconsistent with Department precedent (Hingham/Hull Brief at 23).

b. Company

The Company argues that, contrary to the intervenors' arguments, its proposed increase is based on actuarial evidence that has been fully vetted by the Department and intervenors during the present proceedings (Company Reply Brief at 7, citing Exhs. AQ-TMD at 13-14; DPU-AQ 1-31, Atts. A, B; DPU-AQ 1-32). In addition, Aquarion argues that it properly proposed to amortize its deferred pension and PBOP expenses in accordance with the Department's Order in D.P.U. 08-27 (Company Brief at 26-27). The Company argues that amortization, not normalization, is the appropriate ratemaking treatment for these accumulated expenses because it seeks to recover a deferred balance instead of an approximate representative level of expense (Company Reply Brief at 7).

The Company argues that a three-year amortization period is more appropriate going forward for a number of reasons. First, the Company claims that a three-year amortization period more adequately aligns the deferral cycle with the Company's proposed rate case schedule going forward (Company Brief at 27-28). Second, the Company states that adopting a three-year amortization period would prevent an unnecessary buildup in deferred assets, thus avoiding a sudden loss of equity or an equally sudden rise in rates charged to customers (Company Brief at 27-28). Finally, the Company contends that a shorter recovery period more closely aligns the expense to ratepayers with the time period in which these costs are actually incurred (Company Brief at 27-28; Company Reply Brief at 7).

3. Analysis and Findings

a. Pension Expense

While the evidence indicates that Aquarion has made regular contributions to its pension fund in recent years, the future level of funding remains uncertain. Pension expense is affected by multiple factors, including projections of payroll increases, Internal Revenue Service requirements, plan returns, and participant demographics (Exhs. DPU-AQ 1-31, Atts. A, B; DPU-AQ 1-32, at 2). The Company's pension fund contributions in recent years (i.e., 2006-2010) have ranged between $0 and $404,396, with a five-year average over that period of $214,686 (Exh. DPU-AQ 1-32, at 2). The Department is persuaded that sufficient volatility remains in Aquarion's cash contributions to its pension plan to preclude use of the Company's test year pension expense (Exhs. DPU-AQ 1-31, Atts. A, B; DPU-AQ 1-32). Accordingly, the Department will determine a representative level of pension expense.

The Department will base pension expense on the five-year average of the cash contributions (less the capitalized portion) for 2006 through 2010, inclusive. D.P.U. 95-118, at 111. The Company's cash contribution to its pension plan for the years 2006 through 2010 was $1,073,429, representing an average of $214,686 per year (Exh. DPU-AQ 1-32, at 2). Of this amount, 87.86 percent would be booked to expense (RR-DPU-6, 2nd Supp., exh. 2, Sch. 6). Therefore, the Department allows $188,623 as a representative level of pension expense. This amount represents an increase of $60,869 to Aquarion's test year pension expense and a decrease of $167,210 to the Company's proposed pension expense.

Accordingly, the Department will decrease the Company's proposed cost of service by $167,210.

b. PBOP Expense

The Department has previously expressed concerns about PBOP obligations for regulated utilities because the reliability of PBOP-obligation estimates is affected by several potentially volatile factors, including inflation, discount and investment rates, medical cost predictions, medical trend assumptions, and changes in the health care field. D.P.U. 96-50 (Phase I) at 84-85; D.P.U. 95-118, at 105; D.P.U. 92-111, at 224; D.P.U. 92-78, at 80-81. Further, in determining the level of PBOP obligations to include in rates, the Department has held that financial accounting standards do not automatically dictate ratemaking treatment. NYNEX Price Cap, D.P.U. 94-50, at 436 (1995); D.P.U. 92-78, at 79; Bay State Gas Company, D.P.U. 89-81, at 33 (1989); D.P.U. 85-270, at 118-119.

Aquarion's Financial Accounting Standards Board Statement ("FAS") 106 costs for 2010 were $143,277 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 5)[63]. Aquarion proposed a PBOP expense of $220,529 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 5). Due to the inherently fluctuating nature of the expenses in question, using a test year figure as a basis for pro forma adjustments would not capture a representative level of expense. As such, the Department will base PBOP expense on the four-year average of the cash contributions to its PBOP trust (less the capitalized portion) for tax years 2007 through 2010, inclusive. D.P.U. 95-118, at 111. The

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63 FAS 106 establishes accounting standards for employers' accounting for PBOP and requires accrual rather than cash (pay-as-you-go) accounting for these expenses.

Company's cash contribution to its PBOP trust was $713,009, representing a four-year average of $178,252 per year (Exh. DPU-AQ 1-32, at 2). Of this amount, 87.86 percent would be booked to expense (RR-DPU-6, 2nd Supp., exh. 2, Sch. 5). Therefore, the Department allows $156,612 as a representative level of PBOP expense. This results in an increase of $13,335 to the Company's test year PBOP expense and a decrease of $63,917 from the Company's proposed pro forma expense. Accordingly, the Department reduces Aquarion's proposed cost of service by $63,917.

c. Amortization of Deferred Expenses

Aquarion requests that the Department allow it to continue to record the difference between its actual pension and PBOP expense and those pension and PBOP expenses included in rates (Exh. AQ-TMD, at 14-15). The Department has authorized the recording of a regulatory asset to avoid significant reductions to stockholders' equity that result from the recognition of liabilities associated with pension and PBOP obligations. Boston Gas Company, D.T.E. 03-1 (2003); Fitchburg Gas and Electric Light Company, D.T.E. 02-83 (2002); Boston Edison Company/Cambridge Electric Light Company/Commonwealth Electric Company/NSTAR Gas Company, D.T.E. 02-78 (2002).

Although pension and PBOP expenses have been relatively stable in the past several years, the Company continues to experience volatility in these expenses (Exhs. DPU-AQ 1-31, Atts. A, B; DPU-AQ 1-32). Recent stability does not eliminate the inherent instability of this expense category. Future write-offs, if they occur, could be of sufficient magnitude to have a material impact on the financial well-being of Aquarion and could translate directly into higher borrowing costs, higher rates, and a potential disruption in service. Fitchburg Gas and Electric Light Company, D.T.E. 04-48, at 17 (2004); Boston Edison Company, Cambridge Electric Light Company, Commonwealth Electric Company, and NSTAR Gas Company, D.T.E. 03-47-A, at 25-27 (2003); D.T.E. 03-40, at 308-314. Based on these considerations, and consistent with Department precedent, we allow the Company to continue to record the difference between its actual pension and PBOP expense and those pension and PBOP expenses included in rates as either a regulatory asset or a regulatory liability.

The Department has reviewed Aquarion's costs associated with the deferral of pension and PBOP expenses (Exhs. DPU-AQ 1-31, Atts. A, B; DPU-AQ 1-32). Based on our review, we find that the Company's pension and PBOP deferrals were prudently incurred and are reasonable in amount. Nonetheless, the Department has determined that the amount eligible for deferral must be revised in view of our disposition of Aquarion's pension and PBOP expense described above.

In order to properly calculate the amount to be included in rates, the Department must first determine the total amount to be deferred as well as set the number of years over which to amortize that total. As shown in Section III.B.3.a., above, the Department allows $188,623 in pension expense compared to the Company's proposed pro forma total of $355,833, resulting in a difference of $167,210. Added to the current deferrals from 2010 totaling $430,488, this results in a total of $597,698 to be amortized for pension costs. In addition, as shown in Section III.B.3.b., above, the Department allows $156,612 in PBOP expense compared to the Company's proposed amount of $220,529, resulting in a difference of $63,917. Added to the current deferrals from 2010 totaling $216,015, this results in a total of $279,932 to be amortized for PBOP costs. Thus, the total amount to be amortized equals $877,630. This sum is a reduction of $150,537 from the Company proposed subtotal of $1,028,167.

The Company has proposed to amortize these costs over three years, while Hingham and Hull have proposed a six-year normalization period (Hingham/Hull Brief at 23). At the time of the Company's previous rate proceeding, the Department determined that the volatility inherent in these types of expenses warranted the establishment of such a regulatory asset or liability to avoid future write-offs, which could have a material impact on Aquarion's ability to meet its public service obligations. D.P.U. 08-27, at 58-59. As such, the Department finds that amortization is the appropriate ratemaking tool in this case.

Amortizations are based on a case-by-case review of the evidence and underlying facts. Barnstable Water Company, D.P.U. 93-223-B at 14 (1994); D.P.U. 84-145-A at 54. The Department has considered such factors as the amount under consideration for deferral and the effect of the adjustment based on various amortization periods upon the Company's finances and income. D.P.U. 93-223-B at 14; D.P.U. 84-145-A at 54. In the Company's previous rate proceeding, the Department approved a seven-year amortization period for deferred expenses. D.P.U. 08-27, at 100. In the present case, the Department recognizes that the amount eligible for deferral is smaller than in Aquarion's previous rate proceeding. While the Department does not find the Company's argument regarding its future rate case filing schedule to be persuasive, nonetheless, the Department has previously determined that a three-year amortization period is appropriate for pension and PBOP expenses. See D.T.E. 03-47-A, at 23-24. Accordingly, the Department finds that a three-year amortization period for these deferred expenses is reasonable. Application of a three-year amortization period of the $877,630 in deferred expenses produces an annual amortization expense of $292,543, versus the Company's proposed amortization expense of $342,722. Accordingly, the Department decreases the Company's proposed cost of service by $50,179.

C. Chemical Expense

1. Introduction

The Company uses various chemicals, including sodium hypochlorite, sodium fluoride, sodium hexametaphosphate, sodium hydroxide and potassium hydroxide for the treatment of raw water (RR-DPU-6, 2nd Supp., exh. 2, Sch. 8, at 2). During the test year, the Company booked $225,975 in chemical expense (RR-DPU-6, 2nd Supp., exh. 2, Sch. 8, at 1). Aquarion proposed a reduction to test year chemical expense of $54,556 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 8, at 1). This adjustment excludes chemicals that are used at the Hingham water treatment plant ("Hingham WTP") (Exh. AQ-JAU at 3-4).

2. Positions of the Parties

The Company asserts that its proposed pro forma adjustment for chemical expense is consistent with Department precedent (Company Brief at 35). Aquarion argues that its updated chemical expense is consistent with the Department's "known and measurable" standard for updates to test year cost of service (Company Brief at 34-35). In addition, the Company maintains that its updated chemical expense values are based on the most recent and lowest bids received during 2011 (Company Brief at 35, citing Exhs. DPU-AQ 4-7, Att. A;

DPU-AQ 4-8, Att. A). The Company avers that this proposed reduction to chemical expense is one example of the Company's efforts to reduce costs (Company Brief at 35). For these reasons, the Company claims that the Department should find these chemical expenses to be prudent and allow them, in full, for the purpose of determining the Company's revenue requirement (Company Brief at 36). No other party commented on this issue on brief.

3. Analysis and Findings

Department precedent allows for the inclusion of chemical expense in cost of service based on the test year amount of the chemicals used multiplied by the price per unit of the chemicals. D.P.U. 08-27, at 61; Wannacomet Water Company, D.P.U. 84-33, at 16 (1984). Proposed changes to test year revenues, expense, and rate base require a finding that the adjustment constitutes a "known and measurable" change to test year cost of service. D.P.U. 08-27, at 61; D.T.E. 05-27, at 129; D.T.E. 02-24/25, at 76. A "known" change means that the adjustment must have actually taken place or that the change will occur based on the record evidence. D.P.U. 08-27, at 61; D.T.E. 05-27, at 129; D.T. E. 02-24/25, at 76. A "measurable" change means that the amount of the required adjustment must be quantifiable based on the record evidence. D.P.U. 08-27, at 61; D.T.E. 05-27, at 129; D.T.E. 02-24/25, at 76. In addition, to obtain an adjustment to test year expense, a utility would have to demonstrate that the proposed cost level is more representative than that of the test year. D.P.U. 08-27, at 61.

Aquarion experienced a post-test year decrease in the cost of chemicals (Exhs. DPU-AQ 4-7, Att. A; DPU-AQ 4-8, Att. A). The Company provided sufficient evidence of this decrease, including invoices from suppliers (Exhs. DPU-AQ 4-7, Att. A; DPU-AQ 4-8, Att. A). We find that the decrease in the cost of chemicals experienced by Aquarion was largely a result of actions taken by the Company in an effort to contain costs (Exhs. AQ-JAU at 3; AQ-RLR at 15-16). Consequently, the Department finds that the price changes reflected in Aquarion's chemical expense calculation constitute known and measurable changes to test year expense. D.P.U. 08-27, at 61; Milford Water Company, D.P.U. 92-101, at 42 (1992); Oxford Water Company, D.P.U. 86-172, at 12 (1987). Therefore, the Department accepts Aquarion's proposed adjustment.

D. Rate Case Expense

1. Introduction

In its initial filing, Aquarion estimated that it would incur approximately $315,000 in rate case expense (Exh. AQ-2, Sch. 10). The Company's estimated rate case expense included $225,000 for legal services and $90,000 for the preparation and presentation of revenue requirement testimony and exhibits, as well as miscellaneous costs such as customer notices and transcripts (Exhs. AQ-TMD at 15; AQ-2, Sch. 10). During the course of the proceeding, Aquarion submitted invoices and other documents and now seeks to recover actual rate case expense of $437,106 (Exhs. DPU-AQ 2-35, 2nd Supp.; DPU-AQ 2-36, 2nd Supp., Att. A; DPU-AQ 2-37 & Att. A; DPU-AQ 8-11; DPU-AQ 8-12, Att. A; RR-DPU-6, 2nd Supp., exh. 2, Sch. 10; RR-DPU-11, Att. A).[64]

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64 The Company's final proposed rate case expense is comprised of: (1) $351,681 in legal services; (2) $85,425 in services related to the preparation and presentation of revenue requirement testimony and exhibits; and (3) $364 in miscellaneous expenses

The Company issued an RFP to solicit bids for legal counsel (Exhs. DPU-AQ 2-34, Att. A; DPU-AQ 4-36). For other rate case-related services, Aquarion used employees of its affiliate, Aquarion-CT, to prepare and present testimony and discovery responses (see Exhs. DPU-AQ 2-35, 2nd Supp.; DPU-AQ 8-15). Aquarion is seeking to recover its proposed rate case expense over a three-year period, based on the Company's anticipated interval between rate cases (See Exh. AQ-TMD at 15; Tr. 3, at 569-571). Normalizing the Company's proposed rate case expense of $437,106 over three years produces a pro forma rate case expense of $145,702 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 10). In addition to the rate case expense incurred in the instant case, Aquarion proposes to continue to recover $74,228 in expenses incurred in its prior rate case, D.P.U. 08-27, and booked during the test year (Exh. DPU-AQ 7-1, Att. A; Tr. 3, at 571-72; 616-617; RR-DPU-6, 2nd Supp., exh. 2, Sch. 10).

2. Positions of the Parties

a. Hingham and Hull

i. Competitive Bidding

Hull argues that the Company did not choose as its legal services provider the most reasonably priced law firm (Hull Brief at 3). Specifically, Hull contends that the Company chose higher-priced attorneys instead of equally competent and available lower-priced legal counsel (Hull Brief at 3). In support of its position, Hull presents an analysis of billing rates

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(Exhs. DPU-AQ 2-35, 2nd Supp.; DPU-AQ 2-36, 2nd Supp., Att. A; DPU-AQ 2-37, Att. A; DPU-AQ 8-11; DPU-AQ 8-12, Att. A; RR-DPU-6, 2nd Supp., exh. 2, Sch. 10).

obtained from the RFP responses and contends that one of the rejected bidders offered the best overall bid (Hull Brief at 3). Hull contends that Aquarion should have selected that particular rejected bidder and, as such, any rate case expense for legal services should be limited to the rates the Company could have obtained from that rejected bidder (Hull Brief at 3-5). Further, Hull maintains that, because the selected legal services provider only represented the Company in its last rate case, there is no long-standing relationship between the law firm and Aquarion to justify the selection of the service provider (Hull Brief at 4).

ii. Various Rate Case Expenses

Hingham and Hull argue that Aquarion failed to provide adequate information to satisfy its burden for recovery of legal fees in this rate case (Hingham/Hull Brief at 27-29, citing Twin Fires, Investment, LLC v. Morgan Stanley Dean Witter & Co., 445 Mass. 411, 428 (2005); Hull Brief at 4). Hingham and Hall contend that the materials submitted by Aquarion, while voluminous, insufficiently summarize or categorize the time billed to this rate case (Hingham/Hull Brief at 27, 29). Further, Hingham and Hull argue that because the documents are redacted, it is impossible to determine the reasonableness of the fees incurred (Hingham/Hull Brief at 27, 29).[65] In addition, Hull contends that the confidential versions of

[65] Aquarion submitted public redacted versions of these documents and sought to protect confidential and privileged materials. The Company also submitted confidential versions of these documents and sought to protect only the materials subject to attorney-client privilege. Parties to Department proceedings often execute non-disclosure agreements, which permit the signators to view information contained within the confidential versions of documents, while maintaining the documents' confidentiality vis-à-vis the general public. See D.P.U. 11-43, Hearing Officer Ruling on Motions for Confidential Treatment at 11 (November 9, 2011) citing Cambridge Electric Light Company, D.P.U./D.T.E. 97-111, at 9 n.8 (1998); Fitchburg Gas and

the materials do not provide the level of detail necessary to justify recovery of expenses for legal services (Hull Brief at 4). Hingham and Hull maintain that by requesting confidential treatment for information such as attorney rates, and not providing this information publicly, the Company should be precluded from recovering these costs (Hingham/Hull Brief at 26, 29). Finally, Hingham and Hull urge the Department to identify and disallow any possible duplicative costs, such as the billing for attendance of more than one attorney at Department proceedings (Hingham/Hull Brief at 29).[66]

b. Company

i. Competitive Bidding

Aquarion asserts that Hull attempts to hold the Company to a standard in selecting rate case counsel not required by Department precedent (Company Reply Brief at 17). The Company contends that once it conducts a competitive bidding process, it is not required to select the lowest bidder, but rather must demonstrate that its selection of a particular service provider was reasonable, given all of the responses to the RFP (Company Reply Brief at 17, citing D.P.U. 07-71, at l01). In this regard, the Company argues that it used appropriate qualitative factors within the context of a structured and objective competitive bidding process

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Electric Light Company, D.P.U. 95-75, at 2 (1995). In the instant matter, the Hearing Officer issued a Protective Order that allowed parties access to the confidential information while protecting it from public disclosure. D.P.U. 11-43, Hearing Officer Memorandum (November 17, 2011). Hull executed the non-disclosure certificate and obtained access to the confidential versions of the rate case expense related documents. Hingham chose not to execute the required non-disclosure certificate and, thus, Hingham did not take advantage of this means of access to the materials (see Section I.B.2., above)

66 Oxford did not address rate case expense in its briefs.

to select its legal services provider (Company Brief at 50). Specifically, Aquarion contends that it issued an RFP and received bids from four respondents (Company Brief at 50, citing Exhs. DPU-AQ 2-34; DPU-AQ 4-36). According to the Company, it evaluated the bids based on water rate case experience, other relevant case experience, key attorneys and billing rates, other relevant rates, full cost estimates, and other miscellaneous considerations (Company Brief at 50).

Aquarion asserts that the RFP responses indicate that the bidders made various assumptions about discovery and the length of evidentiary hearings (Company Brief at 50, citing Exh. DPU-AQ 4-36.). Aquarion contends that while the winning bidder did not have the lowest hourly attorney rate, it had extensive regulatory experience, particularly with water utility cases, as well as intimate knowledge of the Company (Company Brief at 50, citing Exhs. DPU-AQ 8-6; DPU-AQ 8-7). According to Aquarion, this knowledge enabled the selected law firm to provide cost-effective and high quality representation, because the firm did not need to become familiar with the Company's structure, operations, personnel, and pending issues (Company Brief at 50-51). Further, the Company maintains that the selected legal service provider was familiar with the intervenors in this case and had a comprehensive understanding of the Oxford litigation,[67] which the Company believed would be a central issue in this proceeding (Company Brief at 50-51; Company Reply Brief at 16-17, citing Exhs. DPU-AQ 2-34; DPU-AQ 8-6). Finally, the Company submits that, because of the

[67] The Oxford litigation is discussed further in Section III.H., below. Aquarion's legal counsel in the instant rate case is also representing Aquarion in the Oxford litigation.

efficiencies stemming from the relationship with the selected legal services provider, the chosen law firm would be able to represent the Company for a cost in the same range as other firms, even if some of its individual attorney rates were higher (Company Reply Brief at 17-18, citing Exh. DPU-AQ 8-6).

ii. Various Rate Case Expenses

(A) Legal Services

The Company argues that its rate case expense for legal services is reasonable and should be approved (Company Brief at 48; Company Reply Brief at 16). Further, the Company contends that its redaction of information on invoices from its legal services provider was proper (Company Reply Brief at 16). Aquarion asserts that it redacted the substantive content of these invoices under the attorney-client privilege to prevent any prejudice resulting from the disclosure of legal strategies during the course of the rate case (Company Reply Brief at 16). Moreover, the Company contends that it provided invoices including narrative descriptions of all legal work related to the rate case, simultaneously with the filing of its reply brief (Company Reply Brief at 16). In addition, Aquarion asserts that the hourly fees charged by its legal services provider, which were afforded protective treatment by the Department, are available to any party who has signed the confidentiality agreement, and, accordingly, Hingham and Hull's objections are baseless (Company Reply Brief at 16).

(B) Aquarion-CT Services

The Company argues that it should recover expenses for the services provided by Aquarion-CT's employees because those expenses, which were specifically recorded, were the result of time devoted to this rate case (Company Brief at 51). In particular, the Company contends that the tasks performed by the Aquarion-CT employees included handling routine filings in order to avoid additional legal services expense (Company Brief at 51). Aquarion argues that it provided detailed back-up data regarding these services during discovery, including the time and hourly rate for each individual and task (Company Brief at 51-52). Further, Aquarion maintains that the Company did not include in the hourly rates of these employees, any recovery for overhead and benefit costs, or travel, meals, mileage, or hotel expenses (Company Brief at 51, citing Tr. 4, at 757-759). Moreover, the Company contends that these services were provided exclusively in support of the rate case, and did not duplicate any services provided by Aquarion personnel (Company Brief at 51-52).

(C) D.P.U. 08-27 Rate Case Expenses

The Company argues that recovery of the unrecovered portion of its rate case expense from D.P.U. 08-27 is appropriate (Company Brief at 53). The Company asserts that its balance sheet reflects the unrecovered portion of those costs, and that if it is unable to recover those costs, the Company's earned return will be reduced (Company Brief at 53-55). The Company contends that Hingham and Hull's witness agreed that recovering unrecovered rate case expense from the prior rate case in a subsequent recovery period would be a fair way of handling such unrecovered expense (Company Brief at 54, citing Tr. 4, at 945-947).

(D) Cost Containment Considerations

Aquarion argues that in considering the amount of expense incurred, the Department should consider the Company's efforts to manage rate case expense, to avoid incurring expenses that were not absolutely necessary, and to bear certain costs (Company Brief at 49). Specifically, the Company contends that it (1) used its own employees and Aquarion-CT employees to limit overall rate case expense, (2) limited the use of outside services to legal services, and (3) declined to revisit depreciation rates and rate design, thereby avoiding significant costs of additional testimony, expanded discovery, additional legal work, and lengthier evidentiary hearings (Company Brief at 49-50). Additionally, Aquarion asserts that it absorbed the cost of engaging a substitute witness when his services became necessary as a result of another witness's unavailability (Company Brief at 50).

Further, the Company contends that in considering the overall level of rate case expense, the Department should consider the impact of the intervenors' actions on the length and cost of the proceeding (Company Brief at 52). Specifically, Aquarion points to the magnitude of discovery issued by the intervenors, their oppositions to routine motions, their filing of numerous motions on typically undisputed matters, and their engagement in procedural battles over otherwise customary matters (Company Brief at 52). The Company asserts that the intervenors' litigiousness in this rate case was atypical of most water rate cases and contributed to the length and cost of the proceeding (Company Brief at 52).

iii. Recovery Period of Rate Case Expense

The Company proposes a three-year amortization period for recovery of rate case expenses (Company Brief at 52, citing Exhs. AQ-TMD at 15; DPU-AQ 2-40).[68] Aquarion

[68] While the Company's written submissions refer to amortization, the Company's cost recovery method appears to be one of normalization. Aquarion's witness testified that, if the Company does not seek rate relief in the next three years, it still would collect the

maintains that strict application of the Department's precedent to normalize rate case expense over the average period between the last four rate cases would penalize the Company (Company Brief at 52-53). In support for the adoption of a three-year period, the Company states that Aquarion and its affiliates have demonstrated a consistent and methodologically sound approach in applying for new rates as a matter of an announced policy to file rate cases every three years (Company Brief at 53). In this regard, the Company notes that it filed its last rate case three years ago, and that Aquarion-CT has filed three successive rate cases at three-year intervals (Company Brief at 53).

3. Analysis and Findings

a. Introduction

The Department allows recovery for rate case expense based on two important considerations. First, the Department permits recovery of rate case expense that has been actually incurred and, thus, is considered known and measurable. D.P.U. 07-71, at 99; D.T.E. 05-27, at 157; Fitchburg Gas and Electric Light Company, D.T.E. 98-51, at 61-62 (1998).[69] Second, such expenses must be reasonable, appropriate, and prudently incurred.

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approved rate case expense adjustment in year four (Tr. 3, at 570-571). This approach is consistent with normalization, which is intended to recover a representative annual level of expense. D.T.E. 05-27, at 163; D.T.E. 03-40, at 163-164; D.T.E. 02-24/25, at 191; D.P.U. 96-50 (Phase I) at 77.

69 While companies may seek recovery of rate case expense incurred on a fixed-fee basis for work performed after the close of the evidentiary record (e.g., for completion of necessary compliance filings), the reasonableness of the fixed fees must be supported by sufficient evidence. D.T.E. 02-24/25, at 196.

D.T.E. 05-27, at 160-161; D.T.E. 98-51, at 58; D.P.U. 95-118, at 115-119; D.P.U. 84-32, at 14.

The overall level of rate case expense among utilities has been, and remains, a matter of concern for the Department. See D.P.U. 10-114, at 219-220; D.P.U. 07-71, at 99; D.T.E. 03-40, at 147; D.T.E. 02-24/25, at 192; D.P.U. 93-60, at 145. Rate case expense, like any other expenditure, is an area in which companies must seek to contain costs. D.P.U. 10-114, at 219-220; D.P.U. 07-71, at 99; D.T.E. 03-40, at 147-148; D.T.E. 02-24/25, at 192; D.P.U. 96-50 (Phase I) at 79. All companies are on notice that the risk of non-recovery of rate case expenses looms should they fail to sustain their burden to demonstrate cost containment associated with their selection and retention of outside service providers. D.P.U. 10-114, at 219-220; D.P.U. 09-39, at 290-293; D.P.U. 09-30, at 238-239; D.T.E. 03-40, at 153. Further, the Department has found that rate case expenses will not be allowed in cost of service where such expenses are disproportionate to the relief being sought. D.P.U. 10-114, at 219-220; D.P.U. 10-55, at 323; D.P.U. 93-223-B at 16. Moreover, in its continuing scrutiny of the overall level of rate case expense, the Department may require shareholders to shoulder a portion of the expense. See D.P.U. 10-114, at 219-220; New England Gas Company, D.P.U. 08-35, at 135 (2009).

b. Competitive Bidding

i. Introduction

The Department has consistently emphasized the importance of competitive bidding for outside services in a petitioner's overall strategy to contain rate case expense.

See, e.g., D.P.U. 10-114, at 221; D.P.U. 09-30, at 227; D.T.E. 05-27, at 158-159; D.T.E. 03-40, at 148; D.T.E. 02-24/25, at 192. If a petitioner elects to secure outside services for rate case expense, it must engage in a competitive bidding process for these services. D.P.U. 10-114, at 221; D.P.U. 09-30, at 227; D.P.U. 07-71, at 99-100, 101; D.T.E. 03-40, at 153. In all but the most unusual of circumstances, it is reasonable to expect that a company can comply with the competitive bidding requirement. D.P.U. 10-55, at 342. The Department fully expects that competitive bidding for outside rate case services, including legal services, will be the norm. D.P.U. 10-55, at 342. If a company decides to forgo the competitive bidding process, the company must provide an adequate justification for its decision to do so. D.T.E. 01-56, at 76; D.T.E. 98-51, at 59-60; D.P.U. 96-50 (Phase I) at 79.

The requirement of having to submit a competitive bid in a structured and organized process serves several important purposes. First, the competitive bidding and qualification process provides an essential, objective benchmark for the reasonableness of the cost of the services sought. D.P.U. 10-114, at 221; D.P.U. 09-30, at 228-229; D.P.U. 07-71, at 101; D.T.E. 03-40, at 152. Second, it keeps even a consultant with a stellar past performance from taking the relationship with a company for granted. D.P.U. 10-114, at 221; D.P.U. 07-71, at 101; D.T.E. 03-40, at 152. Finally, a competitive solicitation process serves as a means of cost containment for a company. D.T.E. 03-40, at 152-153.

The competitive bidding process must be structured and objective, and based on a RFP process that is fair, open, and transparent. See D.P.U. 10-114, at 221; D.P.U. 09-30, at 227-228; D.P.U. 07-71, at 99-100; D.T.E. 03-40, at 153. The timing of the RFP process should be appropriate to allow for a suitable field of potential consultants to provide complete bids, and provide for sufficient time to evaluate the bids. D.P.U. 10-114, at 221; D.P.U. 10-55, at 342-343. Further, the RFPs issued to solicit consultants must clearly identify the scope of work to be performed and the criteria by which the consultants will be evaluated. D.P.U. 10-114, at 221-222; D.P.U. 10-55, at 343.

The Department does not seek to substitute its judgment for that of a petitioner in determining which consultant may be best suited to serve the petitioner's interests, and obtaining competitive bids does not mean that a company must necessarily retain the services of the lowest bidder regardless of its qualifications. D.P.U. 10-114, at 222; D.T.E. 03-40, at 153. The need to contain rate case expense, however, should be accorded a high priority in the review of bids received for rate case work. D.P.U. 10-114, at 222; D.T.E. 03-40, at 153. In seeking recovery of rate case expenses, companies must provide an adequate justification and showing, with contemporaneous documentation, that their choice of outside services is both reasonable and cost-effective. D.P.U. 10-114, at 222; D.T.E. 03-40, at 153. As noted in Section III.D.2.a.i., above, Hingham and Hull contest the Company's retention of its legal services provider.

ii. <u>The RFP Process and Selection of Legal Counsel</u>

The Company issued an RFP for legal services and received four responses (Exhs. DPU-AQ 2-34; DPU-AQ 2-34, Atts. A, B; DPU-AQ 4-36). The RFP sent to bidders sets forth the scope of work to be performed by the bidders, the information sought from each bidder in response to the RFP, and the price and non-price criteria upon which each bid would be evaluated (Exh. DPU-AQ 2-34, Att. A). Although the Company did not use a formal scoring system in evaluating each bidder's response, it created an evaluation matrix that sets forth the key criteria in the evaluation process and how they were addressed in each proposal (Exh. DPU-AQ 8-6 & Att. A). The record demonstrates that, in evaluating each bid by using the evaluation matrix, the Company considered the criteria outlined in the RFP, as well as other important price and non-price factors (Exhs. DPU-AQ 4-36; DPU-AQ 8-6 & Att. A). Thus, we conclude that Aquarion's bid evaluation process was adequately structured to allow the Company to determine the capabilities, approach, and pricing offered by the responding legal services providers. In addition, we determine that the Company's evaluation system was sufficient to provide an objective benchmark to measure the reasonableness of the costs of the various services (Exhs. DPU-AQ 4-36; DPU-AQ 8-6 & Att. A). Based on these considerations, we conclude that the Company conducted a fair, open, and transparent RFP process to generate bids from potential legal consultants (see Exhs. DPU-AQ 2-34 & Atts. A, B; DPU-AQ 4-36; DPU-AQ 8-6 & Att. A; DPU-AQ 8-8). Next, we shall address the prudency and cost-effectiveness of the Company's decision to select the particular legal service provider.

Hull asserts that Aquarion should have selected a different law firm – one that Hull maintains offered the best bid (Hull Brief at 3). In selecting a winning bidder for services, a company is not required to retain the services of the lowest bidder. See D.P.U. 10-114, at 222; D.P.U. 07-71, at 101; D.T.E. 03-40, at 153. Nonetheless, the company has the burden of demonstrating that its selection of this service provider was prudent and appropriate. D.P.U. 09-39, at 287; D.T.E. 05-27, at 158-159; D.T.E. 98-51, at 59-61. This burden is especially great where the company did not choose the lowest bidder, and the best evidence to aid the company in satisfying its burden is contemporaneous documentation of its well-analyzed decision making. D.P.U. 08-35, at 130-131; D.T.E. 03-40, at 83-84, 153.

Here, Aquarion selected an experienced law firm with attorneys who have appeared before the Department in prior rate cases, including the Company's last rate case, which also was a litigated matter. See D.P.U. 08-27. The Company was familiar with this service provider's level of representation and, in turn, the selected law firm was familiar with the Company's operations and the issues that would be presented in the instant matter (Exhs. DPU-AQ 8-6, at 2 & Att. A; DPU-AQ 8-7). The record indicates that the selected legal service provider has cultivated a working relationship with Aquarion, and has demonstrated to the Company a record of responsiveness, the ability to work efficiently with Company personnel, and flexibility in addressing the demands of a given proceeding or other needs that may arise (Exhs. DPU-AQ 8-6, at 2 & Att. A; DPU-AQ 8-7). With these non-price factors also considered, it is reasonable that the selected law firm was the Company's preferred choice to provide legal services.

The Company, nevertheless, must still strive to contain rate case expenses associated with the retention of legal counsel. See D.P.U. 10-114, at 234; D.P.U. 09-30, at 237. In this regard, although the selected legal services provider did not provide the lowest overall rate proposal, we find that the estimated range of overall legal expenses quoted by the retained bidder was within the range expected for a proceeding of this magnitude and comparable to the firm's overall charges in the Company's last rate case (Exh. DPU-AQ 8-6, Att. A). See also D.P.U. 08-27, at 66 n.33.[70] Further, we note that two of the rejected bidders, including the bidder preferred by Hull, provided higher overall bids than the selected service provider (Exh. DPU-AQ 8-6, Att. A).[71] In addition, the chosen legal services provider offered a number of cost control features in an effort to contain overall legal costs (Exh. DPU-AQ 2-34, Att. B at 4).

For all of the above reasons, we reject the arguments of Hingham and Hull concerning the retention of legal counsel in this case. We find that, in this instance, the Company gave careful consideration to price and non-price factors before selecting the provider that it believed would provide the best combination of price and quality of service. As such, we conclude that Aquarion sustained its burden of demonstrating that its selection of legal counsel was both reasonable and cost-effective.

c. Various Rate Case Expenses

i. Introduction

The Department has directed companies to provide all invoices for outside rate case services that detail the number of hours billed, the billing rate, and the specific nature of the services performed. D.T.E. 03-40, at 157; D.T.E. 02-24/25, at 193-194; D.T.E. 01-56,

[70] We will address the actual legal expenses incurred and the variance from the estimate in Section III.D.3.c., below.

[71] In its opposition to the selected bidder, Hull based its pricing analysis solely on the hourly attorney rate component of the bids, and did not account for each bidder's cost estimates for a fully litigated case (Exh. DPU-AQ 8-6 & Att. A; Hull Brief at 3).

at 75; D.T.E. 98-51, at 61; D.P.U. 96-50 (Phase I) at 79. Further, we have stated that failure to provide this information could result in the Department's disallowance of all or a portion of rate case expense. D.T.E. 02-24/25, at 193; D.T.E. 96-50 (Phase I) at 79.

Rate case expenses for affiliate services bear an even higher level of scrutiny. Hingham Water Company, D.P.U. 88-170, at 21 (1989); D.P.U. 86-172, at 25. Any payments by a utility to an affiliate must be (1) for activities that specifically benefit the regulated utility and do not duplicate services already provided by the utility, (2) made at a competitive and reasonable price, and (3) allocated to the utility by a formula that is both cost-effective and non-discriminatory. D.P.U. 88-170, at 21-22; AT&T Communications of New England, D.P.U. 85-137, at 51-52 (1985); see also D.P.U. 08-27, at 72 & n.38.

ii. Legal Services

The Company proposes to include a total of $351,681 in rate case expense related to legal services (Exh. DPU-AQ 2-36, 2nd Supp., Att. A; RR-DPU-6, 2nd Supp., exh. 2, Sch. 10).[72] Hingham and Hull argue that Aquarion did not satisfy its burden under the standard for justifying an award of attorneys' fees (Hingham/Hull Brief at 27-29, citing 445 Mass. at 428 (evaluating documentation needed to support an award of reasonable attorneys' fees and costs to a prevailing party stemming from a case regarding unfair or deceptive acts); Haddad v. Wal-Mart Stores, Inc. (No. 2), 455 Mass. 1024, 1025 (discussing

72 This total includes the costs of transcripts, which were not included with the Company's estimate for legal services in its initial filing (Exhs. AQ-TMD at 15; DPU-AQ 2-36, 2nd Supp., Att. A). In addition, the Company's total legal fees are based on actual costs and do not include an estimated cost component for completion of the rate case beyond the briefing period.

"lodestar method" as basic method of calculating reasonable attorneys' fees) (2010); Hull Brief at 4).

The cost of legal services in connection with a company's rate case is considered a business expense and a component of its cost of service. The Department's standard of review for recovery of legal expenses incurred in a rate case is well established. See D.P.U. 07-71, at 99; D.T.E. 05-27, at 157, 160-161; D.T.E. 98-51, at 58, 61-62 (1998); D.P.U. 95-118, at 115-119; D.P.U. 84-32, at 14. Specifically, the Department permits recovery of rate case expense that has been actually incurred and, thus, is considered known and measurable. D.P.U. 07-71, at 99; D.T.E. 05-27, at 157; D.T.E. 98-51, at 61-62 (1998). Further, such expenses must be reasonable, appropriate, and prudently incurred. D.T.E. 05-27, at 160-161; D.T.E. 98-51, at 58; D.P.U. 95-118, at 115-119; D.P.U. 84-32, at 14. Thus, we reject Hingham and Hull's contention that the Department should rely on the Court's method of determining the award of attorneys' fees following successful outcome of a civil litigation.

The Department has reviewed the invoices submitted by the Company concerning legal services and finds that they are properly itemized for allowable expenses (Exh. DPU-AQ 2-36, 2nd Supp., Att. A).[73] Further, we determine that such invoices represent expenses that were actually incurred and thus, are known and measurable (see, e.g., Exh. DPU-AQ 2-36,

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73 The arguments of Hingham and Hull regarding the transparency of the legal invoices are unpersuasive. Aquarion properly redacted the invoices in accordance with the Department's ruling on the Company's motion for confidentiality. Confidential versions were made available to any party, provided that the party signed a non-disclosure form, which is common practice in cases before the Department. Further, the Company submitted unredacted versions of the invoices with its reply brief.

2nd Supp., Att. A). In addition, we are satisfied that the Company did not submit duplicative charges as part of its legal costs (see, e.g., Exh. DPU-AQ 2-36, 2nd Supp., Att. A).

In evaluating the overall legal costs of $351,681, we take into account the various issues involved in this case, the amount and nature of discovery issued to Aquarion, and the time devoted to evidentiary hearings. Further, despite the variance in legal costs between the estimated cost of $225,000 and final cost of $351,681, the Company has demonstrated cost containment measures with respect to legal fees.[74]

We also cannot ignore the role of the intervenors, particular Hingham and Hull, in contributing to the rise in legal costs. During the course of this proceeding, these parties filed oppositions to the Company's routine motions on matters traditionally undisputed, and these parties also engaged in disputes over otherwise standard administrative procedures. See, e.g., D.P.U. 11-43, Hearing Officer Ruling on Hingham and Hull Motion for Extension of Time to File Discovery Responses (October 27, 2011); Section I.B.1., above, regarding Appeal of Hearing Officer Ruling on Substitution Motion; Section I.B.2., above, regarding Appeal of Hearing Officer Rulings on Motions for Confidential Treatment. The actions of these intervenors increased administrative and legal costs to the Company, and we remind the

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74 For example, outside of the evidentiary hearings, the Company was billed for one attorney's time, even though multiple attorneys may have attended an event (Tr. 3, at 561-563). Further, despite legal counsel's out-of-state home office, the Company was billed for travel from a metrowest Boston satellite office (Tr. 3, at 561). In addition, the Company used in-house employees for certain tasks, such as submitting filings to the Department, that otherwise would be performed by legal counsel (Tr. 4, at 757-758).

intervenors that such an aggressive litigation strategy has detrimental effects on ratepayers and town residents. See D.P.U. 11-55, at 8, n.8.

After consideration of all of the above, we find that the legal costs in litigating this matter were prudently incurred and that the amount of fees is not unreasonable or disproportionate to the work provided by the Company's legal counsel (see, e.g., Exhs. DPU-AQ 2-36, Att. A; DPU-AQ 2-36, Supp., Att. A; DPU-AQ 2-36, 2nd Supp., Att. A). As such, we conclude that no adjustments to the Company's requested recovery of $351,681 in legal costs are warranted.

iii. Aquarion-CT Services

Aquarion proposes to include a total of $85,425 in rate case expense related to work performed by three Aquarion-CT employees in responding to discovery requests, and preparing and presenting the revenue requirement testimony and exhibits (Exh. DPU-AQ 2-35, 2nd Supp.). The record reveals that these expenses are specific to services provided for this rate case and do not duplicate services already provided by Aquarion or any of its affiliates (Tr. 3, at 563-564). Further, the expenses represent only the hours billed by three employees of Aquarion-CT, limited to eight hours per day, and do not include costs for overhead, benefits, travel, meals, or lodging (Exhs. DPU-AQ 8-13; DPU-AQ 8-15; Tr. 3, at 565-566).[75]

The documentation provided by the Company to support the services rendered by the Aquarion-CT employees is separated into three categories: (1) $71,705 in costs incurred for

75 The Aquarion-CT employees recorded their rate case-related time to a specific Aquarion account, separate from O&M expense (Tr. 3, at 564-565).

services performed through October 31, 2011 (Exhs. DPU-AQ 8-11; DPU-AQ 8-12, Att. A; RR-DPU-11, Att. A); (2) $5,588 in costs incurred for services performed at the evidentiary hearings (see Exh. DPU-AQ 2-35, 2nd Supp.);[76] and (3) $8,132 in costs incurred for services performed outside of the evidentiary hearings from October 31, 2011, through December 31, 2011 (see Exh. DPU-AQ 2-35, 2nd Supp.).

The Department has reviewed these invoices and supporting documentation, including the hourly rates billed for Aquarion-CT employees (Exhs. DPU-AQ 2-35, 2nd Supp.; DPU-AQ 8-11; DPU-AQ 8-12, Att. A; RR-DPU-11, Att. A). We find that, with respect to the first two cost categories, the Company demonstrated that the expenses were (1) specifically related to this rate case, (2) not duplicative of services already provided by Aquarion, (3) provided at a competitive and reasonable price, and (4) allocated to the Company by a formula that is both cost-effective and non-discriminatory (see Exhs. DPU-AQ 2-35, 2nd Supp.; DPU-AQ 8-12, Att. A; Tr. 3, at 564-565). See also D.P.U. 08-27, at 72 & n.38; D.P.U. 88-170, at 21-22; D.P.U. 85-137, at 51-52. As such, we find that these costs were reasonable, appropriate, and prudently incurred. See, e.g., D.T.E. 98-51, at 59.

The Company's summary of costs related to the Aquarion-CT employees additionally included $8,132 in costs incurred from October 31, 2011, through December 31, 2011 for hours billed by those employees for services performed outside of the evidentiary hearings

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76 Aquarion-CT employees were actively involved throughout the evidentiary hearings, either by testifying or assisting other witnesses. The Company provided the hours billed by each Aquarion-CT employee for these services (Exh. DPU-AQ 2-35, 2nd Supp.).

(Exh. DPU-AQ 2-35, 2nd Supp.). The Company did not, however, submit detailed documentation supporting these costs. Accordingly, the Department is unable to determine whether the remaining $8,132 in claimed expenses is reasonable, appropriate, and prudently incurred. Therefore, the Department disallows recovery of $8,132 in rate case expense associated with the services performed by the Aquarion-CT employees. See D.P.U. 10-70, at 157. The remaining $77,293 in costs related to the Aquarion-CT employees is allowed.

iv. Courier Services

The Company seeks recovery of $364 in courier services related to this rate case. We find that the invoice provided to the Department by Aquarion appropriately detailed the number of hours billed, the billing rate, and the specific nature of the service performed (Exh. DPU-AQ 2-37, Att. A). Accordingly, we allow recovery of the $364 in courier services.

d. Normalization of Rate Case Expenses

The Company argues that it intends to submit rate case filings every three years to be consistent with the interval utilized by Aquarion-CT (Company Brief at 53). As such, Aquarion proposes the use of a three-year recovery period for its rate case expense, which it acknowledges is a departure from Department precedent (Company Brief at 52-53). The Company also proposes to continue to collect $74,228 in expenses from its prior rate case that were booked during the test year (Exh. DPU-AQ 7-1, Att. A; Tr. 3, at 571-72; 614-617).

Hingham and Hull propose a normalization period of six years, as used in the Company's last rate case, or a five-year period, as calculated in accordance with Department precedent (Exh. HH-DFR at 30). Hingham and Hull argue that departure from Department precedent is not justified simply because the Company intends to file a rate case every three years (Exh. HH-DFR at 30).

The proper method to calculate a rate case expense adjustment is to determine the rate case expense, normalize the expense over an appropriate period, and then compare it to the test year level to determine the adjustment. D.T.E. 05-27, at 163; D.T.E. 03-40, at 163; D.T.E. 02-24/25, at 197; D.T.E. 98-51, at 62; D.P.U. 95-40, at 58. The Department's practice is to normalize rate case expenses so that a representative annual amount is included in the cost of service. D.T.E. 05-27, at 163; D.T.E. 03-40, at 163; D.T.E. 02-24/25, at 191; D.T.E. 01-56, at 77; D.T.E. 98-51, at 53; D.P.U. 96-50 (Phase I) at 77; The Berkshire Gas Company, D.P.U. 1490, at 33-34 (1983). Normalization is not intended to ensure dollar-for-dollar recovery of a particular expense; rather, it is intended to include a representative annual level of rate case expense. D.T.E. 05-27, at 163; D.T.E. 03-40, at 163-164; D.T.E. 02-24/25, at 191; D.P.U. 96-50 (Phase I) at 77. The Department determines the appropriate period for recovery of rate case expense by taking the average of the intervals between the filing dates of a company's last four rate cases, including the present case, rounded to the nearest whole number. D.T.E. 05-27, at 163 n.105; D.T.E. 03-40, at 164 n.77; D.T.E. 02-24/25, at 191. If the resulting normalization period is deemed unreasonable or if the company has an inadequate rate case filing history, the Department will determine the appropriate normalization period based on the particular facts of the case. South Egremont Water Company, D.P.U. 86-149, at 2-3 (1986).

Because normalization is not intended to ensure dollar-for-dollar recovery of a particular expense, this method of recovery places back onto shareholders a certain degree of risk that should normally be expected in the course of operations. D.P.U. 92-101, at 48-49; D.P.U. 91-106/91-138, at 20. In contrast, amortization implies dollar-for-dollar recovery of an expense, as would occur in the case of an extraordinary loss. D.P.U. 85-266-A/271-A at 95-99.

Based on the average interval of its last four rate case filings, including the present case, the Department finds that the appropriate normalization period for the Company is five years.[77] The Department finds that the application of this method does not produce an unreasonably long normalization period, and that the facts of this case do not warrant a departure from the Department's general precedent in applying this mathematical formula. Accordingly, we decline to normalize the recoverable rate case expense associated with the instant case over a shorter period than provided by our traditional normalization method, and we will apply a normalization period of five years to the Company's rate case expense.

The amount to be normalized over the next five years is the total amount of rate case expense allowable in this proceeding; i.e., \$429,338. Thus, the annual normalized amount is \$85,868. Because the Company has filed a base rate proceeding before the normalization

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77 Including the present case (filed May 13, 2010), Aquarion's most recent rate case proceedings are: D.P.U. 08-27, filed May 14, 2008; D.T.E. 00-105, filed November 16, 2000; and D.P.U. 95-118, filed November 16, 1995. The sum of the intervals between these rate cases (i.e., 3 years plus 7.5 years plus 5 years), divided by three, and rounded to the nearest whole number of years, results in a normalization period of five years.

period of its last rate case ended, the rate case expense associated with D.P.U. 08-27 is no longer subject to recovery. See D.P.U. 10-114, at 240; D.P.U. 09-30, at 242-243; D.P.U. 91-106/91-138, at 19-21. Further, the Department finds no compelling reason to accord these expenses special consideration and include them in the annual normalization amount approved in this proceeding. D.P.U. 10-114, at 240; D.P.U. 09-30, at 243; D.P.U. 91-106/91-138, at 20-21. The Company determined the timing of the filing of this rate case, and did so with full knowledge of the Department's normalization precedent. Accordingly, the Company's proposal to recover $74,228 in rate case expense associated with D.P.U. 08-27 is disallowed.

4. Conclusion

Based on the findings above, the Department finds that Aquarion may recover rate case expense in the amount of $429,338, comprised of $351,681 for legal services, $77,293 for Aquarion-CT services, and $364 for courier expenses. The Department concludes that the correct level of normalized rate case expense is $85,868 (i.e., $429,338 divided by five years). Accordingly, because the Company has proposed an adjusted rate case expense of $219,930, the Company's proposed cost of service will be reduced by $134,062.

Finally, there are clear benefits to shareholders from approval of rate increases and the Department has found that it may be appropriate for shareholders to shoulder a portion of the expense. See D.P.U. 11-01/D.P.U. 11-02, at 270; D.P.U. 10-70, at 166; D.P.U. 10-55, at 343-344; D.P.U. 08-35, at 135. As one means to demonstrate that rate case expense has been contained, the Department directs Aquarion to include in its future rate case filings, a proposal for some portion of the rate case expense to be borne by shareholders.[78] Specifically, Aquarion is required to demonstrate in future rate case filings that, at a minimum, it fully considered meaningful proposals for some portion of the rate case expense to be borne by shareholders as a departure from the Department's current ratemaking practice. Aquarion is required to document such analysis in its direct case and adequately justify any decision not to adopt such proposals.

E. Shared Corporate Expenses

1. Introduction

Aquarion is allocated a share of certain corporate expenses from its parent company, Aquarion Company for (1) services rendered by Aquarion Water Company, and (2) services rendered by MUI based on an agreement between Aquarion Company and MUI ("MUI Agreement") (Exhs. AQ-TMD at 16-17; DPU-AQ 1-9, Atts. A, B). These corporate expenses include such items as salaries and benefits, audit and consulting costs, asset management and director costs, and legal costs (Exh. AQ-TMD at 16; RR-DPU-6, 2nd Supp., exh. 2, Sch. 12, at 1). These corporate expenses are allocated using the "Massachusetts Formula" (Exh. AQ-TMD at 16-17; RR-DPU-6, 2nd Supp., exh. 2, Sch. 12, at 1-2).[79] During the test

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78 We recognize that Aquarion has sufficient resources to make such a proposal, which is consistent with our treatment of electric and gas companies. See D.P.U. 10-55, at 343-344; D.P.U. 10-70, at 166; D.P.U. 08-35, at 135.

79 The Massachusetts Formula is a three-part formula that uses weighted cost average ratios comparing gross revenues, plant, and payroll (Exh. AQ-TMD at 16). D.P.U. 10-114, at 171 n.127. Costs are then allocated to the regulated utilities based on each utility's customer count (Exh. AQ-TMD at 16). The regulated utilities receive

year, the Company booked $126,955 in shared corporate expense (RR-DPU-6, 2nd Supp., exh. 2, Sch. 12, at 1). Aquarion proposed an increase to test year shared corporate expense of $4,852 (Exh. AQ-TMD at 17; RR-DPU-6, 2nd Supp., exh. 2, Sch. 12, at 1).

2. Positions of the Parties

a. Hingham and Hull

Hingham and Hull state that, in the Company's last rate case, these MUI expenses were examined under the affiliate transaction standard (Hingham/Hull Brief at 33, citing Boston Edison Company/Boston Edison Mergeco Electric Company, D.P.U./D.T.E 97-63 (1998)). Hingham and Hull claim that the Department reminded the parties that affiliate transactions are subject to suspicion and to careful scrutiny (Hingham/Hull Brief at 33). Hingham and Hull aver that ultimately, the Department found that Aquarion failed to adequately demonstrate that the services provided pursuant to the MUI Agreement specifically benefited Aquarion (Hingham/Hull Brief at 33).

Hingham and Hull argue that, in spite of what the Department stated in D.P.U. 08-27, the Company has not made any attempt in this case to change the way that it demonstrates that the management services were reasonable or necessary (Hingham/Hull Brief at 33). Hingham and Hull contend that none of the responses from Company witnesses indicate that there was sufficient oversight from Aquarion regarding the payments to MUI (Hingham/Hull Brief at 34-35, citing Tr. 3, at 698-700). Hingham and Hull recommend

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98.8 percent of the costs, of which 9.0 percent is allocated to Aquarion, resulting in an overall allocation of 8.9 percent (Exh. AQ-TMD at 16-17).

that all expenses associated with the MUI management fees be disallowed as Aquarion has failed to meet the burden to establish that such expenses are necessary and benefit the ratepayers (Hingham/Hull Brief at 35).

b. Oxford

Oxford argues that the MUI expenses are imprudent, are not cost based, and are not derived through "arms length" negotiations (Oxford Brief at 26; Oxford Reply Brief at 21). Oxford contends that these charges are allocated to Aquarion based on a formula, rather than based on time for services (Oxford Brief at 26; Oxford Reply Brief at 21). Oxford avers that the Department disallowed similar expenses in the Company's last rate case (Oxford Brief at 27, citing D.P.U. 08-27, at 88-92; Oxford Reply Brief at 22). Oxford maintains that the Company was put on notice by the Department in D.P.U. 08-27 that it should implement a more prudent system regarding parent and subsidiary management fees (Oxford Brief at 27, citing D.P.U. 08-27, at 88-92; Oxford Reply Brief at 22).

c. Company

The Company contends the costs associated with the services provided by Aquarion Company and MUI are appropriately charged to Aquarion according to service agreements between (1) Aquarion and Aquarion Water Company, and (2) Aquarion Company and MUI (Company Brief at 28-29). The Company avers that MUI provides the following services to Aquarion Company: (1) asset management; (2) risk management; (3) financial and performance reporting; (4) investor relations and capital procurement; (5) governance; (6) directors and officers insurance; and (7) board related services (Company Brief at 30).

The Company argues that the costs incurred by Aquarion under the service agreements are fairly allocated based on the Massachusetts Formula, under which the Company is allocated 8.9 percent of the costs (Company Brief at 30-31). Aquarion claims that these services benefit its customers by ensuring that the various Aquarion entities are managed effectively and efficiently consistent with an overall strategic plan (Company Brief at 31). The Company further argues that the services provided by MUI benefit the Company and are not otherwise provided by the Company, are at a competitive and reasonable cost, and are allocated based on a fair method (Company Brief at 31).

Aquarion states that it receives high-level management functions from MUI that are provided by specialists who are highly skilled in the area of the service they provide (Company Brief at 33). The Company states that the MUI directors set key performance indicators that relate to critical utility functions, including water quality, customer service and operational and safety metrics, which are designed to drive performance (Company Brief at 33, citing Tr. 4, at 798-799; Company Reply Brief at 14). The Company avers that one of the biggest functions provided by MUI relates to an internal audit, which Aquarion would have to take on if MUI did not provide the service (Company Brief at 33-34).

The Company states that the charges related to services provided by MUI are based on time spent or an allocated cost of those personnel (Company Brief at 34, citing Tr. 4, at 802). In addition, the Company contends that, in spite of assertions by the intervenors that the billing for these services was improper, both hourly fees and a proportionate allocation of salary are recognized billing methods under the MUI Agreement (Company Reply Brief at 15). The

Company argues that these services and associated costs are reviewed annually by the Aquarion-CT chief financial officer as part of the annual budgeting process (Company Brief at 34; Company Reply Brief at 15). In addition, the Company avers that, under MUI's management, these costs have been reduced by over $400,000 from the level under the Company's prior ownership (Company Brief at 34, citing Exh. AQ-TMD at 17). In conclusion, the Company claims that all of the costs related to MUI services are reasonable and comport with the standard for recovery of costs of affiliate transactions, as established by the Department, and, therefore, should be allowed (Company Brief at 34; Company Reply Brief at 15).

3. Analysis and Findings

To qualify for inclusion in rates, payments by Aquarion for services provided by MUI and Aquarion Water Company are examined under the affiliate transaction standard. D.P.U. 88-170, at 21-22; D.P.U. 85-137, at 51-52. The Department also has a long-standing practice of examining management contracts. As we have stated, "holding companies, in their efforts to derive income in addition to that obtained through dividends, frequently resort to all sorts of contractual relations with the operating utilities that they control. These contracts in any rate proceeding necessarily are subject to suspicion and to careful scrutiny." D.P.U./D.T.E. 97-63, at 63 n.20, citing Department of Public Utilities 1932 Annual Report to the Legislature at 7. The Department has previously expressed concern about the apparent duplication of services by Aquarion and its predecessor service companies and, thus, this scrutiny is particularly apt here. See D.P.U. 88-170, at 19-26; D.P.U. 86-172, at 25; D.P.U. 1699, at 10-13.

Pursuant to the MUI Agreement, Aquarion Company allocates to Aquarion expenses related to asset management, risk management, investor relations, and capital procurement services, as well as a percentage of the board of directors' salaries, board expenses for travelling, printing, and telecommunications, directors and officers insurance, and miscellaneous and direct costs (Exhs. AQ-TMD at 16; DPU-AQ 1-9, Att. B). Aquarion Company also allocates to Aquarion other corporate charges including labor and benefits, bank fees, audit and tax preparation, legal services, and building overhead (Exhs. AQ-TMD at 16; DPU-AQ 1-9, Att. B).

The MUI Agreement states that services rendered be charged "based on time spent or allocated cost of those personnel" (Exh. DPU-AQ 1-9, Att. B at 3). The management fee allocated to the affiliates is, however, simply a pro rata portion of MUI personnel costs and other expenses that is divided into quarterly invoices (see Exh. DPU-AQ 4-20, Att. B).

Hingham, Hull, and Oxford question the appropriateness of passing through the management fees to Aquarion (Hingham/Hull Brief at 35; Oxford Brief at 26-27). The MUI Agreement does not delineate specific functions to be performed by the board. Instead, a pro rata portion of the management fees is allocated to the affiliates. Thus, we determine that the Company failed to adequately demonstrate that the services provided pursuant to the MUI Agreement specifically benefit Aquarion.

As to the cost of the services, Aquarion stated that these services and associated costs are reviewed annually by the Aquarion-CT Chief Financial Officer as part of the annual budgeting process (Company Brief at 34). The Company also focused on the fact that management fees have declined under the ownership of MUI as proof that the fees allocated were appropriate (Exh. AQ-TMD at 17). The fact that management fees have been reduced does not, on its own, prove that the current management fees are appropriate. Instead, the Company must demonstrate that the payments made to an affiliate for management services were at a competitive and reasonable price. D.P.U. 88-170, at 21-22; D.P.U. 85-137, at 51-52. Aquarion failed to do so. Thus, we determine that Aquarion has not demonstrated that the services provided under the MUI Agreement qualify for inclusion in rates.[80] Therefore, the Department disallows $86,092, which constitutes Aquarion's share of management fees related to the MUI Agreement.

With respect to the corporate charges being allocated for services by Aquarion Water Company, we determine that they are, in sum, appropriate (Exh. AQ-TMD at 16; RR-DPU-6, 2nd Supp., exh. 2, Sch. 12, at 1). Specifically, as an affiliate, Aquarion is required to participate in the preparation of consolidated tax returns and internal audits. In addition, it is also appropriate, in this instance, to allocate to the affiliates labor charges and building overhead related to these services and expenses. Thus, the Department determines that these corporate charges are for activities that specifically benefit Aquarion, do not duplicate services

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80 In Aquarion's prior rate case, the Department also disallowed these costs, and, as such, the Company should have been aware of the standard that it would be required to meet to recover the costs. D.P.U. 08-27, at 90-91.

already available at Aquarion, and are at a competitive and reasonable price. Therefore, the Department allows $513,583 in corporate charges, of which 8.90 percent, or $45,715 is allocated to Aquarion. The Department has previously relied on the Massachusetts Formula for allocation of similar corporate expenses. Eastern Edison Company, D.P.U. 1130, at 29-31 (1982). We find that such allocation formula is, in this instance, cost-effective and non-discriminatory.

In sum, the Department finds that Aquarion failed to meet its burden that certain of the corporate expenses, as outlined above, are for activities that specifically benefit the regulated utility, as well as its burden to demonstrate that the expenses are at a competitive and reasonable price. Therefore, we disallow $86,092, which represents Aquarion's share of the $967,199 in management fees related to the MUI Agreement. Aquarion's proposed cost of service for shared corporate expense is $131,807. Allowing $45,715 related to corporate expenses, the Company's proposed cost of service is reduced by $86,092.

F. Shared Services and Common Facilities

1. Introduction

In accordance with Aquarion's service agreement with Aquarion-CT ("AWC Service Agreement"), Aquarion-CT provides Aquarion with certain services (Exhs. AQ-TMD at 17-19; DPU-AQ 1-9, Att. A). Specifically, Aquarion-CT provides services in two major functional areas, and Aquarion proposes to include the costs related to these services in cost of service: (1) customer services, including handling customer inquiries, scheduling fieldwork appointments, and resolving billing disputes; and (2) information technology ("IT") services, including software and hardware maintenance, networking services, and data processing services (Exh. AQ-TMD at 17-19; RR-DPU-6, 2nd Supp., exh. 2, Schs. 13, 14). Regarding IT-related services, these expenses also include an integrated SAP system and licenses along with technical support (Exh. AQ-TMD at 17). All costs incurred in providing these services are allocated among the utilities receiving such services based on the number of customers served at the end of the immediately preceding calendar year (Exh. AQ-TMD at 17-19; RR-DPU-6, 2nd Supp., exh. 2, Schs. 13, 14).[81]

Aquarion proposes to include in its cost of service $186,736, representing its allocated portion of Aquarion Water Company customer service-related expenses of $2,028,866 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 14). Because Aquarion's test year expense was $177,095, this adjustment results in an increase of $9,641 in O&M expense (Exh. AQ-TMD at 19; RR-DPU-6, 2nd Supp., exh. 2, Sch. 14). Aquarion also proposes to include in its cost of service $464,054 of Aquarion Water Company IT-related expenses of $5,152,648 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 13). Because Aquarion's test year expense was $481,507, this results in a decrease of $17,453 to O&M expense (Exh. AQ-TMD at 18; RR-DPU-6, 2nd Supp.,

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81 As of December 31, 2010, Aquarion Water Company had a total of 209,735 customers divided among its three affiliate companies as follows: (1) Aquarion with 18,889 or 9.01 percent of the customers; (2) Aquarion Water Company of New Hampshire ("Aquarion-NH") with 9,016 or 4.30 percent of the customers; and (3) Aquarion-CT with 181,830 or 86.70 percent of the customers (RR-DPU-6, 2nd Supp., exh. 2, Sch. 13). Incoming calls to Aquarion-NH are placed directly to the New Hampshire office; hence, for customer-related expenses only, Aquarion Water Company reduced Aquarion-NH's allocation by 50 percent and increased the remaining two affiliates' allocations correspondingly, resulting in Aquarion receiving 9.20 percent, Aquarion-NH receiving 2.20 percent, and Aquarion-CT receiving 88.60 percent (Exh. AQ-TMD at 19; RR-DPU-6, 2nd Supp., exh. 2, Sch. 14).

exh. 2, Sch. 13). Included in this calculation is the allocation of costs related to the SAP system (Exh. AQ-TMD at 18; RR-DPU-6, 2nd Supp., exh. 2, Sch. 13). When allocating these costs, the Company used a depreciation rate, rate of return, and tax gross-up factor that were based on Aquarion-CT's most recent rate case before the Connecticut Department of Public Utility Control ("CT-DPUC") (Exhs. AQ-TMD at 17-18; DPU-AQ 4-21, Att. B).[82]

In connection with providing these shared services, Aquarion-CT maintains three common facilities: (1) an operations center; (2) a corporate office; and (3) a customer service call center (Exh. AQ-TMD at 19). These office costs are apportioned among Aquarion Water Company's affiliates through a building overhead rate per facility that is then applied to labor charged from each facility, as determined by the formula contained in the AWC Service Agreement (Exhs. AQ-TMD at 19; DPU-AQ 1-9, Att. A at 12-14). Based on this calculation, Aquarion proposes to include $98,957 in its test year cost of service, which represents its allocated portion of common facilities (Exh. AQ-TMD at 19; RR-DPU-6, 2nd Supp., exh. 2, Sch. 15). Because Aquarion's test year allocation was $90,977, this results in an increase of $7,981 to O&M expense (Exh. AQ-TMD at 19; RR-DPU-6, 2nd Supp., exh. 2, Sch. 15).

2. Positions of the Parties

The Company maintains that the expenses for the shared IT-related services, shared customer service, and shared facilities are charged to Aquarion based on the AWC Service Agreement (Company Brief at 29). The Company claims that the services provided by

82 On July 1, 2011, CT-DPUC was reorganized as a new entity, the Public Utilities Regulatory Authority. See generally http://www.ct.gov/pura.

Aquarion-CT benefit the Company and are not otherwise provided by the Company, are procured at a competitive and reasonable cost, and are allocated based on a fair method (Company Brief at 31, citing Exhs. AQ-TMD at 16-19; DPU-AQ 1-9; DPU-AQ 8-17). Aquarion avers that it obtains these services from Aquarion-CT because it is unable to obtain the same quality and range of services on a competitive, economic basis elsewhere (Company Brief at 31-32, citing Exh. DPU-AQ 1-9, Att. A at 1-2). The Company states that although the call center is located in Connecticut, the personnel there are fully qualified to respond to inquiries from both Connecticut and Massachusetts (Company Brief at 32, citing Tr. 4, at 755-756). The Company argues that because the evidence supports that the services provided by Aquarion-CT are reasonable and provide a benefit to the Company, are charged to the Company in a fair and non-discriminatory manner, and do not duplicate services already provided by the Company, the Department should allow for recovery of the expenses related to the shared IT-related services, shared customer service and shared facilities (Company Brief at 33). In addition, the Company asserts that the recovery of these expenses should be allowed because they comport with the standard for recovery of costs of affiliate transactions, as established by Department precedent (Company Brief at 34). No other party commented on this issue on brief.

3. Analysis and Findings

The Department permits rate recovery of payments to affiliates where those payments are: (1) for activities that specifically benefit the regulated utility and that do not duplicate services already provided by the utility; (2) made at a competitive and reasonable price; and

(3) allocated to the utility by a formula that is both cost-effective in application and non-discriminatory for those services specifically rendered to the utility by the affiliate and for general services that may be allocated by the affiliate to all operating affiliates. D.P.U. 95-118, at 41; D.P.U. 92-101, at 43-46; Commonwealth Electric Company, D.P.U. 89-114/90-331/91-80 Phase One at 79-80 (1991); D.P.U. 85-137, at 51-52.

All customer service related activities are handled by Aquarion's affiliate Aquarion-CT (Exh. AQ-TMD at 18-19). For example, Aquarion-CT personnel are responsible for handling customer inquiries, scheduling appointments for fieldwork, resolving billing disputes, editing meter reading results, implementing the meter change-out program, explaining Aquarion's programs and services, making payment arrangements, handling customer maintenance, and preparing final bill accounts (Exh. DPU-AQ 1-9, Att. A at 10). These activities are necessary to Aquarion's business and thus specifically benefit Aquarion. Moreover, these activities do not duplicate services provided by Aquarion personnel (Exh. Oxford 1-42).

The IT-related services provided by Aquarion-CT are a key component of the customer service that Aquarion-CT provides to Aquarion and its customers. Specifically, Aquarion-CT uses an integrated SAP that supports customer and billing services throughout Aquarion Water Company's regulated affiliates (Exh. AQ-TMD at 17). The Department has previously found that the IT-related services provided by Aquarion-CT, including the SAP system, provide direct benefit to Aquarion by facilitating its overall business, including its customer service. D.P.U. 08-27, at 81-82. In addition, the IT-related services do not duplicate services available at Aquarion (Exh. Oxford 1-42).

The Department has also previously found that the SAP system was obtained at a competitive and reasonable price. D.P.U. 08-27, at 82. Nonetheless, the Company's proposed allocation of the SAP relies on an 8.40 percent WACC and a tax gross-up factor of 1.686 percent (Exh. DPU-AQ 4-21, Att. B). This WACC was approved for Aquarion-CT by the CT-DPUC (see Exhs. AQ-TMD at 18; DPU-AQ 4-21, Att. B). The Department previously found that application of a WACC and tax gross-up factor that were approved by the CT-DPUC to determine the Company's allocated share of the SAP costs, of which a portion would be allocated to Massachusetts, would result in Massachusetts ratepayers inappropriately subsidizing the operations of Aquarion-CT. D.P.U. 08-27, at 82. Therefore, the Department rejects the use of a WACC of 8.40 percent and a tax gross-up factor of 1.686, as identified in Exhibit DPU-AQ 4-21, Attachment B, for purposes of allocating costs related to the SAP system.

Further, Aquarion offers no reason why we would deviate from our precedent in this proceeding regarding this calculation. Therefore, the Department will recalculate the required return on the SAP using Aquarion's 7.46 percent WACC and a tax gross-up factor of 1.6205 (see Section IX.E. (Schedule 5) and Section IX.G. (Schedule 7), below). Application of these factors to the $16,291,427 total SAP investment produces an annual cost of $1,116,485, of which 9.01 percent, or $100,552, is allocable to Massachusetts operations (see RR-DPU-6, 2nd Supp., exh. 2, Sch. 13). This re-calculation produces a decrease to test year cost of service of $17,246.

Based on the foregoing, the Department finds that the proposed expenses, of which a portion was allocated to Aquarion, represent Aquarion's costs for activities that specifically benefit the Company and do not duplicate services already provided by Aquarion. In addition, we find that the services are provided at a competitive and reasonable price. The Department further finds that, with the exception of the allocated SAP costs as outlined above, the amounts are allocated to Aquarion by a formula that is both cost-effective and non-discriminatory. Thus, as proposed by Aquarion, the Company's test year cost of service will be (1) increased by $9,641 for customer service-related expenses, and (2) increased by $7,981 for common facility-related expenses. For IT-related expenses, however, the Department has determined that the Company's cost of service should be $446,807, which is a decrease of $17,246 from Aquarion's proposed cost of service of $464,054. Accordingly, the Department reduces Aquarion's proposed cost of service by $17,246.

G. Benefits Allocated from Aquarion-CT

1. Introduction

Aquarion-CT directly charges the Company for services provided, except for customer service and IT-related functions that are charged on the basis of allocation factors (Exh. AQ-TMD at 19-20). In contrast, payroll overhead expenses, such as benefits and payroll taxes, are allocated to Aquarion on the basis of Aquarion-CT's benefits overhead rate and payroll taxes (Exh. AQ-TMD at 19-20).

During the test year, Aquarion was allocated $249,155 in benefits charges and $31,648 in payroll taxes from Aquarion-CT (RR-DPU-6, 2nd Supp., exh. 2, Sch. 16). The Company proposed a decrease to test year benefits of $2,378, based on Aquarion-CT's 2010 benefits allocation factor of 61.00 percent, and a decrease to test year payroll tax expense of $360, based on Aquarion-CT's 2010 payroll tax factor of 8.00 percent (RR-DPU-6, 2nd Supp., exh. 2, Sch. 16).

2. Position of the Parties

a. Hingham and Hull

Hingham and Hull argue that "it is unclear from the testimony how Aquarion allocated benefits from Aquarion's Massachusetts employees" (Hingham/Hull Brief at 30).

b. Company

The Company contends that it is unsure what issue, if any, Hingham and Hull are raising on brief regarding the allocation of benefit expenses from Aquarion-CT to the Company (Company Reply Brief at 15, citing Hingham/Hull Brief at 30). Thus, Aquarion declined to address this issue on brief (Company Reply Brief at 15).

3. Analysis and Findings

The Department has examined the proposed payroll overhead and tax factors and finds them to be based on a cost-effective and non-discriminatory formula. The Company took the expense related to direct labor performed by Aquarion-CT employees for the Company and added in a known and measurable pay increase of three percent effective before the midpoint of the rate year, resulting in a sum of $142,986 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 16). The Company then added that amount to the allocated customer service and IT labor amounts for a total labor pool amount of $391,097 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 16). The Company then used the prior year's benefit allocator of 61.00 percent to come to the total benefit allocation for Aquarion in the amount of $238,569 (Exh. DPU-AQ 1-9, Att. A, at 12-13; Tr. 3, at 594; RR-DPU-6, 2nd Supp., exh. 2, Sch. 16). The Company compared this amount to the allocated total in the test year of $249,155 to arrive at a reduction of $10,586 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 16). Adding this adjustment to the proposed adjustment of $8,208 to reflect known and measurable wage increases occurring before the midpoint of the rate year, the Company arrived at a total net O&M expense reduction of $2,378 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 16).

For the issue of payroll taxes, the Company used the prior year's payroll tax allocator of 8.00 percent (Exh. DPU-AQ 1-9, Att. A, at 12-13; RR-DPU-6, 2nd Supp., exh. 2, Sch. 16). The Company multiplied the payroll tax allocator by the total labor pool figure to arrive at a total of $31,288 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 16). The Company then compared this amount to the test year amount of $31,648 and calculated a $360 reduction from the test year expense. This procedure, with the exception of the allocator percentages themselves, is virtually identical to the one that the Department approved in the Company's last rate proceeding. D.P.U. 08-27, at 84-85. As such, the Department determines the Company's process for calculating allocated payroll taxes is appropriate. Accordingly, the Department accepts the Company's proposed adjustment.

H. Oxford Litigation Expenses

1. Introduction

On March 16, 2009, Oxford filed a complaint with the Superior Court Department of the Trial Court, Worcester Division ("Superior Court"), asking the Superior Court to determine and declare the right of Oxford under Chapter 193 of the Acts of 1904[83] to purchase from Aquarion the assets of the water supply and distribution system in Oxford (Exh. OXF-1, at 1) ("Civil Action No. 09-0592"). On July 2, 2009, Aquarion filed a complaint with the same Superior Court seeking approval of certain capital improvements in Oxford, including a main replacement project, along with a finding that Aquarion was entitled to be compensated by Oxford for such capital investments upon the sale of the water system to Oxford (Exhs. DPU-AQ 1-55; Hingham-Hull 1-47, Att. D at 5; Hingham-2, Att. A) ("Civil Action No. 09-01496"). Both of these complaints are ongoing and are collectively referred to as the "Oxford litigation" (see, e.g., Exh. Hingham-2, Atts. A, B).[84]Aquarion hired legal counsel to represent it in the Oxford litigation and engaged non-legal experts to assist the Company in

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83 Oxford Water Company, Aquarion's predecessor, was chartered by Special Act of the Legislature to supply water to Oxford. St. 1904, c. 193, § 1-11. This Special Act also includes provisions for Oxford to acquire the Company's water operations in Oxford. St. 1904, c. 193, § 9.

84 Following the close of the hearings, the parties submitted six motions or related documents requesting that the record be reopened for the limited purpose of incorporating into the record pleadings and motions before the Superior Court, as well as Superior Court decisions relating to the Oxford litigation. See 220 C.M.R. §§ 1.10(2), 1.11(8). Because the parties agree to incorporation of the documents, we find there is no prejudice to any party. Thus, we incorporate by reference the following documents submitted before the Superior Court in Civil Action Nos. 09-0592-E and 09-01496: (1) motion to alter or amend judgment or for reconsideration and clarification submitted by Aquarion to the Superior Court on January 3, 2012; (2) Oxford motion for a rule 64 report of the case submitted to the Superior Court on February 3, 2012; and (3) memorandum of law in objection to Oxford's motion for report of the case pursuant to rule 64 submitted to the Superior Court by Aquarion on February 16, 2012. It is unnecessary for the Department to take any actions regarding any of the Superior Court's rulings since these are decisions by a court of law in the public record.

developing its position in both cases (Exhs. AQ-HCH at 10; DPU-AQ 7-2). In this rate case, the Company proposes to recover $512,635 in legal and expert fees that it has incurred from March 2009 through March 31, 2011, related to the Oxford litigation (Exh. AQ-TMD at 20; RR-DPU-6, 2nd Supp., exh. 2, Schs. 17).[85] Aquarion seeks to amortize these costs for recovery in rates over three years, for an annual expense of $170,878 (Exh. AQ-TMD at 20, RR-DPU-6, 2nd Supp., exh. 2, Schs. 2, 17). Aquarion also seeks to book any Oxford litigation costs incurred beyond March 31, 2011, to a regulatory access account and defer recovery until the Company's next rate filing (Exh. AQ-TMD at 20).[86]

2. Positions of the Parties

a. Hingham and Hull

i. Introduction

Hingham and Hull argue that the Company is not entitled to recover legal expenses associated with the Oxford litigation for the following reasons: (1) the Company has failed to properly document the costs; (2) the costs were not prudently incurred; and (3) the results of the Oxford litigation will benefit shareholders and not ratepayers. Alternatively, Hingham and Hull assert that, if the Department is inclined to approve a level of cost recovery it should limit the amount of recovery. Hingham and Hull's arguments are discussed in further detail below.

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[85] The $512,635 in litigation costs were incurred as follows: (1) $250,922 in 2009; (2) $136,969 in 2010; and (3) $124,744 from January 1, 2011, through March 31, 2011 (Exh. DPU-AQ 7-3).

[86] From March 2009 through September 15, 2011, the Company has incurred $663,082 related to the Oxford litigation (Exh. Hingham-Hull 1-14).

ii. Documentation of Costs

Hingham and Hull argue that it is well settled that a party seeking an award of attorneys' fees bears the burden of establishing and supporting the number of hours billed (Hingham/Hull Brief at 27, citing 445 Mass. at 428). Hingham and Hull maintain that the supporting materials provided by Aquarion in this proceeding are exactly the type of documentation that the Supreme Judicial Court has stated is insufficient to support the recovery of legal fees (Hingham/Hull Brief at 27, citing 445 Mass. at 428).[87] Hingham and Hull contend that the Company submitted a voluminous amount of information but did not appropriately categorize the information[88] and redacted virtually all of the legal bills (Hingham/Hull Brief at 26). Further, Hingham and Hull assert that because Aquarion refused to provide what Hingham and Hull consider to be "public information" to support its request,

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87 Hingham and Hull argue that once sufficient documentation is provided, the Department should consider a number of factors in determining whether the costs are reasonable (Hingham and Hull Brief at 28-29 & n.13, citing 455 Mass. at 1025; Berman v. Linnane, 434 Mass. 301, 302-303 (2001)). In particular, Hingham and Hull contend that the Department should focus on the time reasonably expended and the hourly rates reasonably charged to obtain the results achieved in the proceedings, which is known as the "lodestar method" (Hingham/Hull Brief at 28, citing 455 Mass. at 1025; 434 Mass. at 302-303).

88 For example, Hingham and Hull contend that Aquarion should have broken down the attorneys' fees between court appearances and unnecessary discovery disputes (Hingham/Hull Brief at 26).

the Department should not permit Aquarion to recover any of the costs related to the Oxford litigation (Hingham/Hull Brief at 26-27).[89]

iii. Prudency of Costs

Hingham and Hull argue that the Oxford litigation costs were not prudently incurred because it was not prudent for Aquarion to attempt to prevent Oxford from exercising its statutory right to purchase the Company's assets located within Oxford (Hingham/Hull Reply Brief at 4). Hingham and Hull also argue that Aquarion took actions involving the Oxford litigation that resulted in higher litigation expenses (Hingham/Hull Brief at 25). Specifically, Hingham and Hull maintain that Oxford tried to negotiate a purchase of the assets, but Aquarion's refusal to informally negotiate resulted in the Oxford litigation and, consequently, litigation costs (Hingham/Hull Brief at 25-26). Hingham and Hull also contend that Aquarion's use of "full scale" litigation, as well as the "acrimonious nature" of the litigation, contributed to higher legal expenses (Hingham/Hull Brief at 26).

iv. Shareholder Benefits

Hingham and Hull argue that it is inappropriate to allow Aquarion to recover the Oxford litigation costs because the litigation benefits the Company's shareholders rather than ratepayers (Hingham/Hull Brief at 24). Hingham and Hull maintain that there are two possible outcomes to the Oxford litigation: (1) Oxford acquires the Oxford system and compensates Aquarion, or (2) Aquarion continues operating the Oxford system (Hingham/Hull Brief at 24).

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89 Hingham and Hull's argument that the Hearing Officer inappropriately granted confidential treatment to Oxford litigation-related documents is discussed in Section I.B.2., above.

According to Hingham and Hull, either outcome benefits Aquarion's shareholders and not the ratepayers (Hingham/Hull Brief at 24; Hingham/Hull Reply Brief at 5). In particular, Hingham and Hull assert that there is no benefit to ratepayers because the outcomes do not affect the quality, quantity, or cost of water, or customer service quality (Hingham/Hull Brief at 24-25; Hingham/Hull Reply Brief at 5). Further, Hingham and Hull argue that even if there were some benefit to Oxford ratepayers, because the assets at issue do not service the communities of Hingham and Hull there is no benefit to ratepayers in those communities, unless a portion of the acquisition payment is used to offset rates in those communities (Hingham/Hull Brief at 25).

v. Recovery of Costs

As described in the sections above, Hingham and Hull object to the recovery of any expenses associated with the Oxford litigation. Nonetheless, Hingham and Hull assert that if the Department is inclined to grant any level of cost recovery, it should limit the amount of recovery to the Oxford litigation costs expended in the test year, i.e., $136,969 (Hingham/Hull Reply Brief at 5-6). Further, Hingham and Hull assert that the costs should be recovered only from Oxford ratepayers because the fundamental issues in the Oxford litigation will only affect Oxford and Aquarion (Hingham/Hull Brief at 25).

b. Oxford

i. Introduction

Oxford argues that the Company is not entitled to recover legal expenses associated with the Oxford litigation because the costs: (1) are not properly documented; (2) are not extraordinary, recurring, or prudently incurred; and (3) benefit Aquarion's shareholders rather than ratepayers. Alternatively, Oxford asserts that if the Department permits the recovery of these costs, such recovery should be limited in amount and duration, and should not be borne solely by Oxford ratepayers. Oxford's arguments are discussed in further detail below.

ii. Documentation of Costs

Oxford argues that the two complaints before the Superior Court are distinct in nature and Aquarion should have provided a breakdown of the costs incurred in each case (Oxford Brief at 13-14, citing Exhs. OXF-1 through OXF-13; Hingham/Hull 1-47, Att. A). Oxford contends that it is impossible for the Department to evaluate the reasonableness and prudency of the amount expended in either case without an apportionment of the nature of services provided and the amount of costs incurred in each proceeding (Oxford Brief at 14, citing D.P.U. 08-35, at 114). Further, Oxford submits that the Department cannot ensure that Aquarion reviewed and evaluated the cost-effectiveness of the Oxford litigation without segregating the costs associated with each proceeding (Oxford Brief at 14, citing D.P.U. 08-35, at 116).

Oxford also argues that Aquarion failed to provide to the Department adequate documentation concerning the nature and details of the Oxford litigation, thereby preventing the Department from evaluating the prudency of these costs (Oxford Brief at 22, citing Exh. DPU-AQ 1-55; Oxford Reply Brief at 20). For example, Oxford contends that, in this proceeding, Aquarion should have provided to the Department its various motions and memorandums that have been given to the Superior Court (Oxford Brief at 7, 22, citing, e.g., Exhs. AQ-HH 1-2, Att. A at 5; OXF-10, at 2-8; OXF-13, at 2; Oxford Reply Brief at 20). Oxford asserts that these motions and memorandums demonstrate that Aquarion's actions before the Superior Court are to gain benefits for shareholders without any corresponding benefit to ratepayers (Oxford Brief at 7, 22, citing, e.g., Exhs. AQ-HH 1-2, Att. A at 5; OXF-10, at 2-8; OXF-13, at 2; Oxford Reply Brief at 20). Oxford also maintains that Aquarion did not disclose that the Superior Court had issued a ruling, in Oxford's favor, requiring the Company to provide certain cost statements (Oxford Brief at 22, citing Exh. OXF-4; Oxford Reply Brief at 20). In addition, Oxford contends that Aquarion did not disclose that its own actions in refusing to provide a valuation caused the commencement of the litigation (Oxford Brief at 22, citing Exh. OXF-1, at 3-4; Oxford Reply Brief at 20).

iii. Prudency of Costs

Oxford argues that the litigation costs should be disallowed because they do not meet the Department's standard for recovery as extraordinary and non-recurring expenses (Oxford Brief at 15-16, citing D.P.U. 11-01/D.P.U. 11-02, at 20). Moreover, Oxford argues that, even if the expenses are deemed extraordinary and non-recurring, recovery is not allowed when the expense is the result of management's poor decisions and imprudence (Oxford Brief at 16, citing D.P.U. 11-01/D.P.U. 11-02, at 21-22).

In this regard, Oxford argues that Aquarion is not entitled to recover legal costs associated with the Oxford litigation because these costs resulted from several instances of imprudence by the Company. First, Oxford argues that Aquarion's efforts to block the municipal acquisition of the Company's water system are unreasonable and imprudent because municipal-run operations can be the least-cost model for ratepayers over the long-term (Oxford Brief at 11-13, citing OXF-11, at 13; Oxford Reply Brief at 12-13). In this regard, Oxford contends that Aquarion, prior to resorting to litigation, failed to engage in a meaningful public interest or cost-benefit analysis to quantify the savings that might accrue to ratepayers from municipal acquisition of the water system assets (e.g., lower taxes, lower regulatory costs and much lower costs of capital) (Oxford Brief at 13; Oxford Reply Brief at 12).

Second, Oxford argues Aquarion's actions were imprudent because a substantial portion of the litigation expense was the result of actions taken by the Company that were facially inconsistent with applicable precedent (Oxford Brief at 16, citing D.P.U. 11-01/D.P.U. 11-02, at 21-22; Oxford Reply Brief at 10, citing Civil Action No. 09-00592-E, Memorandum of Decision and Order on Motions for Partial Summary Judgment (December 21, 2011)). Specifically, Oxford maintains that Aquarion's actions were inconsistent with key ground rules for the purchase option as set forth under Massachusetts law (Oxford Brief at 16, citing Town of Oxford v. Oxford Water Company, 391 Mass. 581 (1984)). Thus, Oxford asserts that the litigation expenses that resulted from the Company's non-compliance with precedent were the result of management's poor decisions and "self-inflicted wounds" (Oxford Brief at 16-17, 19, citing D.P.U. 11-01/D.P.U. 11-02, at 21-22; Oxford Reply Brief at 16-18).[90] Oxford asserts that, without reaching an opinion on the ultimate issues in the Oxford litigation the Department should clarify that ratepayers will not be asked to finance litigation strategies that are

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90 Oxford distinguishes Aquarion's "rejection of applicable precedent" from instances where reasonable litigation expenses are expended to pursue judicial clarification on certain asset-purchase issues (Oxford Brief at 18, citing D.P.U. 88-171, n.11).

imprudent because they are facially and admittedly inconsistent with key directives and precedents of existing Massachusetts law (Oxford Brief at 16-17; Oxford Reply Brief at 14, 17).

Third, Oxford argues that Aquarion took several additional actions that increased the litigation costs (see, e.g., Oxford Brief at 19-20). For example, Oxford maintains that the scope and level of the litigation was enlarged by Aquarion's imprudent actions of not fairly honoring Oxford's right to purchase the Oxford water system (Oxford Brief at 19, citing Exh. OXF-1). Oxford also contends that Aquarion imprudently failed to furnish actual cost data relative to the Oxford system, as required by both statute and the Superior Court, and claimed that much of the data was lost or destroyed (Oxford Brief at 20-21). Further, Oxford asserts that when Aquarion did provide information, it was inadequate and inconsistent with other cost data (Oxford Brief at 22, citing Exh. OXF-6, at 21, 70, 84).

iv. Shareholder Benefits

Oxford argues that Aquarion incurred the Oxford litigation expenses to promote shareholder interests, and often at the expense of ratepayers (Oxford Brief at 6; Oxford Reply Brief at 6). Oxford contends, for example, that Aquarion is seeking to protect and entrench its existing ownership interests in the water system by attempting to block municipal acquisition, irrespective of whether the municipal acquisition would result in net ratepayer benefits (Oxford Brief at 6, citing Exhs. OXF-1, at 21; OXF-10, at 3; Tr. 1, at 61; Oxford Reply Brief at 8). Oxford also asserts that through the Oxford litigation, Aquarion is pursuing enormous dividends and retained earnings payments for former and current shareholder interests without a connection between the retained earnings payments and performance for ratepayers (Oxford Brief at 6-7, citing Exh. AQ-HH 1-2, Att. A at 1-5; Oxford Reply Brief at 8).

In addition, Oxford asserts that Aquarion's other major litigation efforts benefit shareholders (Oxford Brief at 8). For instance, Oxford claims that Aquarion's litigation strategy focuses heavily on negotiating a municipal purchase price that includes compensation for intangible assets, such as goodwill, that are not rate base assets allocable to ratepayers (Oxford Brief at 8, citing Exh. OXF-10, at 2-8). According to Oxford, the Company is not required to flow through to ratepayers any gain on the sale of property that is not in rate base, thereby benefitting shareholders (Oxford Brief at 9). Further, Oxford contends that the Company's litigation focuses on defining the exercise of Oxford's purchase right as eminent domain to garner fair market value for contributed property, which Oxford argues was expressly forbidden by the Supreme Judicial Court (Oxford Brief at 9, citing Exh. OXF-10, at 2-13; 391 Mass. at 591). Oxford claims that the Company's effort in this regard is geared toward inflating the price of the water system and thereby obstructing the sale, which benefits the existing owners of the assets who prefer not to sell (Oxford Brief at 9). Given these factors, Oxford maintains that basic fairness and the clear benefits to shareholders warrant allocation of the litigation costs, or at least a substantial portion of such costs, to shareholders (Oxford Brief at 6, citing, e.g., D.T.E. 03-40, at 176; Oxford Reply Brief at 8).[91]

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[91] Oxford contends that there is a public policy benefit of apportioning some of the costs to shareholders because it will encourage the Company to manage the costs reasonably and prudently (Oxford Brief at 10; Oxford Reply Brief at 11). In addition, Oxford

v. Recovery of Costs

Oxford asserts that if the Department permits the recovery of costs associated with the Oxford litigation, such recovery should be limited in amount and duration, and should not be borne solely by Oxford ratepayers (Oxford Brief at 15, 16, 23, 24-26; Oxford Reply Brief at 18-19, 21). For instance, Oxford argues that Aquarion should not recover litigation expenses associated with the main replacement project (Oxford Brief at 15). Oxford asserts that, because Aquarion was unsuccessful in Superior Court on this issue, any expenses related to the issue should be disallowed (Oxford Brief at 15, citing Exh. Hingham/Hull 1-47, Att. B).

Further, Oxford argues that, consistent with precedent, the Department should disallow pre-test year litigation expenses (Oxford Brief at 15, citing Oxford Water Company, D.P.U. 88-171, at 30 (1989); Oxford Reply Brief at 18). Oxford contends that Aquarion should have sought a deferral of the litigation expense at the time that the pre-test year costs were incurred, but the Company failed to do so (Oxford Brief at 15; Oxford Reply Brief at 18).[92] Further, Oxford maintains that Aquarion has not demonstrated that denial of the

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asserts that other public utility commissions have emphasized that, without apportionment of some legal expense to shareholders, utilities will have no reason to avoid the temptation of over-litigation (Oxford Reply Brief at 7, citing Pennsylvania Public Utility Commission v. Freeport Water Company, 56 Pa. P.U.C. 513 (1982); Citizens Water-Supply Company of Newtown, 3 P.U.R. 4th 82, 91 (1973); In re: Environmental Disposal Corp., 2000 WL 1471, 742, at 29-30 (N.J.B.U.P. 2000)).

92 In this regard, Oxford also argues that the Department should not authorize a deferred account for future litigation expenses because Aquarion is simply re-litigating issues that were resolved by the plain text of its Charter and the Supreme Judicial Court's decision in 391 Mass. 581 (Oxford Reply Brief at 19). Oxford maintains that ratepayers should not be required to finance Aquarion's attempt to persuade the

request for a deferral of the pre-test year amounts will significantly harm the overall financial condition of the Company (Oxford Reply Brief at 19). Rather, Oxford notes that the Company's income statements for Massachusetts operations show an overall healthy financial condition during the years that the Oxford litigation expenses were incurred (Oxford Reply Brief citing Exh. Hingham/Hull 2-1, Att. A).

Oxford argues that should the Department permit recovery of any portion of the litigation expenses, it should do so without carrying charges (Oxford Brief at 24; Oxford Reply Brief at 21). Further, Oxford contends that Aquarion's proposed three-year amortization period for any recovered Oxford litigation costs is inappropriate, and instead the Department should examine the time period between purchase right cases (Oxford Brief at 23-24, citing Exh. AQ-TMD at 20). In this regard, Oxford notes that it was involved in similar litigation with Aquarion's predecessor to acquire the water system in the town of Oxford approximately 27 years ago, which provides a basis for an amortization period of more than 25 years (Oxford Brief at 24). As such, Oxford maintains that should the Department permit recovery of any of the litigation costs, such costs should be allocated over a time period based on the amount of time between Oxford's prior litigation and the current litigation, i.e., 27 years, and in no case should the period be less than 20 years (Oxford Brief at 16, 24; Oxford Reply Brief

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Superior Court to abandon Supreme Judicial Court precedent and the Charter (Oxford Reply Brief at 19).

at 21).[93] Oxford asserts that in determining the appropriate amortization period, the Department also should consider the effect of the current economic recession (Oxford Brief at 24). Alternatively, Oxford maintains that the Department could use the approach used for normalizing rate case expense and average the intervals between the filing dates of Oxford-related litigations (Oxford Brief at 24, citing D.P.U. 08-27, at 75).

Finally, Oxford rejects Hingham and Hull's assertions that any allowed litigation expenses should be recovered solely from Oxford ratepayers (Oxford Brief at 24-25). Oxford asserts that such an arrangement is extremely inequitable, especially because the Oxford litigation has shifted a portion of capital investment from Oxford to Hingham and Hull, with Oxford ratepayers continuing to pay for the new Hingham and Hull projects, as well as Aquarion's consistent emphasis that it is contesting the acquisition of the water system in Oxford for the benefit of ratepayers in the remaining communities served by the Company (Oxford Brief at 24-26, citing Exhs. AQ-RLR-2, at 1; AQ-HCH at 11, OXF-3, at 6; DPU-AQ 7-4; Tr. 4, at 902, 903, 959). Further, Oxford notes that it continues to pay its share of consolidated system costs, and should not now selectively be denied consistent application of such an approach when it comes to the obligation of other communities to pay a portion of the Oxford litigation costs (Oxford Brief at 26).

93 Oxford notes that Aquarion's predecessor proposed an amortization period of 20 years for similar costs it proposed to recover in a prior rate case (Oxford Brief at 24, citing D.P.U. 88-171, at 26; Oxford Reply Brief at 21, n.19).

c. Company

i. Introduction

Aquarion argues that the costs incurred by the Company in the Oxford litigation are well-documented, prudently incurred, and are extraordinary, non-recurring expenses. As such, the Company maintains that certain costs should be amortized over a three-year period and additional costs incurred by the Company should be booked to a regulatory asset account and deferred for recovery in the Company's next rate case filing. The Company's arguments are discussed in further detail below.

ii. Documentation of Costs

Aquarion argues that, contrary to the intervenors' positions, the Company has submitted complete information regarding the amount of expenses attributable to the Oxford litigation, the hours worked, and the individual billing rates of those assigned to the matters (Company Brief at 46). Further, Aquarion contends that the legal bills submitted by the Company were redacted in the same manner as the bills provided for rate case expense, a practice that the Company claims is necessary to protect the privileged nature of the ongoing legal work being provided (Company Brief at 46). Specifically, the Company asserts that, because the Oxford litigation is ongoing, it is impossible for the Company to provide unredacted invoices before the conclusion of this rate proceeding without doing grave harm to its interests in the Oxford litigation (Company Brief at 46).[94]

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94 In this regard, the Company states that it knows of no mechanism to provide for disclosure of privileged information to the Department without losing the right to assert

Finally, the Company asserts that the detailed time and rate information provided in the legal bills, the evidence presented regarding the oversight of the Oxford litigation, the evident complexity of the issues involved in the Oxford litigation, and highly adversarial nature of the dispute, provide sufficient support for a finding that the expenses incurred were reasonable under the circumstances and should be allowed for recovery (Company Brief at 46-47, citing Exhs. HH-AQ I-13, OXF-AQ l-33; Tr. 1, at 65; 90).[95]

iii. Prudency of Costs

Aquarion asserts that the Company was prudent in its defense of the lawsuit instituted by Oxford (Company Reply Brief at 27). Aquarion argues that it was Oxford, and not the Company, that challenged the Supreme Judicial Court's interpretation of certain statutory language (Company Reply Brief at 27, citing Exh. OXF-10) at 17-19). Further, the Company maintains that the litigation costs incurred are the result of a prudent effort to avoid confiscation of Aquarion's assets without just compensation (Company Reply Brief at 28, citing Boston Edison Company, D.P.U./D.T.E. 97-95, at 49 (2001)).

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that privilege as against any other person or entity or in any other forum or proceeding (Company Brief at 46).

95 The Company rejects Hingham and Hull's reliance on the lodestar method of calculating attorneys' fees (Company Reply Brief at 31). According to Aquarion, the Department rejected this approach when ruling on the Company's motions for confidential treatment (Company Reply Brief at 31, citing D.P.U. 11-43, Hearing Officer's Ruling on Motions for Protective Treatment at 11 & n.13 (November 9, 2011)). Further, Aquarion maintains that the Department's well-established precedent for determining the appropriateness of recovery of legal fees makes the lodestar method unnecessary (Company Reply Brief at 33).

With respect to the main replacement project, Aquarion asserts that the only prudent action was to seek permission from the Superior Court before undertaking the capital improvement (Company Brief at 45). That is, the Company states that if it had undertaken the main replacement project and Oxford later was successful in assuming control over the Oxford system without compensating Aquarion for the assets involved, the remaining ratepayers in Hingham, Hull, and Millbury would have suffered a direct harm (Company Brief at 44-45).

iv. Shareholder Benefits

Aquarion asserts that there is no legal basis for the intervenors' position that the litigation expenses should be disallowed because shareholders will derive a benefit if the Company is successful in the Oxford litigation (Company Reply Brief at 24). The Company asserts that Department precedent permits recovery of such costs if they are undertaken in good faith and are reasonable (Company Reply Brief at 25, citing Boston Gas Company, D.P.U. 1100, at 107 (1982)).[96] Aquarion also maintains that the Department has recognized that a utility has an obligation to pursue all reasonable and prudent avenues to protect customer interests and its legal rights and remedies (Company Reply Brief at 24-25, citing D.P.U. 08-27, at 98; D.P.U. 1100, at 107).

[96] Aquarion claims that the cases cited by Oxford in support of its position are distinguishable from the present Oxford litigation (Company Reply Brief at 25, citing Oxford Brief at 6). In particular, Aquarion maintains that each of the four cases involve costs associated exclusively with stock issuance or capital reinvestment plans, which provide no benefit to customers, as opposed to litigation costs that may benefit customers (Company Reply Brief at 25).

Further, the Company asserts that the relative benefit to customers and shareholders (something that may not even be knowable until the conclusion of the litigation, if ever) is not a relevant area of inquiry (Company Reply Brief at 26). Nevertheless, the Company claims that it has presented extensive evidence that ratepayers will benefit from the Oxford litigation if Aquarion is successful (Company Reply Brief at 25, citing Eh. DPU-AQ 7-4; Tr. 1, at 70-71).

Further, Aquarion rejects Oxford's assertion that the costs incurred by the Company in the Oxford litigation are the result of a "self-inflicted wounds" (Company Reply Brief at 26, citing Oxford Brief at 19). As an initial matter, Aquarion maintains that this term, which was used by the Department in a prior proceeding to refer to "incorrect representations to third parties [and] third party reliance on those representations," is inapplicable to the Company's actions in the Oxford litigation (Company Reply Brief at 26, citing D.P.U./D.T.E. 97-95, at 49). Moreover, Aquarion argues that the Company's actions in the Oxford litigation are not self-inflicted because the Company incurred the litigation expenses to defend against a lawsuit initiated by Oxford, and the genesis of the lawsuit was to acquire the water system, not some type of alleged malfeasance or wrongdoing by the Company (Company Reply Brief at 26). Aquarion asserts that, as the owner of a regulated utility, it had the right to defend its property interests and that the expenses incurred in doing so are reasonable and necessary costs of doing business (Company Reply Brief at 26).

v. Recovery of Costs

Aquarion maintains that the Oxford litigation costs constitute a non-recurring extraordinary expense and, as such, the Department should permit the Company to amortize costs incurred through March 11, 2011, over three years, and establish a regulatory asset account for any costs incurred after that date (Company Brief at 39). Aquarion contends that the amount at issue is substantial when compared to the Company's income and, therefore, the expense has had a significant negative impact on the Company's ability to earn its allowed return (Company Brief at 40, citing RR-DPU-6, exh. 1, Sch. 3). Accordingly, Aquarion asserts that the Company has met its burden for establishing a regulatory asset account because it has demonstrated that the denial of a deferral would significantly harm Aquarion's overall financial condition and would likely result in the Company's submission of a rate case that would include in its test year the expense for which deferral is sought (Company Brief at 39-41, citing North Attleboro Gas Company, D.P.U. 93-229, at 7 (1994)).

The Company also argues that it has met the Department's final requirement for establishing a regulatory asset account, which Aquarion interprets as requiring a showing that the Oxford litigation costs were prudently incurred and can reasonably be said to relate to the Company's obligation to serve its customers (Company Brief at 40-41). Specifically, Aquarion maintains that it acted in good faith in defending its rights to retain the Oxford system and seeking to avoid the potential harm to the Company and its customers that Aquarion asserts will result from Oxford acquiring the system (Company Brief at 45).[97]

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[97] In this regard, the Company maintains that if Oxford underpays for the Oxford system, Aquarion's remaining customers are likely to be directly harmed because there would be insufficient proceeds to offset the value of the assets (Company Brief at 42). Aquarion also argues that, were the Oxford system to be acquired by Oxford, the Company's remaining customers would be harmed by the lost economies of scale from a decreased customer base (Company Brief at 43).

Aquarion notes that Hingham and Hull's own witness, in arguing for a low return on equity in this rate case, maintained that the Company has very little risk, if any, of losing market share, yet at the same time acknowledged that the loss of the Oxford system would be significant (Company Brief at 43 citing Tr. 4, at 928-930).

Aquarion proposes a three-year amortization period for the Oxford litigation costs incurred through March 31, 2011 (Company Brief at 47, citing Exh. AQ-TMD at 20).[98] Aquarion argues that its proposal is reasonable and consistent with the Company's stated policy of following a three-year rate case cycle (Company Brief at 47). The Company argues that a 20 to 25 year amortization period is unreasonable and would effectively disallow a significant portion of the expense incurred by Aquarion because it does not provide for carrying costs (Company Brief at 47, citing Exh. HH-DFR at 15).

Further, Aquarion contends that its three-year amortization period, which does not include carrying costs, is designed to avoid a layering of potential future litigation expenses on top of those already incurred, while at the same time providing for prompt recovery of expenses that were prudently incurred by the Company (Company Brief at 47). Further, Aquarion contends that deferral of all costs incurred after March 31, 2011, is appropriate because the prudency of any deferred costs would remain subject to examination in the Company's next rate case (Company Brief at 48, citing D.P.U. 93-229, at 8).

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98 The Company notes that because the Oxford litigation is ongoing, it has included for recovery in this proceeding only litigation costs incurred through March 31, 2011, while seeking deferral of any additional future amounts (Company Brief at 48).

Finally, the Company contends that to the extent the Department determines any portion of the Oxford litigation costs (e.g., pre-test-year expenses) are not eligible for deferred accounting treatment, the Department should approve a normalized portion of the total costs to be included in rates as a general legal expense (Company Brief at 41 n.13; Company Reply Brief at 32 n.21).

3. Analysis and Findings

a. Introduction

Aquarion seeks to: (1) amortize $512,635 in costs related to the Oxford litigation that the Company incurred from March 2009 through March 31, 2011; and (2) establish a regulatory asset account for any additional Oxford litigation costs incurred after March 31, 2011. The intervenors assert that the Company should not be permitted to recover any costs related to the Oxford litigation. As an initial matter, we note that the Department is not the appropriate forum to resolve the disputes between Oxford and Aquarion related to the Oxford litigation, or the merits of public versus private ownership. The Oxford litigation is ongoing before the Superior Court and that Court is charged with resolution of the issues involved. See, e.g., 391 Mass. at 582. Thus, the only appropriate issue before the Department is whether Aquarion may recover from ratepayers the costs it has expended in the Oxford litigation.

The Department will first determine whether any of the Oxford litigation costs are recoverable. If any portion of the costs are recoverable, we will then determine the appropriate recovery mechanism.

b. Documentation of Costs

Hingham and Hull maintain that the Company should not recover any Oxford litigation costs because Aquarion: (1) refused to provide what Hingham and Hull considered to be public information; (2) provided inadequate supporting documents; and (3) failed to appropriately categorize the information (e.g., between court appearances and discovery disputes) (Hingham/Hull Brief at 26-27). Oxford asserts that the costs are not properly documented because: (1) there is no breakdown between the two separate pieces of litigation; and (2) Aquarion failed to provide adequate documentation of the nature and details of the Oxford litigation (Oxford Brief at 13-14, 22; Oxford Reply Brief at 20). Aquarion counters that it provided complete documentation consistent with Department practice (Company Brief at 46-47). We address each of these arguments below.

In Section I.B.2.c., above, we affirm the Hearing Officer's ruling granting confidential treatment to certain portions of the Company's filing and thus, we find Hingham and Hull's assertion that Aquarion failed to provide what Hingham and Hull consider "public information" to be without merit. We also disagree with Hingham and Hull's argument that the Company failed to provide adequate documentation. Aquarion provided the type and sufficiency of documentation required for an examination of this category of costs. See D.P.U. 1100, at 107.

In addition, as noted in Section III.D.3.c.ii., above, Hingham and Hull would have the Department calculate the litigation expense as if it were an award of attorneys' fees following the successful outcome of a civil case (i.e., the lodestar method) (see Hingham/Hull Brief at 28-29, citing 455 Mass. at 1025). This is inapposite from the costs at issue here as well as the Department's well-established standard for reviewing such costs. That is, the very items that Hingham and Hull would have the Department consider, such as the nature of the case, issues present, amount of damages involved, and result obtained, are not consistent with the Department's own standard of review.[99] Specifically, the Department has previously stated that companies are entitled to legal representation and the recovery of costs is not contingent on the final outcome of the underlying proceeding. See, e.g., D.P.U. 1100, at 106-107; D.P.U. 19084, at 41-42. These costs may be considered a business cost of the Company. D.P.U. 84-32, at 22-23; D.P.U. 1100, at 105-108. We find no reason to depart from our precedent at this time.

In addition, all of the intervenors would deny the Oxford litigation costs for failure to categorize them, although the intervenors differ on the appropriate categorization. Hingham and Hull assert that the costs should be categorized by type of service (e.g., court appearances versus discovery disputes), while Oxford asserts they should be categorized by the separate pieces of litigation (Hingham/Hull Brief at 26; Oxford Brief at 14). As stated above, there are two separate cases pending before the Superior Court between Aquarion and Oxford.[100] The

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[99] The lodestar method is generally applied in cases where a statutory fee-shifting provision encourages litigation in the public interest and, in fact, is mandated in federal fee-shifting cases. See WHTR Real Estate Limited Partnership v. Venture Distributing, Inc., 63 Mass. App. Ct. 229, 236 (2005); Fontaine v. Ebtec Corporation, 415 Mass. 309, 325 (1993).

[100] While these cases were brought at separate times, they were ultimately consolidated by the Superior Court (Tr. 3, at 704). See also Civil Action No. 09-00592-E,

first litigation involves Oxford's acquisition of the water system within Oxford, and the second litigation involves capital improvements to the system within Oxford (see e.g., Exhs. OXF-1; Hingham-Hull 1-47, Att. A; DPU-AQ 1-55). In finding that a company has a right to legal representation, the Department does not require a company to provide the level of detail in distinguishing between such tasks as attendance at hearings and handling discovery or discovery disputes. Here, a breakdown by such categories would result in the Department inappropriately micro-managing the Company's litigation strategy.

Given the specific circumstances of these two cases, we also disagree with Oxford that the costs should have been categorized by litigation. Instead, we find that the two cases are intrinsically tied together in that absent the first litigation involving ownership of the system, the second litigation involving capital improvements would be unnecessary (see, e.g., Exhs. DPU-AQ 1-55; Hingham-Hull 1-47, Att. A; OXF-1). Thus, we find that Aquarion's failure to bifurcate the legal and expert fees between the two cases is not in itself a basis for disallowance.

We also reject Oxford's assertions that the Company failed to provide adequate documentation to the Department of the nature and details of the Oxford litigation. The record shows that there was a voluminous amount of information provided by all the parties regarding the underlying nature of the Oxford litigation (see, e.g., Exhs. DPU-AQ 7-2; Hingham-Hull 1-47, Atts. A through F; OXF-1 through OXF-13). In fact, throughout the

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Memorandum of Decision and Order on Motions for Partial Summary Judgment (December 23, 2011).

proceeding, there was a focus by the intervenors on the nature of the underlying proceeding even though the Department had specifically limited the line of questioning to (1) the system integrity in Oxford as it related to Aquarion's capital improvements, and (2) the costs of the Oxford litigation that the Company sought to recover from ratepayers (see, e.g., Tr. 1, at 9-10, 78-79, 83-84). Based on the above, we find that the Company provided sufficient documentation for the Department to consider the appropriateness of allowing recovery of such costs.

c. Pre-Test Year Expenses

It is well established that utilities may not recover through rates any expenses that were incurred prior to the test year. D.P.U. 88-171, at 29-30; Commonwealth Electric Company, D.P.U. 88-135/151, at 28-29 (1989). Otherwise, a company making adequate earnings during a particular year could "bank" its expenses to a deferred account and collect them in a future rate case. D.P.U. 88-135/151, at 28-29.[101] A company may, however, petition the Department for accounting treatment to allow it to defer expenses incurred prior to the test year. See, e.g., Fitchburg Gas and Electric Light Company, D.P.U. 09-61 (2009); Aquarion Water Company of Massachusetts, D.P.U. 04-77, at 5 (2005); D.P.U. 93-229. If certain conditions are met, the Department may allow such deferral and will consider the subsequent ratemaking treatment of those expenses in the company's next rate case. D.P.U. 04-77, at 4-5, citing D.P.U. 93-229, at 7-8.

101 In this context, "banking" expenses relates to deferrals undertaken on a company on a unilateral basis, versus deferrals that are specifically approved by the Department.

Here, Aquarion incurred a portion of the Oxford litigation costs prior to the test year (i.e., $250,922) (Exh. DPU-AQ 7-3). Oxford asserts that the Department should disallow any pre-test-year litigation expenses (Oxford Brief at 15; Oxford Reply Brief at 18). As noted by Oxford, Aquarion had the option of requesting deferred accounting treatment prior to its rate filing, but did not do so (see Oxford Brief at 15). Further, utilities have the discretion on whether and when to submit general rate case filings pursuant to G.L. c. 164, § 94. D.P.U. 88-171, at 29; D.P.U. 1720, Interlocutory Order at 7-11; Massachusetts Electric Company, D.P.U. 19257, at 12 (1977). Thus, to the extent that the Company determined the Oxford litigation costs had a significant effect on Aquarion's earnings, the Company had the option of submitting a rate case filing such that the beginning of the Oxford litigation costs would be incurred in the test year. Thus, we disallow recovery of $250,922, which represents the Oxford litigation costs incurred prior to the test year.

d. Reasonableness of Costs

The Department typically includes a test year level of expenses in cost of service and will adjust this level only for known and measurable changes. D.P.U. 11-01/D.P.U. 11-02, at 345; D.P.U. 07-71, at 120; Western Massachusetts Electric Company, D.P.U. 87-260, at 75 (1988). In this regard, the Department consistently has held that there are three classes of expenses that are recoverable through base rates: (1) annually recurring expenses; (2) periodically recurring expenses; and (3) non-recurring extraordinary expenses. D.T.E. 98-51, at 35; D.P.U. 95-118, at 121-122; D.P.U. 1270/1414, at 32-33.

Oxford asserts that the litigation costs should be disallowed because they do not meet the Department's standard for recovery as non-recurring and extraordinary (Oxford Brief at 15-16). The Company contends that the Oxford litigation costs constitute non-recurring extraordinary expenses (Company Brief at 39). While the Oxford litigation is currently ongoing, there is no evidence that it constitutes an annually or periodically recurring expense. That is, although the Oxford litigation has continued for several years, it is unlikely to recur on an annual or periodic basis once the matters have been resolved by the Courts. As such, we determine that the costs are non-recurring.

To recover any portion of the Oxford litigation costs, Aquarion must additionally demonstrate that the costs are extraordinary. Having disallowed $250,922 in costs incurred prior to the test year, we must determine whether the remaining costs the Company seeks to recover are extraordinary. From January 1, 2010, to March 31, 2011, Aquarion incurred $261,713 related to the Oxford litigation (Exh. DPU-AQ 7-3). Based on the Company's size, and consistent with Department precedent, we find that these Oxford litigation costs are extraordinary in amount (Exh. DPU-AQ 1-71, Att. A at 1). See D.P.U. 88-171, at 28-29; D.P.U. 86-93, at 14; D.P.U. 84-32, at 23.

Having determined that the Oxford litigation costs are non-recurring and extraordinary, we next consider whether the costs were reasonable. The Department's investigation of the reasonableness of the costs incurred related to litigation consists of two parts. D.P.U. 89-114/90-331/91-80 (Phase One) at 44; D.P.U. 1100, at 107. First, the Department will investigate whether the specific charges a company incurred for the legal services in question were reasonable. D.P.U. 89-114/90-331/91-80 (Phase One) at 44; D.P.U. 1100, at 107. This entails a review of matters such as the hourly legal charges paid by a company and the cost of auxiliary services. D.P.U. 89-114/90-331/91-80 (Phase One) at 44; D.P.U. 1100, at 107. Second, the Department will consider whether the company has a reasonable process in place for evaluating, on an on-going basis, whether the litigation it undertakes is cost-effective. D.P.U. 89-114/90-331/91-80 (Phase One) at 44.

The intervenors argue that the Oxford litigation costs were incurred as a result of the Company's poor management decisions and, as such, were imprudent (see, e.g., Hingham/Hull Reply Brief at 4; Oxford Brief at 16). For example, the intervenors assert that Oxford has a statutory right to purchase the water system and Aquarion should not have taken any action to prevent the purchase (Hingham/Hull Reply Brief at 4; Oxford Brief at 19). Aquarion argues that its actions were prudent as it attempted to avoid confiscation of its assets without just compensation (Company Reply Brief at 28).

Contrary to the intervenors' assertions that the Company should not have taken action to prevent the Oxford purchase, the Department has previously stated that a company is entitled to legal representation both as a defendant and as a plaintiff. D.P.U. 88-171, at 28; D.P.U. 86-93, at 14; D.P.U. 84-32, at 23; D.P.U. 1100, at 106. Here, without investigating the underlying rationale, the record shows that Oxford filed the initial lawsuit while Aquarion initiated the second lawsuit (Exh. Hingham-2, Atts. A, B). The Department has no interest in judging the appropriateness of either lawsuit because we have long held that legal costs are proper operating expenses and their recovery is not contingent on the final outcome of the underlying proceeding. D.P.U. 1100, at 106; D.P.U. 19084, at 41-42; Cape Cod Gas Company, D.P.U. 19036, at 16 (1977).

In addition, the Department has also consistently shown a reluctance to interfere with management judgment unless it is shown to be frivolous. D.P.U. 1100, at 107, citing D.P.U. 19084, at 41.[102] Here, there is no evidence that the Company's actions in either defense or initiation of the Oxford litigation were frivolous. In addition, for the Department to impose its judgment concerning Aquarion's actions in defense of a lawsuit would have the undesirable effect of chilling management's exercise of its responsibility to vigorously pursue its legal rights and remedies in accordance with its good faith judgment. See D.P.U. 1100, at 107.

The Oxford litigation, which commenced in March 2009, is still ongoing. The record shows that the Oxford litigation is a lengthy proceeding with numerous motions and oppositions as well as a review of the Company's financial records going back over 100 years (see, e.g., Exhs. Hingham-2, Atts. A, B; Oxford 1-33). In reviewing the invoices and the Superior Court records, we find that the time and charges associated with the legal and expert fees are reasonable, especially in light of the length and complexity of the ongoing litigation (see, e.g., Exhs. DPU-AQ 7-2, Att.; Hingham-2, Atts. A, B).

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102 Within a substantial range, business decisions are matters for a company's determination. See New England Telephone and Telegraph Co. v. Department of Public Utilities, 371 Mass. 67, 84 (1976); Weld v. Board of Gas and Electric Light Commissioners, 197 Mass. 556, 560 (1908).

Having found the legal and expert costs to be reasonable, we next consider whether Aquarion has a reasonable process in place for evaluating, on an on-going basis, whether the litigation it undertakes is cost-effective. The record shows that the Company is actively involved in the conduct of the litigation and directs the litigation in a manner that will cost-effectively move the Oxford litigation to conclusion (Exhs. Oxford 1-33; DPU-AQ 4-38). In addition, Aquarion has mechanisms in place for (1) ensuring the service providers are delivery quality service at a cost that is warranted, and (2) reviewing the litigation costs on a monthly basis and comparing them to projected levels (Exhs. Oxford 1-33; DPU-AQ 4-38). Therefore, we find that the Company has a reasonable process in place for evaluating the cost-effectiveness of the Oxford litigation.

e. Shareholder Benefit

The intervenors assert that the Department should deny recovery of the Oxford litigation costs because the litigation is being conducted for the benefit of shareholders rather than ratepayers (Hingham/Hull Brief at 24; Oxford Brief at 6). Aquarion counters that the relative benefit to ratepayers and shareholders may not even be knowable until the conclusion of the litigation, if ever, and, in fact, is not a relevant area of inquiry (Company Reply Brief at 26).

As stated above, the Department has previously held that utility companies are entitled to legal representation, both as a defendant and as a plaintiff. See, e.g., D.P.U. 88-171, at 28; D.P.U. 86-93, at 14; D.P.U. 84-32, at 23; D.P.U. 1100, at 106. The recovery of litigation costs has not previously turned on whether the litigation benefited shareholders or ratepayers.

As noted by Oxford, some jurisdictions have apportioned costs as a means of discouraging companies from the temptation of over-litigation (Oxford Reply Brief at 7, citing Pennsylvania Public Utility Commission v. Freeport Water Company, 56 Pa. P.U.C. 513 (1982); Citizens Water-Supply Company of Newtown, 3 P.U.R. 4th 82, 91 (1973); In re: Environmental Disposal Corp., 2000 WL 1471, 742, at 29-30 (N.J.B.U.P. 2000)). A view of the record in this case convinces us that it is not the appropriate scenario for expanding our standard of review. That is, there is no evidence here that Aquarion is engaged in over-litigation, and the Company demonstrated that both ratepayers and shareholders will benefit from the Company's successful resolution of the Oxford litigation (see Exhs. DPU-AQ 7-4; Hingham-Hull 1-16). Further, depending on the outcome, the benefit and harm to ratepayers and shareholders are both tangible and non-tangible (e.g., larger customer base, operating efficiencies, overall Company's financial health, higher investment risk) (see Exhs. DPU-AQ 7-4; Hingham-Hull 1-16).

f. Recovery of Costs

Having found that the Oxford litigation costs are reasonable, we must determine what costs are recoverable. Of the remaining $261,713, which represents costs incurred from January 1, 2010, through March 31, 2011, $124,744 are post-test-year costs (Exh. DPU-AQ 7-3). The Department has previously allowed the recovery of post-test-year costs that are known and measurable. See D.P.U. 89-114/90-331/91-80 (Phase One) at 33, 46-47; D.P.U. 88-67 (Phase I) at 144-145. Here, the Company's post-test-year costs related to the Oxford litigation are known and measurable. Thus, we permit recovery of the

Oxford litigation costs incurred from Janaury 1, 2010, to March 31, 2011. Further, because these costs constitute a non-recurring expense that is extraordinary in amount, we will permit the costs (i.e., $261,713) to be amortized over an appropriate period. D.P.U. 1270/1414, at 33. The Company seeks a three-year amortization to coincide with the anticipated filing of future rate cases while Hingham and Hull state that a 20-to 25-year amortization period is more appropriate (Exh. HH-DFR at 15). The Department has historically permitted litigation-related expenses to be amortized over three years. See, e.g., D.P.U. 89-114/90-331/91-80 (Phase One) at 46; D.P.U. 84-32, at 23; D.P.U. 1100, at 107-108. Further, the Company does not propose and is not permitted to included carrying charges on the amortized costs. Therefore, we will amortize the $261,713 over three years, which results in an annual expense of $87,238. Accordingly, we reduce Aquarion's proposed cost of service by $83,641.

Hingham and Hull assert that any allowed costs should be recovered only from Oxford ratepayers because the fundamental issues in the Oxford litigation affect only Oxford and Aquarion (Hingham/Hull Brief at 25). Oxford contends that any allowed costs should be apportioned among all ratepayers (Oxford Brief at 24-25). The Department has previously apportioned costs solely to one service area where an expenditure benefits only the ratepayers in that service area. For example, the Department has determined that it was appropriate to design rates that recovered costs related to the Hingham WTP from Service Area A ratepayers because the Hingham WTP serves only Service Area A (see Section VI.E., below). D.P.U. 08-27, at 205; D.P.U. 95-118, at 174. The Oxford litigation expenses are different in this regard in that all ratepayers benefit from having Oxford on the system (e.g., operating efficiencies, larger customer base) (Exhs. DPU-AQ 7-4; Hingham-Hull 1-16). Therefore, Aquarion is directed to design its rates such that the amortized costs are recovered from all ratepayers.

We next consider whether Aquarion may establish a regulatory asset account for any expenses related to the Oxford litigation incurred after March 31, 2011. The Department formulated its current standard for reviewing requests for deferral accounting treatment in D.P.U. 93-229 ("North Attleboro standard"). See also Boston Gas Company, D.P.U. 89-177, at 5-7 (1989); D.P.U. 1350, at 133. A utility seeking deferral treatment must demonstrate prima facie in its petition that: (1) based on Department precedent, the annual expense may be recoverable as an extraordinary expense if it were incurred during a test year;[103] (2) a Department denial of the request for deferral would significantly harm the overall financial condition of the company; and (3) the Department's denial of the request for deferral is likely to cause the filing of a rate case that would include in its test year the expense for which deferral is sought. D.P.U. 93-229, at 7.

The Department's review of a complete petition must strike a balance between historical ratemaking principles, which employ the test year method to determine a

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[103] For example, the company's request for deferral would be evaluated in terms of what would constitute an annualized amount. D.P.U. 93-229, at 7 n.9. Nonetheless, the North Attleboro standard does not restrict deferrals to expenses that occur in a single calendar year. Aquarion Water Company of Massachusetts, D.T.E. 03-127, at 7 (2004); Fitchburg Gas and Electric Light Company, D.T.E. 99-114, at 5-6 (2001); D.P.U. 93-229, at 7 n.9.

representative level of expenses, and administrative efficiency, that might be achieved by avoiding either single-issue rate cases or rate cases precipitated by an extraordinary expense that may be recoverable if incurred in a test year. D.P.U. 93-229, at 7-8. Thus, once a prima facie showing is made, the Department will evaluate the petition, considering such additional factors as: (1) the company's ability to choose a test year; (2) the company's history and frequency of rate increases; (3) the company's frequency of requests for deferral; (4) the company's earnings in the year the subject expense was incurred; and (5) whether some voluntary agreement on the part of the petitioner (e.g., a settlement) would otherwise preclude bringing a G.L. c. 164, § 94 petition during the period for which deferral is sought. D.P.U. 93-229, at 8. Granting a deferral pursuant to this standard would not constitute a guarantee that the subject expense would be recoverable in a future rate case. D.P.U. 93-229, at 8. Rather, subsequent ratemaking treatment of the expense would be considered in the company's next rate case. D.P.U. 93-229, at 8.

The Department's North Attleboro standard does not provide for the deferral of future expenses, even if an estimate of such expenses is available. D.T.E. 04-77, at 7; Aquarion Water Company of Massachusetts, D.T.E. 03-127, at 11 (2004). The record in this case does not contain sufficient information as to the actual level of legal expenses related to the Oxford litigation that the Company incurred after March 31, 2011. Therefore, to the extent that Aquarion seeks to defer additional Oxford litigation expenses for consideration as part of its next rate case, it must file a petition seeking deferral of those costs when such costs are known and measurable and sufficiently significant in amount to warrant Department consideration of a request for deferral accounting treatment. Further, such petition should contain testimony that addresses how the costs at issue satisfy the North Attleboro standard.

I. Leak Detection Survey

1. Introduction

Aquarion conducts a leak detection survey on an annual basis (Exh. AQ-TMD at 21; RR-DPU-6, 2nd Supp., exh. 2. Sch. 20). Due to scheduling issues with the company that conducts the survey, the 2010 survey was not conducted until Spring 2011 (Exh. AQ-TMD at 20). During the test year, the Company did not book any costs for leak detection survey expense (RR-DPU-6, 2nd Supp., exh. 2, Sch. 20). Nonetheless, Aquarion proposed an increase to test year leak detection survey expense of $16,200 to reflect the fact that this is an annual expense (Exh. AQ-TMD at 21; RR-DPU-6, 2nd Supp., exh. 2. Sch. 20). No party commented on this issue on brief.

2. Analysis and Findings

The Department's long-standing precedent allows only known and measurable changes to test year expenses to be included in a company's cost of service. D.T.E. 98-51, at 61-62, citing D.P.U. 84-32, at 17. The Department has reviewed the Company's leak detection survey expense, which has already been incurred by the Company, and find it to be known and measurable (Exhs. DPU-AQ 4-28; Hingham/Hull-AQ-1-93, Atts. A, B and C; RR-DPU-6, 2nd Supp., exh. 2, Sch. 20). In addition, we find the leak detection survey expense to be reasonable (Exhs. DPU-AQ 4-28; Hingham/Hull-AQ-1-93, Atts. A, B and C; RR-DPU-6, 2nd Supp., exh. 2, Sch. 20). Thus, Aquarion's proposed adjustment is allowed. Accordingly, we increase the Company's test year cost of service by $16,200.

J. Lease Expense

1. Introduction

During the test year, Aquarion booked $45,176 in commercial leases and associated operating expenses for rented office space in Millbury and Oxford (Exh. AQ-TMD at 21; RR-DPU-6 2nd Supp., exhs. 2, Schs. 2, 21).[104] The Company proposes a total rent expense amount of $46,576, which is a $1,400 increase over the test year level, to reflect the terms of an updated commercial lease for the Millbury office space (Exhs. AQ-TMD at 21; DPU-AQ 3-16, Atts. A, B; RR-DPU-6, 2nd Supp., exh. 2, Schs. 2, 21). Aquarion's proposed lease expense includes: (1) rent for the Company's commercial office space in Millbury in the amount of $33,880; (2) annual property taxes, insurance, water, and sewer charges of $3,996 associated with the Millbury office; and (3) rent for the Oxford office space in the amount of $8,700 (Exhs. DPU-AQ 3-16, Atts. A, B; DPU-AQ 3-17; RR-DPU-6, 2nd Supp., exh. 2, Sch. 21).

[104] The Company's office space for Service Area B is in Millbury (see Tr. 1, at 135-136). In November 2009, Aquarion opened a satellite office in Oxford that is open three days per week (six hours each day) and is staffed by either the manager of operations for Service Area B or by her administrative assistant (Exh. DPU-AQ 2-26). At the Oxford satellite office, the Company's employees answer questions from walk-in customers, accept payments on bills, respond to customer service phone inquiries, and attend to their regular duties (Exh. DPU-AQ 2-26; Tr. 1, at 136-137).

2. Positions of the Parties

a. Hingham and Hull

Hingham and Hull argue that the Oxford satellite office is unnecessary and should be closed (Hingham/Hull Brief at 30). According to Hingham and Hull, the closure of this office will save the Company approximately $69,000 per year (i.e., $12,000 in operations costs and $57,000 in labor) (Hingham/Hull Brief at 30).[105] Alternatively, Hingham and Hull contend that the Company could arrange for an employee to be available in Oxford for four to eight hours per month to address customer service issues, and this will save approximately $60,000 per year in avoided operations expenses associated with rent, phone, utilities, and datalines (Hingham/Hull Brief at 30, citing Exh. DPU-AQ 2-26; Tr. 1, at 136). In this regard, Hingham and Hull assert that over a period of approximately seven months, the Company reported only 127 in-person customer visits, which according to Hingham and Hull, equates to less than one visit each day the Oxford office was open (Hingham/Hull Brief at 30).

b. Company

The Company argues that it created the Oxford office to better serve its Oxford customers, and in specific response to feedback Aquarion received from customers in that town (Company Brief at 68; Company Reply Brief at 4). The Company maintains that the operations cost of the office is justified in light of the convenience it offers to customers (Company Brief at 68, citing Exh. DPU-AQ 2-26). Further, the Company notes that customer

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[105] Hingham and Hull calculate the $57,000 labor cost based on one employee working half-time to staff the Oxford office (i.e., ($65,000 Company's reported average salary + 75 percent overhead rate)/2) (Hingham/Hull Brief at 30, citing Exh. HH-DFR at 41).

service representatives working in the Oxford office are also able to work on other Aquarion matters while staffing the office (Company Brief at 68-69, citing Exh. DPU-AQ 2-26). According to Aquarion, the benefits of the Oxford office should not be measured so soon after it was first established, nor does the Company believe that customer service can always be reduced to a simple mathematical calculation of dollars-per-customer visit (Company Brief at 69; Company Reply Brief at 5).

3. Analysis and Findings

A company's lease expense represents an allowable cost qualified for inclusion in its overall cost of service. D.T.E. 03-40, at 171; D.P.U. 88-161/168, at 123-125. The standard for inclusion of lease expense is one of reasonableness. D.P.U. 89-114/90-331/91-80 (Phase One) at 96. Known and measurable increases in rental expense based on executed lease agreements with unaffiliated landlords are recognized in cost of service as are associated operating costs (e.g., maintenance, property taxes) that the lessee agrees to cover as part of the agreement. D.P.U. 95-118, at 42 n.24; D.P.U. 88-67 (Phase I) at 95-97.

As an initial matter, the decision on whether to maintain a satellite office in Oxford is within the scope of management discretion. See New England Telephone and Telegraph Co. v. Department of Public Utilities, 371 Mass. 67, 84 (1976); Fitchburg Gas and Electric Light Company v. Department of Public Utilities, 375 Mass. 571, 578 (1971). There is no evidence that Aquarion's decision to open a satellite office in Oxford was somehow imprudent. Rather, the Department finds that maintaining an easily accessible customer service office presence in

Oxford is reasonable and appropriate. As such, the Department rejects Hingham and Hull's assertion that the Oxford office should be closed.[106]

Regarding the rental expenses for the Oxford and Millbury offices, Aquarion entered into written lease agreements for these units, and the Company is presently occupying space at both offices pursuant to the terms and conditions of the executed lease agreements (Exhs. DPU-AQ 3-16, Atts. A, B; DPU-AQ 3-17; RR-DPU-6, 2nd Supp., exh. 2, Sch. 21). In addition, Aquarion executed these lease agreements with unaffiliated landlords. Integral to the executed Millbury lease agreement are the associated annual property taxes, insurance, and water and sewer charges (Exh. DPU-AQ 3-17). The Department has reviewed the terms and conditions of these executed lease agreements and related documents, and we find that the Company's total lease expense and operating costs are appropriately documented and, as such, represent a known and measurable change to the Company's test year cost of service (see Exhs. DPU-AQ 2-26; DPU-AQ 3-16, Atts. A, B; RR-DPU-6, 2nd Supp., exh. 2, Sch. 21). Therefore, we accept the Company's proposed lease expense increase. Accordingly, we allow the proposed adjustment to the Company's cost of service of $1,400.

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106 Hingham and Hull assert that the total annual savings for discontinuing use of the Oxford office would be $69,000 ($12,000 in operations costs and approximately $57,000 in labor savings) (Hingham/Hull Brief at 30). In fact, there would be no labor cost savings if the Oxford office were closed, because employees who staff the Oxford office are already full time employees of the Company (i.e., the manager of operations for Service Area B and her administrative assistance) (Exh. DPU-AQ 2-26; Tr. 4, at 949-951).

K. Bad Debt

1. Introduction

During the test year, Aquarion booked $9,987 in bad debt expense (RR-DPU-6, 2nd Supp., exh. 2, Sch. 22). The Company proposes to increase this expense by $7,537 (Exh. AQ-TMD at 21; RR-DPU-6, 2nd Supp., exh. 2, Sch. 22). In deriving this expense, the Company calculated a three-year average bad debt ratio of 0.12 percent and multiplied this ratio by test year operating revenues of $14,963,208 (Exh. DPU-AQ 3-19).[107] The Company then applied the resulting value, i.e., the Company proposed bad debt, and reduced it by Aquarion's test year bad debt expense of $9,987 to yield the proposed $7,537 adjustment to test year bad debt expense (RR-DPU-6, 2nd Supp., exh. 2, Sch. 22).

The Company also calculated the level of bad debt expense attributable to its overall requested rate increase. In doing so, the Company multiplied its requested revenue requirement increase of $2,522,056 by a bad debt ratio of 0.12 percent to arrive at $2,954 (Exh. AQ-TMD at 21; RR-DPU-6, 2nd Supp., exh 2, Sch. 22). Thus, in aggregate the proposed adjustments represent an increase of $10,491 to the Company's test year cost of service (RR-DPU-6, 2nd Supp., exh. 2, Sch. 22).

2. Positions of the Parties

Aquarion asserts that the calculation of bad debt expense is consistent with Department precedent and, therefore, should be included for the purposes of determining the Company's

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[107] The bad debt ratio of 0.12 percent is a function of rounding. To arrive at the Company's proposed adjustments, the Department used the actual bad debt ratio of 0.117111 percent (see RR-DPU-6, 2nd Supp., exh. 2, Sch. 22).

revenue requirement (Company Brief at 38). No other party addressed bad debt expense on brief.

3. Analysis and Findings

The Department permits companies to include for ratemaking purposes a representative level of bad debt revenues as an expense in cost of service. D.P.U. 96-50 (Phase I) at 70-71; D.P.U. 89-114/90-331/91-80 (Phase One) at 137-140. The Department has found that the use of the most recent three years of data available is appropriate in the calculation of bad debt expense. D.P.U. 96-50 (Phase I) at 71. The calculation of a company's bad debt ratio is derived by dividing the three-year average net write-offs[108] by the average billed revenues over the same period. D.P.U. 95-118, at 135. This bad debt ratio is then multiplied by test year billed revenues, adjusted for any revenue increase or decrease that was approved for recovery in the current rate case. See D.P.U. 96-50 (Phase I) at 71.

The method used by Aquarion to calculate its bad debt expense is consistent with Department precedent. See D.P.U. 96-50 (Phase I) at 70-71. The record reveals that the Company's percentage of net write-offs to operating revenues for the years 2008, 2009, and 2010 were 0.12 percent, 0.16 percent and 0.07 percent, respectively (RR-DPU-6, 2nd Supp., exh. 2, Sch. 22). Thus, the Company correctly calculated the three-year average of net write-offs to operating revenues as 0.12 percent. Further, upon review of the most recent three years of uncollectibles data (see RR-DPU-6, 2nd Supp., exh. 2, Sch. 22), we find that the

108 This write-off occurs when the company has categorized a delinquent customer account as uncollectible. The uncollectible amount is deducted from the accounts receivable asset and added to the bad debt expense account.

resulting bad debt ratio is reasonable and that no modification of the Company's calculation of bad debt expense is necessary. Cf. D.P.U. 09-30, at 249; D.T.E. 03-40, at 265-266.

When applied to test year operating revenues of $14,963,208, the bad debt ratio produces an allowed bad debt expense of $17,524. As noted above, during the test year Aquarion booked $9,987 in bad debt expense (RR-DPU-6, 2nd Supp., exh. 2, Sch. 22). Thus, the Company may increase its test year level of bad debt expense by the amount of $7,537.

In addition, the Company seeks an adjustment for bad debt expense associated with its requested revenue increase (Exh. AQ-TMD at 21; RR-DPU-6, 2nd Supp., exh 2, Sch. 22). Applying the calculated bad debt ratio set forth above to the revenue increase approved in this case, $1,499,223, results in an allowed bad debt expense adjustment in the amount of $1,799. Therefore, the Department allows a total increase to the Company's test year cost of service of $9,336 ($7,537 + $1,799). Accordingly, the Department reduces the Company's proposed cost of service by $1,155.

L. Inflation Adjustment

1. Introduction

In its initial filing, the Company proposed an inflation adjustment of $79,730 (Exhs. AQ-TMD at 22; AQ-2, Sch. 23). Aquarion later amended this figure to $87,974 to incorporate updated inflation data from the November 2011 Blue Chip Economic Indicator[109]

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[109] The Blue Chip Economic Indicator is a monthly newsletter that includes forecasts of U.S. economic growth, inflation, interest rates, and a host of other critical indicators of future business activity from 50-plus economists employed by some of America's largest and most respected manufacturers, banks, insurance companies, and brokerage firms (www.aspenpublishers.com).

for the gross domestic product chained price index ("GDP-CPI") (Exh. AQ-10, at 9; Tr. 2, at 346; RR-DPU-6, 2nd Supp., exh. 2, Sch. 23). The Company calculated its proposed inflation adjustment by using GDP-CPI data from the mid-point of the test year to the midpoint of the rate year, which resulted in an inflation factor of 4.51 percent (Exh. AQ-TMD at 22; RR-DPU-6, 2nd Supp., exh. 2, Sch. 23). The Company then multiplied this inflation value by its proposed residual test year expenses of $1,950,640 to yield the requested inflation allowance of $87,974 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 23). The Company states that its proposed inflation adjustment is intended to provide for cost categories where (1) the overall cost increase is unknown, and (2) test year costs have not been adjusted (Exh. AQ-TMD at 22).

2. Positions of the Parties

a. Hingham and Hull

Hingham and Hull argue that the Department must consider recent and current economic and financial conditions in selecting an appropriate inflation factor (Hingham/Hull Brief at 20). Specifically, Hingham and Hull assert that these are very unusual times with respect to record low interest rates and low inflation (Hingham/Hull Brief at 20). Hingham and Hull contend that, in light of these low interest and inflation rates, the Company's inflation factor should be reduced to at or near one percent (Hingham/Hull Brief at 20). As the basis for their contention, Hingham and Hull assert that, using the gross domestic product implicit price deflator ("GDPIPD") factor, the overall inflation of the economy was less than one percent during 2009, and was under two percent for both the test year (i.e., 2010) and 2008

(Hingham/Hull Brief at 20). Thus, Hingham and Hull conclude that the GDPIPD should be used to determine Aquarion's inflation allowance (Hingham/Hull Brief at 20).

b. Company

The Company argues that its proposed inflation rate should be approved because it has demonstrated (1) substantial cost control efforts in compliance with the Department's standard of review, and (2) that its inflation calculation complies with Department precedent (Company Brief at 56). Regarding cost control measures, Aquarion contends that its efforts have saved the Company almost $500,000 in expenses (Company Brief at 56). Further, the Company argues that it appropriately calculated its proposed inflation adjustment by applying a rate based on the change in the GDP-CPI from the mid-point of the test year to the mid-point of the rate year to its allowable O&M expense (Company Brief at 56, citing Exh. AQ-TMD at 22; RR-DPU-6). The Company maintains that the proposed 4.51 percent inflation rate is a cumulative inflation rate, spread over 2.25 years,[110] which correlates to an effective annual inflation rate of two percent (Company Brief at 56, citing RR-DPU-6, 2nd Supp., exh. 2, Sch. 23).

3. Analysis and Findings

The inflation allowance recognizes that known inflationary pressures tend to affect a company's expenses in a manner that can be measured reasonably. D.T.E. 02-24/25, at 184; D.T.E. 01-56, at 71; D.T.E. 98-51, at 100-101; D.T.E. 96-50 (Phase I), at 112-113. The

[110] The Company's test year ends December 31, 2010. Therefore, the midpoint of the test year is July 1, 2010. The Company's rate year (the point at which new rates go into effect) begins April 1, 2012. Thus, the midpoint of the rate year is October 1, 2012.

inflation allowance is intended to adjust certain O&M expenses for inflation where the expenses are heterogeneous in nature and include no single expense large enough to warrant specific focus and effort in adjusting. D.P.U. 1720, at 19-21. The Department permits utilities to increase their test year residual O&M expense by an independently published price index from the midpoint of the test year to the midpoint of the rate year. D.P.U. 08-35, at 154-155; D.T.E. 02-24/25, at 184; D.P.U. 95-40, at 64; D.P.U. 92-250, at 97-98.[111] In order for the Department to allow a utility to recover an inflation adjustment, the utility must demonstrate that it has implemented cost containment measures. D.P.U. 09-30, at 285; D.P.U. 08-35, at 154; D.T.E. 02-24/25, at 184.

Here, we find that the Company has implemented cost reduction and operations efficiency measures that have reduced Aquarion's revenue requirement (and subsequently the amount of increase sought from its customer base) (Exhs. AQ-HCH at 10; AQ-TMD at 4-5, 22). In particular, the Company: (1) has two fewer employees than at the time of the last rate case;[112] (2) revised its use of chemicals in Millbury to increase efficiency, thereby reducing treatment costs; (3) negotiated reduced medical benefit costs; (4) contracted to purchase electricity in Millbury and Oxford from a third party at a lower rates than those of the incumbent utility; (5) reduced its information technology maintenance costs through competitive bidding; (6) negotiated a lower union rate for its meter reading position;

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[111] In these cases, the Department accepted and relied on the GDPIPD for purposes of calculating the inflation adjustment.

[112] The reduction in employees is unrelated to the departing management employees who the Company intends to replace (see Section III.A.5., above).

(7) participated in the demand response program of ISO New England, Inc. ("ISO-NE"),[113] resulting in a reduction in electric costs during the test year; and (8) re-negotiated its life and long-term disability insurance, which has yielded annual savings (Exhs. AQ-TMD at 4-5; DPU-AQ 3-30, Att. A; DPU-AQ 4-6, Att. A at 1-2; DPU-AQ 4-16, Att. A). Accordingly, the Department finds that Aquarion has made reasonable efforts to implement cost containment measures, and thereby has demonstrated that it is eligible to recover an inflation allowance.

As noted above, the Department permits utilities to increase their test year residual O&M expense by the projected price index from the midpoint of the test year to the midpoint of the rate year. D.P.U. 08-35, at 154-155; D.T.E. 02-24/25, at 184; D.P.U. 95-40, at 64; D.P.U. 92-250, at 97-98.

Previously, the Department has expressed its preference for the GDPIPD as an inflation measure. D.P.U. 96-50 (Phase I) at 113; D.P.U. 95-40, at 64; D.P.U. 92-250, at 97; Commonwealth Electric Company, D.P.U. 956, at 40 (1982). Notwithstanding this preference, Hingham and Hull did not provide any actual (or updated) GDPIPD index values from which the Department can calculate an inflation factor (Exh. HH-DFR at 33-34). Therefore, the Department determines that the inflation factor proposed by Hingham and Hull is insufficient. See D.P.U. 09-39, at 321-322; D.P.U. 96-50 (Phase I) at 113; D.P.U. 95-40,

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113 ISO-NE is the Regional Transmission Organization for New England responsible for operating and maintaining the New England region's bulk electric power system, developing and overseeing the wholesale electricity market, administering the region's Open Access Transmission Tariff, and coordinating transmission system planning. See D.T.E./D.P.U. 06-107-B at 1 n.5.

at 64; D.P.U. 92-78, at 60-62; D.P.U. 92-250, at 97; D.P.U. 956, at 40. As such, we will determine whether the inflation factor proposed by Aquarion is sufficient.

Aquarion proposed a 4.51 percent inflation factor derived from the GDP-CPI as reported by the Blue Chip Economic Indicator on November 2011 (Exh. AQ-10, at 9; RR-DPU-6, 2nd Supp., exh. 2, Sch. 23). Aquarion's proposed GDP-CPI factor is applied over the course of 2.25 years from the midpoint of the test year to the midpoint of the rate year (i.e., 2nd quarter 2010 through 3rd quarter 2012) (see Exh. AQ-10, at 9; Tr. 2, at 490-491; RR-DPU-6, 2nd Supp., exh. 2, Sch. 23). The GDP-CPI, which was used by Aquarion, is a measure of price levels based on the chain weighted calculation of real GDP and is reported quarterly by the U.S. Bureau of Economic Analysis ("BEA"). Concepts and Methods of the U.S. National Income and Product Accounts, Bureau of Economic Analysis, November 2011.[114] The Department is satisfied that the GDP-CPI is an appropriate inflation index for use in this case and the Blue Chip Economic Indicator is an appropriate forecast to use in calculating the Company's inflation factor. Further, the Department finds that Aquarion appropriately derived its proposed 4.51 percent inflation factor by calculating the percentage

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114 The BEA is an agency of the U.S. Department of Commerce. The BEA collects source economic data, conducts research, and analyses, develops and implements estimation methodologies, and disseminates statistics to the public (http://www.bea.gov). The Department finds that the economic and statistical data published by the BEA is the type of relevant and competent material that can be reasonably relied on for the purpose of establishing an inflation adjustment factor.

change between the two periods.[115] We also conclude that Aquarion correctly calculated the effective annual inflation factor, based on the index proposed by the Company, as two percent (4.51 percent/2.25 years) (Tr. 2, at 490-491). The Department therefore finds that the Company's method of calculating its proposed inflation factor is consistent with Department precedent. D.P.U. 09-39, at 321-322; D.P.U. 95-40, at 54; D.P.U. 92-250, at 97; D.P.U. 92-78, at 60-62. Based on the above considerations, the Department finds that an inflation allowance adjustment equal to 4.51 percent applied to the Company's approved level of residual O&M expense, is proper in this case.

If an O&M expense has been adjusted or disallowed by the Department for ratemaking purposes, that expense is also removed in its entirety from the inflation allowance. D.P.U. 09-39, at 322; D.T.E. 05-27, at 204; D.T.E. 02-24/25, at 184. The Department has adjusted the Company's O&M expense for reimbursable employee expenses (see Section III.A.3.c., above). Therefore, the test year expense associated with this item, totaling $17,219, will be removed from Aquarion's residual O&M expense calculation. In addition, the Department excludes expenses that are not directly subject to normal inflationary pressures, such as fixed leases or costs that are set by a regulatory board. D.P.U. 1720, at 21-22; D.P.U. 1490, at 53. Because postage rates are established by action of the Postal Rate Commission, the Department will remove Aquarion's test year postage expense of $7,095 from the residual O&M expense (Exh. DPU-AQ 1-16, Att. A at 5). As shown in Table 1,

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115 (Midpoint of the Rate Year – Midpoint of the Test Year)/Midpoint of the Test Year. In practice, (115.8 – 110.8)/110.8 (see Exh AQ-10, at 9; RR-DPU-6, 2nd Supp., exh. 2, Sch. 23).

below, the resulting inflation allowance for Aquarion is $86,877. Therefore, the Department reduces the Company's proposed cost of service by $1,097.

TABLE 1

Test Year O&M Expense Per Books		$6,309,599
Less Test Year Expenses Separately Adjusted		
Salaries and Wages		$1,370,295
Group Medical, Life, and Disability		373,580
Post-Retirement Health Care		143,277
Pension		127,754
Chemicals		225,975
Purchased Power		268,078
Rate Case Expense		74,228
Corporate Insurance		222,040
Corporate Expenses		126,955
Shared IT Services		481,507
Shared Customer Services		177,095
Shared Office Costs		90,977
Payroll and Benefits Allocation		383,933
Oxford Legal Fees		136,969
Propane		6,252
Customer Satisfaction Survey		21,600
Rent Expense		45,176
Uncollectibles		9,987
Lobbying Expense		29,040
Meter Error Legal Fees		44,240
		$4,358,958
O&M Expenses Subject to Inflation per Company		$1,950,641
LESS: Department Adjustments		
Reimbursible Employee Expenses	$17,219	
Postage Expense	7,095	
Department Sub-total	$24,314	
Residual O&M Expense		$1,926,327
Projected Inflation Rate		4.51%
Inflation Allowance		$86,877

M. Depreciation Expenses

1. Introduction

During the test year, Aquarion booked $1,290,081 in depreciation expense (RR-DPU-6, 2nd Supp., exh. 2, Sch. 24bv2). The Company proposes to increase this expense by $39,756 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 24bv2). To determine its proposed depreciation expense, the Company first calculated a total depreciation expense of $1,529,766 by applying account-specific depreciation rates and amortization rates as approved in D.P.U. 08-27, at 104-15, 122-124, to the test year-end depreciable plant balances associated with its plant investment (RR-DPU-6, 2nd Supp., exh. 2, Sch. 24bv2). The Company then reduced this amount by $199,929, which represents the imputed depreciation expense associated with transmission and distribution mains financed through CIAC (RR-DPU-6, 2nd Supp., exh. 2, Sch. 24bv2).[116] This reduction results in an adjusted depreciation expense of $1,329,837 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 24bv2). The difference between this amount and the test year booked depreciation expense of $1,290,081 yields the Company's proposed increase of $39,756 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 24bv2).

2. Positions of the Parties

a. Hingham and Hull

Hingham and Hull note that during the evidentiary hearings in this proceeding, Aquarion recognized the need to correct its depreciation expense (Hingham/Hull Brief at

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116 Aquarion does not book depreciation on CIAC. Instead, the adjustment is required to remove the effects of CIAC on the Company's depreciation schedules so that the correct level of depreciation expense can be determined for ratemaking purposes (see RR-DPU-6, 2nd Supp., exh. 2, Sch. 24bv2).

46).[117] Hingham and Hull point out that this correction resulted in a reduction of approximately $150,000 from the Company's originally proposed revenue requirement (Hingham/Hull Brief at 46). Hingham and Hull assert that this error was a "major oversight" by the Company, and thus question whether Aquarion's rate filing contains additional errors and oversights (Hingham/Hull Brief at 46).

b. Company

Aquarion argues that, because the Company's proposed depreciation accrual rates were approved by the Department in D.P.U. 08-27 based on the depreciation study provided in that proceeding, the Company's proposed depreciation expense is appropriate (Company Brief at 37). Aquarion argues that the only depreciation-related issue raised during hearings involved the Company's use of mass asset depreciation accounting (Company Brief at 36-37, citing Tr. 3, at 624-632; Tr. 4, at 790-795).[118] According to Aquarion, the use of mass asset depreciation accounting is a commonly accepted accounting practice and is consistent with the

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117 In the Company's previous rate case, the Department approved Aquarion's request to apply account-specific amortization rates to pre-2008 balances in Accounts 346, 391H, 391S, and 396, to eliminate depreciation over-accruals on these accounts. D.P.U. 08-27, at 104-105, 122-124. Because the Department ordered the Company to amortize these over-accruals over a period of three years, the pre-2008 plant balances in these accounts have been fully amortized. While Aquarion initially applied depreciation accrual rates to these accounts, the Company revised its depreciation expense during the proceeding to eliminate depreciation on these pre-2008 balances (RR-DPU-6, 2nd Supp., exh. 2, Sch. 24bv2).

118 According to the Company, mass asset depreciation accounting is an accepted accounting convention where a company takes depreciation on an entire class of assets, so long as the net book value in the given class is greater than zero, rather than applying depreciation to individual items within that class (see Tr. 4, at 790-791).

depreciation study accepted by the Department with several modifications in the Company's previous rate case (Company Brief at 37, citing Tr. 4, at 790).[119]

3. Analysis and Findings

Depreciation expense allows a company to recover its capital investments in a timely and equitable fashion over the service lives of the investments. D.P.U. 08-27, at 110; D.T.E. 98-51, at 75; D.P.U. 96-50 (Phase I) at 104; D.P.U. 84-135, at 23. Depreciation studies rely not only on statistical analysis but also on the judgment and expertise of the preparer. D.P.U. 08-27, at 110; D.T.E. 02-24/25, at 132; D.P.U. 92-210, at 71; D.P.U. 92-111, at 121; The Berkshire Gas Company, D.P.U. 905, at 13-15 (1982). In addition, the Department has stated that it is necessary to go beyond the numbers presented in a depreciation study and consider the underlying physical assets. D.P.U. 08-27, at 110; D.P.U. 92-250, at 64; D.P.U. 905, at 13-15.

In D.P.U. 08-27, at 103-104, the Department approved Aquarion's depreciation study and the use of the remaining life method, which is a well-accepted approach whereby the cost of plant, less depreciation and net salvage, is recovered over the estimated remaining life of the property in each plant account. See also Boston Gas Company, D.P.U. 19470, at 46, 51 (1978). The Company continues to use this method of depreciation as it applies to its plant accounting (see RR-DPU-10). There have been no significant changes in the Company's plant accounting operations that would warrant a change in the depreciation methodology from that approved in D.P.U. 08-27. See D.P.U. 10-114, at 259. Therefore, we find that it is

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119 Hingham and Hull did not address the mass asset depreciation method on brief.

reasonable to apply in this proceeding the depreciation study filed and approved in D.P.U. 08-27.

The Department has reviewed the Company's depreciation calculations, including the accrual rates applied to the depreciable plant balances (see RR-DPU-6, 2nd Supp., exh. 2, Sch. 24bv2). The Department has also examined Aquarion's pre-2008 balances associated with Accounts 346, 391H, 391S, and 396 as approved in D.P.U. 08-27. We find that the Company has calculated its depreciation expense consistent with the method approved in D.P.U. 08-27 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 24bv2). The Department further finds that the Company has correctly eliminated depreciation associated with the pre-2008 plant balances for Accounts 346, 391H, 391S, and 396 (RR-DPU-6, 2nd Supp., exh. 2, Sch. 24bv2).

While the Company's calculations produce a depreciation expense of $1,470,322, the Department also has made a number of adjustments to Aquarion's plant investment balances. Specifically, the Department has excluded the following plant items from rate base: (1) $23,130 in AFUDC; (2) $156,040 in general overhead charges; (3) $75,183 related to the Atlantic Avenue project, net of AFUDC and overhead included in (1) and (2), above; and (4) $53,188 related to the Free Street 4 project. See Sections II.C.3., II.D.3., II.E.3.g., and II.F.3.g., above. Consistent with this treatment, the Department will reduce Aquarion's proposed depreciation expense accordingly. Based on Aquarion's proposed account-specific depreciation accrual rates for these accounts and its proposed composite accrual rate of 3.15 percent (see RR-DPU-6, 2nd Supp., exh. 2, Sch. 24bv2), the Department reduces the

Company's proposed depreciation expense by $7,631.[120] This adjustment also affects the book depreciation expense used for computing income taxes, as shown in Section IX.J. (Schedule 10), below.

N. Income Taxes

1. Introduction

The Company proposes to calculate federal income taxes and deferred federal income taxes associated with depreciation using a 35 percent federal income tax rate (Exh. AQ-2, Schs. 29, 30; RR-DPU-6, 2nd Supp., exh. 2, Sch. 29). None of the parties addressed this issue on brief.

2. Analysis and Findings

The Department calculates taxes on a "stand-alone" basis for utilities, including those that are part of a holding company structure. D.P.U. 08-27, at 100; D.P.U. 89-194/195, at 66. The Department has determined that a company's individual, or stand-alone, pro forma income tax rate is the appropriate tax rate to apply when determining the provisions for federal and deferred income taxes. D.P.U. 95-118, at 134; D.P.U. 86-172, at 26-27. Although the Company proposes using a 35 percent income tax rate, the appropriate marginal tax rate for Aquarion on a stand-alone basis is 34 percent based on current tax rates. D.P.U. 08-27, at 100; D.P.U. 95-118, at 134; D.P.U. 86-172, at 26-27. Therefore, the Department will use a 34-percent federal income tax rate in calculating pro forma income tax expense and deferred income taxes. Additionally, the Department has adjusted the Company's book depreciation

120 This calculation is as follows: ($23,130 x 3.15 percent) + ($156,040 x 3.15 percent) + ($75,174 x 1.42 percent) + ($53,188 x 1.73 percent) = $7,631.

expense used in its income tax calculations to recognize the level of depreciation expense being approved in this Order. D.P.U. 08-27, at 100. The results of the revised federal tax rate and depreciation expense are provided in Section IX.H. (Schedule 8), below.

IV. CAPITAL STRUCTURE AND RATE OF RETURN

A. Capital Structure

1. Introduction

At the end of the test year, Aquarion's capital structure consisted of $10,782,652 in long-term debt, $8,700,000 in short-term debt,[121] and $13,630,581 in common equity (RR-DPU-6, 2nd Supp., exh. 6, Sch. 1). This represents a capital structure consisting of 32.35 percent long-term debt, 26.27 percent short-term debt, and 41.16 percent common equity (RR-DPU-6, 2nd Supp., exh. 6, Sch. 1). The Company proposed a capital structure consisting of 58.65 percent long-term debt and 41.35 percent common equity, based on: (1) the replacement of $8,700,000 in short-term debt with an equal amount of long-term debt authorized by the Department in D.P.U. 11-55, at 21-22; and (2) the repayment of $149,651 in Massachusetts Water Pollution Abatement Trust ("MWPAT") loans (RR-DPU-6, 2nd Supp., exh. 6, Sch. 1). In D.P.U. 11-55, at 22, 27, the Department approved the issuance of $9,000,000 in long-term debt, of which the Company issued the entire amount (Tr. 3, at 592).

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121 While Aquarion characterizes the $8,700,000 as long-term debt for purposes of this filing, this debt is represented by notes payable (Exh. Hingham/Hull 2-29, Att. at 9). Because the Company's notes payable do not have a set maturity, this debt represents demand notes, which the Department considers short-term debt. See G.L. c. 164, § 14.

Aquarion included $8,000,000 of the issued $9,000,000 in its proposed capital structure (RR-DPU-6, 2nd Supp., exh. 6, Sch. 1).

2. Positions of the Parties

Aquarion argues that its proposed capital structure is appropriate (Company Brief at 57). The Company claims that its debt to equity ratio under the proposed capital structure could fairly be characterized as being relatively high, which should result in benefits to customers through a lower overall cost of capital (Company Brief at 57). Further, Aquarion maintains that the refinancing of short-term debt with long-term debt at a competitive interest rate provides ratepayers with the benefit of a lower cost of long-term debt (Company Brief at 57). None of the other parties addressed the cost of debt on brief.

3. Analysis and Findings

For analyzing a company's rate of return, its capital structure typically consists of long-term debt, preferred stock, and common equity. See D.T.E. 01-56, at 97; Pinehills Water Company, D.T.E. 01-42, at 17-18 (2001); Fitchburg Gas and Electric Light Company, D.T.E. 99-118, at 62 (2001); Kings Grant Water Company, D.P.U. 87-228, at 22 (1988). The ratio of each capital structure component to the total capital structure is used to weight the cost (or return) of each capital structure component to derive a WACC. D.T.E. 03-40, at 319. The WACC is used to determine the return on rate base used for calculating the appropriate debt service and profits for the company to be included in its revenue requirements. D.T.E. 01-42, at 18; D.P.U. 86-149, at 5.

The Department will normally accept a utility's test year-end capital structure, allowing for known and measurable changes, unless the capital structure deviates substantially from sound utility practice. D.T.E. 03-40, at 319; High Wood Water Company, D.P.U. 1360, at 26-27 (1983); Blackstone Gas Company, D.P.U. 1135, at 4 (1982). In reviewing and applying utility company capital structures, the Department seeks to protect ratepayers from the effect of excessive rates of return. Blackstone Gas Company, D.T.E. 01-50, at 25 (2001); D.P.U. 95-92, at 33; D.P.U. 86-93, at 25.

In the present case, Aquarion replaced its current outstanding short-term debt of $8,700,000 with a ten-year bond in the amount of $9,000,000 with an effective interest rate of 4.36 percent (Tr. 3, at 592; RR-DPU-6, 2nd Supp., exh. 6, Sch. 1).[122] Thus, by refinancing its short-term debt with long-term debt, the Company's capital structure is now composed of 58.65 percent long-term debt and 41.35 percent common equity. The Department is unpersuaded by the Company's argument that only $8,700,000 should be included in the Company's capital structure. Notwithstanding Aquarion's argument about matching rate base with capitalization, the fact remains that the Company issued $9,000,000 of long-term debt pursuant to the Department's decision D.P.U. 11-55. As such, we find that Aquarion's post-test year issuance represents a known and measurable adjustment that needs to be

122 Aquarion states that it is appropriate to include only $8,700,000 of this debt issue in its capital structure (Tr. 3, at 592). Aquarion reasons that its total capitalization as of December 31, 2010, which included $8,700,000 in short-term debt, better matches the Company's rate base at the end of the test year (Tr. 3, at 592). Further, the Company states that the additional $300,000 is not being used to support Aquarion's rate base as represented in the current rate case (Tr. 3, at 592).

incorporated as part of the Company's permanent capital structure. D.P.U. 07-71, at 122-123; D.T.E. 05-27, at 272; D.P.U. 03-40, at 323-324; Colonial Gas Company, D.P.U. 84-94, at 52-53 (1984). Therefore, the Department will include the full $9,000,000 of long-term debt in Aquarion's capital structure.

This revision, combined with the reduction of $149,651 in MWPAT bonds, produces a capital structure consisting of 59.02 percent long-term debt and 40.98 percent common equity. Therefore, the Department will use this capital structure for purposes of calculating Aquarion's overall cost of capital.

B. Cost of Debt

1. Introduction

Aquarion's long-term debt consists of $7,000,000 in 7.71 percent series general mortgage bonds, $1,400,000 in 9.64 percent series general mortgage bonds, $2,382,652 in a zero percent loan from the MWPAT, and $8,700,000 in 4.36 percent series general mortgage bonds (RR-DPU-6, 2nd Supp., exh. 6, Sch. 1). Based on the respective ratios and effective interest rate applicable to each long-term debt series, the Company proposed a weighted long-term debt cost of 5.55 percent (RR-DPU-6, 2nd Supp., exh. 6, Sch. 1).

2. Positions of the Parties

Aquarion argues that its proposed cost of long-term debt is reasonable (Company Brief at 57-58). Further, the Company claims that while it has considered refinancing its 7.71 percent and 9.64 percent general series mortgage bonds, it determined that the make-whole provisions[123] associated with these debt instruments made it uneconomical to refinance them (Company Brief at 57-58, citing Tr. 2, at 441-444). Further, Aquarion maintains that its recent conversion of short-term debt to long-term debt at a competitive interest rate provides ratepayers the benefit of a lower cost of long-term debt (Company Brief at 57, citing D.P.U. 11-55, at 15-16). None of the other parties addressed the cost of debt on brief.

3. Analysis and Findings

The Department has reviewed the evidence and finds that the Company's method of calculating the effective interest rates associated with its long-term debt is consistent with Department precedent (RR-DPU-6, 2nd Supp., exh. 6, Sch. 1). D.P.U. 08-27, at 128; D.P.U. 92-101, at 63. Notwithstanding our approval of the Company's method, however, the Department has included the full amount of the \$9,000,000 financing approved in D.P.U. 11-55 in Aquarion's capital structure, as opposed to the \$8,700,000 proposed by the Company. This addition of \$300,000 in long-term debt affects the weighting to be accorded to each component of Aquarion's long-term debt balance. Therefore, the Department has adjusted Aquarion's proposed weighted cost of long-term debt to recognize the addition of \$300,000 in 4.36 percent series notes. Based on this revision, the resulting weighted cost of debt decreases from the Company's proposed 5.55 percent to 5.52 percent. Accordingly, the

123 A make-whole provision is a type of call provision on a bond allowing the borrower to pay off remaining debt early. The borrower would have to make a lump sum payment derived from the net present value of future coupon payments that will not be paid because of the call. See Bay State Gas Company, D.P.U. 11-41, at 4 n.3 (2011).

Department shall apply a weighted cost of debt of 5.52 percent in determining Aquarion's WACC.

C. Return on Common Equity

1. Introduction

The Company requests an 11.5 percent rate of return on common equity ("ROE") (Exh. AQ-TMD at 29; RR-DPU-6, 2nd Supp., exh. 6, Sch. 1). Aquarion based its requested ROE on the Department's regulation at 220 C.M.R. § 31.00 et seq. (Exhs. AQ-TMD at 29; AQ-10, at 23). Pursuant to this regulation, a water company may request that the Department establish its allowed ROE based on the formula contained in 220 C.M.R. § 31.03, referred to as the "optional formula." This formula takes the most recent twelve-month average of 30-year U.S. Treasury bond interest rates based on a date proximate to four months after the company's filing and adds either 2.5 percent, 3.0 percent, or 3.5 percent, depending on the company's common equity ratio. 220 C.M.R. §§ 31.01, 31.03. The regulation further provides that, unless the Department determines otherwise, the allowed ROE may not be less than 11.5 percent or exceed 14.5 percent. See 220 C.M.R. § 31.03. If a company elects this option, it is deemed to have presented a prima facie case concerning its allowed ROE and to have established a rebuttable presumption that the application of the formula will result in a fair and reasonable allowed ROE. 220 C.M.R. § 31.02.

2. Hingham and Hull Analysis

Hingham and Hull presented two ROE witnesses that offered different recommendations as to a reasonable ROE for Aquarion. One witness states that Aquarion's

ROE should reflect the new economic realities that are currently affecting all customers (Exh. HH-LBR at 3). Based on his professional experience with regulated utilities, this witness states that regulators have often set ROEs at a rate equal to inflation plus two or three percentage points (Exh. HH-LBR at 3). Taking into account the current economic environment and low inflation rates, he concludes that Aquarion should be granted an ROE in a range of four to seven percent (Exh. HH-LBR at 3).

Hingham and Hull's second ROE witness proposes an ROE of 7.2 percent (Exh. HH-DFR at 17). To arrive at this ROE, this witness relied on the formula in 220 C.M.R. § 31.03 without consideration of the regulation's floor and ceiling provisions (Exh. HH-DFR at 17). As inputs to the formula, he used the average of twelve months (September 2010 through August 2011) of 30-year U.S. Treasury Bonds, or 4.24 percent, and then added the 3.0 percent margin used in the formula for companies with a common equity ratio between 25 percent and 75 percent (Exh. HH-DFR at 17). The witness further stated that because Aquarion was part of a larger holding company owned by MUI, the Company's financial risk would be smaller than that of any company found in a hypothetical comparison group, and thus Aquarion warrants an ROE at the lower end of the range found in such a group (Exh. HH-DFR at 17-18).

3. Positions of the Parties

a. Hingham and Hull

Hingham and Hull argue that, notwithstanding the provisions of 220 C.M.R § 31.00, the Company bears the burden of proof to justify its request (Hingham/Hull Reply Brief at 3-4). Hingham and Hull contend that Aquarion's proposed ROE of 11.5 percent is excessive and, therefore, should be reduced by the Department (Hingham/Hull Brief at 36).

Hingham and Hull maintain that Aquarion has failed to demonstrate the propriety of its proposed 11.5 percent ROE, noting that the Company has merely applied a guideline that the Department determined was not appropriate for Aquarion in its previous rate case, i.e., D.P.U. 08-27 (Hingham/Hull Brief at 38). Hingham and Hull argue that even if the currently allowed ROE of 10.5 percent was appropriate in D.P.U. 08-27, such a rate is not supportable today based on more recent financial indicators and the Company's own deficient performance since that time (Hingham/Hull Brief at 39). Thus, Hingham and Hull maintain that the evidence in this proceeding supports the imposition of an ROE outside the range prescribed by 220 C.M.R. § 31.00 et seq. (Hingham/Hull Reply Brief at 3-4).

Hingham and Hull assert that Aquarion's proposed ROE belies current economic conditions of persistent low interest rates across the U.S. economy, including the prime and federal fund rates as well as U.S. Treasury rates (Hingham/Hull Brief at 39). Hingham and Hull also argue that investor expectations about stock returns in general, and water utility stocks in particular, have declined with no indication of a significant turnaround occurring in the near future (Hingham/Hull Brief at 39).

In addition, Hingham and Hull argue that the Company's proposed ROE of 11.5 percent is inconsistent with recent allowed ROEs granted by other utility commissions (Hingham/Hull Brief at 39-40, citing Exh. HH-DFR at 19-21). According to Hingham and Hull, for each of the past three years the average allowed ROE for all public utilities, including water companies, have seen a steady decline as follows: (1) 10.10 percent in 2008; (2) 10.07 percent in 2009; and (3) 9.44 percent in 2010 (Hingham/Hull Brief at 39, citing Exh. HH-DFR-B). Moreover, Hingham and Hull posit that the average allowed ROE for water companies have also exhibited the same downward trend as follows: (1) 10.03 percent for 2008; (2) 10.16 percent for 2009; and (3) 9.87 percent for 2010 (Hingham/Hull Brief at 40, citing Exh. HH-DFR-B). Further, Hingham and Hull argue that recently allowed ROEs for the Company's two affiliates in the New England area are 9.95 percent and 9.75 percent in Connecticut and New Hampshire, respectively (Hingham/Hull Brief at 40). Moreover, Hingham and Hull argue that Aquarion's risk profile is not very different when compared to its affiliates and therefore undeserving of a much higher ROE (Hingham/Hull Brief at 40; Hingham/Hull Reply Brief at 3). Hingham and Hull contend that the Company's parent is one of the largest water companies in the United States, with strong financial profiles, and is owned by a succession of larger and financially successful holding companies (Hingham/Hull Brief at 38; Hingham/Hull Reply Brief at 2).

Hingham and Hull also argue that Aquarion has distorted the evidence and argument presented by Hingham and Hull concerning comparable companies (Hingham/Hull Reply Brief at 3). For example, Hingham and Hull dispute the Company's claim that they made no meaningful effort to determine whether the proxy companies their witness relied on were comparable to Aquarion (Hingham/Hull Reply Brief at 3). Moreover, Hingham and Hull dispute the Company's assertion that their analysis appears to give no weight to ROEs approved by the Department in other water rate proceedings (Hingham/Hull Reply Brief at 3).

Hingham and Hull counter that the rate cases alluded to by the Company are not comparable to Aquarion's current rate case because those cases were either settled or involved small water systems that are not comparable to the Company (Hingham/Hull Reply Brief at 3). Regarding the rates of return allowed by other jurisdictions, including those for water companies, Hingham and Hull maintain that they relied on those cases only to show a national trend by many state utility commissions towards granting lower ROEs (Hingham/Hull Reply Brief at 3).

On brief, Hingham and Hull proposed an ROE of 6.75 percent based on a "market-base" ROE of 8.75 percent, less a penalty of two percent (Hingham/Hull Brief at 47). To derive this ROE, Hingham and Hull first argue that current economic and financial conditions support their position that Aquarion's allowed ROE should be no less than 8.0 percent and no greater than 9.5 percent (Hingham/Hull Brief at 41-42, 47; Exh. HH-DFR at 22). Next, Hingham and Hull select the middle of this range, or 8.75 percent, based on the following factors: (1) the recent allowed ROEs for Aquarion's two retail affiliates are both below ten percent; (2) most economists predict a continued weak economy and low interest rates for at least the short term; (3) Aquarion has little, if any, risk of losing market share; and (4) Aquarion has little or no need to borrow significant funds to pay for its five-year capital improvement program (Hingham/Hull Brief at 40-42).[124]

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[124] According to Hingham and Hull, the Company's five-year capital plan calls for spending an average of $1,446,000 per year, while the funds generated from Aquarion's proposed depreciation expense will generate about $1,329,000 per year, and thus allow the Company to finance about 92 percent of these capital improvements (Hingham/Hull Brief at 41).

Hingham and Hull then propose to reduce the 8.75 percent by two percentage points as a penalty for what they characterize as Aquarion's performance shortcomings (Hingham/Hull Brief at 42). Hingham and Hull argue that the imposition of a two-percentage point penalty is justified given Aquarion's previous deficiencies (Hingham/Hull Brief at 42-44). Hingham and Hull contend that the Company in its prior rate case: (1) failed to meet the Department standard for post-test year changes to rate base in the amount of $222,252 related to the Free Street 4 project; (2) disregarded the Department's directives concerning rate case expenses by failing to engage in a structured, objective competitive bidding process for all outside rate case services; and (3) failed to demonstrate that its corporate expenses were at a competitive and reasonable price (Hingham/Hull Brief at 42-43, citing D.P.U. 08-27, at 71, 92, and 137).

In addition to these criticisms regarding the Company's last rate case, Hingham and Hull allege that Aquarion's current rate case filing is indicative of a number of shortcomings. According to Hingham and Hull, the Company has inappropriately: (1) prevented or delayed the municipalization of Aquarion's distribution system in Oxford; (2) delayed a main replacement project in Hull, and over-inflated overhead costs; (3) attempted to improperly recover approximately $44,000 in legal fees associated with a billing error that was addressed in D.P.U. 08-27-A, even though Aquarion explicitly stated it would not seek recovery of such costs in the current rate case; (4) underfunded the renewal and replacement of system water mains; (5) required rate increases that have far outpaced any measures of inflation or cost increases experienced by most water utilities in New England; (6) overstated its level of plant in service and thus its rate base; (7) belatedly proposed to remove $150,000 from depreciation expense; and (8) belatedly proposed to remove $29,000 in lobbying fees from its cost of service (Hingham/Hull Brief at 45-46). Hingham and Hull maintain that these errors and deficiencies suggest that the Company's rate filing may contain further oversights (Hingham/Hull Brief at 45-46).

In addition to what they consider to be shortcomings in the Company's rate filing, Hingham and Hull argue that Aquarion has yet to fully comply with a number of Department directives issued pursuant to D.P.U. 08-27. These include: (1) failing to commence and assign priority to a system-wide capital improvement program; (2) failing to assess the merits of more frequent leak detection surveys, which required the Department to issue additional directives; and (3) failing to develop an allocation study that precisely determined the direct costs attributable to serving Wheelabrator Millbury, Inc., and assigning those costs to the G-4 rate[125] (Hingham/Hull Brief at 43-44, citing D.P.U. 08-27, at 151, 221, and 219).

Hingham and Hull also assert that Aquarion has a poor customer service record and point to a petition by 20 customers complaining about the Company's poor repair performance related to a main break in Hull (Hingham/Hull Brief at 44, citing Aquarion Water Company of Massachusetts, D.P.U. 09-48). Hingham and Hull add that the large number of ratepayers voicing their frustration at the public hearings in this rate case, as well as in the prior rate case, further confirms the Company's poor customer service record (Hingham/Hull Brief at 45).

125 See Section V.C., below, for a discussion of the allocation of costs related to Wheelabrator.

For all the reasons enumerated above, Hingham and Hull claim that Aquarion's failings warrant a two-percent point penalty, thereby reducing the Company's proposed ROE to 6.75 percent (Hingham/Hull Brief at 47). Hingham and Hull suggest that their proposed ROE of 6.75 percent be tied to a corresponding incentive program, whereby Aquarion is allowed to increase its ROE over time if and when the Company shows improvements based on specific performance criteria set up by the Department (Hingham/Hull Brief at 47).

b. Oxford

Oxford argues that the Department should grant Aquarion an ROE no higher than nine percent given the historically low interest rates in today's markets and the economic challenges faced by ratepayers as the result of the protraction of the economic recession through 2011 (Oxford Brief at 28; Oxford Reply Brief at 23). In support of its position, Oxford notes that Aquarion was able to obtain capital through refinancing of debt at interest rates far below the ROE being requested in this case (Oxford Brief at 28, citing D.P.U. 11-55). In addition, Oxford contends that the Company is viewed as being within an umbrella of companies, thus providing Aquarion with stable levels of net income and ROE (Oxford Brief at 28, citing Exh. Hingham/Hull 2-1, Att. at 64). Further, Oxford alleges that the level of "management fee" payments made to MUI from Aquarion indicates that the Company's owners are already receiving a share of profits in the form of management fees (Oxford Brief at 28).

Oxford maintains that Aquarion should not be allowed an ROE greater than 9.0 percent (Oxford Brief at 28). Oxford considers this rate to be consistent with current national trends on allowed ROEs (Oxford Brief at 28, citing Application of Aquarion Water Company of Connecticut for Amended Water Service Rate Schedules, Docket No. 10-02-13, at 120 (2010); Oxford Reply Brief at 23).

c. Company

Aquarion considers itself to have presumptively shown the reasonableness of its proposed 11.5 percent ROE in accordance with 220 C.M.R. § 31.03 (Company Reply Brief at 19). Aquarion contends that Hingham and Hull, as well as Oxford, failed to rebut the presumption of 220 C.M.R. § 31.03 (Company Reply Brief at 19, 28). In the Company's view, once a company elects to use the optional formula it is deemed to have presented a prima facie case concerning the allowed ROE and to have established a rebuttable presumption that the application of the formula results in a fair and reasonable ROE (Company Reply Brief at 19, citing D.P.U. 08-27, at 135). The Company asserts that Hingham and Hull have turned 220 C.M.R. § 31.00 on its head by claiming that the Company has failed to rebut the presumption as envisioned in the optional ROE formula (Company Reply Brief at 19).

In addition, Aquarion argues that Hingham and Hull presented no credible or reliable evidence upon which the Department could establish an alternate return for the Company (Company Brief at 60; Company Reply Brief at 18-19). For example, the Company asserts that Hingham and Hull have offered four different ROEs for the Department to consider as appropriate in this case (Company Reply Brief at 18, citing Hingham/Hull Brief at 43-44; Exh. HH-LBR at 3). In addition, Aquarion alleges that Hingham and Hull made numerous mistakes in their current ROE analysis. Specifically, the Company contends that Hingham and

Hull: (1) gave no weight to the allowed ROEs approved by the Department for other water companies in recent proceedings; (2) relied on allowed rates of returns in other jurisdictions without undertaking any effort to determine the comparability of the utilities for which those returns were established; (3) relied on allowed ROEs for utilities other than water companies such as electric and gas companies; (4) made no meaningful effort to determine whether the sample group of utility companies relied upon by Hingham and Hull to show current allowed ROE levels are comparable to Aquarion; and (5) relied on Connecticut and New Hampshire regulatory decisions despite a lack of familiarity with the ratemaking mechanisms in those states (Company Brief at 60-61, citing Tr. 4, at 913-920; 941-942, 966-972; Company Reply Brief at 18-19).

Based on the above analysis, the Company concludes that Hingham and Hull, as well as Oxford, failed to present any expert testimony or other credible alternative for establishing a different ROE below that contemplated by the ROE optional formula (Company Brief at 59). Thus, the Company posits that it should not be penalized for relying on the Department's regulations, especially given the absence of credible evidence to rebut the presumption of the optional ROE formula (Company Brief at 62; Company Reply Brief at 19).

4. Analysis and Findings

The standard for determining the allowed rate of ROE is set forth in Bluefield Water Works Improvement Company v. Public Service Commission of West Virginia, 262 U.S. 679, 692-693 (1923) ("Bluefield") and Federal Power Commission v. Hope Natural Gas Company, 320 U.S. 591, 603 (1944) ("Hope"). The allowed ROE should preserve a company's financial integrity, allow it to attract capital on reasonable terms, and be comparable to returns on investments of similar risk. See Bluefield at 692-693; Hope at 603, 605.

In Generic Rate of Return on Equity for Water Companies, D.P.U. 85-115 (1985), the Department adopted 220 C.M.R. § 31.00 et seq., instituting an optional formula for water companies to use in establishing a requested ROE. The regulation was promulgated with the intent to establish a fair and reasonable allowed ROE for water utilities while sparing these companies additional administrative and litigation costs that could further erode water companies' earnings. See D.P.U. 85-115, at 2-3.

For a water company with a common equity ratio in excess of 25 percent but below 75 percent equity, 220 C.M.R. § 31.00 et seq., allows an ROE that is equal to the twelve-month average of 30-year U.S. Treasury bond yields, including the interest rate published on or near to a date four months following the proposed effective date of the rates, plus three percentage points. 220 C.M.R. §§ 31.01, 31.03. Once a water company elects to use the optional formula set forth in 220 C.M.R. § 31.03, it is deemed to have presented a prima facie case concerning the allowed ROE and to have established a rebuttable presumption that the application of the formula results in a fair and reasonable allowed ROE. 220 C.M.R. § 31.02.

The regulations provide for a minimum ROE of 11.5 percent and a maximum ROE of 14.5 percent, but expressly allow the Department to deviate from this bandwidth. 220 C.M.R. § 31.03 ("Except where the Department may otherwise determine in specific cases, the allowed return on equity may not exceed 14.5 percent or be below 11.5 percent"). In other words, notwithstanding the bandwidth contained in 220 C.M.R. § 31.03, the Department retains both the authority and discretion to adjust a water company's ROE beyond the bandwidth if the record supports such a finding. D.P.U. 08-27, at 137; Generic Rate of Return on Equity for Water Companies, D.P.U. 96-90-A at 11-12 (1997). For example, continued deficiencies in service quality could rebut the presumption created by 220 C.M.R. § 31.02 that a proposed ROE within the regulation's bandwidth is fair and reasonable. D.P.U. 08-27, at 135-136; D.P.U. 96-90-A at 11; South Egremont Water Company, D.P.U. 95-119/122, at 28-29 (1996); D.P.U. 95-118, at 184. Similarly, the Department has set a utility's ROE at the low end of a range of reasonableness upon a showing that a utility's performance was deficient. D.P.U. 11-01/D.P.U. 11-02, at 424-426 (company shortcomings in storm response warranted reduced ROE); D.P.U. 10-114, at 339-340 (company activities related to Department-ordered audit warranted reduced ROE); D.P.U. 08-35, at 220 (customer service deficiencies warranted reduced ROE); D.P.U. 08-27, at 136, 137 (failure to conduct competitive bidding for outside consultants and provide detailed rate case expense invoices warranted lower ROE); D.P.U. 96-90-A at 11 (Department statement that subpar performance would warrant reduced ROE); see also D.P.U. 85-266-A/271-A at 172 (failure to fulfill public service obligations warranted reduced ROE). We find no reason to depart from our long-standing precedent and the accepted regulatory practice[126] of considering qualitative

[126] See, e.g., In re Citizens Utilities Company, 171 Vt. 447, 453 (2000) (general principle that rates may be adjusted depending on the adequacy of the utility's service and the efficiency of its management); US West Communications, Inc. v. Washington Utilities and Transportation Commission, 134 Wash.2d 74, 121 (1998) (a utility commission may consider the quality of service and the inefficiency of management in setting a fair

factors such as management performance and customer service in setting a fair and reasonable ROE.

In the present case, the Department finds sufficient evidence to rebut the presumption that the optional cost of equity formula contained in 220 C.M.R. § 31.00 et seq. produces a fair and reasonable allowed ROE and to warrant an allowed ROE outside the bandwidth of 220 C.M.R. § 31.03. In determining the appropriate ROE, we have evaluated the quantitative factors. First, Hingham and Hull have presented several cogent arguments that warrant a finding that historical economic and financial data supporting a lower ROE regulatory environment sufficiently rebuts the presumption that the Company's proposed ROE based on the floor contained in the optional formula is fair and reasonable (Exhs. HH-DFR at 17-20; HH-DFR-B). Specifically, Hingham and Hull highlight the results of the optional formula using current interest rates without consideration of the floor rate, the persistent low interest rate environment across the U.S. economy, and recent allowed ROEs granted by other utility commissions (Exhs. HH-DFR at 17-20; HH-DFR-B). Second, the Department has taken into account the recent downward trends in U.S. Treasury interest rates provided in the Federal

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and reasonable rate of return); State of North Carolina ex rel. Utilities Commission v. General Telephone Company of the Southeast, 285 N.C. 671, 681 (1974) (the quality of the service rendered is, necessarily, a factor to be considered in fixing the just and reasonable rate therefor); Gulf Power Company v. Wilson, 597 So.2d 270, 273 (1992) (regulator was authorized to adjust rate of return within reasonable range to adjust for mismanagement); Wisconsin Public Service Corporation v. Citizen's Utility Board, Inc., 156 Wis.2d 611, 616 (1990) (prudence is a factor regulator considers in setting utility rates and can affect the allowed ROE).

Reserve Statistical Release, H.15, "Selected Interest Rates,"[127] and recent information about ROEs granted by other states for all utilities, including water companies (Exh. HH-DFR-B). While other state regulatory commissions may have taken various regulatory mechanisms such as cost trackers and other pass-through devices into consideration when establishing ROEs (see Tr. 4, at 966-972), the Department finds that the evidence on financial rates and allowed ROEs is satisfactory and persuasive in rebutting the presumption that the Company's proposed ROE is fair and reasonable.

In addition to these quantitative factors, the Department has determined that the following qualitative factors support rebutting the presumption that the Company's proposed ROE is fair and reasonable: (1) Aquarion's previous handling of a billing error where it appeared that the Company withheld information from the Department that was material to the rate case in D.P.U. 08-27 (D.P.U. 08-27-B, at 24-25); (2) the Company's ineffective efforts to provide an acceptable unaccounted-for-water report (D.P.U. 08-27-C at 25);[128] (3) Aquarion's flushing practices in connection with a 2009 water main break in Hull (D.P.U. 09-48, at 20); and (4) the Company's insufficient communication with Hull officials and the general public after the 2009 water main break (D.P.U. 09-48, at 24). Accordingly, we conclude that the

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[127] The information contained in H.15 is maintained by the Department in the normal course of business because the data is used as an input into the optional cost of equity method in 220 C.M.R. § 31.03.

[128] Despite clear directives on the requirements for the unaccounted-for-water report, it took three submissions for the report to be accepted, and by that time it was five months late. See D.P.U. 08-27-C at 25.

record provides sufficient support for adjusting the Company's ROE outside the bandwidth of 220 C.M.R. § 31.03.[129]

The Department must now determine an ROE for the Company that satisfies the standards of Bluefield and Hope. In proposing an ROE, Aquarion relied solely on the optional formula set forth in 220 C.M.R. § 31.03 (Exhs. AQ-TMD at 29; AQ-6, Sch. 1; AQ-10, at 23). Hingham and Hull relied on the optional formula and then modified it to take into consideration factors that they describe as Aquarion's deficiencies, the current economic conditions, and ROEs granted in other jurisdictions (Exhs. HH-LBR at 3; HH-DFR at 17-27). Oxford also pointed to the current economic conditions in arguing for a reduced ROE (Oxford Brief at 28).

While the results of analytical models are useful, the Department must ultimately apply its own judgment to the evidence to determine an appropriate rate of return. D.P.U. 07-71, at 139. We must apply to the record evidence and argument considerable judgment and agency expertise to determine the appropriate use of the empirical results. Our task is not a mechanical or model-driven exercise. D.P.U. 08-35, at 219-220; D.T.E. 07-71, at 139; D.T.E. 01-56, at 118; Western Massachusetts Electric Company, D.P.U. 18731, at 59 (1977); see also 375 Mass. at 15).[130]

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[129] All performance issues referenced as relating to D.P.U. 08-27 occurred after the Department had issued its Order in that proceeding.

[130] We reaffirm the Department's prior comment on setting a company's ROE:

> Advances in data gathering and statistical theory have yet to achieve precise prediction of future events or elimination of the bias of the witnesses in their

Based on a review of the evidence, argument of the parties, and the Department's judgment and considerable agency expertise, the Department finds that an allowed rate of ROE of 10.25 percent is within a reasonable range of rates that will preserve the Company's financial integrity, allow it to attract capital on reasonable terms, is comparable to earnings of companies of similar risk and, therefore, is appropriate in this case. In making these findings, we have considered both qualitative and quantitative aspects of the various methods for determining an appropriate rate of ROE.

V. COST ALLOCATION AND RATE DESIGN

A. Rate Structure Goals

Rate structure defines the level and pattern of prices charged to each customer class for its use of utility service. The rate structure for each rate class is a function of the cost of serving that rate class and how rates are designed to recover the cost to serve that rate class. The Department has determined that the goals of designing utility rate structures are to achieve efficiency and simplicity, and ensure continuity of rates, fairness among rate classes, and corporate earnings stability. D.P.U. 08-27, at 138; D.T.E. 03-40, at 365; D.T.E. 02-24/25, at 252. Efficiency means that the rate structure should allow a company to recover the cost of providing the service and should provide an accurate basis for consumers' decisions about how to best fulfill their needs. The lowest-cost method of fulfilling consumers' needs should also

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> selection of data. Thus, there is no irrefutable testimony, no witness who has not made significant subjective judgments along the way to his conclusion, and no number that emerges from the welter of evidence as an indisputable "cost" of equity.

New England Telephone and Telegraph Company, D.P.U. 17441, at 9 (1973).

be the lowest-cost means for society as a whole. Thus, efficiency in rate structure means that it is cost-based and recovers the cost to society of the consumption of resources to produce the utility service. D.P.U. 08-27, at 138; D.T.E. 03-40, at 365-366; D.T.E. 02-24/25, at 252. In practice, meeting the goal of efficiency should involve rate structures that provide strong signals to consumers to decrease excess consumption in consideration of price and non-price social, resource, and environmental factors.

The Department has determined that a rate structure achieves the goal of simplicity if it is easily understood by consumers. Rate continuity means that changes to rate structure should be gradual to allow consumers to adjust their consumption patterns in response to a change in structure. Fairness means that no class of consumers should pay more than the costs of serving that class. Earnings stability means that the amount a company earns from its rates should not vary significantly over a period of one or two years. D.P.U. 08-27, at 139; D.T.E. 03-40, at 366; D.T.E. 02-24/25, at 252-253.

There are two steps in determining rate structure (1) cost allocation, and (2) rate design. Cost allocation assigns a portion of the company's total costs to each rate class through an embedded allocated cost of service study. The cost of service study represents the cost of serving each class at equalized rates of return given the company's level of total costs. D.P.U. 08-27, at 139; D.T.E. 03-40, at 366; D.T.E. 02-24/25, at 253.

The results of the cost of service study are compared to the revenues collected from each rate class in the test year. If these amounts are close, then the revenue increase or decrease may be allocated among the rate classes so as to equalize the rates of the return and ensure that each rate class pays the cost of serving it. If, however, the differences between the allocated costs and the test-year revenues are great, then, for reasons of continuity, the revenue increase or decrease may be allocated so as to reduce the difference in rates of return, but not to equalize the rates of return in a single step. D.P.U. 08-27, at 139-140; D.T.E. 02-24/25, at 253-254.

As the previous discussion indicates, the Department does not determine rates based solely on costs but also explicitly considers the effect of its rate structure decisions on customers' bills and the Department's goals with respect to rate structures. For instance, the pace at which fully cost-based rates are implemented depends, in part, on the effect of the rate changes on customers. For example, considering the goals of efficiency and fairness, the Department has also ordered the establishment of special rate classes for certain low-income customers and considers the effect of such rates and rate changes on low-income customers. D.P.U. 08-27, at 140; D.T.E. 03-40, at 367; D.T.E. 02-24/25, at 254.

To reach fair decisions that encourage efficient utility and consumer actions, the Department's rate structure goals must balance the often divergent interests of various customer classes and work to decrease inter-class subsidies unless a clear record exists to support -- or a statute requires -- such subsidies. See, e.g., G.L. c. 164, § 1F(4)(i). The Department reaffirms its rate structure goals that result in rates that are fair and cost-based and enable customers to adjust to changes.

The second step in determining the rate structure is rate design. The level of the revenues to be generated by a given rate structure is governed by the cost allocated to each rate class in the cost allocation process. The pattern of prices in the rate structure, which produces the given level of revenues, is a function of the rate design. The rate design for a given rate class is constrained by the requirement that it should produce sufficient revenues to cover the cost of serving the given rate class and, to the extent possible, meet the Department's rate structure goals discussed above. D.P.U. 08-27, at 141; D.T.E. 03-40, at 368; D.T.E. 02-24/25, at 254-255. Rate design is particularly important with respect to the goals of achieving efficiency in customer consumption decisions.

B. Rate Design

1. Introduction

The Company did not submit a cost of service study in support of its rate relief request, and instead designed its rates based on the cost of service study used in its last rate case proceeding, i.e., D.P.U. 08-27 (Exh. AQ-TMD at 7). Hingham and Hull proposed a different rate design for the Department's consideration. Each proposal is discussed in detail below.

2. Company's Proposed Rate Design

The Company chose not to file a cost of service study in support of its rate relief request (Exh. AQ-TMD at 7). Aquarion stated that such a filing was unnecessary because a cost of service study was filed in conjunction with its last base rate case proceeding, D.P.U. 08-27 (Exh. AQ-TMD at 7). Instead, the Company has proposed an "across the board" increase to base rates for all customers, whereby base rates will increase by the same percentage for all customers (Exh. AQ-TMD at 27). The Company has proposed a three-step process to determine the uniform increase (Exh. AQ-TMD at 27). The first step is to remove the portion of the revenue requirement that is derived from the WTP surcharge in Service Area A (Exh. AQ-TMD at 27). The second step is to remove those revenues that are attributable to the miscellaneous revenues that the Company receives (Exh. AQ-TMD at 27).[131] The third step is to derive the remaining revenue requirement by applying an equal percent increase to all other rates and charges (Exh. AQ-TMD at 27).

3. Hingham and Hull's Proposed Rate Design

Hingham and Hull have raised three issues pertaining to rate design: (1) the use of test year revenues to determine the revenue requirement; (2) the block break used by the Company for its inclining block rates;[132] and (3) whether any rate increase should be phased in over a three-year period (Exh. HH-DFR at 7-8, 37-39, 43-45). Hingham and Hull posit that the Company has overstated its revenue requirement by approximately $314,339 because it used test year consumption data, which was about 6.4 percent lower than the consumption data used in the test year for Aquarion's previous rate case (Exh. HH-DFR at 37-38). Hingham and Hull put forth two alternatives to the Company's proposal (Exh. HH-DFR at 39). The first is

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131 Miscellaneous revenues come from such services as seasonal set and turn-on fees, seasonal meter removal and turn-off fees, and return check fees (Exh. AQ-8, at 28). All of the service fees are listed as "Other Services" in the Company's rules and regulations tariff (Exh. AQ-8, at 28).

132 Where an inclining block structure is implemented, all use below the block break is at a lower rate than the use above the block break. The Department has adopted inclining block rates across utilities (i.e., electric, gas, and water) and has stated that the design of rates should be aligned with important state, regional, and national goals to promote the most efficient use of society's resources and to lower customers' bills through increased end-use efficiency. See D.P.U. 09-39, at 423-424; D.P.U. 08-35, at 249; D.P.U. 08-27, at 177-178; Dover Water Company, D.P.U. 07-63-B at 12 (2008).

to use an assumed level of consumption for the rate year that is halfway between the level recorded in the current and prior test years (Exh. HH-DFR at 39). The second is to use verifiable consumption data for 2011, if that data is available prior to the filing of the compliance filing to this Order (Exh. HH-DFR at 39). Hingham and Hull state that if the second alternative results in consumption levels that are below those in the current test year, then the Department should use the current test year data to calculate the Company's revenue requirement (Exh. HH-DFR at 39).

Hingham and Hull also propose an alternative block break for the Company's inclining block rates (Exh. HH-DFR at 45). Hingham and Hull state that the Company's existing block break of 9,000 gallons per quarter is too low (Exh. HH-DFR at 43-45). Hingham and Hull posit that the block break should be set based on levels of "essential use," which they state would be closer to 12,000 gallons per quarter (Exh. HH-DFR at 43-44). Hingham and Hull state that an additional benefit of the higher break point is that it would allow a greater number of customers to keep their water bills at a manageable level, thereby mitigating the impact of the rate increase (Exh. HH-DFR at 45). Consequently, Hingham and Hull recommend that the Department direct the Company to adjust its rate structure for residential rates by increasing the block break to 12,000 gallons per quarter and making a compensating adjustment to the second block unit rate (Exh. HH-DFR at 45).

Hingham and Hull also propose a three-year phase in of any rate increase granted to the Company by the Department (Exh. HH-DFR at 7-8). Hingham and Hull state that such a proposal is necessary to mitigate the impact of the requested rate increase on Aquarion's customers (Exh. HH-DFR at 7-8). Hingham and Hull state that such a phase-in could be accomplished by allowing two or three incremental increases over the next three years that equal the total allowed revenue increase that would be realized from the one-time increase proposed by the Company (Exh. HH-DFR at 7-8).

4. Positions of the Parties

a. Hingham and Hull

Hingham and Hull contend that the Company has set the block break for its inclining block rates too low (Hingham/Hull Brief at 21). Hingham and Hull recommend a block break of 12,000 gallons, rather than the 9,000 gallon block break that is currently in effect in the Company's inclining block rates (Hingham/Hull Brief at 21). Hingham and Hull argue that a 12,000 gallon block break is a more representative level of use that many residential customers would have a chance to stay under during a billing cycle (Hingham/Hull Brief at 21).

In addition, Hingham and Hull assert that any rate increase granted by the Department should be phased in over a three-year period in order to mitigate the impact on customers (Hingham/Hull Brief at 57). Hingham and Hull argue that this proposal would result in the Company being made whole, while customers would benefit from smaller and more predictable rate increases over this three-year period (Hingham/Hull Brief at 57-58).

Hingham and Hull contend that the Company's use of test year consumption data may be overly conservative because consumption during the test year was lower than it has been in recent years (Hingham/Hull Brief at 21-22). Hingham and Hull assert that the consumption during the 2010 test year of 1,606 million gallons is approximately 6.4 percent lower than consumption used during the test year in the Company's previous rate case (Hingham/Hull Brief at 21).[133] Hingham and Hull aver that preliminary data for 2011 indicate that consumption could be higher than the test year by two to three percent (Hingham/Hull Brief at 22). Hingham and Hull argue that Aquarion has consequently increased its total revenue requirement by approximately $314,339 as a result of the use of the 2010 test year consumption data (Hingham/Hull Brief at 21).

b. Oxford

Oxford recommends that the Department phase in any rate increase that is granted to the Company (Oxford Brief at 28; Oxford Reply Brief at 24). Oxford argues that phasing in the increase would mitigate the impact the increase will have on lower and middle income customers (Oxford Brief at 28; Oxford Reply Brief at 24).

c. Company

The Company asserts that the Department should use its test year revenues to determine Aquarion's revenue deficiency (Company Brief at 62). The Company argues that the proposal put forth by Hingham and Hull to use 2011 revenues to calculate the Company's revenue deficiency is in no way based on Department precedent, and is simply an effort to find a number that could result in lower rates (Company Brief at 63). Thus, the Company contends that Hingham and Hull's proposal should be rejected and the Department should determine the Company's revenue deficiency using test year revenues (Company Brief at 63).

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133 The test year in the Company's previous rate case was 2007. D.P.U. 08-27, at 1.

Regarding the Company's rate design, Aquarion maintains that the rate blocks for its inclining block rates were approved by the Department in the Company's prior rate case and are still appropriate and should not be altered (Company Brief at 63). The Company asserts that the alternative proposal for a revised block break point put forth by Hingham and Hull is arbitrary (Company Brief at 64). In addition, the Company argues that adopting Hingham and Hull's proposal would greatly reduce customers' incentives to conserve water (Company Brief at 64). Aquarion maintains that because the Company has applied the same rate design previously approved by the Department, and because those rates were based on the cost of service study performed in conjunction with the Company's last rate case and no new evidence has been presented in this case suggesting that the block breaks are no longer appropriate, the Department should leave the Company's rate design unchanged (Company Brief at 64-65).

The Company argues that the Department should reject the proposal from Hingham and Hull to phase in the rate increase over three years (Company Reply Brief at 24). The Company asserts that it would be confiscatory for the Department to determine the revenue requirement necessary for the Company to earn a reasonable return and then set rates at a level less than that level (Company Reply Brief at 24).

5. Analysis and Findings

The Department is responsible for determining water rates for investor-owned water systems, including ensuring that rates are designed in a way that meets the Department's rate structure principles. G.L. c. 164, § 94; G.L. c. 165, § 1, 2. The Department discussed the Company's rate design extensively in the last rate case and will not repeat that discussion here because Aquarion is not proposing any changes to its base rate design. See D.P.U. 08-27, at 176-186.

Hingham and Hull raised the issue of the block break for the Company's inclining block rates (Exh. HH-DFR at 43-45). This issue was also fully vetted in the prior rate proceeding. D.P.U. 08-27, at 180-184. Hingham and Hull concentrate on the concept of "essential use" when discussing the proposed revision to the Company's block breaks (Exh. HH-DFR at 43-45). The Department has previously found that there is no basis to establish block breaks using the criteria of essential use. D.P.U. 08-27, at 181-182.[134] Instead, the Department's precedent strikes an equitable balance between the needs of low-volume residential users and the need for price increments that will influence a significant number of residential customers. D.P.U. 08-27, at 183-184; D.T.E./D.P.U. 06-53, at 33. We find no reason to stray from this precedent in this case. In addition, the Company provided billing data for establishing block breaks that were similar to the data used to establish the block breaks in D.P.U. 08-27 (Exh. DPU-AQ 6-8). The Department finds no evidence that would suggest that there has been a significant shift in consumption patterns among Aquarion's customers that would warrant a reconsideration of the block breaks established in D.P.U. 08-27. Therefore, the Department will not order any changes to the Company's block breaks in this proceeding.

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134 In D.P.U. 08-27, at 181-182, the Department found that there is little evidence as to what constitutes essential water use. While most indoor uses of water may arguably be considered essential, water demand varies by individual customer. For example, essential use will be greater for a household consisting of a large family as compared to that of a household with a single person.

Both Hingham and Hull and Oxford also raise the issue of phasing in any increase that is granted to the Company by the Department (Exh. HH-DFR at 7-8; Oxford Brief at 28). Hingham and Hull and Oxford do not cite any authority for the pro rata phase-in of an approved increase in revenue requirement. The Company argues that any pro rata phase-in of a rate increase would be confiscatory to Aquarion (Company Reply Brief at 24).

Confiscation occurs when the Department's ratemaking decision deprives a utility of the opportunity to realize a fair and reasonable return on its investment. Boston Gas Co. v. Department of Public Utilities, 368 Mass. 780, 789-790 (1975).[135] A return is fair and reasonable if it covers utility operating expenses, debt service, and dividends, if it compensates investors for the risks of investment, and if it is sufficient to attract capital and assure confidence in the enterprise's financial integrity. 375 Mass. at 10.

The Department has the authority to order a phase-in of rates and has allowed phase-in of rates in the past.[136] In this case, Hingham and Hull propose a rate design that would

135 "When the property itself is taken by the exertion of the power of eminent domain, just compensation is its value at the time of the taking. So, where by legislation prescribing rates or charges the use of the property is taken, just compensation assured by the constitutional provisions [the Fifth and Fourteenth Amendments] is a reasonable rate of return upon that value." West v. Chesapeake & Potomac Telephone Company of Baltimore City, 295 U.S. 662, 671 (1935).

136 The Department has allowed phased-in rate increases as part of a settlement. Sheffield Water Company, D.P.U. 09-142, at 2-3 (2010); Whitinsville Water Company, D.P.U. 96-111, at 2-3 (1997); see also Boston Edison Company, D.P.U. 92-92, at 9-10, 14-15 (1992); New England Gas Company, D.P.U. 07-46, at 2, 9 (2007). Also, in D.P.U. 85-270, at 120, 129-130, the Department provided for a phase-in over five years, based on the company's proposal, of the company's investment in a nuclear generating plant. As part of the phase-in, the company was made whole by providing "for the accrual of appropriate carrying charges at its allowed net-of-tax return to

phase-in any allowed rate increase over a three-year period. That is, under Hingham and Hull's proposal, no matter what level of revenues Aquarion collects at the end of the phases, in the years when only a portion of the revenue requirement is recovered, the Company will have under-recovered with no means to recapture any revenue shortfall. In essence, the Department will have set a revenue requirement for the Company and then established rates that do not allow the Company to recover that set revenue requirement. As such, Hingham and Hull's rate proposal would constitute an uncompensated partial destruction of earnings. Such a result violates the Department's rate setting principle of earnings stability. D.P.U. 10-70, at 284. Consequently, the Department finds that Hingham and Hull's proposal to phase-in the allowed rate increase is inappropriate in this instance. Further, in consideration of the Department's stated rate structure goals as applied to this case (see Section V.A., above), we find that it is not appropriate to provide for the phase-in of the Company's rates.

Regarding the use of data from the test year to establish the revenue requirement, the Department has long-standing precedent to support this concept. See D.T.E. 03-40, at 27-28; Bay State Gas Company, D.P.U. 1122, at 47-49 (1982). We find no reason to stray from this precedent in this case. The Department finds that the test year chosen by the Company provides a reasonable representation to establish its revenue requirement. The proposals put forth by Hingham and Hull to either "split the difference" between the 2010 test year and the test year data used in the Company's previous rate case, or use verifiable 2011 data, as long as

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permit the company the opportunity to reflect in rates its legitimate costs." D.P.U. 85-270, at 129.

it result in consumption data that is higher than that in the 2010 test year are opportunistic attempts to lower the Company's revenue requirement. Neither of these proposals has any basis in ratemaking policy, nor can they be supported by Department precedent. There is no evidence that the Company's test year billing determinants are somehow unrepresentative or distorted. D.T.E. 03-40, at 27; D.T.E. 02-24/25, at 77, Cf. D.P.U. 88-172, at 7-8; D.P.U. 558, at 70-71. Therefore, the Department rejects both of Hingham and Hull's proposals and directs the Company to use its test year revenues to determine its revenue requirement in this proceeding.

The Company proposes to leave its base rate design unchanged and simply apply a uniform increase to all base rate elements once revenues from the WTP surcharge and miscellaneous revenues are subtracted from the Company's revenue requirement. We find this proposal to be reasonable. Therefore, the Company shall implement its proposal when designing base rates in the compliance filing to this Order.

C. Allocation of Costs to Wheelabrator Millbury, Inc.

1. Introduction

In D.P.U. 08-27, at 151, the Department directed Aquarion in its next rate case to develop an allocation study that precisely determines the direct costs attributable to serving Wheelabrator Millbury, Inc. ("Wheelabrator") and assigns those costs to the rate G-4 class.[137]

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137 Wheelabrator is a large industrial customer and Aquarion's only G-4 class customer (Exh. Hingham-Hull 2-28). In issuing its directive in the last rate case, the Department sought to ensure that there was interclass subsidization. D.P.U. 08-27, at 150.

The Company did not provide an analysis in its initial filing, but did provide an analysis during the proceeding (see Exh. Hingham/Hull 2-28).

2. Positions of the Parties

Regarding the allocation of costs to Wheelabrator, the Company determined that it should not propose any changes to its rate design because the resulting shift of costs to the G-4 rate class would have resulted in a reduction of the average residential bill of approximately 0.6 percent, or $2.38 per year, while increasing the revenue requirement for Wheelabrator by approximately $74,000 or approximately 15 percent (Company Brief at 65, citing Exh. Hingham/Hull 2-28; Tr. 2, at 393-399). The Company argues that making an adjustment to its rate design is not in the public interest because retaining Wheelabrator's load on the system provides significant benefits to all customers (Company Brief at 65). No other party commented on this issue on brief.

3. Analysis and Findings

The Department has reviewed the analysis presented by the Company and concurs that the removal of the costs to serve Wheelabrator from the Company's cost of service would have a negligible impact on the typical residential customer, i.e., $2.38 per year (Exh. Hingham-Hull 2-28; Tr. 4, at 788).[138] At the same time, we recognize that the movement of costs solely to Wheelebrator would have a large impact on that customer,

138 While the Department understands that running a cost of service study can be costly and time consuming, providing the analysis contained in Exhibits Hingham/Hull 2-28 as part of its initial filing would have been a prudent, reasonable, and responsible step for the Company to take.

i.e., $74,000 per year (Exh. Hingham-Hull 2-28; Tr. 2, at 393-399). One of the five rate design goals adhered to by the Department is fairness, meaning that each rate class pays the cost to serve that rate class. Thus, while it is evident that Wheelabrator is being subsidized by the other Aquarion customers, we also recognize that there would be a negative impact on residential customers were Wheelabrator to leave the system. That is, Wheeleabrator currently provides almost $500,000 in revenues to Aquarion, and Wheeleabrator's departure would negatively impact the remaining customers who would be allocated the shortfall. Therefore, we find it appropriate, at this time, to permit the current rate design for the rate G-4 class to be maintained in this limited circumstance.

The Department expects the Company to file a cost of service study with its next base rate request. At that time, the Company is directed to, once again, break out the costs to serve Wheelabrator and propose a solution to the cross-subsidization of Wheelabrator by other Aquarion customers. For the purpose of this rate case, however, the Company need not make any adjustments to its rate design to address this situation.

D. Low-Income Assistance

1. Introduction

In D.P.U. 08-27, the Department approved a shareholder-funded, low-income assistance pilot program proposed by the Company. D.P.U. 08-27, at 206-207. Under this program, income-eligible customers are granted a one-time voucher of $50 per year that is applied to their Aquarion bill (Exh. AQ-HCH at 28). The Company partners with a non-profit community based organization, Wellspring Multiservice Center of Hull, to help operate this program (Exh. AQ-HCH at 28). Aquarion allocated $20,000 to the pilot program during 2009 and 2010 (Exh. AQ-HCH at 28). In 2009, the Company issued vouchers totaling $6,300, and in 2010 the Company issued vouchers totaling $9,350 (Exh. AQ-HCH at 28).

2. Positions of the Parties

a. Oxford

Oxford states that, while it supports the Company's low-income assistance program, it recommends adopting a monthly percentage discount for eligible low-income customers (Oxford Brief at 29; Oxford Reply Brief at 24). Oxford argues that such a discount would allow low-income residents to gain overall greater savings, but still at a reasonable cost to the Company (Oxford Brief at 29; Oxford Reply Brief at 24).

b. Company

The Company states that the costs of this program have been borne exclusively by the shareholders and that no costs associated with the low-income assistance program are recovered from Aquarion ratepayers (Company Brief at 70). The Company seeks Department approval to continue to operate the low-income assistance program at shareholder expense at the current level (i.e., $20,000 annually) indefinitely at its discretion (Company Brief at 70).

3. Analysis and Findings

The Department continues to support Aquarion's shareholder-funded, low-income assistance program. This program remains an innovative program for water utilities in the Commonwealth. The Department sees no need to modify this program at this time and will allow the Company to continue to operate the low-income assistance program. The low-income discount rate program recommended by Oxford resembles a component of a comprehensive rate structure where the cost of the discount would be allocated to the other rate classes. To properly design a low-income discount rate, it would be necessary to consider the number of potentially eligible customers, and the effect of recovering the cost of the discount from other customer classes. See, e.g., D.P.U. 92-101, at 65-66; Essex County Gas Company, D.P.U. 91-107/110/111, at 19 (1991); Colonial Gas Company, D.P.U. 86-27-A at 49 (1988). There is no evidence in this proceeding necessary to support any such low-income discount rate.

VI. HINGHAM WATER TREATMENT PLANT SURCHARGE

A. Introduction

In 1995, the Company was in the process of constructing the Hingham water treatment plant ("Hingham WTP"). D.P.U. 95-118, at 7-10. At that time, the Company's then-parent, American Water Works Company formed Massachusetts Capital Resources Company ("MassCapital") as a wholly owned special-purpose company for the purpose of financing and constructing the Hingham WTP using a project finance approach. Aquarion Water Company of Massachusetts, D.T.E. 05-94-A at 2 (2007); D.P.U. 95-118, at 58. On July 1, 1995, MassCapital purchased the partially constructed Hingham WTP from the Company and obtained access to $37.7 million in tax-exempt bonds through the Massachusetts Development Finance Agency to finance construction. D.P.U. 95-118, at 58-59. MassCapital entered into a ground lease with the Company and, in exchange, the Company entered into a 40.5-year operating lease for the Hingham WTP. D.P.U. 95-118, at 78-79; see also D.T.E. 05-94-A at 2.

The Hingham WTP operating lease consists of (1) a fixed amount that is required to recover costs for debt service, and (2) a variable amount that is calculated based on the volume of water treated at the Hingham WTP in excess of 30 million gallons per month, multiplied by an annual percentage rate (RR-DPU-6, 2nd Supp., exh. 3, Sch. 1, at 1). The Hingham WTP operating lease expense and associated O&M expenses, which include property taxes, are recovered from ratepayers through a surcharge applicable to customers in Service Area A. (Exh. AQ-JAU at 5-8; RR-DPU-6, 2nd Supp., exh. 3, Schs. 1, 2). The Hingham WTP surcharge is designed to collect the annual lease expense and O&M expenses through a two-part charge, consisting of (1) a fixed charge that varies by meter size ("Facilities Charge") and recovers 67 percent of the Hingham WTP operating lease expense, and (2) a volumetric charge ("Consumption Charge") that recovers the remaining 33 percent of the annual lease expense and all of the associated O&M expenses (Exh. AQ-JAU at 7-8).

B. Company's Proposal

During the test year, the Company booked $3,320,886 in expenses related to the Hingham WTP operating lease and associated operating expense (RR-DPU-6, 2nd Supp., exh. 3, Sch. 1, at 1). The Company proposes to increase this expense by $215,251, representing $167,540 in increased Hingham WTP operating lease payment and $49,518 in associated cash working capital (RR-DPU-6, 2nd Supp., exh. 3, Sch. 1).

O&M expenses associated with the Hingham WTP consist of property taxes, chemical costs, power costs, waste disposal costs, and heating expense (RR-DPU-6, 2nd Supp., exh. 3, Sch. 2, at 1). These expenses, plus related cash working capital, are recovered through a volumetric rate (Exh. AQ-JAU at 7-8; RR-DPU-6, 2nd Supp., exh. 3, Sch. 2, at 1). During the test year, the Company booked $1,235,148 in O&M expenses related to the Hingham WTP (RR-DPU-6, 2nd Supp., exh. 3, Sch. 2, at 1). Aquarion proposed to decrease this expense by $37,193, representing the net effect of a decrease of $46,245 in operating expenses and the addition of $9,052 in cash working capital and associated income taxes (RR-DPU-6, 2nd Supp., exh. 3, Sch. 2, at 1).

Based on these adjustments, Aquarion has proposed to include in its cost of service $3,488,425 in Hingham WTP operating lease expense, $661,839 in O&M expense, and $527,065 in property tax expense (RR-DPU-6, 2nd Supp., exh. 3, Schs 1, 2). With the addition of $56,764 in cash working capital allowances, the Company has proposed a total Hingham WTP expense of $4,734,093 (RR-DPU-6, 2nd Supp., exh. 3, Sch. 2, at 1).

C. Hingham and Hull's Proposal

Hingham and Hull state that the Hingham WTP surcharge design is inconsistent with cost allocation principles (Exh. HH-DFR at 46-47). For example, they state that Aquarion's current rate design of the Hingham WTP surcharge is weighted too heavily toward recovery through its fixed component, with a split of two-thirds through the fixed charge and one-third through the volumetric charge (Exh. HH-DFR at 47). This rate design, according to Hingham and Hull, discourages ratepayers from making water conservation efforts (Exh. HH-DFR at 47). Further, taking into consideration the magnitude of the Hingham WTP surcharge in relation to a customer's total bill, Hingham and Hull state that a shift away from fixed charge recovery to volumetric recovery is consistent with key rate design criteria and would allow customers some measure of control over their bills (Exh. HH-DFR at 46-47). Hingham and Hull request that the Department direct Aquarion to revise the Hingham WTP surcharge rate design such that one-half of the surcharge is recovered through the Consumption Charge, and that the remaining half is recovered through the Facilities Charge (Exh. HH-DFR at 48).

D. Positions of the Parties

Aquarion argues that it is appropriate to maintain the current rate structure for the Hingham WTP surcharge (Company Brief at 65-66). Aquarion maintains that Hingham and Hull's proposed rate design violates ratemaking principles and would increase the risk that fixed costs would not be recovered (Company Brief at 66). No other party commented on this issue on brief.

E. Analysis and Findings

1. Hingham WTP Expenses

Aquarion has proposed an increase to test year costs for the Hingham WTP operating lease expense of $215,251, and a decrease for O&M expenses of $37,193 (RR-DPU-6, 2nd Supp., exh. 3, Schs. 1, 2). A proposed change to test year cost of service requires a finding that the adjustment constitutes a known and measurable change. D.T.E. 05-27, at 129; D.T.E. 02-24/25, at 76; D.P.U. 84-32, at 17-18.

The Department has reviewed Aquarion's calculations and supporting data related to its proposed Hingham WTP operating lease expense. Based on this review, the Department finds that the proposed change to the test year amount is based on the Hingham WTP operating lease agreement and therefore is known and measurable (RR-DPU-6, 2nd Supp., exh. 3, Sch. 1).

Additionally, the Department finds that the Company's updated bills for property taxes, chemicals, waste disposal, and heating fuel associated with the Hingham WTP represent known and measurable changes to test year cost of service (RR-DPU-6, 2nd Supp., exh. 3, Sch. 2, at 1). Accordingly, the Department allows these adjustments to be recovered in the Hingham WTP surcharge.

The Hingham WTP surcharge includes a cash working capital component associated with the lease and O&M expenses, along with an income tax component associated with the increase in rate base resulting from the additional cash working capital allowance (RR-DPU-6, 2nd Supp., exh. 3, Sch. 1, at 1, Sch. 2, at 1). The Department finds that while the Company has appropriately applied a 45/365-day cash working capital allowance factor to the lease-related expenses, the Company's income tax calculation applies an incorrect federal tax rate of 35 percent. See Section III.N., above. Moreover, because the Department has revised the Company's WACC (see Section IV., above), corresponding adjustments are required to the cash working capital computation. Therefore, the Department has applied a federal income tax rate of 34 percent in the calculation of the Hingham WTP surcharge, as shown in Section IX.J. (Schedule 10), below, as well as an overall WACC of 7.46 percent and a weighted cost of equity of 4.20 percent, as shown in Section IX.E. (Schedule 5), below.

Based on the foregoing analysis, the Department finds that the recoverable level of Hingham WTP operating lease expense is $3,488,425, with a recoverable O&M expense of $1,188,904 and cash working capital allowances of $51,510. See Section IX.J. (Schedule 10), below. Accordingly, the Department reduces the Company's proposed cost of service by $5,253.

2. Hingham WTP Surcharge Design

Hingham and Hull propose that the Hingham WTP surcharge be modified so that one-half of the total surcharge is recovered through the Consumption Charge. Hingham and Hull state this rate design would reflect cost causation better than the rate design of the current surcharge and would provide customers with an additional incentive to lower their consumption to reduce their water bills (Exh. HH-DFR at 46-48).

Water companies tend to have relatively large fixed costs in relation to their total cost of service and these costs must be met even if an individual customer's total consumption is relatively small. Salisbury Water Supply Company, D.P.U. 84-90, at 9 (1987). Nevertheless, the Department recognizes that many of the processes and sub-processes in a water treatment plant are designed to meet average demand conditions and that there is an imperfect correlation between meter sizes and customer demand. D.P.U. 08-27, at 203. It is precisely for this reason that the Department has previously rejected the recovery of the Hingham WTP operating lease expense through exclusively fixed charges. D.P.U. 95-118, at 174-175. Instead, the Department directed the Company to recover the Hingham WTP operating lease expense through a combination of the Facilities Charge and the Consumption Charge, keeping in mind our rate design goals, with particular focus on fairness, continuity, and revenue stability. D.P.U. 95-118, at 175. The resulting rate design also acknowledges the importance of achieving efficiency in customer consumption decisions by allocating one-third of the Hingham WTP operating lease expense through the Consumption Charge.

The Department has evaluated the proposed rate designs associated with assigning various portions of the Hingham WTP surcharge between the Facilities Charge and the Consumption Charge, including the assignment proposed by Hingham and Hull (Exhs. AQ-JAU at 7-8; HH-DFR at 46-48; RR-DPU-6, 2nd Supp., exh. 3, Sch. 2, at 1). The Company's proposed allocation of the Hingham WTP operating lease expense between the Facilities Charge and the Consumption Charge, combined with the recovery of the other Hingham WTP O&M costs through the Consumption Charge, results in recovery of approximately 50 percent of the Hingham WTP-related expenses through a fixed component and the remainder through a volumetric component (Exh. AQ-JAU at 8). Hingham and Hull's proposed rate design would result in a shift of over $500,000 of fixed lease costs into volumetric rates, and result in approximately 63 percent of Hingham WTP-related costs being recovered through the Consumption Charge. This revenue shift would result in an excessive and disproportionate level of the Hingham WTP costs being imposed on higher-volume users. Therefore, the Department finds that Hingham and Hull's proposed rate design for the Hingham WTP surcharge violates our rate design goals. D.P.U. 08-27, at 203; D.P.U. 95-118, at 174-175; D.P.U. 84-90, at 9.

The current rate design of the Hingham WTP operating lease expense between the Facilities Charge and the Consumption Charge, combined with the recovery of other Hingham WTP O&M costs through the Consumption Charge, results in recovery of approximately

50 percent of Hingham WTP-related expenses through a fixed component and the remainder through the volumetric component for typical 5/8-inch metered customers using 62,500 gallons per year (Exh. AQ-JAU at 8). The Department finds that this combination of fixed and variable recovery strikes a reasonable balance of the goals of rate continuity, fairness, and revenue stability.

To determine the appropriate level of the Hingham WTP annual lease costs to include in the fixed and variable portions of the Hingham WTP surcharge, the Department has evaluated the surcharge in view of our rate design goals. Based on our view of our rate design goals and an analysis of the resulting rate structure, the Department finds that the Hingham WTP surcharge should maintain a Facilities Charge that recovers 66.67 percent of the Hingham WTP annual lease costs through a fixed charge, with the remaining 33.33 percent recovered through the Consumption Charge. The O&M expenses associated with the Hingham WTP, including property taxes, will be recovered through the Consumption Charge.

VII. REVISED TERMS AND CONDITIONS

A. Introduction

The Company is proposing increases to two of the fees that it charges to seasonal customers, along with several revisions to its rules and regulations[139] (Exhs. AQ-HCH at 11-13; AQ-8). Specifically, Aquarion proposes to increase the fees from $5 to $49 for (1) meter set and turn on for seasonal customers, and (2) meter removal and turn off for seasonal customers (Exhs. AQ-HCH at 11-12; AQ-8, at 28). The proposed fees for (1) meter

[139] The Company's rules and regulations are set forth in its tariff M.D.P.U. No. 2.

set and turn on, and (2) meter removal and turn off, assume one hour of labor for a service technician, plus applicable benefits and overhead costs, for a total cost of $49 (Exh. DPU-AQ 2-14. Att. A).[140]

In addition, Aquarion proposes the following changes to its rules and regulations: (1) adding language to Section 9 that specifies that meter pits, or separate meter rooms accessible by the Company, will be required for all new construction; (2) modifying Section 9 to require separate metering for each unit in all newly constructed multi-family residences of fewer than six units; (3) clarifying in Section 12 that customers bear responsibility for damage to meters from freezing or hot water; (4) revising Section 13 to specify that premises with more than one meter shall be billed at the total consumption of all meters, plus the minimum charge for each meter on the premises; (5) clarifying Section 14 regarding the calculation of bill adjustments in the event that a customer's meter is found to be running fast; (6) clarifying Section 22 regarding the leak adjustment available to customers who discover a leak as a result of a high bill, at 50 percent of the excess over the average bill level; (7) inserting Section 23 that allows the Company to assess a theft of service charge to customers who knowingly steal water or who fail to install a meter after the Company requires them to do so; and (8) adding to Section 25 to institute mandatory water restrictions on lawn sprinklers and irrigation systems

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140 The rate for a service technician is $26.55 per hour. The Company applied a benefit rate of 60.34 percent and a general administrative and overhead rate of 15 percent, resulting in an hourly cost of $48.96 (Exh. DPU-AQ 2-14, Att. A).

(Exhs. AQ-HCH at 12-13; AQ-8, at 6-20).[141] The Company later withdrew its proposed theft of water charge and stated that it was prepared to add appropriate language to its rules and regulations that is consistent with the requirements of G.L. c. 165, § 11 (Exh. DPU-AQ 2-9; Tr. 1, at 249-251).

B. Positions of the Parties

1. Hingham and Hull

Hingham and Hull recommend that Aquarion be required to solicit reasonable community input prior to implementing its proposed service fee increases or rule changes (Hingham/Hull Brief at 19). Hingham and Hull state that where community input points out further revisions, the Company should proactively work with the communities to arrive at mutually agreeable results (Hingham/Hull Brief at 19).

2. Company

The Company states that the Department precedent indicates that fees for service should be based on the cost associated with the function that a company actually incurs to provide that service (Company Brief at 66-67, citing D.P.U. 08-27, at 45-46; Whitinsville Water Company, D.P.U. 89-67, at 4-5 (1989)). The Company claims that the fees for (1) meter set and turn on service, and (2) meter removal and turn off service were determined to be approximately $49, based on an analysis presented in the Company's prior rate case (Company Brief at 67, citing Exh. DPU-AQ 2-13). In D.P.U. 08-27, the Department approved the

[141] The Department notes that the sections of the Company's rules and regulations referenced in Exhibit AQ-HCH do not match the section numbers in the Company's proposed rules and regulations, Exhibit AQ-8. The Department has referenced the sections as they appear in Exhibit AQ-8.

Company's increase of its meter set and turn on fee for all customers to $49 (Company Brief at 67, citing Exh. AQ-HCH at 11-12; D.P.U. 08-27, at 44). Aquarion maintains that because the proposed fees are based on the costs actually incurred by the Company, they should be found to be reasonable and approved by the Department (Company Brief at 67).

C. Analysis and Findings

The Company has proposed a number of modifications to its rules and regulations. All of these proposed changes were included in the Company's original filing, which were made available to the public. The Department received several letters from Aquarion customers regarding these proposed changes, so it is clear that the Company's customers were aware of these proposed changes. Thus, the Department is unsure what additional process is being sought by Hingham and Hull. Further, were the Department to accept Hingham and Hull's proposal for additional process, there is a significant risk that the resulting terms and conditions would be inconsistent with the Department's billing and termination regulations codified at 220 C.M.R. § 25.00. For these reasons, the Department finds that no additional process is necessary before the Company can implement these proposed changes, with the modifications referenced below.

Regarding the proposed language pertaining to meter tests and test fees (Section 14 of M.D.P.U. No. 2), the Department notes that this language must comply with G.L. c. 165, § 10.[142] The Company provided sample language that complies with G. L. c. 165, § 10 in response to Exhibit DPU-AQ 4-43. The Department directs the Company to incorporate in its

142 G.L. c. 165, § 10 pertains to the examination and testing of water meters.

rules and regulations the language from Exhibit DPU-AQ 4-43 in its compliance filing to this Order.

Regarding the proposed language pertaining to theft of service (Section 23 of M.D.P.U. No. 2), the Department concurs with the Company that it should add appropriate language so that it is consistent with the requirements of G.L. c. 165, § 11.[143] The Department directs the Company to include language in its rules and regulations regarding theft of service that complies with G.L. c. 165, § 11 in its compliance filing to this Order.

The Company also proposes to increase the fees from $5 to $49 for (1) meter set and turn on for seasonal customers, and (2) meter removal and turn off for seasonal customers (Exhs. AQ-HCH at 11-12; AQ-8, at 28). The Company states that it is proposing this increase to reflect the true cost of providing this service for its seasonal customers (Exh. AQ-HCH at 11-12). In D.P.U. 08-27, the Company proposed and the Department allowed an increase to its meter set and turn on fee to $49 for all customers. D.P.U. 08-27, at 45-46.

The Department has found that fees for various services, such as meter testing, returned checks, and cross-connection inspection fees, must be based on the costs that the company actually incurred associated with these functions. D.P.U. 08-27, at 46; D.T.E. 01-42, at 28; D.T.E. 95-118, at 84; D.P.U. 89-67, at 4-5. Fees for ancillary services such as processing after-hours call-outs are intended to reimburse a company for actual costs incurred in providing

[143] G.L. c. 165, § 11 provides penalties for intentional damage to or interference with a water meter.

these particular services. See, e.g., D.P.U. 95-118, at 84; D.P.U. 89-67, at 4-5; D.P.U. 956, at 62.

The Department has reviewed the Company's calculations and assumptions and finds that the proposed fees of $49 for (1) meter set and turn on for seasonal customers, and (2) meter removal and turn off for seasonal customers are based on the costs that the Company actually incurs associated with these functions and, thus, are reasonable.

The Department is aware that the meter removal and turn off fee represents a significant increase to fees charged to seasonal customers. Nonetheless, the record shows that the nominal $5 fee that these customers were charged previously did not cover the Company's costs for providing this service. The Department's rate setting goal of fairness dictates that customers pay the cost to serve them. Thus, the cost to provide this service should be charged to the customers that cause the cost, rather than be subsidized by other customers. This fee increase meets our goal of fairness as it evident that seasonal customers were not paying the cost to serve them through the $5 fee that they currently pay for (1) meter set and turn on, and (2) meter removal and turn off. Therefore, the Department allows the Company to increase the fees from $5 to $49 for (1) meter set and turn on for seasonal customers, and (2) meter removal and turn off for seasonal customers. The Department directs Aquarion to include this revision in fees in its compliance filing to this Order.

The Department has reviewed the remaining proposed changes to the Company's rules and regulations and has determined that the proposed changes are reasonable and in the public interest. Therefore, Aquarion is directed to include these proposed changes in the compliance filing to this Order.

VIII. SERVICE QUALITY

A. Customer Service and Communications

1. Introduction

Service quality related to customer service and communications has been an on-going issue for Aquarion. See e.g., D.P.U. 08-27, at 214; D.P.U. 95-118, at 184; D.P.U. 88-170, at 49-51; D.P.U. 1590, at 42-46. To address this issue, Aquarion states that it has embarked on a program to improve its customer service, with the goal of enhancing customers' overall experience and of improving the Company's relationship with its customers (Exh. AQ-HCH at 17).

Aquarion's customer service improvement program includes a plan that focuses on (1) senior management leadership, (2) expectations for service delivery and customer communications, (3) training, (4) customer feedback, (5) reward and recognition, and (6) logistics (Exh. AQ-HCH at 19-24). Changes made pursuant to the plan include improvements to the Company's website, an out-bound call service to remind customers of service appointments, and an interactive voice recognition telephone system (Exh. AQ-HCH at 24). In addition, the Company has implemented a program to recognize employees identified by customers as having performed in an outstanding manner (Exhs. AQ-HCH at 23-24; AQ-HCH-1, at 1-5). The Company also opened a satellite office in Oxford during

2010 to increase customer access to Aquarion's offices (Exh. AQ-HCH at 23-24).[144] Finally, Aquarion has formed two customer advisory groups to provide the Company with feedback regarding customer service performance and to identify emerging issues of concern (Exh. AQ-HCH at 22-23).

Based on the results of third-party surveys, the Company's overall customer satisfaction index remained relatively stable from 2007 to 2010 (i.e., 87.4 percent in 2007 and 88.4 percent in 2010) (Exhs. AQ-HCH at 26; AQ-HCH-2 at 1-22). Customer satisfaction with Company field personnel has increased from 95.6 percent in 2007 to 98.6 percent in 2010 (Exhs. SQ-HCH at 26; AQ-HCH-2 at 1-22).

2. Positions of the Parties

a. Hingham and Hull

Hingham and Hull note that the Company's service quality and customer communications were the subjects of scrutiny in Aquarion's last two rate cases and they argue that quality of service and customer communications continue to be a problem (Hingham/Hull Brief at 48-49, citing D.P.U. 08-27, at 214; D.P.U. 95-118, at 184). Despite what appeared to be areas of improvement as noted by the Department in Aquarion's previous rate case, Hingham and Hull assert that the Department placed the Company on notice that, if improvements did not continue, other measures would be considered (Hingham/Hull Brief at 48-49, citing D.P.U. 08-27, at 214; D.P.U. 95-118, at 184).

144 This office is open on a part-time basis and is staffed by an Aquarion employee normally assigned to the Millbury office (Exh. DPU-AQ 2-26). Aquarion's satellite office in Oxford is discussed in Section III.J., above.

Hingham and Hull contend that customer comments at the public hearing held in Hingham for this rate case focused on quality of service and poor communications (Hingham/Hull Brief at 48). Nonetheless, Hingham and Hull maintain that Aquarion took no steps to contact any of the customers who spoke at the public hearing or filed comments with the Department about service problems (Hingham/Hull Brief at 49-50). Hingham and Hull maintain that, regardless of Aquarion's reasons for not responding to these customers, the Company's failure to do so amounts to imprudent management (Hingham/Hull Brief at 50).

In another example of what Hingham and Hull consider to be evidence of poor customer communications, they contend that Company officials cancelled at the last minute a scheduled appearance at a public meeting with the Hull Board of Selectmen to discuss certain road projects and an area of repeated water main breaks (Hingham/Hull Brief at 52). Hingham and Hull argue that the Company's reason for the cancellation (i.e., a concern that the meeting would interfere with the evidentiary hearings in this proceeding) was unfounded and inadequate (Hingham/Hull Brief at 52). Finally, as the Department considers service quality issues here, Hingham and Hull urge the Department to also consider the evidence concerning customer complaints that is part of the record in D.P.U. 09-48 (Hingham/Hull Brief at 49).[145]

To address the ongoing service quality issues, Hingham and Hull request that the Department direct the Company to make specific improvements in its communications with municipal officials and the public (Hingham/Hull Brief at 50). First, Hingham and Hull argue

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[145] The Department's investigation in D.P.U. 09-48 concerns a petition by 20 customers in Hull, pursuant to G.L. c. 164, § 93 and G.L. c. 165, § 2, requesting a review of the quality of the service provided by Aquarion related to a water main break in Hingham that affected service in Hull.

that the Department should require Aquarion to develop and implement a modern communications plan that relies on e-mail, an appropriate reverse 911-type system,[146] as well as electronic signage to deliver messages regarding emergencies or hydrant flushing (Hingham/Hull Brief at 54-55).[147] Second, Hingham and Hull argue that Aquarion should be required to immediately notify town administrators, public safety officials, school departments, and boards of health of any situation affecting water pressure (Hingham/Hull Brief at 55). Third, Hingham and Hull argue that Aquarion should be required to hold public meetings as needed regarding the implementation of any system improvements (Hingham/Hull Brief at 55). Fourth, Hingham and Hull argue that Aquarion should be required to hold regular public meetings on at least a quarterly basis to address matters of mutual concern to the Company and its customers (Hingham/Hull Brief at 55).

b. Company

Aquarion maintains that its commitment to its customers is shown by the evidence in this case (Company Reply Brief at 3). The Company maintains that, in its two most recent customer satisfaction survey studies performed in 2007 and 2010, the Company's overall satisfaction rating exceeded 87 percent (Company Reply Brief at 5-6, citing Exh. AQ-HCH

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146 A reverse 911 system is a public safety communications system used to deliver recorded emergency notifications to a distinct set of telephone service subscribers.

147 Hingham and Hull criticize the Company's selection of a reverse 911-type vendor that uses the trade name "CodeRed," which they allege is "alarmist phraseology" (Hingham/Hull Brief at 54-55; see Tr. 1, at 239-240). According to Hingham and Hull, customers receiving this message on their caller ID are likely to be frightened (Hingham/Hull Brief at 54-55).

at 26). In addition, the Company states that its customer call center has been given a top ranking for five consecutive years by Connecticut regulatory authorities (Company Brief at 68, citing Exh. AQ-HCH at 25-26; Company Reply Brief at 5-6, citing Exh. AQ-HCH at 26; Tr. 4, at 799).[148]

In addition to these objective measures of customer satisfaction, the Company argues that it engages in continuous efforts designed to improve customer service at all levels (Company Reply Brief at 6). Aquarion argues that, in addition to the adoption of standardized procedures for handling customer calls and a one-call resolution system, it has taken a number of measures to improve customer communications regarding service issues (Company Brief at 68; Company Reply Brief at 3). Aquarion cites its expanded use of a reverse 911-type system as well as improved procedures to keep municipal and public safety officials informed of emergency situations (Company Reply Brief at 3-4).[149] In non-emergency situations, such as the imposition of water use restrictions, Aquarion argues that it relies on newspaper notices, street signage, town websites, and social media to keep its customers appropriately informed (Company Reply Brief at 4). Aquarion also cites its recently-opened satellite office in Oxford as a means to address customer concerns raised in that service area (Company Brief at 68; Company Reply Brief at 4-5).

148 The call center for the combined Aquarion water system provides service not only to Aquarion, but also to Aquarion-CT (Exh. AQ-TMD at 18-19).

149 Concerning Hingham and Hull's objection to the term "CodeRed" used by the Company's reverse 911 vendor for caller ID purposes, Aquarion maintains that this term is a trademark which the vendor declines to revise and that its use is not within the control of the Company (Company Reply Brief at 4 n.3, 33, citing Tr. 1, at 239-240).

The Company vigorously defends its response to customer concerns raised at the public hearing held in Hingham for this rate case (Company Reply Brief at 5-6). According to the Company, attendees were invited to speak after the hearing with Company officials in attendance, and a number of customers with specific issues did approach the Company afterward (Company Reply Brief at 5, citing Tr. 1, at 221-222). The Company maintains that the majority of issues raised at the public hearing were either not specific enough to require follow-up or were from customers merely wishing to have their voices heard (Company Reply Brief at 5, citing Tr. 1, at 222).

Regarding Hingham and Hull's criticisms of the Company's failure to attend a scheduled selectmen's meeting in Hull, Aquarion notes that the meeting was on the eve of evidentiary hearings in this proceeding (Company Reply Brief at 6). The Company maintains that its non-attendance resulted from a concern that it would be inappropriately questioned at the meeting regarding matters related to this proceeding (Company Reply Brief at 6). Aquarion contends that, under these circumstances, a decision not to participate in a selectmen's meeting does not constitute evidence of a general failure to communicate with municipal officials (Company Reply Brief at 6).

Aquarion states that it continues to make every effort to keep town officials apprised of important issues affecting the water system (Company Reply Brief at 34). Therefore, the Company maintains that it is unnecessary for the Department to mandate public meetings (Company Reply Brief at 34).

3. Analysis and Findings

For more than 30 years, Aquarion has been unable to manage its customer service and communications in a way that completely satisfies the town intervenors as well as the Company's customers. See D.P.U. 08-27, at 214; D.P.U. 95-118, at 184; D.P.U. 1590, at 42-46; Hingham Water Company, D.P.U. 1118, at 30-31 (1983); Hingham Water Company, D.P.U. 322, at 14-16 (1982). The Department has previously placed the Company on notice that continued deficiencies in its customer service would be a factor in setting the Company's allowed ROE. D.P.U. 95-118, at 184; see also D.P.U. 08-27, at 135-136. Recently, Aquarion has begun a number of initiatives intended to improve customer service (Exh. AQ-HCH at 17-26). In addition, in Aquarion's most recent customer satisfaction survey study performed in 2010, the Company's overall average customer satisfaction rating was 88.4 percent (Exh. AQ-HCH at 26). In two important areas, however, Aquarion's ratings are indicative of underlying concerns. Of the 6.6 percent of total respondents who gave the Company a low rating in any one of the nine areas covered in the survey, 43.4 percent cited the lack of adequate customer communications as a reason for their low rating, and 17.0 percent cited the Company's failure to notify customers of operating changes as a reason for their low rating (Exh. HCH-2, at 11).

To address service quality issues, Hingham and Hull request that Aquarion be required to: (1) implement a modern communications plan; (2) improve communications with town officials in emergency situations; (3) hold public meetings and file quarterly reports on system upgrades and improvements; and (4) hold quarterly meetings with local officials and the public

(Hingham/Hull Brief at 50-55). The Department addressed each of these issues in D.P.U. 09-48.

In D.P.U. 09-48, at 23-24, the Department found that Aquarion's communications with local officials and the public were lacking during a major service interruption following a water main break in 2009. The Department stated that it would consider this issue in setting the ROE in the instant case. D.P.U. 09-48, at 24. The Department concluded that it was incumbent on the Company to notify all relevant municipal authorities as soon as a potential wide-spread service interruption is identified, and emphasized the need for companies to be responsive to local needs, including regular and ongoing communications with both local officials and the public about service matters. D.P.U. 09-48, at 23, 27.

In addition, the Department found that, while the Company employed many of the types of communications suggested by Hingham and Hull, these measures alone were an insufficient means of notifying customers of a significant service disruption in a timely manner. D.P.U. 09-48, at 24. Consistent with the change in practice the Company described in the current proceeding, the Department directed Aquarion to revise its emergency response plan ("ERP") to permit the use of its reverse 911-type system in the event of a widespread service interruption. D.P.U. 09-48, at 25, citing Tr. 1, at 239.

Further, the Department found that the monthly report Aquarion currently issues for Service Area A concerning weather trends, water supply, main replacement projects, and customer service efforts provides important information to town officials and the Department.

D.P.U. 09-48, at 26-27.[150] The Department directed the Company to expand this report to include all towns in the Company's service area. D.P.U. 09-48, at 27. Finally, although the Department declined to impose specific requirements for regular public meetings at this time, we directed Aquarion to begin the necessary dialogue with the communities it serves to improve communications. D.P.U. 09-48, at 27.

Given the need to improve communications, the Department takes note of the acrimonious tenor of relations between Aquarion and the towns. Over the years, an environment has developed where the perception is that Aquarion is quick to ascribe ulterior motives behind legitimate complaints or concerns, and municipal officials are prompt to attribute any Company shortcoming or action to mismanagement. A common theme behind many of the issues raised by the Company and the towns in this proceeding is a fundamental failure in communication among Aquarion, its customers, and municipal officials. We do not ascribe blame to either the Company or the towns; vigorous advocacy is welcomed as assisting the Department in its role as a fact finder. The evidence is compelling, however, that advocacy has devolved into combativeness, and that current relations are strained to the point where it is adversely affecting the Company's operations.

Accordingly, the Department concludes that Aquarion and its customers will benefit from an in-depth review of the Company's communications practices through an independent audit to be conducted pursuant to the Department's supervisory authority under G.L. c. 165,

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150 This report is issued to state and local officials in Aquarion's Hingham/Hull service area and to the Department. D.P.U. 09-48, at 26-27.

§ 4. Such an audit will enable an assessment of the communication issues raised in this proceeding in an atmosphere free of contention and acrimony. D.P.U. 89-114/90-331/91-80 (Phase One) at 197. The scope of the audit will include an examination of: (1) the Company's routine communications with the public and public officials, including flushing notices (see Section VIII.C., below); (2) the Company's emergency communications with the public and public officials, including its reverse 911-type system; (3) the Company's day-to-day interactions with the public and municipal officials, including attendance and participation at public meetings; (4) the Company's processes for understanding the needs and expectations of its customers and for translating those into requirements for the Company; and (5) the use of e-mail, websites, and social networks as means of customer communication. For each of these areas, the audit should identify how the Company's performance compares to other comparable water systems and should recommend cost-effective actions, if needed, to promote improved communications.[151] The Department directs Aquarion to submit, on or before June 1, 2012, a draft RFP to secure the services of a qualified independent auditor or consultant to perform a communications audit.[152]

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151 To the extent that these recommendations involve incremental costs, cost estimates should be identified in the audit.

152 The Department will open a docket to manage the communications audit. Parties to the instant proceeding will be given an opportunity to comment on the draft RFP, the Company's proposed selection of an auditor, and the final audit report. For examples of audit processes and procedures employed by the Department, refer to National Grid Audit, D.P.U. 10-155 (2012); New England Gas Company, D.P.U. 08-110-B (2011).

During the pendency of the audit, the Department fully expects that the Company will comply with all directives contained herein and in D.P.U. 09-48. In particular, we expect that Aquarion will begin the necessary dialogue with the towns in its service areas to improve communications. See D.P.U. 09-48, at 27. We expect that this dialogue could be challenging but, to the extent that the towns and the Company can focus on current needs instead of past grievances, it will benefit both Aquarion and its customers.

B. Infrastructure Improvements

1. Introduction

In response to the Department's directives in D.P.U. 08-27, at 221 concerning the need for upgrades to the Company's distribution system in Hull and elsewhere, Aquarion updated its capital efficiency plan for Service Area A (i.e., Cohasset, Hingham, and Hull) and is presently developing a capital efficiency plan for the Millbury portion of Service Area B; the capital efficiency plan for the Oxford portion of Service Area B was prepared in 2007 and remains current (Exh. Oxford 1-17, Atts. B, E). These capital efficiency plans are designed to identify and prioritize capital improvements in each of the Company's service areas (Exh. Oxford 1-17, Atts. B, E).

2. Positions of the Parties

a. Hingham and Hull

Hingham and Hull argue that, to the extent the Department recognized any service improvements in D.P.U. 08-27, these improvements were either temporary or inadequate in light of the infrastructure problems identified in the instant proceeding (Hingham/Hull Brief at 55-56). For example, Hingham and Hull note that in Aquarion's previous rate case, the

Department recognized the age of existing infrastructure in Hull, as well as a lack of investment in new infrastructure in that community (Hingham/Hull Brief at 56, citing D.P.U. 08-27, at 221). While Hingham and Hull acknowledge that the Company has responded to the Department's directives in D.P.U. 08-27 by consulting with Hull officials on the Atlantic Avenue project, they argue that more infrastructure improvements are needed in that community (Hingham/Hull Brief at 56). Hingham and Hull further allege that the Company has neglected its infrastructure in Hingham, as evidenced by the number of main breaks along Free Street and Union Street (Hingham/Hull Brief at 57, citing Tr. 1, at 104, 106). Hingham and Hull contend that Aquarion has failed to allocate any funds for the repair of mains in this area, and argue that there appears to be no specific plan to address this situation (Hingham/Hull Brief at 57).

To address these issues, Hingham and Hull argue that the Department should direct the Company to make specific improvements to its capital efficiency plans (Hingham/Hull Brief at 53-54). First, Hingham and Hull request that the Department direct Aquarion to develop and implement a plan for examining old mains, as well as mains in areas known or suspected to be affected by surface or subsurface water flow, using specific engineering studies (Hingham/Hull Brief at 53-54). In developing this plan, Hingham and Hull argue that the Company should be required to use modern technology, such as pipe cameras and soil borings, to identify problem mains (Hingham/Hull Brief at 54, citing Exhs. DPU-AQ 2-10; DPU-AQ 2-14). Second, Hingham and Hull request that the Department direct Aquarion to develop plans for the replacement of older mains before they break, as well as the replacement of newer mains that may be affected by soil erosion (Hingham/Hull Brief at 54).

b. Company

Aquarion argues that the issue of capital improvements in Hull has been fully addressed (Company Reply Brief at 34). The Company states that it will continue to address aging infrastructure in Hull, as well as in the other communities in its service territory (Company Reply Brief at 34).

3. Analysis and Findings

The age of the Company infrastructure has long been of concern to the Department. D.P.U. 08-27, at 221. According to the capital efficiency study prepared for Service Area A, almost 58 percent of mains in service at the end of 2008 had been in service for more than 50 years, and more than 11 percent had been in service for over a century (Exh. Oxford 1-17, Att. B at 31). Moreover, other factors, such as the size of mains, construction materials used, soil conditions, and fire flow requirements affect the condition of the Company's mains and the need for replacement (see Exh. Oxford 1-17, Att. B at 29-35, 39).[153] In Aquarion's last rate case, the Department directed the Company to commence a planned capital improvement program that took into consideration the needs of both Hull and other communities in the Company's service territory. D.P.U. 08-27, at 221. The Department further directed the

153 More recently, concerns have been raised about soil settling from the effects of surface or subsurface water flow. D.P.U. 09 48, at 3, 16-17.

Company to consult with Hull officials regarding the specific projects and the timing of such projects. D.P.U. 08-27, at 221.

Since the Department's Order in D.P.U. 08-27, Aquarion has made progress in its mains replacement program. Within Service Area A, the Company installed 1,804 feet of new mains in 2008, 1,505 feet of new mains in 2009, and 2,353 feet of new mains in 2010 (Exh. Hingham/Hull 2-29, Att. A at 75, 181, 288).[154] These mains replacements include the Atlantic Avenue project and the South Street and Clark Road projects in Hingham (Exh. AQ-RLR at 5-6). Notwithstanding these additions and improvements, other sections of the Company's distribution system are in need of replacement (Exh. Hingham/Hull 1-68; Tr. 1, at 155). Hingham and Hull argue that the Company should be required to undertake specific engineering studies using modern technology to prioritize mains replacement projects and develop plans to replace older mains before they break (Hingham/Hull Brief at 53-54).

As noted above, Aquarion completed capital efficiency plans for its Service Area A and the Oxford portion of Service Area B in 2011 and 2007, respectively, and is presently developing a plan for the Millbury portion of Service Area B (Exh. Oxford 1-17, Atts. B, E). The capital efficiency plans rely on an approach that considers capital needs based on an evaluation of three factors: (1) system hydraulics; (2) critical component assessments; and (3) asset management considerations (Exh. Oxford 1-17, Atts. B at 7, E at 7). Each factor

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154 As described below, the Company's capital efficiency plans categorize projects into three priority categories. Aquarion's construction activities in Service Area A between 2008 and 2010 resulted in the replacement of approximately 11 percent of main projects identified as Priority I and Priority II (Exh. Oxford 1-17, Att. B at 45-52).

relies on a unique set of evaluation criteria (Exh. Oxford 1-17, Atts. B at 7, E at 8). Priority I items are the most needed improvements based on all three factors (i.e., system hydraulics, location on the system, and condition of the main) (Exh. Oxford 1-17, Atts. B at 8, E at 8). Priority II items are improvements required based on two of the three factors, and are generally intended to benefit a localized area (Exh. Oxford 1-17, Atts. B at 8, E at 8). Priority III items are mains that are either hydraulically deficient or raise asset management issues (Exh. Oxford 1-17, Atts. B at 8, E at 8).[155]

Based on the results of the capital efficiency study for Service Area A, Aquarion identified five mains replacement projects in Hingham and three in Hull as Priority I, with a total estimated cost of $3,026,000 (Exh. Oxford 1-17, Att. B at 45-47, 49-50). The Company identified 21 Priority II mains replacement projects in Hingham and Hull with a total cost of $7,599,000, and 14 Priority III mains replacement projects in Hingham and Hull with a total cost of $4,873,000 (Exh. Oxford 1-17, Att. B at 48-55, 58-65). In the case of Oxford, the Company's capital efficiency study identified four Phase I mains replacement projects with a total cost of $5,286,000, nine Phase II mains replacement projects with a total cost of $1,866,000, and eight Phase III mains replacement projects with a total cost of $2,605,000 (Exh. Oxford 1-17, Att. E at 44-49). The capital efficiency plans also recommend that the Company develop a water main failure database to assist in identifying the causes of mains

155 Because Oxford's capital efficiency plan identified a large number of recommended improvements, it is intended as guide for further study and, therefore, uses the term "Phase" instead of "Priority" (see Exh. Oxford 1-17, Att. E at 38).

failures to assist in future water mains replacements (Exh. Oxford 1-17, Atts. B at 43-44, E at 37).

The Department has reviewed the Company's capital efficiency plans for Service Areas A and B, including the evaluation criteria and assumptions used. We have considered the role of internal and external corrosion on water mains, including corrosion caused by salt water, high groundwater, and aggressive soils (Exh. Oxford 1-17, Atts. B at 39-40, E at 28). We have also considered the age of Aquarion's mains, as well as the Company's history of main breaks (Exh. Oxford 1-17, Atts. B at 28-35, E at 19-24). Based on our evaluation, the Department finds that Aquarion has undertaken adequate engineering studies for mains replacement projects, using objective and reliable criteria to identify problem mains and prioritize their replacement (Exh. Oxford 1-17, Atts. B, E). The Department further finds that Aquarion's capital efficiency plans provide a reasonable basis by which to evaluate and prioritize Aquarion's capital needs. Accordingly, we will not require the Company to conduct further engineering studies as requested by Hingham and Hull.

To evaluate the potential costs and benefits of modern technological solutions for inspecting, maintaining, and repairing the Company's infrastructure, the Department will require Aquarion to prepare a report regarding the inspection, maintenance and repair technologies applicable to water distribution mains. As part of the initial filing in its next general rate case, Aquarion shall submit a report containing the following information: (1) a description of the mains inspection, maintenance, and repair technologies then currently available, such as remote cameras and soil monitoring systems; (2) the capital and operating costs associated with these technologies; (3) an estimate of potential annual savings associated with these technologies; and (4) an evaluation of the feasibility of the use of such technologies by the Company.

C. Hydrant Flushing

1. Introduction

Water systems are periodically flushed to remove accumulated sediment from the mains. See Department of Environmental Protection Guidelines for Public Water Systems ("DEP Guidelines") § 9.3(9).[156] In this procedure, a fire hydrant is opened under controlled conditions until the flow is approximately 2,000 gallons per minute, and run thereafter until all the sediment has been discharged (Exh. DPU-AQ 2-20). The Company states that its current practice is to flush one-third of its system in Hingham and Hull each year (Exh. DPU-AQ 2-20; Tr. 1, at 237).[157]

Aquarion's current flushing notification procedure includes advance newspaper advertising, postings on the Company's and affected town's websites, notices broadcast on the local cable access channel, road signage in the areas where flushing is being performed that day, and telephone notification for customers registered in Aquarion's CodeRed database (Exh. DPU-AQ 2-21, Att. A at 1-4, 11-12). The flushing notices include the period during

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156 The DEP Guidelines for public water systems, as revised from time to time, are incorporated by reference in DEP's regulations at 310 C.M.R § 22.04(1).

157 In D.P.U. 09-48, the Company reported that it performed system-wide flushing each fall on an alternating basis in Hingham and Hull (except in years with water use restrictions) and localized flushing based on system hydraulics, pipe material, and historic experience. D.P.U. 09-48, at 19.

which flushing will occur, the area in which flushing will occur for that week, and information on precautions to take to minimize disruption from discolored water (Exh. DPU-AQ 2-21, Att. A at 1-12).

2. Positions of the Parties

a. Hingham and Hull

Hingham and Hull argue that Aquarion should be required to develop and implement a comprehensive flushing plan (Hingham/Hull Brief at 53). As part of this plan, Hingham and Hull argue that the Company should be required to implement improved flushing notification procedures that clearly identify (1) the areas to be flushed, (2) the time when flushing will occur, (2) the specific streets that will be affected, and (4) what measures customers may take to minimize the effects of flushing (Hingham/Hull Brief at 53).

b. Company

Contrary to Hingham and Hull's claims, Aquarion maintains that it has a comprehensive flushing plan (Company Reply Brief at 33, citing Exhs. DPU-AQ 2-20; DPU-AQ 2-22). The Company contends that it has provided, and will continue to provide, adequate notice to customers regarding flushing and its effect on service quality (Company Reply Brief at 33, citing Exhs. DPU-AQ-2-20; DPU-AQ-2-22). The Company argues that it makes every effort to comply with its hydrant flushing policy; however, financial and operational constraints sometimes require it to scale back its flushing schedule (Company Reply Brief at 33 & n.22, citing Tr. 1, at 238).[158]

3. Analysis and Findings

The frequency of Aquarion's flushing program and the adequacy of its flushing notification procedures were addressed in D.P.U. 09-48. The Company's flushing program at the time of the water main break at issue consisted of system-wide hydrant flushing scheduled to be performed each fall on an alternating basis in Hingham and Hull, except in years with water restrictions. D.P.U. 09-48, at 19. While DEP requires public water suppliers to maintain a flushing program, it does not mandate the frequency of flushing. See American Water Works Association, AWWA G200-09, "Distribution Systems Operations and Management" at 4.1.8; see also DEP Guidelines, § 9.3(7).[159] DEP does, however, recommend system-wide flushing on an annual basis and flushing of water quality problem areas at least twice each year. DEP Guidelines, §§ 9.3(7), 9.3(9).

158 For example, during periods where water restrictions are in effect, the Company will delay scheduled flushing. D.P.U. 09-48, at 19.

159 DEP requires public water suppliers to maintain their distribution systems in conformance with both American National Standards Institute ("ANSI") standards and American Water Works Association ("AWWA") standards. DEP Guidelines, §§ 9.3, 9.13. In particular, Section 9.13 of the DEP Guidelines requires public water systems to follow the requirements of ANSI/AWWA G200-09, "Standard for Distribution Systems Operation and Management" ("AWWA G200-09") in the repair and maintenance of water distribution systems. See also D.P.U. 09-48, at 16. AWWA G200-09 states that "the utility shall develop and implement a systematic flushing program that meets the needs of the utility, taking into consideration the condition of the system, hydraulic capacity, treatment, water quality, and other site-specific criteria" (AWWA G200-09, § 4.1.8).

In D.P.U. 09-48, at 19, in light of the lack of specific DEP mandates on the frequency of flushing, the Department declined to substitute our judgment for DEP's and the Company's as to the appropriate intervals for flushing on its system. Nonetheless, because we found that the Company's inconsistent flushing schedule contributed to the severity of the water quality problems experienced by customers after the water main break, the Department stated that we would consider this quality of service issue when setting the Company's required ROE in the instant case. D.P.U. 09-48, at 20.

We are concerned that Aquarion's current policy of flushing one-third of its system each year increases the interval between flushing operations in any given area as compared to the flushing practices in place in 2009 (i.e., flushing one-half of its system each year). This concern is heightened because Aquarion indicates it may scale back this flushing schedule when faced with financial or operational constraints (Company Reply Brief at 33 n.22, citing Tr. 1, at 238). In light of the Department's findings in D.P.U. 09-48, at 20 and DEP's recommendation of annual system-wide flushing, we direct Aquarion to re-examine its flushing policy to determine whether more frequent flushing is warranted.

With respect to Aquarion's hydrant flushing notifications, in D.P.U. 09-48, at 21-22, the Department found that the Company's flushing notices were insufficient.[160] The Department directed Aquarion to implement revised flushing notification procedures designed to meaningfully inform all affected customers of the reasons for flushing, the effect that

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160 The Company's flushing notification procedures appear to have changed since the close of the record in the Department's investigation in D.P.U. 09-48.

flushing will have on service, and the measures that customers may take to minimize any disruption or inconvenience resulting from the flushing. D.P.U. 09-48, at 22.[161]

While the flushing notices considered in this proceeding appear to be more detailed than those considered in D.P.U. 09-48, the Department remains concerned that they may be lacking (e.g., do not adequately specify when flushing will occur in a particular area) (Exh. DPU-AQ 2-21, Att. A). Prior to Aquarion's next round of scheduled flushing in the fall, the Company must review its current flushing notification procedures and make any necessary revisions to ensure that they are consistent with the Department's directives in D.P.U. 09-48, at 22. The adequacy of these revised hydrant flushing notifications will be reviewed as part of the communications audit (see Section VIII.A.3., above).

D. Emergency Response Plan

1. Introduction

Aquarion's ERP was developed in December 2009 with the assistance of an engineering firm with considerable experience in the water industry. D.P.U. 09-48, at 25. DEP staff reviewed the Company's ERP as part of the periodic evaluation performed for all DEP-regulated water systems (RR-DPU-3; see also 310 C.M.R. § 22.04(13)(a)). In January 2012, Aquarion revised the ERP for its Hingham/Hull service area and determined

161 The Department found that all flushing notices must, at a minimum: (1) be reasonably designed to reach the intended audience; (2) identify the specific areas to be flushed; (3) state with reasonable specificity when such flushing will occur; and (4) inform customers about the steps they can take to minimize the disruption caused by flushing. D.P.U. 09-48, at 22.

that, going forward, it would update its ERPs annually (Exh. DPU-AQ 5-5; Tr. 1, at 264-265; RR-DPU-3, Att. A).

2. Positions of the Parties

a. Hingham and Hull

Hingham and Hull argue that Aquarion's ERP should be reviewed by a security professional approved by the intervenors and the Department, to ensure its adequacy (Hingham/Hull Brief at 53). Hingham and Hull also recommend that that Hull's fire chief be permitted to review Aquarion's ERP to ensure that it meets Hull's fire protection needs (Hingham/Hull Brief at 53). Finally, Hingham and Hull recommend that Aquarion be required to retain copies of previous ERPs in order to monitor the effectiveness of any changes or revisions (Hingham/Hull Brief at 53).

b. Company

Aquarion contends that Hingham and Hull have failed to offer any justification for requiring the Company to retain outdated ERPs (Company Reply Brief at 33). Aquarion argues that if it retains obsolete ERPs, there is a risk they could be confused with the current ERP (Company Reply Brief at 33).

3. Analysis and Findings

The Department addressed several issues related to the Company's ERP in D.P.U. 09-48. The Department found that input by local officials into a company's ERP, particularly with respect to the adequacy of notification and communications procedures, is essential to ensure that a company's response to an emergency situation is effective and efficient. D.P.U. 09-48, at 25-26, citing Fitchburg Gas and Electric Light Company, D.P.U. 09-01-A at 126-128, 202 (2009). Accordingly, the Department directed the Company to make a copy of its ERP available to the appropriate public safety officials (i.e., fire and police) in its service territory and to meet with such officials annually to discuss the ERP and whether any changes to the notification and communications procedures contained therein are warranted. D.P.U. 09-48, at 26. The Department declined, however, to require that the Company make its ERP available to an outside security consultant for review. D.P.U. 09-48, at 26.

Given that the Company intends to update its ERPs annually, Hingham and Hull request that Aquarion retain copies of all previous ERPs (Hingham/Hull Brief at 53). The Department's records retention regulations do not specifically address ERPs. 220 C.M.R. § 75.00 et seq. An ERP, however, may be reasonably categorized as a set of instructions to employees and others related to O&M procedures, which companies are required to maintain for ten years after the procedure has expired or has been superseded. 220 C.M.R. § 75.05(29). Consistent with this interpretation of the Department's record retention regulations, we direct Aquarion to retain its ERPs for a period of at least ten years after the relevant manual or associated pages have been revised or superseded.[162]

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162 We expect that the Company can institute a suitable code marking system to safeguard against confusion between current and revised or superseded versions of its ERP.

E. Unaccounted-For-Water

1. Introduction

Unaccounted-for-water is the residual resulting from the total amount of water supplied to a distribution system as measured by master meters, minus the sum of all amounts of water measured by consumption meters in the distribution system, and minus confidently estimated and documented amounts used for certain necessary purposes as specified by DEP. D.P.U. 08-27-C at 1 n.2. The causes of unaccounted-for-water include: (1) leakage; (2) meter inaccuracies; (3) errors in estimation of stopped meters; (4) unauthorized hydrant openings; (5) illegal connections; (6) data processing errors; and (7) undocumented fire fighting uses. D.P.U. 08-27-C at 1 n.2; D.P.U. 08-27, at 215. While industry standards for unaccounted-for-water range between ten and 15 percent, the Water Conservation Standards issued jointly by the Executive Office of Energy and Environmental Affairs ("EOEEA") and the Massachusetts Water Resources Commission ("MWRC") in 2006, recommend a goal of ten percent or less for unaccounted-for-water. D.P.U. 08-27, at 215.

In an effort to reduce unaccounted-for-water, Aquarion has instituted annual leak detection surveys, made production meter upgrades, and improved operating procedures to prevent tank overflows (Exh. AQ-RLR at 19). D.P.U. 08-27-C at 20. The Company performed a leak detection survey in its Hingham/Hull service area in April 2011 and in its Millbury and Oxford service areas in 2010 (Exh. AQ-RLR at 19). The Company reports that its unaccounted-for-water rates are currently 13.7 percent for its Hingham/Hull service area, 14.1 percent for its Millbury service area, and 11.2 percent for its Oxford service area (Exh. AQ-RLR at 19). No party commented on this issue on brief.

2. Analysis and Findings

The Department has not established a target unaccounted-for-water ratio. While a 15 percent factor is generally recognized as a reasonable level of unaccounted-for-water in the water industry, there has been a recent trend towards reducing this factor below 15 percent. D.P.U. 08-27, at 218. The Water Conservation Standards, which are intended to set statewide goals on water conservation and efficient use of water and provide policy guidance in the area of conservation measures, recommend an unaccounted-for-water goal of ten percent. D.P.U. 08-27, at 218.

Based on our review of Aquarion's current unaccounted-for-water rates (i.e., 13.7 percent for Hingham/Hull, 14.1 percent for Millbury, and 11.2 percent for Oxford), the Department finds that the Company has made satisfactory progress in controlling unaccounted-for-water (Exh. AQ-RLR at 19). Going forward, we direct the Company to take all reasonable steps to reduce the amount of unaccounted-for-water from current levels on a system-wide and a service area basis.[163]

[163] To the extent possible, the Company should endeavor to meet the Water Conservation Standards' statewide goal of ten percent unaccounted-for-water.

IX. SCHEDULES

A. Schedule 1 – Revenue Requirements and Calculation of Revenue Increase

	PER COMPANY	COMPANY ADJUSTMENT	DPU ADJUSTMENT	PER ORDER
COST OF SERVICE				
Total O&M Expense	7,220,911	(10,822)	(624,029)	6,586,060
Hingham/Hull WTP Lease and O&M Expense	4,209,178	(2,149)	(5,253)	4,201,776
Depreciation & Amortization	1,470,332	(140,495)	(7,631)	1,322,206
Merchandise and Jobbing Revenue	(23,463)	0	0	(23,463)
WTP Property Taxes	527,065	0	0	527,065
Taxes Other Than Income Taxes	528,075	4,878	0	532,953
Massachusetts Franchise Taxes	181,591	510	(24,408)	157,693
Federal Income Taxes	918,265	2,565	(149,590)	771,240
Deferred Federal Income Taxes	(41,832)	0	990	(40,842)
Deferred State Franchise Taxes	(7,000)	0	0	(7,000)
Return on Rate Base	2,779,794	(133,473)	(212,917)	2,433,404
Total Cost of Service	17,762,916	(278,986)	(1,022,838)	16,461,092
OPERATING REVENUES				
Operating Revenues	14,914,196	0	0	14,914,196
Revenue Adjustments	49,012	0	0	49,012
Total Operating Revenues	14,963,208	0	0	14,963,208
Revenue Deficiency	2,799,708	(278,986)	(1,022,838)	1,497,884
Rounding Adjustment to Company Schedules	1,767	(428)	0	1,339
Total Base Revenue Deficiency	**2,801,475**	**(279,414)**	**(1,022,838)**	**1,499,223**

B. Schedule 2 – Operations and Maintenance Expenses

	PER COMPANY	COMPANY ADJUSTMENT	DPU ADJUSTMENT	PER ORDER
Test Year Distribution O&M Expense	6,309,599	0	0	6,309,599
ADJUSTMENTS TO O&M EXPENSE:				
Salaries and Wages	77,645	13,388	(12,740)	78,293
Group Medical, Dental, Life, and Disability	29,413	0	0	29,413
Post Retirement Healthcare	77,252	0	(63,917)	13,335
Pension	228,079	0	(167,210)	60,869
Deferred Expense Amortization	342,722	0	(50,179)	292,543
Chemicals	(54,556)	0	0	(54,556)
Purchased Electric	(10,769)	0	0	(10,769)
Rate Case Expense	105,000	40,702	(134,062)	11,640
Corporate Insurance	(17,879)	0	0	(17,879)
Corporate Expenses	4,852	0	(86,092)	(81,240)
Shared IT Services	(17,453)	0	(17,246)	(34,699)
Shared Customer Services	9,641	0	0	9,641
Shared Office Costs	7,981	0	0	7,981
Payroll and Benefit Allocations	(2,378)	0	0	(2,378)
Oxford Litigation Expense	33,910	0	(83,641)	(49,731)
Propane	504	451	0	955
Customer Satisfaction Survey	(10,800)	0	0	(10,800)
Leak Detection Survey	16,200	0	0	16,200
Lease Expense	1,400	0	0	1,400
Bad Debt	7,537	0	0	7,537
Unadjusted Test Year Expenses (Inflation)	79,730	8,244	(1,097)	86,877
Lobbying Fees and Meter Error Legal Fees	0	(73,280)	0	(73,280)
Reimbursed Employee Expenses	0	0	(7,055)	(7,055)
Interest on Customer Deposits	0	0	365	365
Total Other O&M Expenses	908,031	(10,495)	(622,874)	274,662
Total Distribution O&M Expense	**7,217,630**	**(10,495)**	**(622,874)**	**6,584,261**
Bad Debt on Proposed Rate Increase	3,281	(327)	(1,155)	1,799
Total O&M Expense	**7,220,911**	**(10,822)**	**(624,029)**	**6,586,060**

C. Schedule 3 – Depreciation and Amortization Expenses

	PER COMPANY	COMPANY ADJUSTMENT	DPU ADJUSTMENT	PER ORDER
Depreciation Expense	1,470,332	(140,495)	(7,631)	1,322,206
Amortization Expense	0	0	0	0
Total Depreciation & Amortization Expenses	**1,470,332**	**(140,495)**	**(7,631)**	**1,322,206**

D. Schedule 4 – Rate Base and Return on Rate Base

	PER COMPANY	COMPANY ADJUSTMENT	DPU ADJUSTMENT	PER ORDER
Utility Plant in Service	60,227,442	0	(246,156)	59,981,286
LESS:				
Reserve for Depreciation and Amortization	11,758,726	0	(7,921)	11,750,805
Net Utility Plant in Service	48,468,716	0	(238,235)	48,230,481
ADDITIONS TO PLANT:				
Post-Test Year Plant Additions	510,700	61,866	(61,384)	511,182
Cash Working Capital	887,041	(1,294)	(76,800)	808,946
Depreciation Reserve on Retirements	27,471	0	0	27,471
Materials and Supplies	291,756	0	0	291,756
Total Additions to Plant	1,716,968	60,572	(138,184)	1,639,355
DEDUCTIONS FROM PLANT:				
Post-Test Year Plant Retirements	27,471	0	0	27,471
Reserve for Deferred Income Tax	4,714,139	0	0	4,714,139
Customer Contribution	12,427,792	0	0	12,427,792
Customer Advances	80,331	0	0	80,331
Customer Deposits	0	0	750	750
Total Deductions from Plant	17,249,733	0	750	17,250,483
RATE BASE	32,935,951	60,572	(377,169)	32,619,353
COST OF CAPITAL	8.44%	8.02%	-0.56%	7.46%
RETURN ON RATE BASE	**2,779,794**	**(133,473)**	**(212,917)**	**2,433,404**

E. Schedule 5 – Cost of Capital

	PER COMPANY			
	PRINCIPAL	PERCENTAGE	COST	RATE OF RETURN
Long-Term Debt	$19,333,001	58.65%	6.28%	3.68%
Preferred Stock		0.00%	0.00%	0.00%
Common Equity	$13,630,581	41.35%	11.50%	4.76%
Total Capital	$32,963,582	100.00%		8.44%
Weighted Cost of				
Debt				3.68%
Equity				4.76%
Cost of Capital				8.44%

	COMPANY ADJUSTMENTS			
	PRINCIPAL	PERCENTAGE	COST	RATE OF RETURN
Long-Term Debt	$19,333,001	58.65%	5.55%	3.26%
Preferred Stock		0.00%	0.00%	0.00%
Common Equity	$13,630,581	41.35%	11.50%	4.76%
Total Capital	$32,963,582	100.00%		8.02%
Weighted Cost of				
Debt				3.26%
Equity				4.76%
Cost of Capital				8.02%

	PER ORDER			
	PRINCIPAL	PERCENTAGE	COST	RATE OF RETURN
Long-Term Debt	$19,633,001	59.02%	5.52%	3.26%
Preferred Stock	$0	0.00%	0.00%	0.00%
Common Equity	$13,630,581	40.98%	10.25%	4.20%
Total Capital	$33,263,582	100.00%		7.46%
Weighted Cost of				
Debt				3.26%
Equity				4.20%
Cost of Capital				7.46%

F. Schedule 6 – Cash Working Capital

	PER COMPANY	COMPANY ADJUSTMENT	DPU ADJUSTMENT	PER ORDER
Other O&M Expense	7,220,911	(10,822)	(624,029)	6,586,060
Less: Bad Debt on Proposed Rate Increase	3,281	(327)	(1,155)	1,799
Merchandising and Jobbing Revenue	(23,463)	0	0	(23,463)
Subtotal - O&M Expense	7,194,167	(10,495)	(622,874)	6,560,798
Lead/Lag Factor	0.12330	0	0	0.12330
Total Cash Working Capital Allowance	**887,041**	**(1,294)**	**(76,800)**	**808,946**

G. Schedule 7 – Taxes Other Than Income Taxes

	PER COMPANY	COMPANY ADJUSTMENT	DPU ADJUSTMENT	PER ORDER
FICA Taxes	149,549	1,025	0	150,574
Property Taxes	905,591	3,853	0	909,444
Total Taxes Other Than Income Taxes	**1,055,140**	**4,878**	**0**	**1,060,018**

H. Schedule 8 – Income Taxes

	PER COMPANY	COMPANY ADJUSTMENT	DPU ADJUSTMENT	PER ORDER
Rate Base	32,935,951	60,572	(377,169)	32,619,353
Return on Rate Base	2,779,794	(133,473)	(212,917)	2,433,404
Less: Interest Expense	1,212,043	(138,237)	(10,415)	1,063,391
Net Return on Rate Base	1,567,751	4,764	(202,502)	1,370,013
ADD:				
Book Depreciation	1,470,332	(140,495)	(7,631)	1,322,206
Deferred Federal Income Taxes	(41,832)	0	990	(40,842)
Deferred State Franchise Taxes	(7,000)	0	0	(7,000)
Permanent Differences	76,709	0	0	76,709
Other Timing Differences	271,577	0	0	271,577
Total Additions	1,769,786	(140,495)	(6,641)	1,622,650
LESS:				
Tax Depreciation	1,636,060	(140,495)	0	1,495,565
Total Deductions	1,636,060	(140,495)	0	1,495,565
Taxable Income Base	1,701,477	4,764	(209,143)	1,497,098
Gross Up Factor	1.6454134	1.6454134	1.6205000	1.6205000
Taxable Income	2,799,633	7,839	(381,425)	2,426,047
Mass Franchise Tax (6.50%)	181,976	510	(24,793)	157,693
Adjustment to Book	(385)	0	385	0
Total State Franchise Taxes	181,591	510	(24,408)	157,693
Federal Taxable Income	2,618,042	7,329	(357,017)	2,268,354
Federal Income Tax Calculated	916,315	2,565	(147,640)	771,240
Adjustment to Book	1,950	0	(1,950)	0
Total Federal Income Taxes	**918,265**	**2,565**	**(149,590)**	**771,240**

I. Schedule 9 - Revenues

	PER COMPANY	COMPANY ADJUSTMENT	DPU ADJUSTMENT	PER ORDER
OPERATING REVENUES PER BOOKS	14,914,196	0	0	14,914,196
Revenue Adjustments				
Bill Analysis Adjustment	1,888	0	0	1,888
Unbilled Sales	2,632	0	0	2,632
Total Revenue Adjustments	4,520	0	0	4,520
Adjusted Operating Revenues	14,918,716	0	0	14,918,716
Other Water Revenues	44,707	0	0	44,707
ADD:				
Bill Analysis Adjustment	215	0	0	215
Total Adjustments	215	0	0	215
Other Revenues and Adjustments	44,492	0	0	44,492
Adjusted Total Operating Revenues	**14,963,208**	**0**	**0**	**14,963,208**

J. Schedule 10 - Treatment Plant Lease and Operating Expense

	PER COMPANY	COMPANY ADJUSTMENT	DPU ADJUSTMENT	PER ORDER
WTP Lease Expense	3,488,425	0	0	3,488,425
CWC Allowance	36,302	(1,807)	(2,409)	32,086
Tax Grossup on CWC	13,216	0	(2,007)	11,209
Treatment Plant Lease Expense	3,537,943	(1,807)	(4,416)	3,531,720
Property Taxes	527,065	0	0	527,065
Chemical Expense	311,234	0	0	311,234
Power Expense	243,534	0	0	243,534
Waste Disposal Expense	29,552	0	0	29,552
Heating Expense	77,520	0	0	77,520
Total WTP Operating Expense	1,188,905	0	0	1,188,905
Less: Property Tax Expense	527,065	0	0	527,065
Operating Expense Subject to CWC	661,840	0	0	661,840
Cash Working Capital Allowance	6,887	(342)	(457)	6,088
Tax Grossup on CWC	2,507	0	(380)	2,127
Total Operating Expense	671,235	(342)	(837)	670,056
Total Treatment Plant Expense	4,209,178	(2,149)	(5,253)	4,201,776

X. ORDER

Accordingly, after due notice, hearing, and consideration, it is

ORDERED: That the tariff M.D.P.U. No. 2 filed by Aquarion Water Company of Massachusetts on May 13, 2011, to become effective April 1, 2012, is DISALLOWED; and it is

FURTHER ORDERED: That Aquarion Water Company of Massachusetts shall file new schedules of rates and charges designed to increase annual water rates by $1,499,223; and it is

FURTHER ORDERED: That Aquarion Water Company of Massachusetts shall file all rates and charges required by this Order and shall design all rates in compliance with this Order; and it is

FURTHER ORDERED: That Aquarion Water Company of Massachusetts shall comply with all other directives contained in this Order.

By Order of the Department,

/s/
Ann G. Berwick, Chair

/s/
Jolette A. Westbrook, Commissioner

/s/
David W. Cash, Commissioner

An appeal as to matters of law from any final decision, order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the Order of the Commission be modified or set aside in whole or in part. Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such further time as the Commission may allow upon request filed prior to the expiration of the twenty days after the date of service of said decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the Clerk of said Court. G.L. c. 25, § 5.