BEFORE THE MINNESOTA OFFICE OF ADMINISTRATIVE HEARINGS
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In the Matter of the Application by MERC for Authority to Increase Natural Gas Rates in Minnesota	OAH Docket No. 8-2500-31126 MPUC Docket No. G-011/GR-13-617

INITIAL POST HEARING BRIEF OF THE MINNESOTA DEPARTMENT OF COMMERCE

June 24, 2014

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INTRODUCTION

The Minnesota Department of Commerce, Division of Energy Resources, Energy Regulation and Planning Unit (Department or DOC) respectfully submits this Initial Brief to provide the Administrative Law Judge (ALJ) and the Minnesota Public Utilities Commission (Commission) with analysis of the facts and law pertaining to the application for a general rate increase filed by Minnesota Energy Resources Corporation (MERC or the Company). The Department addresses its concerns through the following organization: burden of proof and other legal standards, return on equity and rate of return, rate base issues, operating income and expense issues, riders, class cost of service study and rate design. To assist the ALJ and Commission, DOC identifies the Issue Numbers used by the Company in its Issues Matrix,[1] and provides its view of the status of each issue as either resolved or disputed at the beginning of each section.

PROCEDURAL HISTORY

On August 22, 2013, MERC filed with the Commission sales forecast data as required by the Commission in its final order in the Company's most recent general rate case, MPUC Docket No. G-007,011/GR-10-977 (2010 Rate Case), to be provided thirty days in advance of the filing of its next rate case.

On September 30, 2013, MERC filed a general rate case that requested an annual increase of approximately $14.188 million, or 5.52 percent, based on a test year ending on December 31,

[1] On June 6, 2014, in compliance with the ALJ's FIRST PREHEARING ORDER, MERC filed an Issues Matrix that sets forth the Company's view of the status of issues. On June 24, 2014, other parties filed comments regarding the Issues Matrix.

2014 and using a 10.75 percent return on equity (Petition). MERC requested an interim rate increase of approximately $12.11 million, or 4.70 percent, effective on January 1, 2014.[2]

On October 2, 2013, the Commission issued its notice requesting comments on whether MERC's filing should be accepted as complete and referred to the Office of Administrative Hearings (OAH) for a contested case proceeding.

On October 8, 2013, MERC submitted additional information to supplement its September 30 filing regarding a filing requirement in MERC's 2010 rate case stemming from the Commission's decision in MERC's 2008 rate case, pertaining to new material costs related to tampering and reconnection of gas service and abnormal construction charges, such as frost charges due to the winter construction period.

On October 10, 2013, the Department submitted comments recommending that the Commission accept MERC's filing as substantially complete and refer the matter to OAH for a contested case proceeding.

On October 10, 2013, the Super Large Gas Intervenors (SLGI) filed an initial comment in support of MERC's petition for interim rates in connection with its application to increase rates for natural gas service.

On October 14, 2013, MERC filed a letter in lieu of reply comments in light of the Department and SLGI's support of MERC's Petition.

On November 14, 2013, the Commission met to consider the matter.

On November 27, 2013, the Commission issued three orders: First, in its ORDER ACCEPTING FILING, EXTENDING TIMELINES, AND SUSPENDING RATES, the Commission determined that MERC's filing was substantially complete as of September 30,

[2] MERC waived its right under Minn. Stat. § 216B.16 to have interim rates in effect no later than sixty days after the initial filing.

2013, suspended the operation of the proposed rate schedule, and extending the statutory ten-month suspension period by ninety days, as permitted under Minn. Stat. § 216B.16, subd. 2(f), to end on October 28, 2014. The Commission also approved MERC's request to classify the salaries of the sixth through tenth highest paid employees as non-public, private data.

Second, the Order Setting Interim Rates authorized an interim rate increase in the amount of $10,755,973 for service on and after November 29, 2013. The Commission also granted the Company's requests to implement interim rates for service on and after January 1, 2014 and to collect less than the full amount of the interim rate increase from its SLV and FLEX rate customers, and stated that the Company would not seek recovery of forgone interim rates from any customers.

Third, the NOTICE AND ORDER FOR HEARING referred the matter to OAH for contested case proceedings. In its NOTICE AND ORDER FOR HEARING, the Commission required, as follows[3]:

Parties shall specifically and thoroughly address the following issues (*e.g.*, in testimony, at hearing, and, if applicable, in settlement documents) in the course of the contested case proceedings ordered herein:

1. Is the test year revenue increase sought by the Company reasonable or will it result in unreasonable and excessive earnings?

2. Is the rate design proposed by the Company reasonable?

3. Are the Company's proposed capital structure, cost of capital, and return on equity reasonable?

[3] NOTICE AND ORDER FOR HEARING at 2.

The Commission further requested that the parties address MERC's test year forecast for late payment and other revenues in their pre-filed direct testimony and address and fully develop the record on MERC's proposed test-year regulatory assets and liabilities. The Commission asked parties to address the reasonableness of MERC's joint rate service with respect to both gas and non-gas costs and rates, and whether MERC's joint rate tariff language needs to be clarified to better explain how MERC administers this service.

The Commission further ordered the Company to file within thirty days the following supplements to its direct testimony[4]:

1. Supplemental direct testimony reflecting the calculation of the applicable conservation cost recovery charge (CCRC) and conservation cost recovery adjustment (CCRA) charges since the inception of its ownership, July 2006. MERC shall also provide the applicable Northshore volumes, CCRC and CCRA rates, and the CCRC and CCRA amounts, by month for the stated period of time, July 2006 through December 31, 2013.

2. Additional information on the adequacy of the Vertex billing audit with respect to finding CIP-related and other billing errors. Parties shall also address the adequacy of the Vertex billing audit in finding these errors.

3. Supplemental testimony that explains how the Company administers joint rate service and the joint rates in its joint rate tariffs and includes the following:

    a. Examples of different billing scenarios that demonstrate how the joint rates are administered for sales and transportation joint rate customers compared to interruptible sales and transportation customers.

    b. An explanation of how joint rate customers are charged for the interruptible and firm parts of the service they are taking and any credit MERC may provide to firm (or system) sales customers for the joint rate sales customer's use of MERC's entitlement to upstream firm pipeline capacity.

[4] *Id.* at 2–3.

c. An explanation of the methodology MERC employs for the design of these rates, how all elements of these rates are calculated, how these rates are applied to the joint rate tariffs and to customer bills, and the billing arrangements MERC employs for charging joint rate customers the rates that appear in the joint rate tariff.

Further, the Commission, in addition to the above-listed supplements, required MERC to provide the following information:[5]

1. Additional information regarding the Company's tracking and handling of CIP expenses in the development of the test year operating expenses.

2. The potential impact of updated sales forecasts and commodity pricing forecast updates on the demand and commodity cost of gas rates. MERC shall provide updated sales forecasts and commodity pricing forecasts from its general rate case and information on the potential impact of these updates on its per-dekatherm demand and/or commodity cost of gas rates. These updates should be filed in this docket and the related base cost of gas matter, in Docket No. G-011/MR-13-732.

On December 10, 2013, Administrative Law Judge Eric L. Lipman (ALJ) held a prehearing conference.

On December 12, 2013, the ALJ issued the FIRST PREHEARING ORDER and, on December 22, 2013, he issued a PROTECTIVE ORDER. In the prehearing order, the ALJ noted that the Commission's NOTICE AND ORDER FOR HEARING named MERC and the Department as parties.

The ALJ's FIRST PREHEARING ORDER set procedures for parties in the case and established the following schedule:

December 17, 2013	Deadline for Feedback to the Applicant on the Draft Protective Order
February 14, 2014	Deadline for Intervention

[5] *Id*. at 3.

March 4, 2014	Intervenor's Pre-filed Direct Testimony
March 11–13, 2014	Public Hearings in Greater Minnesota (Rochester, Rosemount, and Cloquet)
April 15, 2014	All Parties' Rebuttal Testimony and the Applicant's Update on the Base Cost of Gas
May 7, 2014	All Parties' Surrebuttal Testimony
May 8, 2014	Deadline for Revisions to Pre-filed Testimony
May 9, 2014	Minn. Stat. § 216B.16 Conference
May 13–16, 2014	Evidentiary Hearing
June 6, 2014	Applicant Files Issue Matrix
June 24, 2014	Non-Applicants' Response to Issue Matrix
	Applicant's Proposed Findings of Fact and Conclusions of Law
	All Parties' Initial Briefs
July 11, 2014	Non-Applicants' Proposed Substitute Findings of Fact and Conclusions of Law
	All Parties' Reply Briefs
August 12, 2014	Report of the Administrative Law Judge

On February 26, 2014, the ALJ granted the intervention of Super Large Gas Intervenors (SLGI) and Constellation New Energy – Gas Division, LLC (Constellation) in a THIRD PREHARING ORDER. The ALJ also ordered that U.S. Energy Services, Inc. (ICI Group) supplement its Petition for Intervention by February 27, 2014 and ordered that any responses to the ICI Group's Petition for Intervention are due by March 3, 2014.

On February 27, 2014, the ICI Group filed a supplement to its Petition for Intervention.

On March 4, 2014, the following parties filed Direct Testimony in accordance with the schedule set forth in the ALJ's FIRST PREHEARING ORDER: the Department, OAG, and Constellation.

On March 11, 2014, the ALJ issued a FOURTH PREHEARING ORDER, which scheduled an oral argument on the ICI Group's Petition for Intervention for March 14, 2014.

ALJ Lipman held public hearings as follows:

- Rochester City Hall, Rochester, MN at 1:00 p.m. on March 12, 2014.
- Dakota County Technical College, Rosemount, MN at 7:00 p.m. on March 12, 2014.
- Cloquet Chamber of Commerce, Cloquet, MN at 7:00 p.m. on March 13, 2014.

In addition to considering the oral testimony of members of the public, the Office of Administrative Hearings and Commission received written comments, most of which were residential customers. Nearly all of the comments opposed the Company's proposed rate increase, and stated concerns such as the following: MERC's proposal is too large; is burdensome for low-income customers and those on fixed incomes; the proposed rate increase is above the rate of inflation; and the Company is sufficiently profitable such that it does not need more money from its customers.

On March 14, 2014, the Department filed errata sheets to the Direct Testimonies of Michelle St. Pierre and Laura Otis.

On March 14, 2014, the ALJ convened a telephonic motion hearing regarding the ICI Group's Petition for Intervention.

On March 20, OAG filed an errata sheet to the Direct Testimony of Dr. Pradip Chattopadhyay.

On March 24, 2014, the ALJ issued a FIFTH PREHEARING ORDER from the March 14, 2014 motion hearing, which denied the ICI Group's Petition for Intervention. The ALJ did, however, grant the ICI Group leave to file an *amicus curiae* brief by June 24, 2014.

On April 15, 2014, the following parties filed Rebuttal Testimony in accordance with the schedule set forth in the ALJ's FIRST PREHEARING ORDER: MERC, the Department, and OAG.

On April 21, 2014, OAG filed an errata sheet to the Direct Testimony of Ron Nelson.

On May 7, 2014, the following parties filed Surrebuttal Testimony in accordance with the schedule set forth in the ALJ's FIRST PREHEARING ORDER: MERC, the Department, and OAG.

On May 9, 2014, the Department filed an errata sheet to the Direct Testimony of Susan Peirce and an errata sheet to the Surrebuttal Testimony of Michelle St. Pierre.

On May 9, 2014, the ALJ issued a SIXTH PREHEARING ORDER, which granted the application of Chad T. Marriot to appear *pro hac vice*.

On May 9, 2014, OAG filed the Adopted Direct Testimony of Vincent Chavez by OAG witness John Lindell.

On May 9, 2014, the ALJ convened a Status Conference pursuant to Minn. Stat. § 216B.16 (2012).

On May 12, 2014, MERC moved for leave to include new information in witness summaries for MERC witnesses Harry W. John and John R. Wilde at the evidentiary hearing, as set forth in the ALJ's FIRST PREHEARING ORDER. The ALJ granted MERC's motion at the evidentiary hearing.

On May 13, 2014, the ALJ held a one-day evidentiary hearing in the Commission's large hearing room.

On June 6, 2014, MERC filed a proposed Issues Matrix.

On June 24, 2014, parties filed Initial Briefs, MERC filed proposed Findings of Fact and Conclusions of Law, and other Parties filed Responses to MERC's Issues Matrix.

ARGUMENT

I. MERC BEARS THE BURDEN OF PROOF TO SHOW THAT THE PROPOSED RATE CHANGES ARE JUST AND REASONABLE

MERC bears the burden of showing that its proposed rates are reasonable. Minn. Stat. § 216B.16, subd. 4 (2012). Minnesota law requires that every rate established by the Commission must be just and reasonable and that any doubt as to reasonableness must be resolved in favor of the consumer. Minn. Stat. § 216B.03 (2012).

The Minnesota Supreme Court found that the burden is on the utility to prove the facts required to sustain its burden by a fair preponderance of the evidence. *In re Northern States Power Co.*, 416 N.W.2d 719, 722 (Minn. 1987). The Supreme Court described the Commission's role in determining just and reasonable rates in a rate proceeding:

> [I]n the exercise of the statutorily imposed duty to determine whether the inclusion of the item generating the claimed cost is appropriate, or whether the ratepayers or the shareholders should sustain the burden generated by the claimed cost, the MPUC acting both a quasi-judicial and a partially legislative capacity. To state it differently, in evaluating the case, the accent is more on the inferences and conclusions to be drawn from the basic facts (*i.e.*, the amount of the claimed costs) rather than on the reliability of the facts themselves. Thus, by merely showing that it has incurred, or may hypothetically incur, expenses, the utility does not necessarily meet its burden of demonstrating it is just and reasonable that the ratepayers bear the costs of those expenses.

Id. at 722–23.

To the extent that a regulated utility fails to show the reasonableness of its requests (*e.g.*, that its proposed expenses are not too high or its expected revenues are not too low) the Department recommends either rejection of such proposals or proposes adjustments to the utility's proposals so that the Company might realize some—rather than none—of its requests in a just and reasonable manner. To be clear, however, there is no duty of the Department (or any other party) to propose adjustments; it is equally appropriate for parties to simply recommend rejection if the Company fails to demonstrate that its proposals are just and reasonable. Thus, while the Department continues to recommend adjustments to many of MERC's proposals where the Company has not shown that such proposals are just and reasonable, the Department continues to recommend that MERC receive some, rather than none, of requested rate changes. The Department in making recommendations does not, however, mean that the burden of proof has shifted to the Department.

The Department's recommendations below reflect the positions taken in pre-filed testimony and during the evidentiary hearing after a thorough and comprehensive analysis of MERC's application and extensive discovery. Through the normal course of developing and narrowing issues in pre-filed testimony, some issues were resolved. The remaining issues are contested as described in this Initial Brief. In those instances where the Company failed to meet its burden, the ALJ and the Commission should reject MERC's proposals. Based on the record in this proceeding, DOC concludes that MERC has not adequately supported a rate increase in the amount requested in its application. Based on its recommended overall rate of return of 7.2745 percent, the Department recommends a rate increase of approximately $3,300,164, which is approximately $10.888 million lower than the Company's request for an annual increase of $14.188 million.

II. COST OF CAPITAL: RETURN ON EQUITY AND OVERALL RATE OF RETURN (ISSUE IX, IN PART)

ROE and ROR

Disputed between DOC and MERC: DOC recommends an ROE of 9.29 percent rather than MERC's proposed 10.75 percent, with both percentages including an allowance for the same flotation cost adjustment. DOC recommends an ROR of 7.2745 percent on MERC's total capital, rather than MERC's proposed ROR of 8.0092 percent. Tr. at 199-200 (Amit). *Compare* DOC Ex. 202 at 8 (Amit Surrebuttal) *with* MERC Ex. 28 at 4 (Gast Direct).

Disputed between DOC and OAG: DOC disagrees that an ROE of 8.62 percent is reasonable. DOC Ex. 202 at 22–37 (Amit Surrebuttal); Tr. at 202 (Amit).

Flotation Costs

Resolved between DOC and MERC: DOC agrees that MERC's proposed flotation cost of 3.90 percent is reasonable. DOC agrees with MERC that the ROE should include flotation costs adjustment. DOC Ex. 200 at 27 (Amit Direct).

Disputed between DOC and OAG: DOC disagrees that it is reasonable to exclude flotation costs in determining MERC's ROE and ROR. DOC Ex. 201 at 25 (Amit Rebuttal); DOC Ex. 202 at 35–36 (Amit Surrebuttal); Tr. at 204 (Amit).

Capital Structure, Short-Term Debt, Long-Term Debt.

Resolved: Capital Structure, Short-term Debt: DOC agrees that MERC's proposed capital structure and costs of short-term and long-term debt are reasonable. No other party opposed MERC's proposals on these issues. DOC Ex. 200 at 35–44 (Amit Direct); DOC Ex. 202 at 12 (Amit Surrebuttal); *see* Tr. at 199–200 (Amit).

Department witness Dr. Eilon Amit provided DOC's recommendation regarding a fair rate of return on common equity capital and a fair overall rate of return for MERC.[6]

A. Fair Rate of Return: Overall Principles

In the regulated setting, the role normally assumed by the market is assumed by regulators, which must ensure that public utilities provide an appropriate supply of satisfactory services at reasonable rates. To provide these services, the utility must be able to compete for necessary funds in the capital markets. To raise funds, the utility must earn enough to offer

[6] MERC is a subsidiary company of Integrys Energy Group (Integrys). As such, it is not publicly traded on any stock exchange. DOC Ex. 200 at 6 (Amit Direct).

competitive returns to investors.[7] Thus, a fair return is one that enables the utility to attract sufficient capital, at reasonable terms. DOC Ex. 200 at 2 (Amit Direct).

The Commission's determination of the reasonableness of rates involves balancing consumer and utility interests. A reasonable rate enables a public utility not only to recover total revenue requirement (*i.e.,* operating expenses, depreciation and taxes), but also to compete for funds in capital markets. DOC Ex. 200 at 2 (Amit Direct). Minnesota law recognizes this principle by defining a fair rate of return as the rate that, when multiplied by the rate base, will give a utility a reasonable return on its total investment. Minn. Stat. § 216B.16, subd. 6 (2012). Therefore, a fair rate of return (ROR) is, by definition, the rate that, when multiplied by the rate base, will give the utility a reasonable return on its total investment to allow the utility to provide its ratepayers with reliable service at reasonable rates. DOC Ex. 200 at 2 (Amit Direct).

MERC's overall ROR is its cost of capital. To arrive at the cost of capital for the Company, it is necessary to determine a reasonable capital structure. The capital structure is made up of components which may include common equity, preferred stock, short-term debt and long-term debt held by MERC. These amounts are represented as dollar amounts and as percentages of the total capital. *Id.* at 35. The ROR is calculated as the sum of each component of the capital structure times its corresponding cost. *See id.* at 44.

The United States Supreme Court defined the proper regulatory balance between the investments made by investors and ratepayers in the *Bluefield* and *Hope* cases. The Court held in *Bluefield Waterworks & Improvement Co. v. Pub. Serv. Comm'n of W. Va.* (*Bluefield*), 262

[7] In a competitive environment, prices (rates) and operating incomes (returns) are determined by the free interaction of market forces, such as supply and demand. These market forces ensure, under certain conditions, that an optimum level and mix of various goods and services are produced. DOC Ex. 200 at 2 (Amit Direct).

U.S. 679 (1923) that a utility's return must be reasonably sufficient to assure financial soundness and provide the utility adequate means to raise capital. The Court concluded that a utility had no right to large profits similar to those realized in speculative ventures, but that the utility's return:

> [S]hould be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties.

Bluefield, 262 U.S. at 693.

In *Fed. Power Comm'n v. Hope Natural Gas Co.* (*Hope*), 320 U.S. 591 (1944), the Court reaffirmed and refined the Bluefield principles. The *Hope* Court reiterated the investor requirement for a return sufficient to cover operating expenses, including services on debt and dividends on stock and to assure confidence in the utility's ability to maintain credit and attract capital. The Court added that a just and reasonable return should be similar to returns on investments in other businesses having a corresponding risk. *Hope*, 320 U.S. at 603.

In addition, the Court has acknowledged that regulation must attempt to strike an equitable balance between investors' and ratepayers' interests. In *Covington and Lexington Turnpike Road Co. v. Sanford* (*Covington*), 164 U.S. 578 (1896), the Supreme Court recognized:

> [S]tockholders are not the only persons whose rights or interests are to be considered. The rights of the public are not to be ignored. . . . The public cannot properly be subjected to unreasonable rates in order simply that stockholders may earn dividends.

Covington, 164 U.S. at 596.

In *Fed. Power Comm'n v. Natural Gas Pipeline Co. of Am.*, 315 U.S. 575 (1942), this point was reemphasized:

> The consumer interest cannot be disregarded in determining what is a "just and reasonable" rate. Conceivably, a return to the

> company of the cost of service might not be "just and reasonable" to the public.

Id. at 607 (Black, J., concurring).

B. Fair Rate of Return for MERC: Overview

1. DOC Final Recommended ROE (9.29 percent) and ROR (7.27 percent)

The cost of equity capital to MERC is the rate of return that it may pay to investors to induce them to invest in its regulated operations. To estimate this cost, Dr. Amit used a market-oriented approach and relied on the concept of "opportunity costs." DOC Ex. 200 at 3 (Amit Direct). The Department initially recommended an ROE of 9.40 percent on MERC's common equity capital and an overall rate of return of 7.3299 percent on MERC's total capital. DOC Ex. 200 at 2 (Amit Direct). In contrast, MERC initially requested an ROE of 10.75 percent and an overall rate of return of 8.0092 percent. *Id.* In its rebuttal, MERC performed an updated ROE analysis and continued to request an ROE of 10.75 percent or, at minimum, at least 10.27 percent. MERC Ex. 18 at 4, 40 (Moul Rebuttal).

In the Department's Surrebuttal Testimony, relying on the most recently available dividend yields and expected growth rates for companies in his comparable group, Dr. Amit updated his ROE recommendation to 9.29 percent, with an overall cost of capital of 7.27 percent. DOC Ex. 202 at 2 (Amit Surrebuttal). Dr. Amit's updated ROE recommendation is eleven basis points lower than his initial recommendation of 9.40 percent, and is a decrease in the overall cost of capital of six basis points, from 7.33 percent to 7.27 percent. *Id.*

2. Guidelines

To determine a fair rate-of-return on common equity capital for MERC, DOC used the following economic guidelines, as set forth in the *Bluefield* and *Hope* cases.

- The rate of return should be sufficient to enable the regulated company to maintain its credit rating and financial integrity.
- The rate of return should be sufficient to enable the utility to attract capital at reasonable terms.
- The rate of return should be commensurate with returns being earned on other investments having equivalent risks.

DOC Ex. 200 at 3 (Amit Direct).

Investors are faced with many investment opportunities in the financial markets. To attract investors, MERC must pay an equity return similar to the equity return that investors expect to earn (including a flow of future dividends) on investments of comparable risk. *Id.* This equity rate of return is the reasonable cost of equity capital to MERC. *Id.* When investors buy a utility's common stock, they acquire the right to share any dividends that the company may declare in the future, which serves as an inducement to investors. *Id.* at 3–4. Dr. Amit reviewed investors' likely expectations of the cost of equity capital for MERC based largely on the likely rates of return of comparable companies, together with checks on the reasonableness of his analyses. *See generally id.* at 7–44; *see also* DOC Ex. 202 at 2–12 (Amit Surrebuttal).

3. The Cost of Common Equity Capital: The Discounted Cash Flow Method

Dr. Amit relied primarily on the Discounted Cash Flow (DCF) method of determining a reasonable cost of common equity for MERC. As noted above, to attract investors, MERC must pay them an equity return similar to the equity return they expect to earn on investments of comparable risk. DOC Ex. 200 at 3 (Amit Direct). Investors in common stock (for purposes of this analysis) expect to receive a flow of future dividends and form certain expectations about future dividends, based on the company's past and current performance, the company's

prospects for future growth, and investors' perceptions of the current and future economic environment. *Id.* at 4. Investors' expected dividend divided by the purchase price of the stock (the expected dividend yield) is a critical component of the cost of equity capital. *Id.* at 4.

Financial theory postulates that the price of the stock in the present period equals the present value of all the expected future dividends discounted by the appropriate rate of return. *Id*. If annual dividends grow at a constant rate over an infinite period, the required rate of return on common equity capital can be estimated using the following formula:

> The expected (required) rate of return on equity = the expected dividend yield + the expected growth rate in dividends.

DOC Ex. 200 at 4 (Amit Direct).

The DCF method reflected in the formula above (also called the Constant Growth Rate DCF Method), applied to companies with comparable risk, is a reasonable market-oriented method for determining a fair ROE for MERC. *Id.* at 4–5, EA-12.

A variation of the DCF model, the Two Growth Rates DCF (TGDCF), accounts for situations where, for a relatively short time period, the dividends may be expected to grow annually at a different rate than they may be expected to grow over the long-term (when both earnings and dividends are expected to grow at a constant, sustainable annual rate). *Id.* at 5, 24, EA-12. Specifically, the short-term earnings growth rates may be either unusually low or unusually high relative to the Company's historical earnings and industry averages. *Id.* at 24. Accordingly, short-term earnings growth may result in unreasonably low or high DCF estimated ROEs. In either case, to the degree that such growth rates may not be sustainable in the long-run, the TGDCF method accommodates two different growth rates: short-term and long-term (sustainable) growth rates. *Id.* at 24. Growth rates outside an expected reasonable range may not be sustainable over the long run. DOC Ex. 202 at 9 (Amit Surrebuttal); *see also* DOC Ex.

200 at 25 (Amit Direct). Therefore, a TGDCF analysis must be applied to companies with such expected growth rates. DOC Ex. 200 at 20–23 (Amit Direct). Dr. Amit applied the TGDCF to one company (NJR) company in his Direct Testimony analysis because of the company's relatively low growth rate in comparison to the mean expected growth rate for a group of comparable companies he called the Natural Gas Distribution Comparison Group (NGCG). *Id.* at 25–26. In Surrebuttal, Dr. Amit applied the TGDCF to three companies (ATO, NWN and PNY) because he determined that the updated projected growth rates for the three companies were outside the reasonable range of the comparable group, NGCG. DOC Ex. 202 at 9 (Amit Surrebuttal).

C. DOC's Recommended ROE of 9.29 Percent Is Reasonable

The Department recommended that the Commission adopt an ROE of 9.29 percent for MERC based on the Department's DCF analysis, as confirmed by other analyses. *Id.* at 2–11. This section reviews chronologically Dr. Amit's selection of a group of companies with risks comparable to MERC, his DCF and TGDCF analyses included in Direct Testimony, his Surrebuttal Testimony update, and his use of other methods to check the reasonableness of his DCF results. This section also explains why Dr. Amit concluded that the analyses of Mr. Moul and Dr. Chattopadhyay would not result in a reasonable ROE.

1. Selecting a Comparable Group with Similar Investment Risk

MERC is a subsidiary of Integrys Energy Group (Integrys) and, as such, it is not publicly traded on any stock exchange. Therefore, no DCF analysis can be directly performed on MERC. DOC Ex. 200 at 6 (Amit Direct). When a company's (or division's) stock is not publicly traded, alternative applications of the DCF model are available. One alternative is that a DCF analysis could be performed on the parent company. *Id.* In 2012, Integrys received a fairly small percent of its net income from its natural gas distribution operations (33.1 percent). *Id.* Therefore, a

DCF analysis directly applied to Integrys could not provide important or useful information regarding the cost of equity for MERC. Moreover, a DCF analysis on one company alone may be more sensitive to the random nature of stock prices and the analyst's specific growth-rate predictions. For these reasons, Dr. Amit did not include a DCF analysis of Integrys. *Id.* at 7.

A second alternative is to perform a DCF analysis on a group of companies with investment risks similar to that of the division company (MERC). DOC Ex. 200 at 7 (Amit Direct). Dr. Amit chose this alternative. To estimate the cost of equity for MERC, Dr. Amit used DCF and TGDCF analyses for groups of companies with investment risks similar to those of MERC. *Id.* Additionally, he used the Capital Asset Pricing Model (CAPM) to check the reasonableness of the results of his DCF and TGDCF analyses. *Id.*

Because companies with similar investment risks are expected to have similar required rates of return, the goal of selecting a comparable group for a DCF analysis is to find companies with similar investment risks, from the perspective of investors, to MERC. *Id.* at 7–8. MERC's main line of business is natural gas distribution, which has the Standard Industrial Classification (SIC) code of 4924. DOC Ex. 200 at 8 (Amit Direct). DOC chose a group of companies that have investment risk comparable to MERC by applying the following criteria or screens:

- Are listed on the Compustat Research Insight data base as of September 30, 2013, and
    - Have an SIC code of 4924,
    - Are traded on one of the stock exchanges,
    - Have Standard & Poor's (S&P) bond rating within the range of BBB to AA (the rating of MERC's parent company, Integrys, is A-);

- Of the companies that met the criteria above, in 2012 had at least than sixty percent of total net operating income from natural gas distribution operations;
- Added companies that were listed in Value Line Investment Survey of September 6, 2013 as natural gas utilities and met the criteria, above;
- Of the companies that met all of the criteria above, have both a beta and standard deviation of past price changes that deviated by no more than one standard deviation from the mean of the companies that met the five screens noted above (beta and standard deviation are measures of investment and financial risk, respectively).

Id. at 8–11. As indicated above, Dr. Amit named this group the NGCG. *Id.* at 11.

Finally, Dr. Amit checked the comparability of the NGCG to that of MERC by noting generally that because companies in the NGCG, like MERC, are mostly engaged in the distribution of natural gas and are similarly rate-of return regulated by the states in which they operate, their business risks are somewhat similar. DOC Ex. 200 at 13 (Amit Direct). A specific quantitative measure of the risk of investing in common stock is the volatility of rates of return (measured by beta or the Standard Deviation of Price Changes (STDPC) or a credit rating). *Id.* a 11–13. MERC is a subsidiary company and therefore, does not have beta, STDPC or a credit rating. *Id.* at 13. Thus, the only market-related quantitative risk measures available for comparison are the long-term debt ratios and the equity ratios. *Id.* at 12.

Based on his examination of 2012 common equity ratios and 2012 long-term debt ratios for NGCG and MERC, Dr. Amit concluded that NGCG and MERC have similar financial risks; further, taking into consideration that MERC and the companies in the NGCG are in the same line of business (natural gas distribution), and are similarly state-regulated, Dr. Amit concluded

that MERC's investment risks are reasonably similar to the investment risks of the companies in the comparison group, NGCG. *Id.* at 12–13.

2. DCF Analysis Generally: The Expected Growth Rate of Dividends

Under DCF methodology, the required rate of return is equal to the expected growth rate of dividends plus the expected dividend yield. DOC Ex. 200 at 21 (Amit Direct). For the first component, the expected growth rate of dividends, Dr. Amit testified that conceptually, historical growth rates for companies in the NGCG under some conditions can be estimated by simply extrapolating from historical trends. *Id.* at 14. For most companies, however, historical growth rates may be poor indicators of their future growth rates because most utilities' returns on equity and dividend payout ratios have not remained constant, and growth in book value has occurred due to retained earnings as well as to issuance of new shares of common stock. *Id.* at 14; EA-13. Thus, DOC determined the expected growth rates using projected growth rates only, rather than merely extrapolating from the past. *Id.* at 14–15.

Dr. Amit used the projected growth rates in earnings per share (EPS) provided by three widely-used and respected investor services: Zacks Investment Research (Zacks), The Value Line Investment Survey (VL), and First Call Consensus long-term earnings growth rate estimate provided by Thomson Financial Network (Thomson). DOC Ex. 200 at 14 (Amit Direct). In DCF analysis, analysts' projected growth rates are superior to historical growth rates, and among projected growth rates the EPS growth rate is the most appropriate to use. *Id.* at 16-19. It is reasonable to rely only on the projected EPS growth rate for several reasons, including that the long-run sustainable growth in dividends is solely driven from the growth in earnings. *Id.* at 17. In his Surrebuttal Testimony, as will be discussed, Dr. Amit updated the expected growth rate of dividends for companies in the NGCG by using the most recently available projected growth rates of Zacks, Thomson and Value-Line. DOC Ex. 202 at 3–4 (Amit Surrebuttal).

3. DCF Analysis Generally: The Expected Dividend Yield

The second component of the DCF analysis is the expected dividend yield, D_1/P_0, where P_0 is the price today and D_1 is the dividend in the next year (assuming that dividends are distributed at the end of each year). DOC Ex. 200 at 15 (Amit Direct). Recent prices must be used because the current price per share incorporates all relevant publicly available information. *Id.* Using non-recent (historical) prices in calculating the expected dividend yield would be inappropriate. *Id.* Share prices are very volatile in the short run, however, such that one must use a recent period of time that is short enough to avoid irrelevant historical prices and long enough to avoid short-term aberrations in the capital market. To ensure that DOC's expected dividend yield is current and yet represents a long enough period of time to avoid very short-term aberrations in the capital market, Dr. Amit used the most recently available thirty day closing prices to calculate the expected dividend yield, September 1, 2013 through September 30, 2013. *Id.* Dr. Amit later updated the expected dividend yield for companies in the NGCG by using the most recently available thirty-two day period closing prices at that time. DOC Ex. 202 at 3 (Amit Surrebuttal).

4. DCF and TGDCF for the Comparable Group, NGCG: Direct Testimony

Based on DCF methodology, the required rate of return is equal to the expected dividend yield plus the expected growth rate. DOC Ex. 200 at 21 (Amit Direct). In Dr. Amit's Direct Testimony, the expected growth rate for the NGCG ranged from a low of 4.21 percent to a high of 5.87 percent, with the best point estimate for the expected growth rate at 5.09 percent. *Id.* The expected dividend yield based on Dr. Amit's Direct Testimony analysis ranged from a low of 3.93 percent to a high of 3.96 percent, with the best point estimate for the expected dividend yield at 3.94 percent. *Id.* Combining the expected growth rates with the expected dividend

yields results in the required rate of return for the group ranged from a low of 8.14 percent to a high of 9.83 percent, with the best point estimate for the required rate of return on equity for the group at 9.04 percent (the mean ROE). *Id.* at 21, EA-5.

However, some analysts' projected growth rates for certain companies in the NGCG were not reasonable to be used as proxies for the DCF's excepted long-term sustainable growth. DOC Ex. 200 at 21 (Amit Direct). As noted above, the TGDCF analysis accounts for two different growth rates, short-term and long-term (sustainable); however, it is reasonable to apply the TGDCF to situations where the short-term projected dividend growth rates for a company may not be expected to continue in the long run such that their use in a DCF analysis may result in unreasonably low or high DCF estimated ROEs. DOC Ex. 200 at 22–24 (Amit Direct). In his Direct Testimony, Dr. Amit identified one company for which use of the DCF analysis alone would result in an unreasonably low ROE for the comparison group (NJR, for which its short-term projected dividend growth rates may not be expected to continue in the long run). *Id.* at 24–25. Dr. Amit then used the projected five-year average EPS growth rates for the remaining companies in the NGCG as a proxy for sustainable growth rates. DOC Ex. 200 at 23, EA-5 (Amit Direct).

After applying the TGDCF analysis to the appropriate company and using the DCF analysis for the other companies, Dr. Amit's average DCF/TGDCF-estimated ROE for the NGCG was 9.11 percent without accounting for the impact of flotation costs and 9.40 percent with flotation costs included. *Id.* at 26–27, EA-7.

5. Reasonableness of DOC's DCF/TGDCF Results Were Confirmed by the CAPM Analysis: Direct Testimony

The results of the DCF/TGDCF must be confirmed by other analyses such as the Capital Asset Pricing Model or simple CAPM, and the Empirical CAPM or ECAPM. DOC Ex. 200 at

28, 32 (Amit Direct). The basic premise of CAPM is that any risk that is company-specific can be diversified away by investors. *Id.* at 28. Therefore, the only risk that matters is the systematic risk of the stock. *Id.* This systematic risk is measured by beta. *Id.* While the CAPM is theoretically sound, its use raises some difficult issues including difficulties in determining the appropriate beta, the appropriate riskless asset, and the effect of taxes. *Id.* For these reasons, the Department used the CAPM results *only* as a check on the reasonableness of its DCF analyses. *Id.*

Application of the CAPM to the NGCG resulted in an estimated ROE that was lower, 9.11 percent, than Dr. Amit's DCF/TGDCF-estimated ROE of 9.40 percent with flotation costs. DOC Ex. 200 at 32 (Amit Direct). Application of the ECAPM analysis resulted in an estimated ROE mean for the NGCG of 9.96 percent with flotation. *Id.* at 33. The ECAPM's ROE was significantly higher than Dr. Amit's CAPM's ROE and is reasonably close to the mean of his DCF's ROE for the NGCG. *Id.* at 33. The CAPM and ECAPM results confirm the reasonableness of Dr. Amit's DCF/TGDCF results. *Id.* at 33–34. The CAPM and ECAPM results for MERC lie inside the range of Dr. Amit's DCF/TGDCF estimated ROEs. Moreover, the average of his CAPM and ECAPM for MERC results in an ROE of 9.43 percent, which is very close to the average DCF/TGDCF ROE for MERC: 9.40 percent with flotation costs. Therefore, Dr. Amit reasonably concluded that his CAPM and ECAPM results confirm the reasonableness of DOC's DCF/TGDCF results. *Id.* at 34.

For these reasons, Dr. Amit reasonably concluded in Direct Testimony that the required rate of return for MERC is the mean of 9.40 percent, including flotation costs. DOC Ex. 200 at 34 (Amit Direct). Similarly, as discussed below, Dr. Amit's updated CAPM and ECAPM in his Surrebuttal Testimony confirmed the reasonableness of his updated DCF result for the

comparable group of companies and his final recommended ROE for MERC of 9.29 percent, including flotation costs. DOC Ex. 202 at 2–11 (Amit Surrebuttal).

6. Flotation Costs

DOC agrees with MERC that DCF and TGDCF analyses must be adjusted to allow for the cost of issuing new shares of common stock without causing dilution, which is a decrease in the value of a stock due solely to the cost of issuing new stock. DOC Ex. 200 at 26 (Amit Direct). Recovery of flotation costs is appropriate even if no new issuances are planned in the near future because failure to do so may deny MERC the opportunity to earn its required rate of return in the future. *Id.* at 27. Such a denial would be contradictory to the purpose of rate-of-return regulation. *Id.* Dr. Amit demonstrated the need for an issuance-cost adjustment. *Id.* at 26, EA-14 (Amit Direct). Thus, the Department agrees with MERC that flotation costs must be allowed.

Dr. Amit also agrees with the Company's flotation cost calculation of 3.90 percent. DOC Ex. 200 at 27 (Amit Direct) (*citing* MERC Ex. 17 at PRM-1, Schedule 9, Page 1 (Moul Direct)). Thus, the Department adjusted its DCF and TGDCF results by using flotation costs of 3.90 percent. *Id.* at 27.

The Department disagrees, however, with OAG witness Dr. Chattopadhyay's view that flotation costs should be excluded from MERC's ROE determination. DOC Ex. 201 at 25 (Amit Rebuttal); DOC Ex. 202 at 35–36 (Amit Surrebuttal); Tr. at 204 (Amit). Dr. Amit explained that Dr. Chattopadhyay's basic premise for excluding flotation costs is based on his view that the DCF methodology produces an upward biased ROE when the market-to-book ratio (M/B ratio) of comparable companies is greater than one, as it is in this case. *Id.* Because Dr. Amit demonstrated in his Rebuttal Testimony that the DCF does not produce an upward biased estimate of the cost of equity capital, Dr. Amit concluded that Dr. Chattopadhyay's objection to

the inclusion of flotation costs is without merit. DOC Ex. 201 at 25 (Amit Rebuttal); DOC Ex. 202 at 35–36 (Amit Surrebuttal).

7. DOC Initial Recommended ROE: Direct Testimony (9.40 percent)

Based on Dr. Amit's DCF and TGDCF analyses for the NGCG group, the required rate of return for MERC ranged from a low of 8.61 percent to a high of 10.14 percent, with flotation costs. Dr. Amit concluded that the most reasonable required rate of return on common equity for MERC inside this range was the mean of 9.40 percent. DOC Ex. 200 at 34 (Amit Direct).

8. DOC Final Recommended ROE: Surrebuttal Update (9.29 percent)

Dr. Amit's updated his recommended ROE to 9.29 percent and an overall rate-of-return of 7.27 percent for MERC. DOC Ex. 202 at 2 (Amit Surrebuttal). This recommendation of 9.29 percent is 11 basis points lower than his recommendation in Direct Testimony for the ROE (9.40 percent) and the updated ROR of 7.27 percent is a decrease of 6 basis points in his initial overall cost of capital (7.33 percent). *Id.*

It is necessary to update the ROE recommendation with current prices because it is important to use the most recently available expected dividend yields when relying on a DCF analysis, DOC Ex. 502 at 1 (Amit Surrebuttal), and for consistency Dr. Amit also updated his DCF analysis with more recent projected growth rates. *Id.* at 1, 3. He used the same methodology and sources of information in calculating the ROE in his Direct and Surrebuttal Testimonies, although Dr. Amit applied the TGDCF to three different companies in the NGCG due to their projected growth rates of dividends falling outside the reasonable range (*i.e.*, outside the mean projected growth rate plus or minus one standard deviation) of companies in the NGCG. DOC Ex. 502 at 2, 5–9 (Amit Surrebuttal). He also updated his CAPM analysis. *Id.* at 10–11.

To calculate updated dividend yields, Dr. Amit used closing prices from the most recently available thirty-two day period (03/14/2014–04/14/2014). He also updated the annual dividend rates to the degree that they changed for any of the companies in his comparison group. DOC Ex. 202 at 3 (Amit Surrebuttal). Consistent with his Direct Testimony, Dr. Amit selected the mid-point of the updated average dividend yields of companies in the NGCG. *Id.* at 3. These dividend yields include an increase by one half of the expected growth rates. *Id.* at 3, EA-S-2.

Dr. Amit updated the expected growth rates of dividends for the NGCG based on the most recently available projected growth rates (projected earnings per share, EPS) of Zacks, Thomson and Value-Line. DOC Ex. 202 at 3 (Amit Surrebuttal). While the expected growth rates of dividends are not likely to change significantly in such a short period between Direct and Surrebuttal Testimonies, consistency required the use of the most recently available projected growth rates. *Id.*

Dr. Amit used the same flotation costs in his Surrebuttal Testimony as in his Direct Testimony. DOC Ex. 202 at 10 (Amit Surrebuttal).

As a check on the reasonableness of his updated DCF, Dr. Amit updated his CAPM estimates. DOC Ex. 202 at 6–7 (Amit Surrebuttal). His updated CAPM with flotation costs was 9.79 percent with flotation costs, which is reasonably close to Dr. Amit's updated DCF analysis result of 9.29 percent. *Id.* Dr. Amit reasonably concluded that when using expected risk premiums, the ex-ante CAPM is useful in confirming the reasonableness of his recommended DCF estimate for the required rate of return on equity for MERC. *Id.* at 7.

Based on the records in these proceedings, the Department's final recommendation for the Commission to authorize a return on equity for MERC of 9.29 percent is reasonable. DOC Ex. 202 at 11 (Amit Surrebuttal); Tr. at 200 (Amit).

D. Mr. Moul's DCF and other Analyses Are Flawed

MERC failed to demonstrate that a 10.75 percent ROE, with flotation costs, is reasonable. DOC Ex. 200 at 45 (Amit Direct); DOC Ex. 202 at 12–13 (Amit Surrebuttal).

1. Summary of Dr. Amit's main disagreements with Mr. Moul's analyses

Among many factors, Dr. Amit's key disagreement with Mr. Moul's ROE analyses concern his leverage adjustments for Mr. Moul's DCF and CAPM analyses, and his size adjustment for his CAPM analysis. Tr. at 200–201 (Amit). Dr. Amit also disagrees with Mr. Moul's choices of the yield and risk premium for his risk premium analysis, his risk-free yield and risk-free premium choices for his CAPM analysis and as well as other aspects of his analyses. Tr. at 201 (Amit). Dr. Amit summarizes his main disagreements with Mr. Moul's analyses, as follows:

> My main disagreement with Mr. Moul's analyses are, one, his leverage adjustments for his DCF and CAPM analyses. Mr. Moul adjusted the DCF and CAPM estimates to account for the difference between book debt-to-equity ratio and market debt-to-equity ratio. His leverage adjustments imply that investors are not rational and are not aware of the differences between the book debt-to-equity ratio and the market debt-to-equity ratio.
>
> Two, Mr. Moul's size adjustment for his CAPM analysis. If adopted, Mr. Moul's proposed adjustment would isolate a unique risk factor for MERC and would disregard all other risk factors that may be unique to other utilities in his comparison group. It is inappropriate from both a financial and ratemaking perspective to do so.
>
> Finally, I disagree with Mr. Moul's choices of the yield and risk premium for his risk premium analysis. I also disagree with his risk-free yield and risk-free premium choices for his CAPM analysis. His choices inappropriately bias his results upward. I have additional disagreements with other parts of Mr. Moul's analyses, but these disagreements have only small impacts on his recommendation -- on his recommended ROE.

Tr. at 200–201 (Amit).

Provided below are brief discussions of the many aspects of Mr. Moul's ROE analyses with which Dr. Amit disagrees,[8] as organized in three categories of disagreements, as follows:

- Selection of companies in Mr. Moul's Delivery (comparable) group;
- Rate of return analyses: DCF, Risk Premium, CAPM and Comparable Earnings; and
- Risk-specific (upward) adjustments (leverage and size)

DOC Ex. 200 at 46–68 (Amit Direct); *see also* DOC Ex. 202 at 12–21 (Amit Surrebuttal).

2. Mr. Moul's selection of his Delivery (comparable) Group was flawed

As part of his DCF analysis, Mr. Moul's selection of comparable group of companies he referred to as his "Delivery Group" was flawed. DOC Ex. 200 at 46–47 (Amit Direct); DOC Ex. 202 at 13–14 (Amit Surrebuttal). A key error was Mr. Moul's inclusion in his Delivery Group of four non-natural gas utility companies with higher risk profiles than natural gas utilities such as MERC. *Id.* That is, it is reasonable to expect a higher average required rate of return for the group of the four companies than for the Delivery group excluding the four companies. DOC Ex. 200 at 47 (Amit Direct). An appropriate comparable group would result in a lower required rate of return than would be indicated by Mr. Moul's Delivery Group. *Id.* Mr. Moul provided no justification in his Rebuttal Testimony for inclusion of non-natural gas companies in his comparable group. DOC Ex. 202 at 14 (Amit Surrebuttal). The comparable group for Mr. Moul's DCF analysis is flawed and, therefore, is inappropriate because it does not have a comparable risk profile to that of MERC. *Id.*

[8] A detailed explanation in Dr. Amit's Direct Testimony addresses his disagreements with Mr. Moul's analyses: pages 46 to 47 discuss Mr. Moul's flawed selection of comparable companies for his Delivery Group; pages 48 to 59 discuss Mr. Moul's flawed rate of return analyses (DCF, Risk Premium, CAPM, Comparable Earnings); pages 60 to 68 discuss Mr. Moul's unreasonable ROE adjustments for various risk indicators including size and leverage. DOC Ex. 202 at 46–68 (Amit Direct); *see also* DOC Ex. 202 at 12–21 (Amit Surrebuttal).

3. Mr. Moul's Rate of Return Analyses were flawed

A brief recitation of Mr. Moul's flawed Rate of Return analyses is provided, below. Dr. Amit summarized in his Surrebuttal Testimony his response to Mr. Moul's analyses, as follows:

> As I demonstrated in my Direct Testimony and this Surrebuttal Testimony, Mr. Moul's selection of his delivery group is inappropriate. Moreover, his DCF analysis, RP analysis and CAPM analysis are all flawed and should be rejected.

DOC Ex. 202 at 16 (Amit Surrebuttal).

a. The DCF analysis included inappropriate dividend yield calculations and other flaws

Flaws in Mr. Moul's DCF analysis, in addition to the inappropriate comparable group discussed immediately above, concerned his dividend yield calculations, calculation of the adjustment for flotation costs (although Dr. Amit agreed with the flotation cost number itself, 3.90 percent) and, to a lesser degree, the projected growth rate. DOC Ex. 200 at 48–51 (Amit Direct); DOC Ex. 202 at 14 (Amit Surrebuttal). As practical matter, however, Mr. Moul's estimated DCF ROE "is even lower" than Dr. Amit's updated DCF ROE, DOC Ex. 202 at 14 (Amit Surrebuttal). Thus, this Initial Brief addresses MERC's flawed DCF analysis summarily.

Mr. Moul's dividend yield calculations were flawed by his use of month-end prices over of six-month (*i.e.*, long-term historical prices) rather than current (recent historical) stock prices over a short period such as a one to three month period. It is important to use current rather than non-recent historical prices for the dividend yield under the basic financial premise that financial markets are efficient; that is, the current stock prices fully reflect all publicly available information. DOC Ex. 200 at 15, 48 (Amit Direct). For this reason, Mr. Moul's use of prices over a six-month period to calculate his dividend yields may be inappropriate. *Id.* at 49. Moreover, using a six-month average dividend yield may create a mismatch between such

dividend yields and the more recent projected growth rates. *Id.* Dr. Amit proposed to substitute Mr. Moul's three-month average dividend yield for his six-month average dividend yields. *Id.*

Regarding the flotation cost adjustment Dr. Amit agreed with MERC's calculation of flotation costs of 3.90 percent, but not Mr. Moul's *adjustment* to the dividend yield which is well-recognized in the financial literature as follows: Dividend yield/1-F, where F is the percentage flotation cost or 0.039 in this case. *Id.* at 50.

Finally, Mr. Moul's projected growth rate in dividends appropriately used projected earnings per share, yet he used his subjective judgment to conclude that an expected growth rate of five percent is a reasonable growth rate to use for his DCF analysis. DOC Ex. 200 at 49 (Amit Direct). To eliminate any subjective judgment, Dr. Amit proposed to average analysts' projected growth rate, 5.21 percent, and to substitute that average for Mr. Moul's proposed 5.00 percent. *Id.* Mr. Moul's Rebuttal Testimony did not correct these flaws in his DCF analysis. DOC Ex. 202 at 14 (Amit Surrebuttal).

b. Mr. Moul's Risk Premium analysis is flawed for many reasons

Among the flaws in Mr. Moul's Risk Premium analysis, Dr. Amit explained, Mr. Moul used the wrong yield on A-rated utility bonds and the wrong risk premium for his Risk Premium analysis, for which his RP analysis should be rejected. DOC Ex. 200 at 51 (Amit Direct).

i. Mr. Moul's yield on A-rated utility bonds is unreasonably biased upward

Mr. Moul used the wrong methodology to estimate the yield on A-rated utility bonds for his Risk Premium analysis. Therefore, his proposed yield on A-rated utility bonds is biased upward. *Id.* at 51. Dr. Amit provides a detailed explanation of Mr. Moul's errors. Suffice it to say that Mr. Moul inappropriately used mismatched time periods (he added a yield spread between twenty-year Treasury bills and A-rated utility bonds to the yields on thirty-year

Treasury bills), he did not calculate average yield spreads based on the most recently available information (his six-month or twelve-month averages may reflect outdated information), and he used estimated spreads rather than the preferable direct information on A-rated utility bonds.

ii. Mr. Moul used an incorrect approach to determine the yield for his risk premium

Mr. Moul's determination of the yield for his risk premium is somewhat arbitrary and is therefore inappropriate. DOC Ex. 200 at 54–55 (Amit Direct). In general, there are two approaches to estimating the risk premium. *Id.* at 54. One approach is to use an historical risk premium assuming that the risk premium is not affected by the financial and economic environments. Under this approach the best estimate of the risk premium is the average historical risk premium using an historical period of as long as possible. A second approach is to estimate a prospective risk premium. Based on recent financial literature, there is a consensus that risk premiums vary based on the specific financial and economic environments, and therefore, prospective risk premiums may be preferable to risk premiums estimated based on historical data. *Id.*

Although Mr. Moul used an historical risk premium approach, he failed to establish an exact analytical relationship between the level of interest rates and the level of risk premium. *Id.* Rather, his estimated risk premium is based on his own judgment that is not supported by any rigorous analysis. Accordingly, his estimated risk premium is without merit. *Id.* at 55.

iii. Mr. Moul incorrectly calculated his risk premium based on mismatched measurements

The risk premiums estimated by Mr. Moul are measured incorrectly as the return on large common stock minus the return on long-term corporate bonds. DOC Ex. 200 at 55 (Amit Direct). The appropriate risk measures should be calculated as the difference between the return on common stock of A-rated utility companies and the return on long-term A-rated utility bonds.

Applying the risk premium as estimated by Mr. Moul and adding it to the current yield on A-rated utility bonds results in a mismatch. *Id.*

iv. Mr. Moul repeated the same Risk Premium errors in his Rebuttal Testimony

In his Rebuttal Testimony, Mr. Moul repeated the same errors committed in his Direct Testimony for his Risk Premium analysis. He provided no additional explanation regarding his choice of the yield on A-rated utility bonds and the risk premium. Thus, the Department continued to conclude that Mr. Moul's Risk Premium analysis is unreasonable. DOC Ex. 202 at 15 (Amit Surrebuttal).

4. Mr. Moul misapplied the CAPM methodology

Dr. Amit explained in detail the significant flaws in Mr. Moul's CAPM analysis. DOC Ex. 200 at 55–58 (Amit Direct); DOC Ex. 202 at 15–16 (Amit Surrebuttal). To perform a CAPM analysis there are three main parameters: beta, the risk-free rate, and risk premium. DOC Ex. 200 at 55 (Amit Direct). Mr. Moul's CAPM analysis is flawed as to each of these three parameters, and he repeated the same errors in his Rebuttal Testimony. DOC Ex. 202 at 15–16 (Amit Surrebuttal).

a. MERC's Beta is unreasonably high

For beta, a risk measurement that reflects the price volatility of a company relative to the price volatility of the market as a whole, Mr. Moul appropriately selected Value Line's beta of 0.67, but then inappropriately adjusted it to 0.71 to account for an alleged higher financial risk of MERC. DOC Ex. 200 at 56, 67 (Amit Direct). Because he failed to demonstrate that MERC has such a higher financial risk (*id.* at 60–68), Dr. Amit adjusted Mr. Moul's proposed beta by disregarding Mr. Moul's upward adjustment of the Value Line beta of 0.67. *Id.* at 58.

b. MERC's risk-free rate is flawed

For the risk-free rate, Mr. Moul used 3.75 percent. He based his selection on the Blue-Chip forecast of 3.70 percent yield on thirty-year Treasury bills for the third quarter of 2014. *Id.* at 56. Dr. Amit, however, identified two key concerns with Mr. Moul's risk-free rate. First, the yield on thirty-year Treasury bills includes significant interest risk premium and therefore does not represent a true risk-free yield. *Id.* at 57. Second, because current yields on long-term Treasury bills fully reflect current investors' expectations about the future economic and financial environment, Mr. Moul's use of Blue-Chip's forecast of *future* yields for *current* yields is inappropriate; doing so simply introduces another element of uncertainty in the application of the CAPM. *Id.*

For these reasons, Dr. Amit appropriately substituted the current (September, 2013 average yield) on twenty-year bonds which equaled 3.53 percent for Mr. Moul's proposed risk-free yield of 3.75 percent. DOC Ex. 200 at 57 (Amit Direct).

c. MERC's risk premium is flawed

For the risk premium, Mr. Moul's methodology is inconsistent and unreasonable. *Id.* at 57–58. Specifically, Mr. Moul inappropriately used a different risk premium for his Risk Premium analysis, 7 percent, than he did for his CAPM historical risk premium, 8.69 percent.

Further, Mr. Moul's use of a historical risk premium for his CAPM analysis is without merit. *Id.* In his CAPM calculation, Mr. Moul used the average of current and historical risk premiums. *Id.* at 56. Dr. Amit demonstrated that Mr. Moul's methodology of calculating the historical risk premium is incorrect, both for Mr. Moul's Risk Premium analysis and for his CAPM. DOC Ex. 200 at 57–58 (Amit Direct).

Finally, although Mr. Moul's calculations of the market's rate of return are reasonable, his use of a risk-free rate of return of 3.75 percent rather than 3.53 percent was not. *Id.*

d. Mr. Moul repeated the same CAPM errors in his Rebuttal Testimony

In his Rebuttal Testimony, Mr. Moul used the same methodology for CAPM as he used in his Direct Testimony and, thus, his updated CAPM continues to be unreasonable and must be rejected. DOC Ex. 202 at 15–16 (Amit Surrebuttal).

5. The Comparable Earning Analysis is without merit

To confirm his other Rate of Return analyses, Mr. Moul used a tool called "Comparable Earning." The results of his Comparable Earning analysis, together with his arbitrary elimination of companies from his comparison group, show that the analysis is without merit and must be rejected. DOC Ex. 200 at 59 (Amit Direct). For example, the results of Mr. Moul's analysis "clearly indicate that his selected group includes many companies that are not risk comparable to the investment risks of his Delivery group." *Id.* That is, before he arbitrarily eliminated companies from the group with returns greater than 20 percent, his average returns were 48.9 percent and 17.9 percent for the historical and projected periods, respectively. *Id.* Other indicators that the Comparable Earning analysis was without merit include:

- His historical returns include returns as low as 3 percent and as high as 726.5 percent;
- His projected returns range from a low of 4.5 percent to a high of 41.5 percent;
- About thirty-nine percent of his companies have average historical returns above twenty percent; and
- About thirty-two percent of his companies have average projected returns greater or equal to twenty percent.

DOC Ex. 200 at 59 (Amit Direct).

6. Mr. Moul's upward ROE adjustments based on claimed risk-specific factors for MERC are unsupported and unreasonable.

The risk adjustments to ROE proposed by Mr. Moul are without merit. He included the same risk indicators in his Direct and Rebuttal Testimonies, divided into two groups:

- Risk indicators for which Mr. Moul did not provide specific upward adjustments of his recommended ROE; and
- Risk indicators for which Mr. Moul provided specific upward adjustments of his recommended ROE a size and a leverage adjustment.

Id. at 60–68; DOC Ex. 202 at 16 (Amit Surrebuttal). Regarding Mr. Moul's first group of claimed risk indicators,[9] Dr. Amit showed that there is no valid basis to conclude that MERC's investment risk is greater than Mr. Moul's Delivery Group investment risk. DOC Ex. 202 at 16–17 (Amit Surrebuttal); *see also* DOC Ex. 200 at 60–63 (Amit Direct).

As to the second group of claimed risk indicators, Dr. Amit's analysis clearly demonstrated that Mr. Moul's proposed upward adjustments to his ROE estimates are without merit. DOC Ex. 202 at 17 (Amit Surrebuttal); *see also* DOC Ex. 200 at 63–68 (Amit Direct). Dr. Amit paid particular attention to Mr. Moul's two upward ROE adjustments, a size and a leverage adjustment, and explained in detail why there is no basis to support either upward ROE adjustment. DOC Ex. 200 at 63–68 (Amit Direct); DOC Ex. 202 at 17 (Amit Surrebuttal).

[9] Mr. Moul's first group of claimed risk indicators for which he made no ROE adjustment include: 1) The high percentage of revenues received from large volume customers; 2) Volatility of ROE; 3) Operating ratios; and 4) Coverage rates. DOC Ex. 200 at 60 (Amit Direct). Dr. Amit discussed each of these claimed risk factors in detail and showed there is no valid basis to conclude that MERC's investment risk is greater than Mr. Moul's Delivery group investment risk. *Id.* at 63.

a. Selection of a comparison group requires a macro risk analysis, not the micro risk analysis proposed by Mr. Moul

Mr. Moul's micro risk analysis of companies in his comparable or Delivery group is an unreasonable basis for adjustment of MERC's ROE. As Dr. Amit explained, the selection of a comparison group of companies with investment risks similar to MERC must be based largely on a macro risk analysis, not a micro risk analysis. DOC Ex. 200 at 60 (Amit Direct).

A macro risk analysis is based on using well accepted and readily available business and financial risk indicators. *Id.* Companies in the comparison group must have similar business and financial risk indicators, which may include lines of business, credit rating, beta, and standard deviation of price changes. *Id.* Of course, each company in the comparison group may have unique characteristics that impact its investment risk. *Id.* at 60–61. Such characteristics may include the specific mix of customer classes, the amount of storage capacity, the locational density of its customers, and the age of its distribution facilities. *Id.*

Although each company may have unique risk characteristics, there are two key reasons why using micro risk analysis to identify such characteristics is not appropriate for the purpose of selecting a comparable group. DOC Ex. 200 at 61 (Amit Direct). First, since each utility has a somewhat different sets of risk characteristics, screening for micro risk factors would divide the group too finely such that no company would qualify to be selected for the overall comparison group. Second, the macro risk analysis uses well accepted risk measures that already reflect the unique characteristics of each company. Performing a micro analysis would overemphasize the micro characteristic and, thus, is unreasonable. *Id.*

b. Mr. Moul's upward ROE adjustment based on MERC size is unwarranted

Mr. Moul did not show that his upward ROE adjustment for MERC's size, according to his CAPM analysis, is reasonable. He stated that, based on various studies and the financial

literature, smaller size companies are riskier than larger size companies and therefore, smaller size companies' required rate of return is higher. He identified the risk premium for his CAPM projected ROE for a Mid-Cap company (1.12 percent) and used that risk premium as an adder for his CAPM result. *Id.* at 63 (*citing* MERC Ex.17 at PRM-1, Schedule 12, page 3 (Moul Direct)).

Dr. Amit explained in detail why it is unreasonable to adjust MERC's ROE upward based on its size. As a general matter, there exists a "risk premium" for smaller size companies, but *only if* all other investment risk characteristics of a group of companies are the same. DOC Ex. 200 at 64 (Amit Direct). For example, for two identical companies in all aspects other than size, the company that is significantly smaller would have a higher required rate of return. *Id.* Mr. Moul made no such showing as to MERC.

MERC's size is only one aspect of the Company's overall financial and business risk. It is inappropriate to choose one specific factor of the overall investment risk and use it increase MERC's required rate of return to a level that is higher than the rate of return for the comparison group. *Id.* Therefore, any "risk premium" associated with a size-only comparison for MERC is inappropriate. *Id.* To employ a micro risk analysis in order to account for size would require an examination of each company's unique factors that may impact investment risk. *Id.* Mr. Moul did not attempt such an examination. Even if one were to provide a micro risk analysis of each company's unique risk factors, it would be impractical and would defeat the purpose of using well-accepted common-risk factors to screen for risk-comparable groups. *Id.* For these

reasons,[10] adding a small-size risk premium to the rate of return for MERC is not reasonable and should be denied. DOC Ex. 200 at 64 (Amit Direct).

c. Mr. Moul's upward ROE adjustment based on a "leverage" adjustment is unreasonable

Mr. Moul's upward "leverage adjustment" to MERC's ROE of 48 basis points, based on his DCF and his CAPM analyses, is unreasonable. *Id.* at 63. Dr. Amit provided the technical formulas used by Mr. Moul, together with various inputs based on companies in Mr. Moul's Delivery group, to show Mr. Moul's "leverage adjustment" calculations. *Id.* at 65. He strongly disagreed, however, that Mr. Moul demonstrated the reasonableness of such an upward "leverage adjustment" to MERC's ROE.

Dr. Amit agreed that Mr. Moul used two equations that would be appropriate equations to account for significant differences in the debt-to-equity ratios for two companies with otherwise similar investment risks, but neither equation is applicable for MERC and Mr. Moul's Delivery group. *Id.* at 66. Mr. Moul's application of these equations contradicts the fundamental financial principle that financial markets are efficient, *i.e.*, the current stock prices fully reflect all publicly available information. *Id.* This principle applies as well to investors' expectations regarding risk premiums. *Id.* Dr. Amit testified that Mr. Moul's "leverage adjustment" is unreasonable, as follows:

> The companies in Mr. Moul's Delivery group are all rate-of-return regulated and investors are well aware of the fact that the allowed rates of return for equity are applied to book value, not market value of equity. Moreover, investors are well aware of the fact that in recent years market debt/equity ratios for utilities in Mr. Moul's Delivery group have been lower than their book debt/equity ratios. Therefore, the common stock prices of companies in Mr. Moul's

[10] No additional justification for a size adjustment was provided in Mr. Moul's Rebuttal Testimony. DOC Ex. 202 at 21 (Amit Surrebuttal).

> Delivery group already reflect any risk associated with the discrepancy between book and market ratios of debt/equity and no additional adjustment is required. Mr. Moul's proposed adjustment would inappropriately doubly compensate investors for investment risk already accounted for in their required returns.
>
> The same rationale holds true for Mr. Moul's proposed beta adjustment. Beta is a measure of the price volatility of a company relative to the price volatility of the market (S&P 500 for example) as a whole. Since the prices of companies in Mr. Moul's Delivery group fully reflect the risk associated with the discrepancy between book and market debt/equity ratios, no additional adjustment to beta is needed to recognize such a discrepancy.

DOC Ex. 200 at 66–67 (Amit Direct).

For these reasons,[11] making an upward "leverage adjustment" to MERC's ROE is not reasonable and should be denied.

7. Mr. Moul's additional criticisms of Dr. Amit's Direct Testimony have no merit and should be rejected.

In his Rebuttal Testimony, Mr. Moul made three new arguments for a higher MERC ROE for MERC, but failed to demonstrate that any is warranted. In addition to recommending the risk adjustments discussed immediately above, Mr. Moul claimed that:

- In view of the rates of return allowed by state utility commissions in 2013, Dr. Amit's recommendation of rate of return of 9.40 percent is too low;
- Dr. Amit's recommended rate of return of 9.40 percent is too low because Value Line projects an average rate of return of 11.49 percent for its natural gas utility companies over the 2017–2019 period; and
- Based on the Commission's Order in Docket No. G007,011/GA-10-977, the required rate of return for MERC should be 10.27 percent.

[11] No additional justification for a "leverage adjustment" was provided in Mr. Moul's Rebuttal Testimony. DOC Ex. 202 at 21 (Amit Surrebuttal).

DOC Ex. 202 at 18 (Amit Surrebuttal). Mr. Moul's claims are meritless. *Id.*

a. Recent state utility commission decisions do not support Mr. Moul's proposed ROE for MERC

Contrary to Mr. Moul's claim, recent commission decisions do not show that Dr. Amit's recommended ROE is too low. *Id.* at 18–19. The average ROE for the group of eleven natural gas rate cases determined in the fourth quarter of 2013, was 9.83 percent compared to Dr. Amit's Direct Testimony ROE of 9.40 percent. *Id.* at 18. However, the range of those allowed ROEs went from a low of 9.08 percent to a high of 10.25 percent. *Id.* This range means that some allowed ROEs were significantly below Dr. Amit's initial recommendation of 9.40 percent, *id.,* and lower than Dr. Amit's final recommended ROE of 9.29 percent. Moreover, based on Mr. Moul's own argument, his recommended ROE of 10.75 percent is unreasonably high. *Id.* at 19.

Dr. Amit also observed that state utility commission decisions issued in the fourth quarter of 2013 are likely based on data from 2012 and early 2013. DOC Ex. 202 at 19 (Amit Surrebuttal). Thus, such decision likely reflect outdated economic and financial data that are not relevant to the current MERC general rate case. *Id.*

b. Value Line projected ROEs do not indicate that Dr. Amit's estimated ROE of 9.40 (or final, 9.29 percent) is too low.

There are at least two reasons why Mr. Moul's contention that Value Line's projected expected ROE of 11.49 percent for the period of 2017–2019 does not show Dr. Amit's recommended MERC ROE to be too low. *Id.* First, as Dr. Amit provided in his Rebuttal Testimony at pages 2 and 3, when the market-to-book (M/B) ratio is greater than one, as is the case for Dr. Amit's comparison group, then the *expected* rate of return is greater than the *cost* of common equity. *Id.* The issue in this rate concerns a reasonable cost of common equity (the required rate of return or ROE) for MERC. *See id.* Dr. Amit explained that Value Line's average 2017–2019 *expected* ROE of 11.25 percent, "only confirms my analysis that the

expected rate of return is greater than ROE when the M/B ratio is greater than one. However, it does not indicate that my estimated ROE of 9.40 percent is too low." *Id.*

Second, Dr. Amit provided specific examples of the Value Line data showing that such data is internally inconsistent. DOC Ex. 202 at 19 (Amit Surrebuttal). Therefore, Mr. Moul's Value Line claim has no merit. *Id.*

c. The Commission's Order in MERC's last rate case, Docket No. G007,011/GA-10-977, does not support an ROE in this case of 10.27 percent

Mr. Moul employed a circular argument to claim erroneously that the Commission's prior ROE, which was based on 2011 data, is appropriate to use in determining the ROE in the present rate case of 10.27 percent. *Id.* at 20. Also, Mr. Moul assumed without support that today's interest rate environment required his historical risk premium that was incorrectly determined in the past to be adjusted downward by 50 basis points. *Id.* Dr. Amit summarized the multiple flaws in Mr. Moul's "updating" argument, as follows:

- The argument uses circular analysis because it uses a Commission-determined ROE from 2011 to estimate the *current* ROE for MERC; and
- Mr. Moul somewhat arbitrarily adjusts the incorrectly determined historical risk premium to estimate a current risk premium.

DOC Ex. 202 at 20 (Amit Surrebuttal). For these reasons, Mr. Moul's "updating" argument is unreasonable and must be rejected.

E. Dr. Chattopadhyay's DCF Analysis Is Flawed

Dr. Chattopadhyay's recommendation of an 8.62 percent ROE is fundamentally unreasonable. His analysis to arrive at an ROE of 8.62 percent is based on the erroneous assumption that when the M/B ratio is greater than one, the DCF produces an upwardly biased DCF estimate of ROE. Moreover, his projected growth rate is based on a subjective average of

several growth rates that achieves a low ROE, but with no explanation of why it would not be reasonable to employ a similarly subjective average of growth rates to achieve a higher ROE. Investors' behavior does not support Dr. Chattopadhyay's analysis since, based on that analysis, investors should have made a run on utilities stocks in recent years. This clearly did not happen. Tr. at 203–204, 205 (Amit). Although both Dr. Amit and Dr. Chattopadhyay rely principally on DCF analysis for their recommended ROE for MERC, and both use CAPM as a check on the reasonableness of the DCF (Dr. Amit also uses ECAPM as a check), Dr. Amit strongly disagrees with important aspects of Dr. Chattopadhyay's DCF ROE analysis and recommendation.[12] DOC Ex. 201 at 1–22 (Amit Rebuttal); DOC Ex. 202 at 22–37 (Amit Surrebuttal); Tr. at 202–205 (Amit). Specifically, Dr. Amit's final recommended ROE for MERC of 9.29 percent differs from Dr. Chattopadhyay's 8.62 percent recommendation largely due to Dr. Chattopadhyay taking an average of the results of four different DCF methods[13] and his fundamental view that application of DCF analysis results in an upward bias to ROE where, as here, the market-to-book (M/B) ratio of comparable companies is over one. *See id.* at 202–204.

1. Summary of Dr. Amit's main disagreements with Dr. Chattopadhyay's ROE analyses

Dr. Amit summarized his disagreements with Dr. Chattopadhyay's analyses that are "based on fairly involved technical analyses" as follows:

[12] Dr. Amit filed Rebuttal and Surrebuttal Testimonies in which he explained in detail the reasons that Dr. Chattopadhyay's proposed ROE is not reasonable; Dr. Chattopadhyay's Surrebuttal Testimony did not change Dr. Amit's conclusion in this regard. Tr. at 201 (Amit).

[13] Dr. Chattopadhyay averaged the results of four DCF methods to arrive at his ROE recommendation, as follows:

- DCF with expected growth rates of dividends based on average earnings per share (EPS), dividend per share (DPS), and book value per share (BPS);
- DCF with EPS-projected growth rates;
- DCF with sustainable growth rates; and
- DCF analysis based on M/B ratio.

Tr. at 202 (Amit).

> One, Dr. Chattopadhyay uses various expected growth rates as I stated above, and I only used average EPS projected growth rates. The superiority of using EPS projected growth rates over the average of various projected growth rates is strongly supported by the financial literature and by financial principles.
>
> Two, for the dividend yields, Dr. Chattopadhyay used Value Line projected 2014 dividend rates. I used annualized dividend rates increased by one half of the projected growth rate. However, for both of us, the average dividend yield is 3.86 percent.[14]
>
> Three, Dr. Chattopadhyay based his overall recommendation on the premise that when [the] market to book ratio is greater than one, the DCF results in an upward bias estimate of the cost of equity. I disagree, as well-documented in my rebuttal testimony, and surrebuttal testimony.
>
> Four, the relationship between market-to-book ratio and the cost of equity capital is fairly complex. However, according to Dr. Chattopadhyay's hypothesis, for at least the last ten years investors in natural gas utilities received returns above the cost of equity. Such excessive returns for longer than ten years are counter to financial theory and common sense. The return, if excessive, should have caused investors to increase their demand for the stock of natural gas utilities, thus increasing the price and lowering dividend yields until excess profits are eliminated. This clearly has not happened, as market-to-book ratios remain significantly above one.
>
> Five, flotation costs. Dr. Chattopadhyay's objection to the inclusion of flotation costs is solely based on his argument that the DCF produces an upwardly biased ROE when the market-to-book ratio is greater than one. Since his basic premise regarding the market-to-book ratio is not well supported, his objection to the inclusion of a flotation cost adjustment is without foundation.

Tr. at 202–204 (Amit).

2. Dr. Chattopadhyay's method of calculating the expected growth rates of dividends is not reasonable

Dr. Amit filed extensive testimony concerning many reasons that Dr. Chattopadhyay's method of estimating the expected growth rates of dividends for comparable companies is not

[14] For purposes of this Initial Brief it is sufficient to note simply that Dr. Amit disagreed with Dr. Chattopadhyay's use of Value Line projected 2014 dividend rates rather than Dr. Amit's use of annualized dividend rates (which Dr. Amit increased by one half of the projected growth rate) since the results their different methodologies is the same, 3.86 percent. Tr. at 203 (Amit).

reasonable.[15] DOC Ex. 201 at 10–24 (Amit Rebuttal); DOC Ex. 202 at 29–30, 33–34 (Amit Surrebuttal). Essentially, Dr. Chattopadhyay calculated the expected growth rates for his DCF analysis by averaging the expected EPS, DPS and BPS rather than using only EPS.[16] DOC Ex. 201 at 10 (Amit Rebuttal). Other than the use of EPS, Dr. Amit disagreed with Dr. Chattopadhyay's rationale for relying on DPS and BPS, and for averaging those expected values to estimate expected growth rates of dividends. *Id.* at 12. Certain key reasons supporting the use of EPS-only projected growth rates and not also DPS or BPS projected growth rates or other factors are noted below.

a. Econometric models support the use of projected EPS-only growth rates

Econometric models support the use of projected EPS growth rates alone. DOC Ex. 201 at 12–13 (Amit Rebuttal). Dr. Chattopadhyay's averaging of expected EPS, DPS and BPS rather than relying only on projected EPS is based on a flawed assumption. Specifically, Dr. Chattopadhyay argued incorrectly that because investors consider various factors when they price utility stock, it is reasonable to average expected earnings per share, dividends per share and book value per share values to reflect investors' expectations of dividend growth rates. *See id.* at 12. Dr. Amit strongly disagreed.

[15] Dr. Amit also identified in detail many flaws in Dr. Chattopadhyay's criticisms of Dr. Amit's screening methodology by which Dr. Amit developed his group of companies comparable in risk to MERC: the NGCG. DOC Ex. 202 at 22–29 (Amit Surrebuttal). Given the greater significance of other errors, the screening flaws are not discussed in this Initial Brief. Also not discussed in this Initial Brief, is Dr. Amit's disagreement with Dr. Chattopadhyay regarding application of the Two Growth DCF (TGDCF) since Dr. Amit's update of his DCF analysis in Surrebuttal rendered such criticisms inapplicable to Dr. Amit's final DCF recommendations. DOC Ex. 202 at 32–34 (Amit Surrebuttal).

[16] Dr. Chattopadhyay used Value Line's five-year projected growth rates of Earnings Per Share (EPS), Dividends Per Share (DPS) and Book Values Per Share (BPS) and Zacks' and Yahoo Finance's five-year projected EPS growth rates. He calculated the following expected growth rates for his DCF analyses: 1) the average of the projected growth rates of Value Line and the average projected five-year EPS growth rates; 2) the average projected five-year EPS growth rates; 3) the five-year internal growth rate including external growth rates of common stock, 4) the average of the growth rates calculated in 1-3, above. DOC Ex. 201 at 10 (Amit Rebuttal).

Dr. Amit testified that empirical modeling of expected EPS and stock prices suggests that investors strongly relate their expectation of stock prices to the projected EPS growth rates. *Id.* at 12–13. He explained, as follows:

> Dr. Chattopadhyay stated that, in his opinion, investors consider various factors when they price utility stock. That may be true; however, nobody knows all the various factors that may be considered by investors attempting to price a utility stock. No financial model that depends to some degree on human behavior can incorporate all such factors in the model. However, if an empirical model uses independent variables that successfully explain the behavior of the dependent variable, then we can conclude that, people (investors) act as if these independent variables are the ones they use in pricing the utility's stock (the dependent variable).
>
> Various econometric studies (referred to later in this rebuttal testimony) have shown a significant relationship between projected EPS and stock prices. Therefore, while it is impossible to read investors' minds regarding the issue of projected growth rates, the econometric studies have shown that investors form their expectation regarding stock prices as if they strongly relate them to the projected EPS growth rates.

DOC Ex. 201 at 12–13 (Amit Rebuttal).

Dr. Chattopadhyay also argued that because the DCF equation relates price to earnings but not to dividends, it follows that we should expect an econometric model to show the relationship between price and earnings, but not between price and dividends. *Id.* at 14. This argument, however, supports rather than opposes the use of projected EPS growth rates over projected DPS growth rates. *Id.* As Dr. Amit pointed out, Dr. Chattopadhyay recognized that, "the relationship between dividends growth expectations and price is not that obvious." *Id.* (*citing* OAG Ex. 161 at 34 (Chattopadhyay Direct)). Dr. Chattopadhyay further emphasized the strong relationship between earnings and price, as follows:

> In fact, a strong relationship between price and earnings, while a weak relationship between price and dividends, would be

> completely consistent with the inference that investors do care not only about growth in earnings, but also growth in dividends.

Id. Dr. Amit reasonably noted: "It is unclear how a strong relationship between earnings and price and a weak relationship between dividends and price supports Dr. Chattopadhyay's argument regarding use of projected DPS growth rates in a DCF analysis." DOC Ex. 201 at 14 (Amit Rebuttal). Given that projected EPS growth rates are the best predictors of stock price, it is reasonable to use EPS to reflect investors' expectations of dividend growth rates. *Id.* at 12–14.

Additional reasons Dr. Chattopadhyay's analyses are unsupported or erroneous are provided briefly, below.

b. The DCF assumes the same growth rates for EPS, DPS and BPS, it is reasonable to assume that DPS and BPS would eventually equal the sustainable EPS growth rate

Dr. Chattopadhyay is correct that the DCF assumes the same growth rates for EPS, DPS and BPS, but he is incorrect to obtain the projected sustainable growth rate for DCF analysis by averaging projected EPS, DPS and BPS. DOC Ex. 201 at 13 (Amit Rebuttal). Importantly, the long-run (sustainable) growth of DPS and BPS *are derived from* the growth in EPS. *Id.*; *see also* DOC Ex. 200 at 17 (Amit Direct). Therefore, conceptually, the issue of unequal short-term growth rates is more appropriately resolved by assuming convergence of the DPS and BPS growth rates to the sustainable EPS growth rates, not by averaging the EPS, DPS and BPS growth rates. DOC Ex. 201 at 13 (Amit Rebuttal).

c. Financial literature strongly supports use of projected EPS growth rates to determine projected growth rates of dividends for the DCF analysis; literature does not support use of projected DPS or BPS.

Abundant financial literature supports a determination that growth in earnings is the main factor investors consider and that the use of projected EPS growth rates is preferred to the use of

projected DPS or BPS growth rates.[17] DOC Ex. 200 at 17–19 (Amit Direct); DOC Ex. 201 at 15–18 (Amit Rebuttal). While it is impossible to know what specific factors investors use to form their expectation regarding dividend growth rates, based on the studies in the financial literature the projected EPS growth rates are the best projected growth rates to use to predict utilities' stock prices. *Id.* at 13–19. No similar relationships between price valuation and projected DPS or BPS growth rates can be found anywhere in the financial literature. *Id.* at 16. Moreover, in the long run, "dividend growth is sustainable only via growth in earnings." *Id.* at 17 (internal citation omitted).

d. Importance of dividends to the investor community is irrelevant; the issue is which projected growth rate is appropriate for the DCF analysis.

Although Dr. Chattopadhyay testified that investors rely on factors other than earnings per share, including dividends, in making their investment decisions, Dr. Amit stressed that Dr. Chattopadhyay's focus in this regard misses the point. Dr. Amit explained:

> There is no doubt that investors make their investment decisions based, among other factors, on dividends. However, *the issue in this rate case is not the impact of dividends on investors' investment decisions.* Rather, *the issue to be addressed is which projected growth rate is the most appropriate to use in a DCF analysis.* Dr. Chattopadhyay's argument regarding the importance

[17] On pages 18–19 of his Direct Testimony, and page 17 of his Rebuttal Testimony Dr. Amit quoted Dr. Morin, Professor of Finance at the College of Business Administration, Georgia State University, regarding the importance of projected EPS growth rates, as follows:

> There are few, if any, dividend growth forecasts. Only Value Line provides comprehensive long-term dividend growth forecasts. The wide availability of earnings forecasts is not surprising. There is an abundance of evidence attesting to the importance of earnings in assessing investors' expectations. *The sheer volume of earnings forecasts available from the investment community relative to the scarcity of dividend forecasts attests to their importance. The fact that these investment information providers focus on growth in earnings rather than growth in dividends indicates that the investment community regards earnings growth as a superior indicator of future long-term growth.* (emphasis added)

> of dividends is simply irrelevant to the issue of the appropriate growth rate.

DOC Ex. 201 at 14 (Amit Rebuttal) (emphasis added).

For reasons previously addressed in this Initial Brief, the most appropriate projected growth rate for the DCF analysis is the projected EPS growth rate.

e. Dr. Chattopadhyay's growth rate regression analysis did not show that DPS or BPS projected growth rates are useful in predicting natural gas utilities' stock prices.

Finally, Dr. Amit discussed several flaws in the regression analysis performed by Dr. Chattopadhyay and, to be able to compare his regression analysis with Dr. Chattopadhyay's, Dr. Amit ran three regressions. DOC Ex. 201 at 19–23 (Amit Rebuttal). Dr. Amit's criticisms of Dr. Chattopadhyay's regression analysis is technical as is Dr. Amit's correction of that analysis. To summarize for purposes of this Initial Brief, Dr. Amit concluded that the results of his econometric models support his position that projected EPS growth rates are the most appropriate growth rates to be used in a DCF analysis. *Id.* at 22. Dr. Amit noted that Dr. Chattopadhyay's selection of the particular growth rates to use in his DCF analysis is not adequately supported by theory or by the regression analysis in Dr. Chattopadhyay's Direct or Rebuttal Testimonies. *Id.* at 23. For example, the weights that Dr. Chattopadhyay assigned to each of his selected growth rates "are arbitrary." *Id.* Further, "all of the analyses indicate that the EPS growth rate is the most appropriate to use in DCF analyses." *Id.*

f. Summary of Dr. Amit's response to Dr. Chattopadhyay's testimony regarding the use of expected EPS growth rates

The superiority of using EPS growth rates over Dr. Chattopadhyay's use of the average of various projected growth rates is strongly supported by the financial literature and financial principles. Tr. at 202–203 (Amit). As stated by Dr. Amit in his Surrebuttal Testimony:

> Dr. Chattopadhyay's Rebuttal regarding the appropriate growth rates to be used in a DCF analysis provided no new arguments to support his position. Therefore, discussing again each of his arguments would serve no useful purpose. Instead, my Direct Testimony at 16 through 19 and my Rebuttal Testimony at 10 through 23 fully support using solely the analyst's EPS projected growth rates for DCF analysis. Moreover, my Direct Testimony shows that Dr. Chattopadhyay's arguments in support of using combination projected growth rates rather than the projected EPS growth rates are not reasonable.

DOC Ex. 202 at 34–35 (Amit Surrebuttal).

3. Dr. Chattopadhyay's Market-to-Book ratio analysis is unsupported

The market-to-book ratio compares the book value (historical accounting value) of the company's common equity to the market value of its common equity. The M/B ratio should not be used in the DCF analysis in rate cases. DOC Ex. 201 at 2 (Amit Rebuttal). Dr. Chattopadhyay argued that when the M/B ratio is significantly higher than one, the DCF analysis would produce a required rate of return greater than the cost of equity capital. *Id.* He further concluded that since his comparison group has an average M/B ratio significantly greater than one, a DCF analysis for his comparison group would result in an ROE greater than the cost of common equity, k, for his comparison group.[18] *Id.*

Dr. Amit strongly disagreed that for ratemaking purposes application of DCF analysis with M/B over one would result in an upward bias for the ROE estimate. *Id.* at 3–10; DOC

[18] Dr. Chattopadhyay's conclusion is based on the following formula involving the M/B ratio, the expected realized rate of return and the required rate of return on equity:

1. $P/B = \frac{r_e - b_e x r_e}{k - b_e x r_e}$

   Where P/B = M/B ratio
   r_e = expected realized rate of return
   b_e = retention ratio (1 – dividend/earning)
   k = required rate-of-return on equity

DOC Ex. 201 at 2 (Amit Rebuttal). Dr. Amit easily converted Dr. Chattopadhyay's formula to the formula Dr. Amit relied on to determine the estimated cost of common equity for rate making purposes. *Id.* at 3.

Ex. 202 at 35–37 (Amit Surrebuttal); Tr. at 203–204 (Amit). The theory of an upward bias for ROE based on a M/B ratio greater than one fails to recognize that in a rate case *the issue is to determine a reasonable estimate of the cost of common equity* rather than to estimate investors' expected realized rate of return on their investment. DOC Ex. 201 at 3 (Amit Rebuttal) (emphasis added). Dr. Amit explained, as follows:

> It is true that a M/B ratio greater than one indicates that the expected realized rate of return (r_e) is greater than the ROE (k) produced by a DCF analysis. However, Dr. Chattopadhyay failed to recognize that the DCF analysis produces an estimate for the cost of common equity, k, not the expected realized rate of return, r_e.
>
> . . .
>
> The cost of common equity is the compensation that the investors demand in return for owning an asset (stock) and bearing risk. The expected realized rate of return is the amount a shareholder anticipates receiving on an investment over a specified time period, depending on probabilities that the stock would produce expected returns. In rate cases, it is necessary to estimate the cost of common equity, which may, or may not be equal to he expected realized rate of return.
> Thus, the fact that when M/B>1, the required rate-of-return on equity (ROE or k) is smaller than the expected realized rate of return (r_e) does not indicate an excessive ROE for ratemaking purposes.

Id. at 3–4.

Dr. Chattopadhyay did not show that the DCF analysis results in an upward bias in the estimate of the cost of equity. DOC Ex. 201 at 3–11 (Amit Rebuttal). Under the fundamental principal that financial markets are efficient, stock prices fully reflect all available public information. *Id.* at 8. Thus, the DCF analysis fully reflects all publicly available information via stock prices. Further, investors are fully aware of the fact that M/B ratios for gas utilities are greater than one. *Id.* Therefore, DCF analyses for the comparable groups of Dr. Chattopadhyay and Mr. Moul (which had M/B ratios for the last five years significantly above one and trended

upward) as well as for Dr. Amit (whose comparison group had a M/B ratio that did not go below 1.719 for the last ten years) fully account for the information that M/B ratio is greater than one, and do not produce an upward biased estimate of the cost of common equity for MERC. *Id.* at 4, 8. Dr. Amit explained further the limitations of Dr. Chattopadhyay's reasoning, as follows:

> Dr. Chattopadhyay's [M/B ratio] analysis only shows that when the M/B ratio is greater than one the expected realized rate of return, r_e, is greater than the cost of common equity, k. Nowhere in his testimony did he show that under such circumstances, the DCF analysis results in an upward bias in the estimate of the cost of equity, k.

Id. at 9.

Dr. Amit provided extensive discussion regarding flaws of Dr. Chattopadhyay's M/B ratio theory. DOC Ex. 201 at 4–7 (Amit Rebuttal). Dr. Amit summarized his conclusions regarding the flaws of Dr. Chattopadhyay's M/B ratio theory, as follows:

- Dr. Chattopadhyay showed that when the M/B ratio is greater than one, the expected ROE is greater than the cost of equity capital; however, important for this proceeding, nowhere in his analysis did he show that under a DCF analysis, the estimated ROE would exceed the cost of equity capital.

- The financial literature, when reviewed carefully, does not support Dr. Chattopadhyay's claim that the DCF analysis would produce an upward biased estimate of ROE when the M/B ratio is greater than one.

- Dr. Chattopadhyay's own empirical studies produce unreasonably low ROEs, when the ROE equals the expected rate of return (i.e., when M/B ratio equals one).

- According to Dr. Chattopadhyay, investors in natural gas utility companies have earned returns above these companies' cost of equity capital for longer than a ten-year period and continue to do so currently. Such a phenomenon is counter to basic financial principal and should have produced a run on natural gas utility companies until such excessive profit was eliminated.

DOC Ex. 201 at 9 (Amit Rebuttal). For these reasons, Dr. Amit concluded that the DCF analysis does not result in an upward DCF-estimated ROE when the M/B ratio is greater than one. *Id.* at 10. He also observed that even Dr. Chattopadhyay did not abide by his M/B ratio theory regarding Dr. Chattopadhyay's recommended rate of return for MERC since his recommendation included no downward adjustment to the DCF analysis. *Id.* at 24. Dr. Amit concluded, "If Dr. Chattopadhyay truly believed his theory, he should have adjusted his recommended ROE downward for the sake of consistency." *Id.*

The Commission should determine that DCF analysis generally, and Dr. Amit's DCF analysis in particular, is reasonable and does not result in an upward bias to ROE due the M/B ratio of companies in the NGCG being greater than one.

4. Dr. Chattopadhyay's elimination of flotation costs is not reasonable

The required rate of return on equity must include a flotation cost adjustment. DOC Ex. 200 at 26–27 (Amit Direct). Dr. Chattopadhyay's erroneous view that flotation costs should be excluded from MERC's ROE determination is based in large part on his view that when the M/B ratio is greater than one the DCF produces an upward biased ROE estimate which, therefore, justifies exclusion of flotation costs. The Department disagrees. DOC Ex. 201 at 24–26 (Amit Rebuttal); DOC Ex. 202 at 35–36 (Amit Surrebuttal); Tr. at 204 (Amit).

The DCF does not produce an upward biased ROE estimate. DOC Ex. 201 at 25 (Amit Rebuttal); Tr. at 203–204 (Amit). Therefore, the DCF results still must be adjusted for flotation costs. DOC Ex. 201 at 25 (Amit Rebuttal). It would be inappropriate to disallow a legitimate cost to the Company to compensate for some other alleged excess revenue unrelated to flotation costs. *Id.*

In addition, Dr. Chattopadhyay argued that adjusting ROE to include flotation costs is not necessary because investors buy new shares of stock knowing that the price is higher than the

revenues per share received by the Company from the sale of new shares of stock. *Id.* at 24. This rationale, however, does not support eliminating an adjustment to ROE for flotation costs. *Id.* at 25. As Dr. Amit testified:

> Regarding the second argument I observe the following. First, to the degree that utilities are allowed to recover flotation costs, the allowed rates of return on book equity inherently reflect the flotation cost adjustment. In such a case, Dr. Chattopadhyay's argument is redundant. Investors buying new shares of stock clearly would buy them only if they expect to earn their required rate of return. However, absent allowance for flotation costs existing shareholders would not be able to receive their required rate of return, as demonstrated in DOC Ex. [200 at] EA-14 (Amit Direct).

DOC Ex. 201 at 25 (Amit Rebuttal).

No party provided a reasonable argument to justify disallowance of flotation costs. *Id.*

III. COST OF CAPITAL: THE CAPITAL STRUCTURE, THE COST OF SHORT- AND LONG-TERM DEBT AND THE COST OF CAPITAL FOR MERC. (ISSUE IX, IN PART)

Resolved: DOC agrees that MERC's proposed capital structure and costs of short-term and long-term debt are reasonable. DOC Ex. 200 at 35–44 (Amit Direct); DOC Ex. 202 at 12 (Amit Surrebuttal); Tr. at 199–200 (Amit).

A. The Capital Structure for MERC

The Department agrees that MERC's proposed test-year capital structure is reasonable. DOC Ex. 200 at 35–44 (Amit Direct); DOC Ex. 502 at 12 (Amit Surrebuttal). No party disputed the Company's proposed capital structure and costs of short-term and long-term debt. Tr. at 199–200 (Amit). As noted previously in Section II of this Initial Brief, the components of the capital structure are long-term debt, preferred stock, common equity and short-term debt. DOC Ex. 200 at 35 (Amit Direct). To arrive at the cost of capital (overall ROR), it is necessary to determine the amount of each component held by MERC. These amounts are represented as dollar amounts and as percentages of the total capital and are called the capital structure. *Id.*

A well accepted premise in financial literature is that there exists for each company an optimal capital structure, *i.e.*, one that minimizes the overall cost of capital. *Id.* at 36. Determining whether MERC's capital structure is optimal, however, is not easy. Dr. Amit tested the reasonableness of MERC's capital structure by comparing the Company's long-term debt ratio and equity ratio to those ratios for companies in the comparison group. *Id.*

MERC does not have its own capital structure because it is a subsidiary company of Integrys. Rather, its capital structure is a hypothetical capital structure. DOC Ex. 200 at 35 (Amit Direct). MERC's equity consists of MERC's retained earnings plus any equity infusion from its parent company, Integrys, minus any dividends paid by MERC to Integrys. MERC sets an equity ratio target of between fifty to fifty-five percent, and a short-term debt cap of 5 percent. *Id.* MERC borrows long-term debt internally from Integrys as needed to finance its capital expenditures while meeting its equity and short-term debt targets. *Id.*

Dr. Amit reviewed MERC's test-year hypothetical capital structure and its estimated costs of test-year capital structure components, and found them to be reasonable. *Id.* at 35–44. Further, Dr. Amit applied his recommended ROE to MERC's proposed capital structure to arrive at his recommended overall ROR for MERC. *Id.* at 44; DOC Ex. 202 at 12 (Amit Surrebuttal).

1. MERC's Initial Proposed Capital Structure

The Company initially proposed a projected capital structure of 44.64 percent debt and 50.31 percent equity using the test year (January 1, 2014 to December 31, 2014) as follows:

MERC's Proposed Capital Structure (Direct Testimony)

Category	Total Amount ($1,000s)	Percent of Capitalization
Long-Term Debt	$91,583,333	44.64%
Short-Term Debt	$10,362707	5.05%
Common Equity	$103,220,220	50.31%
Total	$205,166,260	100.00%

DOC Ex. 200 at 36 (Amit Direct).

The calculations of long-term debt are provided in the Company's Exhibit 28 (LJG-1), page 2. *Id.* at 36. The calculations of short-term debt are provided in the Company's Exhibit 28 at LJG-1, page 3. *Id.* The calculations of the common stock equity are provided in the Company's Exhibit 28 at LJG-1, page 4, (Gast Direct). *Id.* Dr. Amit confirmed that MERC's costs of short-term and long-term debt are properly and appropriately calculated and are reasonable. DOC Ex. 200 at 37–44 (Amit Direct). For reasons set forth in his Direct Testimony, Dr. Amit agreed with MERC's calculations of its common equity ratio and concluded that it is a reasonable equity ratio; he also agreed that MERC's proposed capital structure is similar to the average capital structure for the NGCG. *Id.* at 35–44.

2. Updated Proposed Capital Structure, Updated Cost of Common Equity and the Overall Cost of Capital for MERC

In its Rebuttal Testimony, the Company did not change its proposed capital structure and costs of short-term and long-term debt, and the Department continued to agree that the proposal is reasonable. DOC Ex. 202 at 12 (Amit Surrebuttal). Regarding the cost of common equity, however, Dr. Amit's updated DCF analysis in his Surrebuttal Testimony, as confirmed by his CAPM analysis, showed that a required rate of return on equity of 9.29 percent for MERC is reasonable. *Id.*

Therefore, the Department recommended the capital structure and the cost of equity, short- and long-term debt for MERC, as follows:

Overall Cost of Capital for MERC (Surrebuttal Testimony)

Capitalization Component	Ratio (%)	Weighted Cost (%)	Cost (%)
Long-Term Debt	44.64%	5.6060%	2.4822%
Short-Term Debt	5.05%	2.3487%	0.1186%
Common Equity	50.31%	9.29%	4.6737%
Total 100.00%			7.2745%

Id. Dr. Amit's final recommended ROE for MERC of 9.29 percent results in an overall rate of return of 7.2745 percent. *Id.*; Tr. at 199 (Amit).

IV. SALES FORECAST (ISSUE II-4)

Resolved between DOC and MERC: The substantive issues regarding the sales forecast, test-year sales forecast and the test-year commodity cost of gas, are resolved. DOC Ex. 214 at 1, 13 (Otis Surrebuttal).

A. Overview of Sales Forecasting

Department witness Ms. Laura Otis provided testimony on two forecast-related topics: the test year sales forecast and related revenue, and the test year base cost of gas. Both of these issues were resolved between MERC and the Department, based on development of issues in the record.

Test-year retail sales volumes are important for setting rates because they play a crucial role in the calculation of a utility's overall test-year revenue requirement. Test-year sales affect the calculation of revenues, expenses, and final rates. Because test-year sales is a vital input in the calculation of the overall utility revenue requirement (affecting both costs and revenues), it is important that the method used to calculate test-year sales be reasonable and, specifically, it must not over or under-estimate sales. DOC Ex. 212 at 4 (Otis Direct). First, the test-year sales forecast impacts the utility's revenue calculations. The test-year sales forecast provides forecasted customer counts and forecasted energy use per customer for residential and SC&I customer classes, total class sales for all other classes. MERC Ex. 38 at 8–11 (John Direct).

These forecasts are major inputs in the revenue calculation—class customer counts are used to calculate revenue from monthly customer charges and in the calculation of total revenues from each rate class' sales for the calculation of natural gas sales revenues. DOC Ex. 212 at 4 (Otis Direct).

Second, the test-year sales forecast impacts several rate case expense issues, including, for example, fuel costs and the conservation cost recovery charge (CCRC). Third, the sales forecast is used to set tariffed rates for individual classes when final rates are set. *Id.* The rates based on the test-year costs and revenues approved by the Commission remain in place until new rates are approved in a subsequent rate case.

B. MERC'S Test Year Forecast

1. MERC's Methodology

MERC filed a forecasted 2014 test year in this docket. DOC Ex. 212 at 3 (Otis Direct). MERC forecast the test-year sales differently than it did in its previous rate case. The Company used Ordinary Least Squares (OLS) regression analyses to estimate test-year sales, as in its last rate case; however, MERC made significant changes to the type of model specifications used in its regression analyses compared to the test-year sales forecast in the last rate case. *Id.* at 5–6. As shown in its Schedule E-1, MERC proposed total system test-year sales of approximately 662,833,577 therms. When applicable tariffed rates for each of MERC's rate classes are applied to its test-year proposal, MERC proposed total test-year revenue of approximately $257,186,463. *Id.* at 30 (*citing* MERC Ex. 40 at GJW-1 (Walters Direct)).

2. Department Concerns with MERC's Forecasting Methods.

In her analysis of MERC's test-year forecast, Department witness Ms. Otis was unable to determine whether MERC's proposed test-year sales were reasonable. She was unable to replicate the Company's forecasted test-year models using the inputs and methodology provided

by MERC. She was also unable to confirm the reasonableness of MERC's forecasting techniques for certain customer classes, in that the Company used model specifications that were inappropriate for near term sales forecasts such as those used in a rate case test-year sales forecast. For these reasons, she could not conclude that the test-year sales forecast proposed by MERC was reasonable for setting rates in this proceeding and she instead devised an alternative to the test-year sales forecast proposed by MERC. *Id.* at 5.

Ms. Otis had several concerns regarding MERC's forecasting approach. First, she was unable to fully verify the statistically adjusted end-use (SAE) models used by the Company. DOC Ex. 212 at 16–17 (Otis Direct). Second, she had concerns regarding the appropriateness of the SAE model specification for short term forecasting, such as the forecasting of a test-year. *Id.* at 10, 18–21; DOC Ex. 214 at 5 (Otis Surrebuttal). Third, while she concluded that the methods MERC used to collect and construct its weather data were reasonable, Ms. Otis was concerned that MERC's forecast incorporated data only through January, 2013. DOC Ex. 212 at 8–9, 21 (Otis Direct).

a. The Department Could Not Verify of the Reasonableness of MERC's Forecasting Models

Verification of a utility's forecasting models is an important part of the sales forecast analysis because verification of a utility's forecasting models is an integral part of the forecasting analysis and provides the first step in determining whether the forecast models are appropriate. If, using the utility's regression specifications, the Department cannot sufficiently replicate the outputs, the Department has serious concerns regarding the reasonableness of the sales forecasts. While there are minor differences between different regression packages, there should not be a meaningful difference between the outputs produced by a utility and the results, using the utility's reported specifications, produced by the Department, or another party. *Id.* at 10–11.

The Company used MetrixND to estimate its various regression models. MERC Ex. 38 at 5 (John Direct) while the Department used two packages, EViews 7.2 and STATA 11.1, to review the outputs reported by the Company in its Direct Testimony. Ms. Otis was unable to replicate MERC's regression outputs for the following models: Consolidated-Interruptible sales, Consolidated-LC&I sales, Consolidated-SC&I sales, Consolidated-Transport sales, NNG-SC&I average use per customer, and NNG-Interruptible sales. DOC Ex. 212 at 11–12 (Otis Direct). A comparison of models specified by the Department to those the Company produced showed that various estimators in several models were the opposite sign from the estimators the Company provided. *Id.* at 14. The result concerned Ms. Otis because the presence of opposite signed coefficients between the Department and Company calculations indicates a disagreement between the calculations in not only the magnitude of the variable's effect but also in its direction. *Id.* at 14–15.

The Department attempted to verify other components of the Company's forecast in addition to attempting to verify the regression outputs reported by the Company using its data and methodology. Ms. Otis also attempted to verify MERC's derivation of variables used in the regression models, but was unable to do so. *Id.* at 16–17.

Ms. Otis explained that, given MERC's use of a proprietary software package and the extensive amount of time that would be required to verify MERC's estimates of the SAE variables, the Company did not show the reasonableness of these variables. She recommended that, if MERC wishes to use these variables in the future, the Commission should require MERC to provide the input data in a readily replicable manner, along with its standard forecasting data to be filed 30 days prior to its rate case. She also recommended that the Commission require

MERC to explore methods to simplify the calculation and independent verification of SAE variables if they are to be used in future regulatory filings. DOC Ex. 214 at 4 (Otis Surrebuttal).

b. The Department's Concern Regarding MERC's Use of Statistically Adjusted End Use Models.

MERC used adjusted end use factors in several of its regression models. MERC developed three SAE variables for use in the sales forecasts for various customer classes, each one incorporating a unique set of input data. DOC Ex. 212 at 18–19 (Otis Direct). Ms. Otis evaluated the use of the SAE model in utility sales forecasting. *Id.* at 19. Based on that evaluation, she concluded that the SAE specification was inappropriate for forecasting sales in this docket. Generally, she was concerned that this specification was not suited for the short period (only twelve months) that was being forecasted in this case. The SAE model specification allows a forecaster to model a wide range of variables that affect sales for a given customer class and may allow for "fine tuning" of a long-term forecast. A wide range of factors can impact long term forecasts, but for a short term forecast, a concise forecast that assumed most impacts are embedded in the historical data was more appropriate. *Id.* at 19; DOC Ex. 214 at 5 (Otis Surrebuttal).

Ms. Otis also explained that several of the factors cited by the Company as being incorporated in SAE variables relate to appliance efficiency and saturation levels. While these factors have been included in long term forecasts in other utility proceedings, such as in electric utility integrated resources plans (IRPs), they are not commonly factored into the short term sales forecasts used in rate case proceedings. DOC Ex. 212 at 20 (Otis Direct). Practically speaking, it was highly unlikely that appliance efficiency would have changed between the start and the conclusion of a test year. MERC did not show that the overall forecast benefits from the inclusion of these variables in the SAE terms or provide any other justification for their

inclusion. Ms. Otis investigated and was unable to find evidence that any utility, other than MERC, has used the SAE model in short-term forecasts. *Id.*; DOC Ex. 214 at 5 (Otis Surrebuttal). Ms. Otis concluded that MERC had not shown that it was appropriate to employ the SAE model in this docket and that the SAE methodology employed by MERC was not well suited to estimating test year sales. DOC Ex. 212 at 20–21 (Otis Direct). She concluded that it was not reasonable to use such a model in a short-term, rate case forecast, to respond to the concerns she raised in her testimony. DOC Ex. 214 at 5 (Otis Surrebuttal).

C. The Department's Alternative Sales Forecast and Adjustment to Test-Year Sales and Revenue

Ms. Otis developed the Department's alternative sales forecast. Her method was the more appropriate method of forecasting short-term sales figures. DOC Ex. 212 at 31 (Otis Direct). The biggest difference between the Department's model and the Company's was that the Department's proposed forecast omitted the SAE variables developed by the Company and replaced them with a simple weather (heating degree day, or HDD) variable. Other differences were that the Department's forecast incorporated monthly "dummy variables" for all months,[19] and relied on historical sales data for all of 2013, while the Company's most recent data was from January of 2013. *Id.* at 22.[20] The type of forecast Ms. Otis recommended has been used in other proceedings and frequently recommended by the Department in previous dockets, including Docket No. G008/GR-08-1075. *Id.* at 23. Based on her alternative forecast, Ms. Otis recommended and MERC agreed to an increase in test-year sales of approximately 26,791,937

[19] The use of dummy variables for 11 months out of the year (excluding January) avoided the statistical problem of perfect multicollinearity, commonly referred to as the "dummy variable trap." DOC Ex. 212 at 22 (Otis Direct).
[20] A matrix comparing the inputs used in her models to those used by the Company in its forecast were at DOC Ex.212 at LBO-7 (Otis Direct). The data used in the Department's models was provided in DOC Ex. 212 at LBO-8 (Otis Direct).

therms from the Company's originally filed figure of 662,833,577, for a total of 689,625,514 therms.

She calculated test-year revenue in the same manner as MERC. Her resulting test-year sales recommendations increased total test-year revenue by approximately $8,965,273 from the Company's revenue figure of $257,186,462 to $266,151,735. *Id.* at LBO-11.

Ms. Otis also made an adjustment for increased natural gas cost expenses and changed CCRC revenues due to increased sales. Ms. Otis' alternative test-year sales estimates yielded a total test-year gas cost of $180,411,466, an increase of $6,999,406 over MERC's proposal. DOC Ex. 212 at LBO-11 (Otis Direct). After factoring in increased gas cost expense and CCRC increases, the final test-year revenue adjustment resulted in a total test-year revenue adjustment of $1,965,867. *Id.* at 28. These revenue and expense adjustments related to the forecasted increased test-year sales were reflected in the Department's revenue requirement determination. DOC witness Michelle St. Pierre included the total revenue adjustment, the increase in gas cost expense and the increase in CCRC revenue in her revenue requirement calculations. *Id.* at 29.

D. Test Year Commodity Cost of Gas

The cost of gas is important because it impacts some costs set in a rate case and thus could have some effect on non-gas margins. Prudently-incurred natural gas commodity costs (the "price" paid by a utility for natural gas supplies needed to serve ratepayers) are recovered from ratepayers on the basis of the base cost of gas set concurrently with a rate case, along with changes in natural gas costs over time that are recovered in the purchased gas adjustment (PGA). The commodity price of natural gas generally has little effect on the non-gas distribution margin. DOC Ex. 214 at 9 (Otis Surrebuttal).

On April 15, 2014, MERC filed an updated cost of gas.[21] Because the approach used by the Company was similar to the approaches it had used in the past and to those used by other companies, the Department had no concerns with the projected prices MERC used in the April 15, 2014 filing to determine the base cost of gas. *Id.* at 9–10. The Department noted, however, that MERC's updated cost of gas filing did not update the Company's base cost of gas calculations with the DOC forecast to which MERC had agreed. *Id.* at 9. At the Department's request, the Company provided updated calculations that included the agreed-upon forecast figures. The update increased PGA revenue (which is a component of total revenue) from MERC's filed PGA revenue of $173,412,058 to $214,858,858, an increase of $41,446,798.[22] *Id.* at 11, LBO-S-6.

E. The Test-Year Sales And Revenue

The Department recommended and the Company agreed that the Commission should use Ms. Otis' test-year sales estimates to set rates in this proceeding, and that MERC's final rates should be based on the level of commodity gas costs based on her updated test-year sales figure. The adjustments resulted in total system test-year sales of approximately 689,625,514 therms. DOC Ex. 212 at LBO-11 (Otis Direct). Applying the applicable tariffed rates for each of MERC's individual rate classes to her test-year sales proposal resulted in total system test-year revenue of approximately $266,151,734 and an increase to test-year revenue of approximately $8,965,271 over the Company's originally filed revenue estimate of $257,186,463. *Id.* at LBO-11. The increased fuel cost expenses are approximately $6,999,406 greater than MERC's

[21] An updated cost of gas was required by Commission Orders in Docket No. G011/MR-13-732, Order Setting New Base Cost of Gas, issued November 27, 2013, at ordering para. 2, and, in this 13-617 docket, by the First Prehearing Order, issued December 21, 2013. DOC Ex. 214 at 9–10 (Otis Surrebuttal).

[22] Because the update also increases gas expense, the change does not impact the Department's recommended adjustment of $1,965,865 to operating income before taxes. DOC Ex. 214 at 11 (Otis Surrebuttal).

original estimate and the increased CCRC revenues are $256,283 greater MERC's original estimate. When these increased natural gas cost expenses and CCRC revenues were taken into account, the alternative forecast agreed to by the Company and DOC was $1,965,865 greater than the test-year revenues in the Company's originally filed revenue estimate. *Id.* at LBO-11; DOC Ex. 214 at 1 (Otis Surrebuttal).

F. Department Recommendations Regarding Future Rate Cases.

The Department recommends that the Commission require the Company to continue to provide the following in its initial rate case filing:

- A summary spreadsheet that links together the Company's test-year sales and revenue estimates, its CCOSS, and its rate design schedules;
- A spreadsheet that fully links together all raw data, to the most detailed information available and in a format that enables the full replication of MERC's process, that the Company uses to calculate the input data it uses in its test-year sales analysis;
- If, in the future, MERC updates, modifies, or changes its billing system, a bridging schedule that fully links together the old and new billing systems and validates that there is no difference between the two billing systems;
- Any, and all, data used for its sales forecast 30 days in advance of its next general rate case; and
- Detailed information sufficient to allow for replication of any and all Company derived forecast variables.

DOC Ex. 212 at 29–30 (Otis Direct). The Department, in addition, intends to continue working with MERC on issues such as MERC's Statistically Adjusted End-Use, or SAE rate class sales estimates, ongoing refinement of weather-normalization and potentially other sales forecasting issues. Tr. at 208.

V. MAINS, SERVICE EXTENSIONS, WINTER CONSTRUCTION CHARGES, AND THE FARM TAP SAFETY INSPECTION PROGRAM (ISSUE III-5, 6, 7 AND 8)

Service Extension Costs (Issue III-5)
Resolved: Between DOC and MERC. MERC agrees with the Department's recommended reduction in rate base of $35,803.18 to account for unbilled service extension costs. DOC Ex. 211 at 2 (Zajicek Surrebuttal).

Service-Related Additions (Issue III-5)
Resolved: Between DOC and MERC. MERC agrees to continue to apply its seventy-five foot allowance for each stand-alone service line extension and its feasibility model for other residential, commercial, and industrial extensions. DOC Ex. 211 at 3 (Zajicek Surrebuttal).

Requirements for Winter Construction Charges (Issue III-6)
Resolved: Between DOC and MERC. MERC agrees that it should be required to show that no winter construction charges are assessed outside of the winter construction period and that such charges, if they exist, are not proposed to be recovered from other rate payers. DOC Ex. 211 at 4 (Zajicek Surrebuttal).

The Farm Tap Safety Inspection Program (Issue III-8)
Resolved: Between DOC and MERC. MERC agrees to continue its Farm Tap Safety Inspection Program and to submit, in MERC's next rate case, the most recent five-year farm tap safety inspection reports, together with a discussion of the results of the reports, and any recommended improvements in the Farm Tap Safety Inspection Program. DOC Ex. 211 at 4 (Zajicek Surrebuttal).

New Area Surcharge (Issue III-6)
Resolved: Between DOC and MERC. MERC agrees that it should examine its New Area Surcharge and assess whether extensions could be made more affordable in a separate proceeding. DOC Ex. 211 at 5 (Zajicek Surrebuttal).

A. Overview

This section deals with the Department's evaluation of the following issues: 1) MERC's costs for mains and service extensions to new customers; 2) MERC's compliance with Commission requirements regarding winter construction charges; and 3) MERC's compliance with Commission requirements regarding the Farm Tap Safety Inspection Program. DOC Ex. 210 at 1–2 (Zajicek Direct).

B. Customer Extensions Review

1. The Commission's Directive

In a previous matter, the Commission requested that the Department investigate during a general rate case every gas utility company's service additions to rate base due to new service extensions to ensure:

1. That local distribution companies (LDCs) are applying their tariffs correctly and consistently;
2. That LDCs are appropriately cost and load justified; and
3. That rate base does not include wasteful additions to plant and facilities.

In the Matter of an Inquiry into Competition Between Gas Utilities in Minnesota, Docket No. G999/CI-90-563, ORDER TERMINATING INVESTIGATION AND CLOSING DOCKET at 7 (Mar. 31, 1995) [hereinafter 90-563 Order]; DOC Ex. 210 at 2 (Zajicek Direct).

2. The Department's Principles on Service Extensions

The Department's general principles regarding mains and service line extensions are that:

1. Customers have the right to select and use the energy of their choice (such as electricity, natural gas, propane, fuel oil, wood, etc.);
2. Regulated natural gas utilities may (or, in some cases, must) extend services to meet the desires of such customers; and
3. Because natural gas utilities have discretion in some cases on whether or not to extend service, the extension of gas service should not be unduly subsidized by other regulated gas ratepayers.

DOC Ex. 210 at 3 (Zajicek Direct).

3. Types of Commission-Approved Service Extensions

The Commission has approved three general types of service extensions in the past for regulated gas utilities:

1. *Free Footage Allowance* – The "free" footage allowance is not cost-free; rather, there is an assumed amount of extension costs built into base rates for all customers. This type of extension is approved when the number of feet of mainline extensions and the number of feet of service line extensions are within the footage allowance built into base rates. This allowance is "free" because new customers are offered it without being charged in excess of the amount they are charged in base rates. Any extension beyond the "free" footage allowance would require a Contribution in Aid of Construction ("CIAC") by the customer in order to receive service, unless it is determined that the anticipated revenue from that customer is sufficient and will not place an undue burden on existing customers.

2. *Economically Feasible* – This type of extension must be cost and load justified. One could use the economic feasibility model the Company specified in its tariff to determine whether an extension project is economically feasible.

3. *New Area Surcharge (NAS) Tariff* – When an extension is *not* economically feasible, the customers in the newly piped area can agree to pay a surcharge so that current customers do not unduly subsidize the extension to new customers.

Id. at 4–5.

MERC's tariff contains all three types of Commission-approved extensions. *Id.* at 5. Specifically, MERC has a seventy-five foot allowance for stand-alone residential service extensions, with a charge not to exceed $5.00 per foot, for any service line beyond that allowance. *Id.* For Residential customers that require both main and service line extensions, and for all commercial and industrial customers, MERC performs an economic feasibility analysis for both main and service line extensions based on the tariffed economic feasibility model, with a CIAC to be paid by the new customer for extension costs beyond the portion of capital expenditure not justified by the anticipated revenue. *Id.* MERC has a New Area Surcharge Rider to extend service to geographical areas that have not been previously served by the Company. *Id.* MERC analyzed the Net Present Value (NPV) of yearly revenue deficiencies or excesses and

estimates a CIAC for customers so that the NPV of the extension in the model is approximately zero. DOC Ex. 210 at 5 (Zajicek Direct). These numbers are reevaluated after each round of construction. *Id.*

4. The Department's Investigation of MERC's Application of Its Extensions Tariff

a. Overview of the Commission's Requirements

The Commission required MERC to provide specific information regarding service extensions in its 90-563 Order, which requested that the Department and parties address the following questions in all future general rate cases:

1. Should the "free" footage or service extension allowance include the majority of all new extensions with only the extremely long extensions requiring a CIAC?

2. How should the LDC determine the economic feasibility of service extension projects and whether the excess footage charges are collected?

3. Should the LDC's service extension policy be tariffed in number of feet without consideration to varying construction costs among projects or should the allowance be tariffed as a total dollar amount per customer?

4. Is the LDC's extension charge refund policy appropriate?

5. Should customers be allowed to run their own service line from the street to the house (or use an independent contractor) if it would be less expensive than having the utility construct the line?

6. Should the LDC be required to offer its customers financing for service extension charges? This could be offered as an alternative to paying extension charges in advance of construction.

Id. at 6–7. These questions are discussed in detail *infra*.

b. Overview of the Department's Investigation of MERC's Compliance with its Extension Tariff

The Department reviewed MERC's tariff provisions regarding service extensions in order to evaluate MERC's compliance. *Id.* at 7. They are primarily located at:

1. Subsection 2.A, Residential Stand-Alone Service Extension;

2. Subsection 2.B, Service Extensions;

3. Subsection 2.C, Feasibility of Main and Service;

4. Subsection 2.D, Winter Construction Charge; and

5. Subsection 2.E, Extension Mains Limitation. *Id.*

These tariff provisions are located in 2nd Revised Sheet No. 9.04 to 2nd Revised Sheet 9.06 of the Company's tariff.[23]

c. The Department's Evaluation and Recommendations Regarding MERC's Responses to the Commission's 90-563 Order

i. Commission Question No. 1: Should the free footage or service extension allowance include the majority of all new extensions with only the extremely long extensions requiring a customer contribution-in-aid-of-construction ("CIAC")?

A representative amount of continuing and new costs associated with pre-specified extension allowances is included in the utility's rates. DOC Ex. 210 at 8 (Zajicek Direct). This approach is preferable to requiring each new customer to pay the entire costs of connecting to the distribution system because they are often prohibitive and because it is generally beneficial to add new customers to the system. *Id.* Continuing costs include the "free" allowance depreciation (except where facilities are fully depreciated), property taxes, and a reasonable return on the rate base associated with the facilities. *Id.* New costs include the same items with the addition of new facilities, which, by definition, are not fully depreciated. *Id.* at 8–9. Any additional charge for

[23] *See* Minnesota Energy Resources Corporation, Tariffs, General Rules, Regulations, Terms and Conditions, Minnesota Public Utilities Commission, published at *http://www.minnesotaenergyresources.com/company/tariffs/general_rules.pdf.*

costs or facilities exceeding the pre-specified extension allotment should be directly assigned to the customer at an incremental rate. *Id.* at 9.

The approach of combining rolled-in and incremental rates is fair to both existing and new customers and is administratively efficient to implement. *Id.* If the tariff is appropriately applied, existing customers will not pay for unusually long extensions to new customers. DOC Ex. 210 at 9 (Zajicek Direct). New customers will be allowed to obtain service at reasonable rates that reflect costs of serving them while spreading recovery of the costs over several years. *Id.* For these reasons, utilities are allowed to recover the costs of the pre-specified extensions under standard rates and have the ability to recover the additional costs for extensions from new customers when the costs exceed the extension allowance. *Id.*

After evaluating MERC's response to the Commission's first question, the Department concluded that MERC's service extension policy on the footage allowance is reasonable. DOC *Id.* at 10; MERC Ex. 14 at 3–4 (Kult Direct).

ii. Commission Question No. 2: How should the LDC determine the economic feasibility of service extension projects and whether the excess footage charges are collected?

MERC witness Mr. Kult stated that an "economic feasibility analysis should be completed for all new customers . . . where a current main does not exist." MERC Ex. 14 at 4 (Kult Direct). This feasibility "model should provide for connection without a CIAC where the economic support will exceed the cost of the local distribution company serving the customer within a reasonable period of time," although "[t]he feasibility model generally does not apply to individual, [residential] stand-alone service lines." *Id.* These lines provide seventy-five feet of service line without a CIAC, with any extension beyond seventy-five feet requiring a CIAC based on the incremental cost of additional footage. *Id.* For all other service extensions, MERC

has developed a Commission-approved model against which all new extension projects are tested. *Id.* MERC's extension tariff provides a reasonable balance between connection without a CIAC charge and recovery of excessive costs. *Id.*

The Department generally agreed. DOC Ex. 210 at 11 (Zajicek Direct). MERC's approach to the economic feasibility of extensions and collection of excess footage charges is reasonable because the approach balances connection to the Company's distribution system and recovery of costs associated with longer, more expensive extensions from a new customer. *Id.*

Due to the recent propane emergency, another approach might help reduce the number of customers affected by such an occurrence in the future. *Id.* at 12. The New Area Surcharge tariff determines how much each new area would have to pay to obtain natural gas service. *Id.* at 12. The tariff, however, limits the new areas that might be able to obtain natural gas service through such provisions by limiting to fifteen years the time over which a surcharge could be charged to customers in new areas. MERC Ex. 1 at 9.15 (Initial Filing - Volume 1 - Redline Tariffs) (emphasis added). To make it easier for new areas to obtain natural gas service rather than depend on propane service that may not be reliable, it might be reasonable to revise MERC's tariff to allow a period longer than fifteen years. DOC Ex. 210 at 12 (Zajicek Direct). The Department recommended using a separate proceeding to address this question, which would provide the opportunity for MERC to make a specific proposal and allow all parties adequate time to analyze the proposal. *Id.* at 13. MERC agreed with this recommendation. MERC Ex. 42 at 13 (Walters Rebuttal).

iii. Commission Question No. 3: Should the LDC's service extension policy be tariffed in number of feet without consideration to varying construction costs among projects or should the allowance be tariffed as a total dollar amount per customer?

MERC witness Mr. Kult testified that it would be difficult to develop a dollar-based, one-size-fits-all policy that is equitable to all customers due to the varying construction costs across Minnesota caused by factors such as geographic area, type of soil, size of lot, and amount of gas used. MERC Ex. 14 at 5 (Kult Direct). The designated footage allowance fits most customers, however, and is relatively easy to apply and monitor. *Id.* Moreover, Commission-approved tariff provisions appropriately place the costs of abnormal construction on the customer seeking service in those circumstances. *Id.*

While other methods may result in more technically accurate allowances, it is also reasonable for the extension practice to be tariffed in the number of feet for simplicity and understandability. DOC Ex. 210 at 14 (Zajicek Direct). The "free" footage allowances are based on a "typical" construction length. *Id.* Using a typical cost of construction that is fully cost and load justified, the "free" footage option is a functional method of assigning costs that is both fair and understandable to customers and is administratively efficient for the utility. *Id.*

The Department agreed with MERC's response. DOC Ex. 210 at 15 (Zajicek Direct).

iv. Commission Question No. 4: Is the LDC's extension charge refund policy appropriate?

MERC "does not offer a refundable contract as a normal course of business." MERC Ex. 14 at 6 (Kult Direct). The Company also "completes an economic feasibility [analysis] for the project and bases its [estimate of] revenues on the projected customer connections planned over time." *Id.* In addition, using that information and input from utility personnel, the Company determines the reasonableness of the number of customer connections by year and incorporates

this data into the model, and any gap for the non-feasible portion of the project is collected from the developer as a non-refundable CIAC prior to the installation. *Id.* MERC asserted that this policy is appropriate because the responsibility for ensuring that any non-feasible extension is refunded through a CIAC is shared between the developer and the Company. *Id.*

The Department determined that MERC's current no-refund policy is reasonable. DOC Ex. 14 at 16 (Zajicek Direct).

v. Commission Question No. 5: Should customers be allowed to run their own service line from the street to the house (or use an independent contractor) if it would be less expensive than having the utility construct the line?

For various safety and compliance reasons, MERC does not allow its customers to run their own service lines from the main lines to their meters. MERC Ex. 14 at 7 (Kult Direct). MERC's present tariff addresses public safety issues as well as ownership and accountability of MERC's distribution facilities. DOC Ex. 210 at 11 (Zajicek Direct). Further, MERC will maintain ownership of all facilities installed on customer property and that all facilities will be installed, operated, and maintained by MERC. *Id.*

The Department agreed with MERC's concerns that the Company may lose control of the safety and integrity of its system if customers were to install and own their service lines. *Id.* It is reasonable for MERC to install customer service lines. *Id.*

vi. Commission Question No. 6: Should the LDC Be Required to Offer Its Customers Financing for Service Extension Charges? This Could Be Offered as an Alternative to Paying Charges In Advance of Construction.

MERC does not currently offer a financing option for service extensions and did not believe that it should do so. MERC Ex. 14 at 7 (Kult Direct).

The Department agreed that such financing options do not have to be mandatory for all Minnesota gas utilities. DOC Ex. 210 at 18 (Zajicek Direct). It is the responsibility of each utility to identify whether or not financing options are necessary for its particular customer types and what are the most appropriate financing options to offer. *Id.* Given the presence of alternative financing options in the marketplace, the Department concluded that it is reasonable for MERC to not directly offer financing options for service extensions. *Id.*

d. The Department's Evaluation of MERC's Responses to the Commission's Concerns Expressed in the 90-563 Order

i. Commission Concern No. 1: Whether MERC Correctly and Consistently Applied Its Extension Tariff Since MERC's Last Rate Case

In responding to the Commission's first concern, MERC witness Mr. Kult testified that MERC conducted a study of all service and main extensions from April, 2010 through March, 2013. MERC Ex. 14 at 8–9 (Kult Direct). MERC identified seventy-nine instances in which the service extension tariff had not been correctly applied by its personnel, or approximately 1.75 percent of the total service line extension projects of 4,503. *Id.* "The total CIAC and excess footage charges of the service line extensions that were not properly or completely collected totaled $12,859.52." *Id.* at 9. MERC proposed to reduce the asset base by $12,859.52, which represents the dollar amount of the errors, and hold training sessions for its employees. *Id.* at 10.

Regarding the main line extension tariff, MERC's review of its 273 mains extension projects revealed that five projects did not have the full CIAC required collected. *Id.* at 10. This amount represents about 1.83 percent of all projects, but only 0.01 percent of the total CIAC value. *Id.* MERC calculated a total under-collected CIAC amount of $16,310.50, and it proposed to reduce its asset base by that amount. *Id.* at 10–11.

The Department examined a representative sample of MERC's records relating to the main line and service line extension projects. DOC Ex. 210 at 22, MZ-2 (Zajicek Direct).[24] Based on the results of its analysis, the Department proposed to reduce the asset base by an additional $6,633.16.[25] *Id.* at 23.

While MERC's performance has not improved since the 2010 rate case, it has remained relatively stable. *Id.* at 24. While the Company is still recovering the vast majority of required CIACs from the customers who impose those costs on the system, MERC should further increase efforts to improve the application of its tariff to ensure that errors are minimized and corrected. *Id.* MERC should also improve its record keeping to ensure that any errors are caught during the processing of service and main extension projects. *Id.* at 24–25.

The Department concluded that MERC had not shown that the Company correctly and consistently applied the extension tariff since its 2010 rate case. *Id.* at 25. MERC agreed with the Department's recommendation to reduce the rate base by $35,803.18 for unbilled service extension costs. MERC Ex. 15 at 2 (Kult Rebuttal).

ii. Commission Concern No. 2: Whether MERC's Service Related Additions Are Appropriately Cost and Load Justified

MERC "evaluated all new main projects against standard investment guidelines that are calculated in [the Company's] feasibility model." MERC Ex. 14 at 11–12 (Kult Direct). MERC noted that this model has been approved by "the Commission as an acceptable evaluation that

[24] The Department reviewed 226 of the 4,503 service line extensions the Company constructed between April, 2010 and March, 2013, or approximately five percent, and reviewed 41 of the 273 main line projects, or approximately fifteen percent of projects. *Id.* After review of the Company's records, the Department identified two service line extension projects where no records existed as to excess footage being billed to customers, but no main line errors. *Id.* at 23. This error amounted to $332.91 of service line extension costs that were not properly billed to customers. DOC Ex. 210 at 22, MZ-2, MZ-3, MZ-4. (Zajicek Direct).

[25] The Department calculated this number by taking the average dollar error over the sample the Department reviewed and multiplying this by the total number of service extension projects from April, 2010 to March, 2013.

protects both existing and new customers from undue cost." *Id.* at 12. MERC also noted that "load information is reviewed for all new commercial accounts individually, and the residential accounts are based on average volumes across the entire customer base." *Id.* The Company's extension tariff is "appropriately cost and load justified." *Id.*

The Department concluded that the Company had satisfactory addressed the Commission's second concern. DOC Ex. 210 at 26 (Zajicek Direct).

iii. Commission Concern No. 3: Whether MERC's Extension Practices Prevent Wasteful Additions to Plants and Facilities

The Company evaluated all new projects using its feasibility model, attempting to identify and collect, as appropriate, a contribution in aid of construction from the customer. MERC Ex. 14 at 12 (Kult Direct). As discussed above, the Company identified some errors since the 2010 rate case, and therefore, the Company proposed a disallowance of $29,170.02 associated with these errors. *Id.*

The Department did not believe that MERC had fully addressed the Commission's concern. DOC Ex. 210 at 27 (Zajicek Direct). The Department concluded that adjustments were required to correct these errors and recommended reducing the rate base by $29,170.02 as proposed by MERC, in addition to $6,633.16, for a total reduction of rate base of $35,803.18. *Id.* MERC agreed with the Department's recommendation. MERC Ex. 15 at 4 (Kult Rebuttal).

C. Requirements for Winter Construction Charges

In Docket No. G-007,011/M-07-1188, the Commission required MERC to show that no Winter Construction Charges were assessed to customers outside the tariffed Winter Construction Charges Period (December 1 through April 1) and that no Winter Construction Charges were incurred by the Company from any contractor, outside the tariffed Winter Construction Charges period are proposed to be recovered from other rate payers. DOC Ex. 210

at 27–28 (Zajicek Direct). MERC found none (MERC Ex. 14 at 13 (Kult Direct)) and the Department agreed that MERC had complied with the Commission's requirements. DOC Ex. 210 at 28 (Zajicek Direct); MERC Ex. 15 at 5 (Kult Rebuttal).

D. The Farm Tap Safety Inspection Program

In 1998, the Commission required the Company to file, in each general rate case, a five-year report on the cumulative results of the Farm Tap Safety Inspection Program and any recommendations for future improvements.[26] To comply with this Order, the Company inspected all 1,907 of its farm taps in Minnesota at least once during the five-year period from 2008 through 2012, totaling 2,115 inspections. MERC Ex. 14 at 14 (Kult Direct). The inspections uncovered 153 leaks: 4 class 1 leaks, 15 class 2 leaks, and 134 class 3 leaks.[27] *Id.*

After its review, the Department recommended that the Commission 1) require MERC to continue its Farm Tap Safety Inspection Program; and 2) require MERC to submit, in the Company's next rate case, the most recent five-year farm tap inspection reports, together with a discussion of the results of the reports and any recommendations for improvements to the Farm Tap Safety Inspection Program. DOC Ex. 210 at 30 (Zajicek Direct). MERC agreed with the Department's recommendations. MERC Ex. 15 at 6 (Kult Rebuttal) and had no other recommendations for future improvements to the Farm Tap Safety Inspection Program. DOC Ex. 210 at 30 (Zajicek Direct).

[26] *ITMO Peoples Natural Gas Company's Request to Establish a Tariff for Repairing and Replacing Farm Tap Lines*, Docket No. G-011/M-91-989, Order Permitting Company to Continue Deferred Accounting, pp. 3–4 (Feb. 17, 1998).
[27] *See* MERC Ex. 14 at 14–15 (Kult Direct) (defining of each class of leaks).

E. Summary of Recommendations

1. Recommendations Regarding Service Extensions

Regarding the Commission's first concern, the Department concluded that MERC had not shown in every instance that the Company correctly and consistently applied the extension tariff since its 2010 rate case and recommended a reduction in the rate base of $35,803.18 for unbilled service extension costs. MERC agreed.

Regarding the Commission's second concern, the Department concluded that MERC appropriately cost and load justified its extension tariff due to the application of its approved feasibility model.

Regarding the Commission's third concern, the Department concluded that MERC had not shown in every instance that the Company's extension practices have prevented wasteful additions to plant and facilities that would otherwise be included in base rates. The Department recommended a reduction of rate base of $35,803.18 to adequately accounted for these errors. MERC agreed.

In addition, MERC agreed, in a separate proceeding, to examine ways to make the extension of the New Area Surcharge more affordable, such as by extending the current fifteen year limit.

2. Recommendations Regarding Winter Construction Charges

The Department recommended that the Commission continue to require MERC to show in the Company's next rate case that no winter construction charges were assessed outside of the Winter Construction Charge Period (December 1 through April 1) and that no winter construction charges incurred by the Company from any contractors outside of the Winter Construction Period are proposed to be recovered from other rate payers. MERC agreed with the Department's recommendations.

3. Recommendation Regarding the Farm Tap Safety Inspection Program

The Department recommended that the Commission:

1. Require MERC to continue its Farm Tap Safety Inspection Program; and

2. Require MERC to submit, in the Company's next rate case, the most recent five-year farm tap inspection reports, together with a discussion of the results of the reports and any recommendations for improvements to the Farm Tap Safety Inspection Program.

MERC agreed with the Department's recommendations.

VI. FINANCIALS: RATE BASE, OPERATING INCOME, AND EXPENSES

MERC's initial filing in this rate case requested an increase in revenue requirements of $14,187,597, a 5.52 percent increase in total revenue. MERC Ex. 19 at 3 (DeMerritt Direct). Minnesota Rule 7825.3900 requires that three financial summary schedules be filed with a general rate case: the proposed test year, the most recent historical year, and the unadjusted projected year. Mr. DeMerritt stated that MERC's most recent historical year is 2012, 2013 is the projected year, and 2014 is the proposed test year. DOC Ex. 217 at 4-5 (St. Pierre Direct) citing MERC Ex. 19 at 4 (DeMerritt Direct).

Department witnesses Michelle St. Pierre and Lerma La Plante addressed financial issues in this case, many of which are now resolved between the Department and the Company. The financial issues, disputed and resolved, between DOC and CPE are as follows:

Resolved Issues

Test Year Rate Case Expenses
Unamortized Rate Case Expenses and Related Deferred Taxes
Charitable Contributions
Travel and Entertainment
Aircraft Expenses
Gas Storage Balances
Regulatory Assets Removed from Rate Base (Accounts 186591 and 254450)
Deferred Tax Balances Related to Regulatory Assets and Liabilities
Increased CIP Expense

Uncollected CIP Revenue
Property Tax Expense Related to Tax Appeals
Minnesota Property Tax Expense in Test Year
Pension Cost Measurement Date
Post-Retirement Medical Expense
Executive Incentive Compensation
Incentive Compensation Refund Mechanism
Sewer Laterals Pilot Program.
Gate Station Project
Interest Synchronization
Cash Working Capital

Disputed Issues
Regulatory Assets and Liabilities Removal From Rate Base
CIP Cost Recovery – Revenue Neutrality
Pension and Post-Retirement Life Insurance Expense Discount Adjustment
Uncollectible Debt Expense
The level of Mapping Project Costs
The Amortization Period for Rate Case Expenses

A. MERC's Other Gas Revenue - Miscellaneous Service Receipts (Issue II-12)

Resolved: Between DOC and MERC. MERC agrees with the Department's recommendation regarding the level of other gas revenue from miscellaneous service receipts, which results in a test-year adjustment that increases MERC's other gas revenue by $51,943. DOC Ex. 215 at 20 and LL-2 (La Plante Direct).

DOC witness Lerma La Plante reviewed and took issue with the Company's calculation of its test year "other revenue from miscellaneous service." The Company's test-year amount was based on year-to-date actual as of July, 2012, annualized for the full year of 2012 and rounded to higher number based on 2011 full-year actuals. DOC Ex. 215 at 2, LL-3 (La Plante Direct) (MERC Response to DOC IR 128). Ms. La Plante testified that the Company did not show the reasonableness of its method of calculating the miscellaneous service revenue, explaining that the Company's methodology was based on only seven months of data, consisting of the months of January through July, 2012, as identified in Attachment A of the Company's response. *Id.* at 3, LL-3. (MERC Response to DOC IR 128).

Ms. La Plante recommended a $51,493 increase in other revenues from miscellaneous service revenue. This method for calculating the miscellaneous service revenue adjustment is reasonable because it averages the annual revenue over a four-year period of historical data (2010–2013). *Id.* (MERC Response to DOC IR 128). Company witness Mr. DeMerritt accepted the proposed increase to the test year income statement, which increases by $51,493 the test-year other revenue from miscellaneous service revenue. MERC Ex. 24 at 15 (DeMerritt Rebuttal).

B. MERC's Cost Allocations (Issue II-9)

Resolved: DOC and MERC agree that Commission may accept the result of MERC's cost allocations to ServiceChoice in this rate case. DOC Ex. 215 at 12 (La Plante Direct).

1. Cost Allocations Between Regulated and Non-regulated Activities.

In 1994, the Commission established requirements for the allocation of costs between regulated and non-regulated activities of Minnesota gas and electric utilities. In Docket No. 90-1008,[28] the Commission opened an investigation into the appliance sales and service practices of all Minnesota gas and electric utilities. The investigation focused on accounting allocation and separation issues, and on allegations of discrimination against customers who did not patronize utilities' non-regulated appliance sales and service operations. DOC Ex. 215 at 5 (La Plante Direct).

In the 90-1008 Docket, the Commission's September 28, 1994 Order[29] held that the following four basic hierarchical cost allocation principles, borrowed from a comprehensive cost separation and allocation framework articulated by Federal Communications Commission

[28] *ITMO an Investigation into the Competitive Impact of Appliance Sales and Service Practices of Minnesota Gas and Electric Utilities*, Docket No. G, E-999/CI-90-1008. (90-1008 Docket).

[29] 90-1008 Docket, "Order Setting Filing Requirements," Date issued: Sept. 28, 1994, at pp. 4-6, published at *http://mn.gov/puc/documents/puc_pdf_orders/003240.pdf*. (The "September 28, 1994 Order"). The Commission there stated that the "FCC principles ensure that regulated and non-regulated operations share equitably in any cost savings realized due to joint operations." The Commission found that "application of the FCC principles would 'provide a just and reasonable cost allocation procedure . . . ." *Id.* at 4.

(FCC), are the best means to ensure proper cost separations between regulated and non-regulated activities:

1. Tariffed rates shall be used to value tariffed services provided to non-regulated activity.

2. Costs shall be directly assigned to either regulated or non-regulated activities whenever possible.

3. Costs which cannot be directly assigned are common costs which shall be grouped into homogeneous cost categories. Each category shall be allocated based on direct analysis of the origin of the costs whenever possible. If direct analysis is not possible, common costs shall be allocated based upon an indirect cost-causative linkage to another cost category or group of cost categories for which direct assignment or allocation is available.

4. When neither direct nor indirect measures of cost causation can be found, the cost category shall be allocated based upon a general allocator computed by using the ratio of all expenses directly assigned or attributed to regulated and non-regulated activities, excluding the cost of fuel, gas, purchased power, and the purchased cost of goods sold.

The Commission further required all utilities to be prepared in future rate cases to demonstrate that the utility follows these four hierarchical cost allocation principles, or, alternatively, to demonstrate that:[30]

1. The utility's non-regulated activities are insignificant; or

2. The utility's proposed cost allocation principles produce results similar to allocations that follow the Commission's recommended cost allocation principle; or

3. The public interest would be better served by another method.

[30] 90-1008 Docket, September 28, 1994 Order, at 6-7 and Ordering Clauses 1-3. *See also* 90-1008 Docket, "Order Finding Compliance, Exempting Northwestern Wisconsin, Requiring Preparation, and Closing Docket." Date Issued: March 1, 1995. (Commission requires: "all utilities to be prepared to demonstrate in future rate cases that a. it follows the cost allocation principles recommended by the Commission, or b. its non-regulated activities are insignificant, or c. its cost allocation principles produce similar results as would allocations following the recommended cost allocation principles, or d. the public interest is better served by another method.")(This order is unpublished; the Department thanks Commission staff for making available a copy.)

The Commission stated that "[s]hould a utility wish to base its cost separations on different principles, the burden of proof would be on that utility to prove that its cost allocation principles arrive at fully allocated costs, free of any cross-subsidization."[31]

2. MERC's Corporate Structure

MERC is a wholly-owned subsidiary of Integrys Energy Group, Inc. ("Integrys"). MERC consists of both regulated and non-regulated activities.[32] DOC Ex. 215 at 3 (La Plante Direct). MERC is primarily a regulated natural gas distribution company that serves approximately 165 communities in Minnesota. The Company serves ratepayers located geographically throughout Minnesota, for example including International Falls and Baudette in northern Minnesota and Rochester and Worthington in southern Minnesota. *Id.* at 4 (*citing* MERC Ex. 3 at Volume 2 (Clean Tariff 2.0)).

MERC's non-regulated operations are generally referred to as ServiceChoice (formerly known as Home Services) operation. ServiceChoice offers appliance repair, service protection plans, and heating, air conditioner and water heater repair and maintenance services to residential customers. *Id.*

Integrys also owns a service company called Integrys Business Support LLC (IBS). IBS provides shared or common services to Integrys and its subsidiaries, including MERC. *Id.* IBS began providing service to MERC and its regulated affiliates on January 1, 2008. *Id.* at 6. The Department reviewed the centralized service company's allocations agreement since MERCs inception on July 1, 2006. DOC Ex. 215 at 7 (La Plante Direct). The Commission has approved

[31] 90-1008 Docket, "Order Setting Filing Requirements," Date issued: Sept. 28, 1994, at p. 8.
[32] MERC's response to DOC Information Request No. 103 provides further detail of Integrys' official organizational chart. DOC Ex. 215 at LL-4 (La Plante Direct).

the allocation methodology used between IBS and its public utility subsidiaries[33] in the following dockets:

- Docket No. G007,011/AI-07-779 (07-779); the Master Affiliated Interest Agreement (AIA) governs the provision and allocation of shared services, goods and property provided effective January 1, 2008;
- Docket No. G007,011/AI-08-1376 (08-1376); modification of the Master AIA effective January 1, 2009;
- Docket No.G007,011/AI-09-1244 (09-1244); modification of the Master AIA effective January 1, 2010;
- Docket No. G007,011/AI-11-168 (11-168); modification of the Master AIA effective May 17, 2011;
- Docket No. G007,011/AI-12-910 (12-910); modification of the Master AIA effective July 3, 2013; and
- Docket G011/AI-13-934; modification of the Master AIA effective January 9, 2014.

Id. The Commission also set reporting requirements for IBS allocations in MERC's future rate cases.[34] Because IBS's General/Corporate Allocation method was not the same as the Commission's preferred general allocation method, the Commission required that:

> MERC shall demonstrate in the Company's future general rate cases that the General/Corporate Allocation method provides similar results compared to the Commission's preferred general allocation method, or that the Company's method better serves the public interest.

Id. at 8.

[33] The regulated entities within the Integrys holding company system are as follows:
- MERC;
- Wisconsin Public Service Corporation, an electric and natural gas utility;
- Upper Peninsula Power Company, an electric utility;
- Michigan Gas Utilities Corporation, a natural gas utility;
- Peoples Gas Light and Coke Company, a natural gas utility; and
- North Shore Gas Company, a natural gas utility.

[34] *ITMO a Request by Minnesota Energy Resources Corporation (MERC) For approval of Affiliated Interest Agreement Related to the Formation and Operation of Integrys Business Support, LLC*, Docket No. G007/011/AI-07-779 (Mar. 5, 2008).

3. MERC's Allocations of the Costs for IBS.

The general, corporate allocation method used by IBS (the IBS Method) differs from the Commission's preferred general allocation method in that the IBS allocation method includes total assets, whereas the Commission's method does not. *Id.* (*citing* MERC Ex. 12 at 15–16 (Kupsh Direct)). IBS uses an average of two percentages for each of its affiliated utilities to calculate its General/Corporate Allocation method: 1) total assets (with some exclusions for derivative assets, goodwill and other "non-ordinary" assets), and 2) total non-fuel operations and maintenance (O&M) costs.

In contrast, as stated above, the Commission's preferred general allocation method is computed by using the ratio of all expenses directly assigned or attributed to regulated and non-regulated activities, excluding the cost of fuel, natural gas, purchased power, and the purchased cost of goods sold. DOC Ex. 215 at 8–9 (La Plante Direct).

In its testimony, MERC compared its IBS Method to the Commission's method. Company witness, Ms. Kupsh, stated that using the IBS Method and the Commission's preferred general allocation method produces similar cost allocation results with a difference between the two methods of only $3,314 in 2012. *Id.* at 8 (*citing* MERC Ex. 12 at 3 (Kupsh Direct)). MERC also provided calculations showing that the Commission's preferred general allocations resulted in a lower allocation factor (DOC Ex. 215 at 9, LL-5 (La Plante Direct) (MERC Response to DOC IR 112)) and that MERC sought to recover the smaller amount provided by the Commission's preferred general allocation method in this rate case. DOC Ex. 215 at 9 (La Plante Direct) (*citing* MERC Ex. 12 at 3 (Kupsh Direct)).

Based on these facts, the Department concluded that this aspect of MERC's approach is reasonable. *Id.*

4. MERC'S Cost Allocations to ServiceChoice

As noted above, ServiceChoice is a division of MERC and is a non-regulated appliance service business. ServiceChoice sells appliance repair, service protection plans, and heating, air conditioner and water heater repair and maintenance services, primarily to residential customers. These services are available on an on-demand and contractual basis. MERC's field technicians perform both regulated and non-regulated work in the majority of Minnesota; but, in certain locations MERC has separate employees for the utility and non-utility business. *Id.* at 10 (*citing* MERC Ex. 40 at 34–36 (Walters Direct)).

MERC allocates costs between its regulated and non-regulated activities. The Company stated:

> MERC utilizes three different means of allocating the correct costs to the utility and non-utility businesses: direct charge, allocation based on known factors, and general allocation. The majority of costs (76.5%) are directly charged, 11.5% are charged based on known factors, and 12.0% are allocated based on the general allocator.

DOC Ex. 215 at 10 (La Plante Direct) (*citing* MERC Ex. 40 at 35 (Walters Direct)). MERC detailed how it calculated these percentages in its response to DOC Information Request No. 122. *Id.* at 11; LL-6. The Company explained that call center costs are the only costs allocated by a known factor of annual number of utility and non-utility customers. *Id.* at 11 (*citing* MERC Ex. 40 at 36 (Walters Direct)). The Company indicated that MERC's general allocator (the General Allocation Factor) of 87.7 percent to the utility and 12.3 percent to the non-utility was based on what MERC called the "Massachusetts Formula." The Massachusetts Formula percentage is based on three statistics: margin, net plant and payroll. MERC gathers these statistics for the utility and non-utility activities and averages them together on a weighted basis. *Id.* (*citing* MERC Ex. 40 at 36 (Walters Direct)).

Department witness Ms. La Plante and Company witness Mr. Walter agreed that MERC's General Allocation Factor does not follow the Commission's methodology. DOC Ex. 215 at 11 (La Plante Direct) (*citing* MERC Ex. 40 at 37 (Walters Direct)). MERC's general allocator allocates 3.4 percent fewer costs to the regulated utility than the Commission's method, and therefore benefits utility ratepayers; however, Mr. Walters did not show how he calculated the percentages used in the comparison of the two methods. *Id.* (*citing* MERC Ex. 40 at 38 (Walters Direct)). Ms. La Plante explained that Mr. Walters arrived at the percentages for the Commission's methodology of 91.1 percent for the utility and 8.9 percent for ServiceChoice using 2012 data, but Mr. Walters did not show how he calculated MERC's percentages of 87.7 percent for the utility and 12.3 percent for ServiceChoice. *Id.* at 12 (*citing* MERC Ex. 40 at GJW-2 (Walters Direct)). MERC provided some additional support for the percentages it used by providing its calculations and work papers in response to DOC Information Request No. 122. *Id.* at 12, LL-6.

Ms. La Plante reviewed the information and observed that "nothing in my review of the regulated/non-regulated business allocation factors causes me to recommend adjustments at this time." DOC Ex. 215 at 12 (La Plante Direct). Based on this conclusion, Ms. La Plante recommended that the Commission accept the results of MERC's cost allocations between regulated and non-regulated activities regarding ServiceChoice in this rate case. *Id.*

C. Rate Case Expenses

1. Test Year Rate Case Expenses (Issue II-17, in part)

Resolved: Between DOC and MERC. MERC agrees with the Department's recommendation regarding the level of rate case expense for travel, which reduces MERC's rate case expense by $21,925. DOC Ex. 215 at LL-7 (La Plante Direct).

For its rate case expenses, MERC forecast $1,715,000 of costs; it proposed to amortize 87.7 percent of that amount, or $1,504,055, over a two-year period. The 87.7 percent level

reflected removal of the 12.3 percent of rate case expenses that were allocated to MERC's non-regulated business ServiceChoice. *Id.* at 12–13 (*citing* MERC Ex. 19 at SSD-20 (DeMerritt Direct)). The Company's proposed rate case expenses were:

- Cost of capital expert - $35,000;
- Legal expenses - $750,000;
- State agency/ALJ fees - $700,000;
- 3rd party requests (vertex, Iltron, etc.) - $65,000;
- Newspapers - $140,000; and
- Travel expenses - $25,000.

The Department was concerned about the travel expense estimate because MERC had no actual travel-related rate expenses in the last rate case (10-977), but projected $25,000 of travel expenses to be included in this rate case and it recovered $10,500 of travel expenses in the 10-977 rate case test year. *Id.* at 13, LL-8 (*citing* MERC Response to OAG IR 113.1).[35] Due to concerns about double recovery, especially where the Company has also Travel and Entertainment (T&E) expense account included for recovery in this proceeding *Id.* at 13 (La Plante Direct), the Department recommended that the Commission remove travel expense from MERC's proposed test year rate case expense. Allocating 87.7 percent of $25,000 to MERC yields a decrease of $21,925. DOC Ex. 215 at 14 and LL-7 (La Plante Direct).

Mr. DeMerritt accepted the proposed adjustment to decrease by $21,925 MERC's proposed test year rate case expenses. MERC Ex. 24 at 15 (DeMerritt Rebuttal).

2. Amortization Period (Issue II-17, in part)

Disputed between DOC and MERC. Ms. La Plante recommended that MERC be allowed to recover its rate case expenses over a period of three years. This recommendation reduced the amount of rate case expenses included in the test year by $257,984. DOC Ex. 215 at 14-16 and LL-9 (La Plante Direct); DOC Ex. 216 at 10 (La Plante Surrebuttal).

[35] DOC Ex. 215 LL-8 (La Plante Direct) (MERC Resp. to OAG IR 113.1).

The Department recommended that the rate case expenses be amortized over a three-year period. DOC Ex. 216 at 10 (La Plante Surrebuttal). The Company proposed to recover rate case expenses in over two years,[36] but did not provide evidence to support the proposal or show a compelling reason to depart from the normal method for determining the amortization period. MERC Ex. 19 at 27, SSD-20 (DeMerritt Direct). MERC indicated that it believed a two-year amortization was appropriate because it anticipated filing its next rate case with a 2016 proposed test year. DOC Ex. 215 at 14 (La Plante Direct) (*citing* MERC Ex. 19 at 27 (DeMerritt Direct)).

Generally the Department recommends determining the amortization period by taking the average time between general rate cases; this approach is the normal method used in rate cases and it is reasonable because no one—utilities or regulators—can say for certain when a utility will file its next rate case. *Id.* at 15. Estimating a reasonable amortization period is difficult because many things can impact the utility's decision to file a rate case, including inflation, cost-of-money, construction activity, and customer's usage, accounting changes, and other factors that can impact the timing of a rate case. In addition, utilities consider the fact that rate cases are time consuming and costly when deciding when to file a rate case. *Id.*

The average time between rate cases for MERC is three years, which is the same recovery period approved by the Commission in the Company's two recent rate cases (Docket No. G007,011/GR-08-835 and G007,011/GR-10-977), and is the time the Department recommends in this case. Where doubt exists, it should be resolved in favor of ratepayers. Minn. Stat. § 216B.03 (2012); DOC Ex. 216 at 9 (La Plante Surrebuttal). The Department's use of a three-year recovery period reduces test year rate case expenses by a net amount of $257,984. DOC Ex. 215 at 15–16 (La Plante Direct).

[36] MERC's proposed $1,504,055, amortized over a two-year period, resulted in test-year expense of $752,028. DOC Ex. 215 at 14 (La Plante Direct) (*citing* MERC Ex. 19 at SSD-20 (DeMerritt Direct)).

3. Unamortized Rate Case Expenses and Related Deferred Taxes (Issue II-17, in part)

Resolved: Between DOC and MERC. MERC agrees with the Department's recommendation regarding the level of unamortized rate case expenses and the Department agrees with MERC's proposal regarding deferred taxes on the rate base, which reduces MERC's unamortized rate case expenses by $1,312,704 and increases deferred taxes by $540,106. The net effect of these adjustments reduces the rate base by $772,598. DOC Ex. 216 LL-S-1 (La Plante Surrebuttal).

MERC inappropriately included in its proposed rate base a 13-month average of 2014 rate case expense totaling $1,315,335. *Id.* at LL-11, LL-12.

The amount of rate case expenses included in MERC's test year rate base was "unamortized rate case expenses." *Id.* at 17. It is not appropriate to include unamortized rate case expenses in the test year rate base because rate case costs are neither prepaid costs nor assets to be amortized. A normalized level of rate case costs should be included in test year expenses, but should not be included as assets in rate base and amortized, such that the Company can earn an allowed rate of return on them. The Commission has not allowed recovery of rate case expenses in rate base in the following prior rate cases:

- G007,011/GR-08-835;
- E017/GR-07-1178;
- G002/GR-06-1429;
- E002/GR-05-1428;
- E001/GR-05-748;
- G002/GR-04-1511;
- G004/GR-04-1487;
- E001/GR-03-767;
- E111/GR-03-261;
- G004/GR-02-1682;
- G007,011/GR-00-951;
- E001/GR-95-601; and
- G001/GR-95-406.

Id. at 18.

Ms. La Plante recommended removal from MERC's proposed test year regulatory assets and liabilities in rate base recovery of unamortized rate case expenses in the amount of $1,315,335. DOC Ex. 215 at LL-10 (La Plante Direct). MERC witness, Mr. DeMerritt, accepted this adjustment and proposed an additional adjustment to remove from rate base deferred taxes associated with the removed unamortized rate case expenses, in the amount of $541,188. MERC Ex. 24 at 17 (DeMerritt Rebuttal). The deferred taxes related to unamortized rate case expenses and represented a 13-month average of deferred taxes. DOC Ex. 216 LL-S-2 (La Plante Surrebuttal). Department witness Ms. La Plante recommended a slight reduction to reflect the allocated amount for Minnesota Jurisdiction, such that the rate base excluded unamortized rate case expenses of $1,312,704 and its related deferred taxes of $540,106. *Id.* at LL-S-1. This revised adjustment is the result of allocating 99.8 percent to the Minnesota Jurisdiction. *Id.* at 4–5. The net effect of these adjustments reduce the rate base by $772,598. *Id.* at LL-S-1.

D. Charitable Contributions (Issue 13)

Resolved: Between DOC and MERC. MERC agrees with the Department's recommendation regarding the level of charitable contributions, which reduces general and administrative expenses by $16,105. DOC Ex. 215 at 20 (La Plante Direct).

The Commission limits charitable contribution expenses as follows:

> The Commission shall allow as operating expenses only those charitable contributions which the Commission deems prudent and which qualify under Minn. Stat. 290.21, subd. 3 (b). Only 50 percent of the qualified contributions shall be allowed as operating expenses.[37]

MERC proposed to recover charitable contributions its 2012 actual of charitable contributions, amounting to $31,050. The test-year amount based on the actual 2012 cost of

[37] Minnesota Public Utilities Commission's Statement of Policy on Charitable Contributions dated June 14, 1982. DOC Ex. 215 at LL-13 (La Plante Direct).

$31,050 plus 1.708 and 1.993 percent inflation would be $32,209. DOC Ex. 215 at 19 (La Plante Direct) (*citing* MERC's Vol. 3, Document 5 (Informational Requirements)).

The Department recommended a reduction by 50 percent of charitable contributions reduced the test-year Administrative and General Expense by $16,105 for the test-year charitable contributions where MERC failed to make an adjustment to reduce its charitable contributions by 50 percent. *Id.* at 20. Mr. DeMerritt accepted the proposed adjustment to reduce the test-year Administrative and General Expense by $16,105 to remove 50 percent of the test-year charitable contributions. DOC Ex. 216 at 5 (La Plante Surrebuttal) (*citing* MERC Ex. 24 at 17 (DeMerritt Rebuttal)).

E. Travel, Entertainment and Related Employee Expenses

1. Travel and Entertainment (Issue II-25, in part)

Resolved: Between DOC and MERC. MERC agrees with the Department's recommendation regarding the level of travel and entertainment expenses, which reduces general and administrative expenses by $7,770. DOC Ex. 215 at LL-14 (La Plante Direct).

Minnesota law prohibits the Commission from allowing in retail rates travel, entertainment and related employee expenses that are unreasonable and unnecessary for the provision of utility service:

> (a) The commission may not allow as operating expenses a public utility's travel, entertainment, and related employee expenses that the commission deems unreasonable and unnecessary for the provision of utility service. In order to assist the commission in evaluating the travel, entertainment, and related employee expenses that may be allowed for ratemaking purposes, a public utility filing a general rate case petition shall include a schedule separately itemizing all travel, entertainment, and related employee expenses as specified by the commission, including but not limited to the following categories:
>
> (1) travel and lodging expenses;
> (2) food and beverage expenses;
> (3) recreational and entertainment expenses;

(4) board of director-related expenses, including and separately itemizing all compensation and expense reimbursements;
(5) expenses for the ten highest paid officers and employees, including and separately itemizing all compensation and expense reimbursements;
(6) dues and expenses for memberships in organizations or clubs;
(7) gift expenses;
(8) expenses related to owned, leased, or chartered aircraft; and lobbying expenses.

Minn. Stat. § 216B.17, subd. 17 (2012). Items totaling $284,725 were included in the test year at the MERC level:

- Travel/Lodging - $217,802;
- Corporate Aircraft - $956;
- Food/Beverage - $64,666; and
- Recreation and Entertainment - $1,301.

DOC Ex. 215 at 21 (La Plante Direct) (*citing* MERC Ex. 4, Vol. 3, Document 14 at 3–51).

Department witness Ms. La Plante reviewed MERC's T&E expenses; she searched for blank or vague descriptions, as well as items related to more than one hundred key words such as anniversary, appreciation, award, celebration, farewell, birthdays, alcohol, and the like. Such descriptions may indicate expenses that would not be reasonable to charge to Minnesota ratepayers. *Id.* The test year regulated expenses appeared to include expenses that are not recoverable from ratepayers, listed expenses of $7,770 for travel and entertainment that do not appear to be reasonably related to Minnesota regulated utility operations, such as appreciation, award, gifts, golf, parties and recognition. *Id.* at LL-14.

Mr. DeMerritt accepted the proposed adjustment to reduce the T&E expenses by $7,770. DOC Ex. 216 at 6 (La Plante Surrebuttal) (*citing* MERC Ex. 24 at 17–18 (DeMerritt Rebuttal)). Additionally, the Department recommended that T&E expenses allocated from MERC's service

company should have been filed for review in accordance with the statutory requirements in the rate case, which MERC agreed to do in future rate filings. Ex. 216 at 6-7 (La Plante Surrebuttal).

2. Aircraft Expenses (Issue II-25, in part)

Resolved: Between DOC and MERC. MERC agrees with the Department's recommendation regarding the level of corporate aircraft expenses, which results in a test-year adjustment that reduces general and administrative expenses by $956. DOC Ex. 215 at 24 (La Plante Direct).

The Department reviewed Corporate aircraft expenses and concluded that the corporate aircraft costs should not be paid for by ratepayers, because MERC provided no evidence that the use of its corporate aircraft is reasonable and consistent with the public interest. The Department recommended that the Commission reduce the test year Administrative and General Expense by $956 for the test year corporate air craft costs. DOC Ex. 215 at 24 (La Plante Direct). Mr. DeMerritt accepted the proposed adjustment to reduce test-year Administrative and General Expenses by $956 for the test year corporate aircraft costs. DOC Ex. 216 at 7 (La Plante Surrebuttal) (*citing* MERC Ex. 24 at 18 (DeMerritt Rebuttal)).

F. Gas Storage Balances (Issue II-5)

Resolved: Between DOC and MERC. The Department's agrees with MERC's proposal regarding the level of gas storage inventory, which results in a test-year adjustment that increases the rate base by $853,699. DOC Ex. 216 at LL-S-1 (La Plante Surrebuttal) and MERC Ex. 24 at SSD-4 at 3 (DeMerritt Rebuttal).

MERC made a Supplemental Base Cost of Gas Filing on April 15, 2014 in Docket G011/MR-13-732, and in this rate case docket, MERC updated its Gas Storage balances. MERC Ex. 24 at 29 (DeMerritt Rebuttal). DOC witness Lerma La Plante reviewed the update of gas storage balances proposed by the Company in Docket G011/GR-13-617. MERC proposed to update gas storage balances to $12,866,941. *Id.* This update increases the gas storage inventory by $853,699. *Id.* at SSD-4 at 3. The updated ending gas storage balance is equivalent to the 13-month average of the amounts for the period December 2013 to December 2014. DOC Ex. 216 at

LL-S-3 (La Plante Surrebuttal). This method of calculating the ending balance of gas storage inventory is the same method used by the DOC in MERC's 2010 Rate Case (Docket No. G007, G011/GR-10-977). The Department's agrees with MERC's proposal regarding the level of gas storage inventory, which results in a test-year adjustment that increases the rate base by $853,699. *Id.* at LL-S-1; MERC Ex. 24 at SSD-4 at 3 (DeMerritt Rebuttal).

G. REGULATORY ASSETS AND LIABILITIES (Issues II-15 and II-6, in part)

Disputed: DOC and MERC disagree regarding the DOC recommendation that MERC remove from rate base 17 accounts for certain Regulatory Assets and Liabilities in the total amount of $11,281,942. *See* DOC Ex. 219 at 4, Table S1 (St. Pierre Surrebuttal) (Summary of DOC's and MERC's Recommendations). The principal part of this disputed adjustment is the $16,587,916 amount in Account 182312, which is the balance in FAS 158; this balance represents the projected test-year funded status (plan assets minus obligations) of MERC's defined benefit pension as of a certain point in time. DOC Ex. 217 at 8–9 (St. Pierre Direct); DOC Ex. 219 at 8 (St. Pierre Surrebuttal).

Resolved: MERC agreed to DOC's recommended adjustment as to only 2 of the 17 accounts, Accounts 186591 and 254450, the adjustment of which increased rate base by $226,984 ($17,066 - $244,050). DOC Ex. 219 at 5 (St. Pierre Surrebuttal)

Resolved: DOC and MERC agreed that, if the Commission ultimately removes the assets and liabilities associated with the benefit plans, then the corresponding deferred taxes should be removed from rate base. DOC Ex. 219 at 9–10 (St. Pierre Surrebuttal) *citing* MERC Ex. 24 at 4 (DeMerritt Rebuttal). This adjustment is in the amount of $4,294,542 ($4,303,114 x 99.8 percent MN jurisdiction). DOC Ex. 219 at 10–11 (St. Pierre Surrebuttal).

Regulatory Assets and Regulatory Liabilities are "rate base" items. Tr. at 214 (St. Pierre). To analyze regulatory assets, it is important to note that a utility's rate base is not the same as a non-utility's balance sheet used for financial statement purposes; to the contrary, rate base represents the plant, facilities, and other investments required for supplying utility service to customers. Tr. at 213 (St. Pierre). The following are examples of differences between a utility's rate base and a non-utility's balance sheet:

- First, generally, a utility's rate base does *not* include accounts receivables and accounts payable. For utility ratemaking, those costs are reflected in the cash working capital (CWC).[38]

- Second, a utility's rate base includes CWC determined from a lead/lag study whereas a balance sheet does not.

- Third, a utility includes in its rate base certain items referred to as "regulatory assets and liabilities," which reflect the differences in expense and revenue recognition between ratemaking, on the one hand, and Generally Accepted Accounting Principles (GAAP), on the other.

Tr. at 213–214 (St. Pierre).

MERC included regulatory assets and liabilities in its proposed test-year rate base. As shown in MERC's Vol. III, Information Requirements Document 2, Schedule B-6, MERC included $19,642,806 ($19,682,037 less $39,230 allocated to Michigan) of regulated assets and liabilities in its proposed test-year rate base. DOC Ex. 217 at 7 (St. Pierre Direct). The majority of the accounts, which also represents the most significant dollars, ($18,837,482 of the $19,682,037), is related to items involving employee benefits.[39] *Id.*

MERC included in its initial filing seventeen specific regulatory assets and liabilities, mostly those associated with employee benefits, that are not reasonably included in rate base. DOC recommended removal of seventeen accounts; MERC agreed to two of the Department's recommended adjustments to regulatory assets and liabilities. MERC agreed to remove the Deferred Debit-Long Term Account Receivable Arrearage, an asset of $17,066 (Account 186591) and Regulatory Liabilities-Derivatives of $244,050 (Account 254450). Mr. DeMerritt

[38] The purpose of cash working capital in ratemaking is to allow the utility to recover money needed to meet current operating expenses prior to collecting revenues for the service provided, essentially the time value of money between when the Company incurs costs and when they are reimbursed, as determined by the lead/lag study. This objective is accomplished by including an appropriate cash working capital requirement in rate base. DOC Ex. 217 at 50 (St. Pierre Direct).

[39] Other significant amounts relate to the forecasted rate case regulatory asset balance of $1,315,335 (Account 182513) and the forecasted injuries and damages accrual balance, a credit of $217,943 (Account 228200). The list of regulatory assets and liabilities included in the test year is at DOC Ex. 218 MAS-13 (St. Pierre Direct Attach.).

agreed that account 186591 was erroneously included in rate base. MERC Ex. 24 at 4 (DeMerritt Rebuttal). For account 254450, Mr. DeMerritt stated that, "[b]ecause derivative assets are excluded from rate base, derivative liabilities should be excluded as well." MERC Ex. 24 at 5:12-13 (DeMerritt Rebuttal). By agreeing to only these two adjustments, MERC increased its proposed rate base amount by $226,984 ($17,066 - $244,050). DOC Ex. 219 at 5 (St. Pierre Surrebuttal).

The seventeen accounts are not reasonably included in rate base for several reasons. First, MERC's inclusion of these regulatory assets in rate base is not reasonable, where MERC provided no authority, other than its agreement with the OAG in its last rate case to adjust rate base to justify the "ratepayer supplied funding" for the inclusion of the benefit assets and liabilities in the current rate case. MERC cited not a single Commission Order that authorized this approach. *Id.* at 7–11; DOC Ex. 219 at 9 (St. Pierre Surrebuttal). Instead, MERC's agreement with OAG regarding the "ratepayer supplied funding" adjustment in MERC's last rate case was the Company's sole basis for its proposal to include the benefit assets and liabilities in rate base in the current case. That basis is not warranted, however, because in MERC's last rate case, the calculation of the ratepayer supplied funding adjustment used a cumulative amount based on data from a five-year period of 2007-2011.[40] In contrast, in this rate case, MERC's valuation of net benefit assets and liabilities was at one moment in time: a projected thirteen-month average as of the end of the test year, December 31, 2014. Thus, the current rate case

[40] In MERC's last rate case, inclusion reduced the test year rate base. The funding amount agreed to between MERC and the OAG was a reduction to rate base of $71,159. MERC witness Ms. Han stated that in the last rate case: "during the proceedings, MERC agreed to make a rate base adjustment for ratepayer-supplied funds – specifically, the difference between MERC's actual cumulative contributions to benefit trusts and the cumulative expense recognized by MERC. In that case, cumulative funding for other post-retirement benefits exceeded the recognized cumulative expense by $56,468; and cumulative funding for pension benefits was less than the recognized cumulative expense by $127,627. The net result was a reduction to rate base of $71,159 [calculated as $56,468 - $127,627]. DOC Ex. 219 at 8–9 (St. Pierre Surrebuttal) *citing* MERC Ex. 27 at 15:1-7 (Hans Rebuttal).

calculation is not based on cumulative amounts for multiple years, which was the basis for the agreement in MERC's prior rate case. DOC Ex. 219 at 9 (St. Pierre Surrebuttal).

Further, no adjustment was made to the related deferred tax in MERC's prior rate case as has been proposed in this case if the regulatory assets and liabilities are removed. DOC Ex. 219 at 9 (St. Pierre Surrebuttal); Tr. 216 (St Pierre.) Here, the Company acknowledged that "if the Commission ultimately removes the assets and liabilities associated with the benefit plans, then the corresponding deferred taxes also need to be removed from rate base." MERC Ex. 24 at 4 (DeMerritt Rebuttal). MERC provided the amount of the corresponding deferred taxes in discovery. The Company's calculation of the corresponding deferred taxes is that the 13-month average for 2014 is a liability of $4,303,114 (total MERC). The request for this amount and calculation of this liability are shown in DOC Ex. 219 MAS-S-1 (St. Pierre Surrebuttal). If the Commission removes the regulatory assets and liabilities associated with the benefit plans, the corresponding deferred taxes also should be removed from rate base. *Id.* at 10.

Second, MERC's proposed inclusion of the employee benefit assets and liabilities in rate base is an approach that MERC has not proposed in the past. The benefit assets and liabilities were not included in MERC's initial rate base in its last rate case even though the accounts were included in the Company's financial books and records. DOC Ex. 217 at 7–11 (St. Pierre Direct).

Third, the funding status of employee benefits (FAS[41] 158, Account 182312) has not been included in the rate base of any other Minnesota utilities to Ms. St. Pierre's knowledge. DOC Ex. 217 at 7-11 (St. Pierre Direct); Tr. 215:18-21 (St. Pierre opening statement.)

Fourth, MERC's proposal to include the regulatory assets in rate base unreasonably would enable MERC to recover employee benefits in its proposed test-year income statement *as*

[41] Financial Accounting Standard (FAS).

well as earn a return on costs that run through the lead/lag study.[42] Including employee benefit accruals in rate base in addition to CWC would provide a second or double recovery of the return on those amounts. Tr. at 215 (St. Pierre). Specifically, MERC is already allowed to recover employee benefits in its proposed test-year income statement; here MERC also proposes to be allowed to earn a return on the employee benefit costs through the lead/lag study. DOC Ex. 217 at 9 (St. Pierre Direct).

The CWC is determined by a lead/lag study (DOC Ex. 217 at 50 (St. Pierre Direct)), which calculates a receivable or payable amount based on the related test-year expense that is added to rate base to earn a return. MERC's regulatory assets and liabilities are receivables and payables, which (along with accruals) are included in test-year income statement expenses and MERC earns a return on these amounts through CWC.[43] Thus, including receivables and payables in rate base in addition to CWC would provide a second or *double recovery of the return* on those amounts. DOC Ex. 219 at 6 (St. Pierre Surrebuttal). The Department does not oppose recovery from ratepayers of reasonable employee expenses, but it is not reasonable to require MERC's ratepayers to also pay a return to MERC on such amounts included in rate base. DOC Ex. 219 at 7 (St. Pierre Surrebuttal).

Fifth, the retirement benefits trust plan balance in FAS 158 is temporary, due to Company funding and financial market conditions, and should not be included in rate base. The Department does not consider temporary timing differences as sufficient justification for rate base recovery. DOC Ex. 217 at 7–11 (St. Pierre Direct); Tr. at 215 (St. Pierre). The balance in FAS 158 represents the projected test-year funded status (plan assets minus obligations) of MERC's defined benefit pension as of a certain point in time. DOC Ex. 217 at 8–9 (St. Pierre

[42] FAS 158 does not run through the lead/lag study since it is not an accrual. Tr. at 225-226 (St. Pierre).
[43] With the exception of FAS 158 (Account 182312). Tr. at 225–226 (St. Pierre).

Direct). The Company's pension plan is projected to be *overfunded* as of the end of the test year, and the projected $16,587,916 amount is an average 13-month balance. DOC Ex. 219 at 8 (St. Pierre Surrebuttal) (*citing* MERC Ex. 6 Vol. 4, Detail Balance Sheet (DeMerritt Workpapers)). The funding activity at a given moment in time is merely a temporary timing difference. The retirement benefits trust plan assets may go up or down depending upon Company funding and investment returns due to changes in the market or investment activity of the plan administrators. DOC Ex. 217 at 9 (St. Pierre Direct). In other words, depending upon funding and market conditions, trust plan assets may be greater or less than the plan's liabilities at a specific point in time. *Id.* Similarly, pension benefit obligations can change due to changes made to the plan benefits and/or various actuarial assumptions. DOC Ex. 219 at 8 (St. Pierre Surrebuttal).

Also, the employee pension is "externally funded," meaning that MERC pays pension expenses to a separate entity, a benefit trust, in an account maintained outside of the Company. The current trustee is BNY Mellon. Once the contributions are made, the Company no longer has use of the trust funds, nor of earnings on the trust funds, for its ordinary business purposes. Tr. at 58–59 (Hans). As a result, it is unreasonable for ratepayers to fund not only the pension expense, but also to treat the pension fund (FAS 158 Account 182312) as though it remained part of the Company's rate base upon which ratepayers must pay a return.

Sixth, certain of the accounts pertain to non-qualified benefit plans; MERC is (appropriately) not requesting recovery of non-qualified employee benefit costs for Pension Restoration Plan and SERP (Account 926210) and SERP (Account 926220).[44] MERC Ex. 26 at 3, 4 (Hans Direct). It follows that the related rate base accounts (Accounts 228300, 228305,

[44] The approved amortization for account 926220 is included in the costs estimated by MERC. MERC Ex. 26 at 5 (Hans Direct).

228310, 242072) should be removed from rate base. DOC Ex. 219 at 7–8 (St. Pierre Surrebuttal); Tr. at 216 (St. Pierre).

And, finally, there have been no changes in accounting standards that suggest a change in how pension costs should be recovered in rates. Ms. St. Pierre reported that:

> [I]n 2006, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standard (SFAS) 158, changed the balance sheet *presentation* for companies with defined benefit pensions plans. The pension balance sheet account now includes and shows the funded status (plan assets minus obligations) of a company's pension plan, whereas before, the funded status information was generally reported only in the footnotes to the financial statements. This change merely revises how the information is presented in financial statements and cannot be used to justify including the over/under funded status of a pension plan in rates. Pension plans have always been over or under funded and, to my knowledge, these differences have not been included in rates. The fact that the funded status of a pension plan is now reported on the balance sheet rather than in the footnotes does not change the ratemaking treatment of these temporary balances.

DOC Ex. 217 at 7–11 (St. Pierre Direct).

For these reasons, Department witness Ms. St. Pierre recommended that the Commission require MERC to reduce the test-year rate base by $11,281,942 for the Regulatory Assets and Liabilities adjustment. *Id.* All of the proposed regulatory liabilities should be removed from rate base except for Account 254391, Regulatory Liability – 2010 Health Care Legislation. That Account was allowed in rate base in MERC's last rate case. Similar to employee retirement benefits, these liability balances are also caused by temporary timing differences and should be removed from the test-year rate base for the same reasons as discussed above. The effect of these recommended adjustments to regulatory assets and liabilities is that the Commission should require MERC to reduce rate base by $11,281,942 for the Regulatory Assets and Liabilities adjustment; this amount is calculated as shown in DOC Ex. 218 MAS-13 (St. Pierre Direct).

H. CONSERVATION IMPROVEMENT PROGRAM (CIP)

1. The Amount of the CIP Expense. (Issue II-14, in part)

Resolved: MERC and the Department agree on CIP expense: MERC agreed with the Department to increase its CIP expense by $475,941, from $8,920,481 to $9,396,422, to include the correct test year CIP expense amount. DOC Ex. 219 at 11 (St. Pierre Surrebuttal).

Under Minnesota law, if a utility filing a general rate case does not have an approved conservation improvement plan on file with the Department, that utility must include, in its general rate case notice, an energy conservation plan pursuant to Minn. Stat. § 216B.241 and Minn. Stat. § 216B.16, subd. 1 (2012).

MERC has an approved conservation improvement plans on file with the Department. On June 11, 2012, MERC filed its 2013–2015 CIP plan with the Department[45] pursuant to Minn. Stat. § 216B.241. That filing satisfies the filing requirements for rate case filings specified in Minn. Stat. § 216B.16, subd. 1. DOC Ex. 217 at 12 (St. Pierre Direct.) On April 30, 2013, the Deputy Director of the Department's Division of Energy Resources (DOC Director) approved MERC's 2013–2015 CIP, which included approval of a CIP budget of $9,396,422 for 2014.[46]

In her Direct Testimony regarding CIP expense, Department witness Ms. St. Pierre recommended that, to be consistent with the projected test year and past Commission practice, the 2014 CIP budget of $9,396,422 approved by the DOC Director in Docket No. 12-548, should be used in this rate case. This recommendation would increase CIP expense by $475,941. DOC Ex. 217 at 14 (St. Pierre Direct). MERC agreed to this recommendation: Mr. DeMerritt stated that "MERC agrees to increase the test-year CIP expense" by $475,941. DOC Ex. 219 at 11 (St. Pierre Surrebuttal) (*citing* MERC Ex. 24 at 7 (DeMerritt Rebuttal)).

[45] Docket No. G007,011/CIP-12-548 (Docket No.12-548).
[46] Docket No.12-548, *Decision,* dated April 30, 2013.

2. CIP Cost Recovery – Revenue Neutrality (Issue II-14, in part)

Resolved: DOC and MERC agree that MERC should be required to update, at the time of final rates, its CIP tracker carrying charge based on the overall rate of return approved in this general rate case; MERC should report in its final rates compliance filing the calculation of the CCRC rate based on the Commission's Order; and MERC should change the CCRC rate at the beginning of interim rates and again at final rates. DOC Ex. 219 at 13–14 (St. Pierre Surrebuttal). DOC Ex. 217 at 15–17 (St. Pierre Direct).

Disputed: MERC disagreed with DOC's recommendation that MERC be required to increase Natural Gas Revenue by $3,758,090 for CIP revenue. DOC Ex. 217 at 15 (St. Pierre Direct); DOC Ex. 219 at 11–19 (St. Pierre Surrebuttal).

MERC initially proposed to update its Conservation Cost Recovery Charge (CCRC) factors included in base rates to recover the 2013 CIP program expenses $8,920,481. MERC stated that the directive to calculate the CCRC using the 2013 expenses was part of the decisions in MERC's 2013–2015 Triennial CIP in Docket No. 12-548. MERC Ex. 21 at 42 (DeMerritt Direct). MERC conceded that the 2014 proposed CIP expenses would have been more applicable, instead of the 2013 CIP expenses the Company initially proposed. DOC Ex. 218 MAS-15 (St. Pierre Direct) (MERC Response to DOC IR 105.)

The CCRC is calculated by dividing the Commission-approved test-year CIP expenses by the Commission-approved test-year sales volumes. MERC calculated a factor of $0.02432 per therm ($8,920,481/662,833,577 therms). MERC Ex. 21 at SSD-24 (DeMerritt Direct).

In her Direct Testimony, Department witness Ms. St. Pierre recommended that the test-year CIP revenue also be increased to the level of CIP expense approved in the test year, to reflect that MERC will recover these costs in their CIP tracker and thus to be "revenue neutral," similar to the cost of gas, where the revenue from sale of gas is equal to the cost. By requiring the expense to be "revenue neutral" with the related revenue, any change in the expense is taken out of the revenue requirement to reflect that any difference between costs and recovery will be collected through a separate revenue mechanism. Because she had recommended using the 2014

Approved CIP budget ($9,396,422), Ms. St. Pierre also recommended that the Commission require MERC to increase Natural Gas Revenue by $3,758,090 for CIP revenue. DOC Ex. 217 at 15 (St. Pierre Direct). The ultimate effect of the recommendation is to allow the Company to recover CIP costs in a manner similar to the base cost of gas.[47]

In MERC's proposed rate case, the sales revenue related to the base cost of gas was treated differently than CIP revenue. MERC did not include the cost of gas in the revenue requirement because the test-year sales revenue related to gas costs was matched to the projected gas costs rather than calculated at present rates. CIP, on the other hand, was in the revenue requirement because the test-year sales revenue was calculated at present rates rather than forecasted final rates. A new base cost of gas rate is implemented at the beginning of a rate case and again is implemented at final rates. Also, a separate base cost filing for CIP is not required by the rules as it is for the cost of gas. Minn. Rule 7825.2700, subp. 2. As discussed below, the differences in the treatment of these two costs and revenues, both of which have riders, causes some confusion. The Department's recommendations were intended to address that issue. DOC Ex. 219 at 13 (St. Pierre Surrebuttal).

Ms. St. Pierre recommended use of the same method for CIP costs as have been used for gas costs, because both cost categories have trackers that run through rate cases and subsequent

[47] MERC disagreed with the Department's CIP revenue adjustment, stating that "By imputing CIP revenues of $3,758,090 to offset the increase in CIP expense, Ms. St. Pierre is effectively reducing MERC's revenue requirement based on revenue that will never be collected." MERC Ex. 24 at 5 (DeMerritt Rebuttal). In her Surrebuttal, Ms. St. Pierre explained that she imputed CIP revenues to offset the increase in CIP expense. This adjustment is needed and reasonable, because, to be revenue neutral, the test-year CIP revenue must be equal to the test year CIP expense. Because MERC's CIP revenue was less than its CIP costs, MERC's proposed test-year deficiency of approximately $14 million included $3,538,432 or approximately 25 percent for CIP costs. Ms. St. Pierre explained that, "[b]y requiring the expense to be "revenue neutral" with the related revenue, any change in the expense is taken out of the revenue requirement." DOC Ex. 217 at 15 (St. Pierre Direct). Again, her recommendation is to account for the change in the Conservation Cost Recovery Charge (CCRC), similar to how the cost of gas is accounted for in base rates since both the cost of gas and CIP costs are in trackers. DOC Ex. 219 at 12–13 (St. Pierre Surrebuttal).

to rate cases. Specifically, she recommended that a new CCRC be implemented at the beginning of a rate case as well as at final rates. She recommended this approach for consistency since the more consistently that the trackers are treated, the less confusion and time that needs to be spent on auditing the tracker. DOC Ex. 219 at 13–14 (St. Pierre Surrebuttal).

MERC has increased CIP recovery since the beginning of interim rates when the Company increased its CCRC factor from the present rate of $0.01513 to the forecasted final rate of $0.02432. Thus, higher recovery is already taking place. Further, at the end of the rate case, when final rates are implemented, the CCRC factor would change to reflect the Commission's Order on CIP expenses and CIP-related sales. MERC doesn't need to impute more revenue requirements in base rates since the interim and final rates are designed to reflect changes in CIP costs and revenues. Finally, MERC is allowed to have a tracker that keeps track of revenues and costs, which forms the basis of rates to true-up any difference between these amounts. DOC Ex. 219 at 14 (St. Pierre Surrebuttal).

Mr. DeMerritt incorrectly stated that the Department's "ultimate goal is to remove the CCRC from base rates completely, thereby allowing all CIP expenses to flow through the Conservation Cost Recovery Adjustment (CCRA)." MERC Ex. 24 at 6 (DeMerritt Rebuttal). This is an incorrect characterization; the recommendation is to set the CIP revenue equal to the CIP expense in the rate case so that final rates would include CIP revenue and CIP costs of $9,396,422. It is more accurate to state that Ms. St. Pierre is proposing to treat CIP costs similarly to gas costs. She stated that "MERC does not include the cost of gas in the revenue requirement because the test-year sales revenue related to gas costs is matched to the projected gas costs rather than calculated at present rates." DOC Ex. 219 at 13 (St. Pierre Surrebuttal). Similarly, she recommends "that MERC remove all CIP expenses from the revenue deficiency."

DOC Ex. 219 at 14 (St. Pierre Surrebuttal) (*citing* MERC Ex. 24 at 6:7–8 (DeMerritt Rebuttal)). That is, in the same way that gas expenses are "removed" from the determination of the revenue deficiency, Ms. St. Pierre recommended recovering CIP expenses other than via the revenue deficiency in the rate case.[48] *Id.* at 15. The proposal was simply to adjust CIP revenues to match CIP expenses in the test year. This approach is reasonable and similar to the treatment of the base cost of gas.[49] Further, the CCRA can be adjusted between rate cases if needed to ensure that MERC is allowed to recover any under-recoveries and refund any over-recoveries. *Id.*

The recommended adjustment to CIP revenue totaled $3,758,090 ($3,538,432 - $256,283 + $475,941), as was shown on DOC Ex. 218 MAS-16 (St. Pierre Direct). The adjustment to CIP revenue included a CIP revenue adjustment related to the Department's recommended sales forecast of $256,283, as well as an increase in CIP expense of $475,941. DOC Ex. 219 at 15 (St. Pierre Surrebuttal).

The CCRC factor for the purpose of final rates would be $0.02462 ($9,396,422/381,721,852), if the Commission approves MERC's Rebuttal position, for a test-year 2014 CIP program budget of $9,396,422 and CCRC applicable sales volumes of 381,721,852 therms. MERC Ex.24 at SSD-1 (DeMerritt Rebuttal).

[48] To be clear, the difference between total CIP revenue and total CIP expenses is what is included in the revenue deficiency that forms the basis of the rate increase. MERC's filing included a revenue deficiency of $3,538,432 related to CIP expenses (CIP revenue of $5,382,049 minus CIP expenses of $8,920,481). Since CIP costs increased, it is clear that the CCRC set at the end of the rate case will also increase. DOC Ex. 219 at 15 (St. Pierre Surrebuttal).

[49] There are methods for treating CIP costs other than MERC's proposal to include CIP in the deficiency or your proposal for revenue neutrality. In addition to these two methods, a third method would be to remove CIP completely from base rates, so total CIP revenue and total CIP expenses would both be set at zero for present rates, interim rates, and final rates. In other words, the tracker would work completely outside of the rate case. Subsequently, only the CCRA would be used to recover CIP costs. Although MERC stated that it would not be opposed to this approach (MERC Ex. 24 at 6 (DeMerritt Rebuttal), the Department did not recommend this method at this time because, Ms. St. Pierre explained, it is easier to understand and accept if the CCRC is determined similar to the way that the base cost of gas is determined.

MERC increased its CCRC factor when interim rates were implemented on January 1, 2014. Mr. DeMerritt explained that MERC began in its interim rates to collect revenue from customers (and to credit the CIP tracker balance) at MERC's filed CCRC of $0.02432. MERC Ex. 24 at 7 (DeMerritt Rebuttal).

The Department recommended that, in MERC's future general rate-case filings, the Commission should require MERC to change the CCRC rate in the tracker at the beginning of interim rates and again at final rates in future rate cases. DOC Ex. 217 at 17 (St. Pierre Direct). This approach would keep the tracker in sync with the change in interim rates as well as for final rates. Again, this approach is similar to the methodology used for the base cost of gas. DOC Ex. 219 at 17 (St. Pierre Surrebuttal). MERC agreed to this recommendation.[50] MERC Ex. 24 at 13 (DeMerritt Rebuttal).

The Department also recommended that, at the time of final rates in this proceeding, the Commission require MERC to:

- Update, at the time of final rates, its CIP tracker carrying charge based on the overall rate of return approved in this general rate case; and
- Report in its final rates compliance filing, the calculation of the CCRC rate based on the Commission's Order regarding the level of CIP expenses divided by the approved level of sales.

DOC Ex. 217 at 15–16 (St. Pierre Direct). MERC agreed to these two recommendations. MERC Ex. 24 at 13 (DeMerritt Rebuttal).

Finally, Mr. DeMerritt proposed to credit (increase) the CIP tracker balance (expense Account 182705) if MERC under collected CIP expense during interim rates (in the event that

[50] Mr. DeMerritt stated: MERC has already updated the CCRC rate for interim rates and has recognized the increased CIP amortization expense associated with the higher rates that is being collected in the Company's current revenues, as can be seen in Rebuttal Exhibit [24] (SSD-2). MERC is willing to update the CCRC in final rates based on the higher CIP expense and change in sales forecast from filing, along with making a CIP tracker balance adjustment.

the Commission approves an increase in the CCRC factor above the interim rate for CCRC.) The Department believes this is a reasonable proposal. If no adjustment was made to the CIP tracker balance at the time of final rates then a subsequent true up of the tracker balance would take into account the under-recovery. The Department notes that CenterPoint Energy made a similar adjustment in its 2008 general rate case compliance filing.[51] In any case, any request by MERC to adjust the CIP tracker balance based on recovery during the interim rate period would be reviewed in the final compliance filing for the rate case, when all adjustments to the refund plan are scrutinized. DOC Ex. 219 at 18 (St. Pierre Surrebuttal).

In summary, the Department and MERC agree on the following items:

- MERC should increase CIP expense by $475,941;
- MERC should be required to update, at the time of final rates, its CIP tracker carrying charge based on the overall rate of return approved in this general rate case;
- MERC should report in its final rates compliance filing, the calculation of the CCRC rate based on the Commission's Order; and
- MERC should change the CCRC rate at the beginning of interim rates and again at final rates.

MERC and DOC disagree on the following item:

- MERC should be required to increase Natural Gas Revenue by $3,758,090 for CIP revenue.

3. UNCOLLECTED CIP REVENUE (Issue III-4)

Resolved: DOC and MERC agree that the Commission should require MERC to: (a) credit the CIP tracker for uncollected amounts from July 2006 through December 2013 before Northshore Mining's CIP exemption was effective January 1, 21 2014; (b) add a carrying charge on the credit balance of Northshore Mining's unrecovered CIP at the Company's approved overall rate of return during the period July 2006 through December 2013; and (c) report the

[51] CenterPoint Energy 2008 Rate Case, Docket No. G008/GR-08-1075, Correspondence, filed July 26, 2010, Attachment A at 6 (CIP Tracker True-up, Final Rates for Test Year).

unrecovered CIP information in its final rates compliance filing. DOC Ex. 219 at 20–21 (St. Pierre Surrebuttal).

MERC stated that it discovered that a significant customer, Northshore Mining (Northshore), had been treated as exempt from CIP charges dating back at least to the days of Aquila's gas operations (MERC's predecessor). MERC explained that Northshore is a Super Large Volume transportation customer whose gas is directly supplied by Northern Natural Gas' interstate pipeline, and, according to MERC, Northshore is a very serious bypass threat. MERC Ex. 19 at 44 (DeMerritt Direct). The Company stated that "MERC has determined that it will absorb this under recovery and not seek the one year back payment of CIP charges allowed by the billing error rules." *Id.* On December 26, 2013, Mr. DeMerritt filed Supplemental Direct Testimony on CIP including the items requested by the Commission.[52] The items related to CIP were as follows:

- A calculation of the CCRC and the Conservation Cost Recovery Adjustment (CCRA) charge since the inception of MERC's ownership;
- The applicable Northshore Volumes, CCRC and CCRA rates, and CCRC and CCRA amounts, by month, for the period July 2006 through December 31, 2013;
- Information on the adequacy of the Vertex billing audit with respect to finding CIP-related and other billing errors; and
- Information on tracking and handling of CIP expenses in the development of the test year operating expenses. DOC Ex. 219 at 18 (St. Pierre Surrebuttal).

MERC Ex. 22 at 2–5 (DeMerritt Supplemental Direct). Upon discovery of the error, Northshore was notified and applied for a CIP exemption. MERC Ex. 19 at 44 (DeMerritt Direct). Northshore's CIP petition for exemption was granted effective January 1, 2014.[53] MERC stated

[52] 13-617, MPUC Notice and Order for Hearing, Issued: November 27, 2013.
[53] *ITMO the Petition of Northshore Mining for Conservation Improvement Program Exemption* (*Northshore 2013 Order*), Docket Nos. E015/CIP-13-852 and G011/CIP-13-853, DECISION at 5 (Dec. 20, 2013).

that it had prepared its test-year CIP schedules based on the assumption that Northshore would be granted an exemption. (MERC Ex. 19 at 44 (DeMerritt Direct).

In MERC's last rate case the Company also failed to collect CIP charges from three of its non-exempt customers and the Commission required MERC to credit its CIP tracker for uncollected amounts going back to July 2006, when MERC acquired Aquila's assets. The Commission stated that on that date, MERC had the obligation to identify and correct the billing error. *MERC 2010 Order* at 38. The Commission agreed with the Department's recommendation that MERC needed not include a carrying charge in its CIP tracker credit. *MERC 2010 Order* at 38. Department witness Mr. Bryan Minder's recommendation was based on the fact that MERC brought the issue forward. GR-10-977, DOC Ex. 104 at 21 (Minder Direct).

The Department had three recommendations in this rate case. First, Ms. St. Pierre recommended that the Commission require MERC to credit the CIP tracker for uncollected amounts (CCRC and CCRA) from July 2006 through December 2013 before Northshore's CIP exemption was effective January 1, 2014. This recommendation is intended to reflect MERC's commitment to absorb the under-recovery. DOC Ex. 219 at 20 (St. Pierre Surrebuttal).

Second, Ms. St Pierre recommended that the Commission impose a one-time carrying charge to the unrecovered CIP credit balance, at a rate equal to MERC's overall rate of return. Although MERC again brought the issue forward, the Company has been aware of this issue since its last rate case. Further, MERC had ample opportunity to verify whether it appropriately charged all non-exempt CIP customers by means of internal audit and/or the Vertex audit of the billing system. MERC acknowledged that no CIP issues were sought out in its audit process. MERC Ex. 22 at 4 (DeMerritt Supplemental Direct). For the carrying charge rate, Ms. St. Pierre

recommended use of MERC's approved overall rate of return in effect during the period of under collection (July, 2006 through December, 2013). The use of the overall rate of return is consistent with the interest rate that MERC is allowed to use in the CIP tracker. DOC Ex. 219 at 20–21 (St. Pierre Surrebuttal).

Third, Ms. St. Pierre recommended that the Commission require MERC to report this information in its final rates compliance filing in the present docket. *Id.* at 21.

MERC agreed with each of these recommendations regarding the uncollected CIP revenue from Northshore Mining. MERC Ex. 24 at 8, 13–14 (DeMerritt Rebuttal).

I. PROPERTY TAX EXPENSE (Issue II-7)

MERC forecasted Property Tax Expense[54] in the 2014 test year of $7,314,129. Mr. Wilde stated that "The $7,314,129 value represents an inflationary increase in MERC's Minnesota property tax expense consistent with what MERC has been experiencing over the past several years." MERC Ex. 36 at 11 (Wilde Direct). The forecasted expense includes $375,000 of Kansas Ad Valorem property tax on storage gas. *Id.*

1. The Kansas tax and Minnesota Tax Appeals (Issue II-7)

Resolved: DOC and MERC agree: The Commission decision should require that MERC make a compliance filing upon resolution of the pending Kansas Ad Valorem litigation and refund the total amount of Kansas property taxes collected from customers for the years under appeal, less the total ultimately paid to Kansas for all years under appeal together with interest; DOC Ex. 219 at 45 (St. Pierre Surrebuttal); DOC Ex. 217 at 23 (St. Pierre Direct); DOC Ex. 219 at 23–24, 45 (St. Pierre Surrebuttal) (*citing* MERC Ex. 37 at 5 (Wilde Rebuttal)); DOC Ex. 219 at 24 (St. Pierre Surrebuttal) (*citing* MERC Ex. 37 at 5 (Wilde Rebuttal)).

Resolved: DOC and MERC agree: The Commission decision should require that MERC notify the Commission of any court rulings issued regarding the Company's Kansas and Minnesota property tax appeals prior to the Commission's Final Order in this proceeding. DOC Ex. 217 at 24 (St. Pierre Direct).

[54] The tax is described as "Taxes other than Income" on MERC's Income Statement.

MERC included $375,000 of Kansas Ad Valorem tax in base rates not only in this rate case, but also in the Company's last rate case (the 2011 test year) and has been collecting $375,000 annually of Kansas Ad valorem tax since 2009[55] but has not been paying the tax to the Kansas Revenue Department. DOC Ex. 217 at 22 (St. Pierre Direct). MERC has also formally appealed its property tax assessments in Minnesota for the years 2008-2013. *Id.* at 23–24 (*citing* MERC Ex. 36 at 10 (Wilde Direct)).

First, as to the Kansas taxation, MERC indicated that MERC's storage gas property has been on the tax rolls in Kansas since 2009, but that MERC protested the taxation. The Kansas Supreme Court recently ruled that MERC was obligated to pay Ad Valorem tax on storage gas volumes allocable to Kansas, beginning in 2009. At commencement of that tax appeal, the payment of the tax was suspended by the court, pending the resolution of the appeal; that resolution has now occurred. DOC Ex. 218 MAS-17 (St. Pierre Direct) (MERC Resp. to DOC IR 150 (c) and Attach. 150 Part C.pdf). The Kansas Supreme Court has also recently denied a motion to stay collection. DOC Ex. 217 at 22, DOC Ex. 218 MAS-17 (St. Pierre Direct) (MERC Resp. to DOC IR 150 (d)). MERC indicated in discovery that it expected to be billed for its 2009-2013 taxes in the near future, at which time it will be necessary to pay the taxes or have additional interest and penalties apply to any outstanding obligations. Recently a Petition for Certification was filed with the United States Supreme Court. DOC Ex. 218 MAS-17 (MERC Resp. to DOC IR 150 (d)); Tr. at 97 (Wilde). A ruling on the petition is expected by late summer or early fall of 2014. Tr. at 97 (Wilde). Because motion to stay collection was denied, the Department agreed that it appeared likely that MERC may have to pay the taxes until further litigation resolves the issue. DOC. Ex. 217 at 23 (St. Pierre Direct).

[55] The years under appeal are 2009 through 2013. DOC Ex. 218 MAS-17 (St. Pierre Direct Attach.) (MERC's Resp. to DOC IR 150); DOC. Ex. 219 at 23 (St. Pierre Surrebuttal).

Based on this information, the Department recommended, and MERC agreed, that ratepayers should be made whole for all Kansas Ad Valorem taxes they have paid that MERC does not pay to the Kansas Revenue taxing authorities, and further, that the Company will make a compliance filing upon resolution of the pending Kansas Ad Valorem litigation and refund the amount of Kansas property taxes collected from customers for the years under appeal, less the amount ultimately paid to Kansas for all years under appeal. DOC Ex. 217 at 23 (St. Pierre Direct); DOC Ex. 219 at 23–24, 45 (St. Pierre Surrebuttal) (*citing* MERC Ex. 37 at 5 (Wilde Rebuttal)). MERC also agreed with a Department recommendation to compute and pay interest at the authorized rate of return on the amount refunded to customers. DOC Ex. 219 at 24 (St. Pierre Surrebuttal) (*citing* MERC Ex. 37 at 5 (Wilde Rebuttal)).

Next, with respect to the Minnesota tax appeal, MERC indicated that the Company has formally appealed its property tax assessments for the years 2008-2013. MERC is now pursuing an appeal in Minnesota tax court and is unable to predict an outcome of the appeal.[56] Pending a resolution, MERC will be obligated to pay its property tax obligations based on the increased property value assessments. MERC Ex. 36 at 10 (Wilde Direct).

Finally, MERC agreed to a Department recommendation that MERC provide updates to its property tax litigation in Kansas and Minnesota. DOC Ex. 217 at 24 (St. Pierre Direct). MERC witness Mr. Wilde agreed that, "MERC will … notify the Commission of any court rulings [on the Company's Kansas and Minnesota property tax appeals] issued prior to the Commission's Final Order in this proceeding." DOC Ex. 219 at 24 (St. Pierre Surrebuttal) (*citing* MERC Ex. 37 at 3 (Wilde Rebuttal)).

[56] At the hearing, Mr. Wilde indicated that the Minnesota Department of Revenue seeks an increase in MERC's property tax assessments for 2008 to 2012. Tr. 97:14-17.

2. Other Adjustments to the Amount of Test Year Taxes (Issue II-7)

Resolved: DOC and MERC agree that the Commission should require MERC to reduce Taxes Other Than Income by $118,260 related to property tax expense. The calculation of this adjustment is shown in DOC Ex. 219 MAS-S-11 (St. Pierre Surrebuttal). DOC Ex. 219 at 21 (St. Pierre Surrebuttal) *citing* MERC Ex. 37 at 4 (Wilde Rebuttal).

MERC initially forecast, for purpose of this rate case, an increase of property tax of 5.08 percent due to inflation for 2013 and 2014. DOC Ex. 217 at 24 (St. Pierre Direct). Department witness Ms. St. Pierre's review indicated that it appeared that Minnesota property tax expense on utility property will be decreasing in 2014. *Id.* at 25. In response to DOC discovery, MERC provided a revised estimate that decreased the inflation rate by 0.74 percent, from 5.08 to 4.35 percent for 2014, and MERC accordingly revised its estimate of Minnesota locally assessed and centrally assessed property tax. *Id.* at 24, DOC Ex. 218 MAS-18 (St. Pierre Direct Attach.) (MERC Response to DOC IR 152(c) and Attachment 152 Part A.xlsx). These revisions reduced the test-year property tax expense by $48,260. The Department initially recommended that the Commission require MERC to reduce the test-year property tax expense by $48,260.[57] DOC Ex. 217 at 25 (St. Pierre Direct); DOC Ex. 218 MAS-19 (St. Pierre Direct Attach.). MERC agreed with this recommendation. MERC Ex. 37 at 4 (Wilde Rebuttal). In Rebuttal Testimony, MERC proposed a decrease of $70,000 in its test-year 2014 accrual for the Company's Kansas property taxes on its storage gas, from $375,000 to $305,000. This reduction reflected the revised tax assessment estimates for 2009 through 2013 that MERC had recently received from the Kansas Attorney General. DOC Ex. 219 at 21 (St. Pierre Surrebuttal) *citing* MERC Ex. 37 at 4 (Wilde Rebuttal)). The Department agreed that the Commission should require MERC to

[57] Ms. St. Pierre noted in her Surrebuttal Testimony, at note 6, "In my Direct Testimony and Attachments, the DOC's property tax adjustment figure was inadvertently misstated as $48,864 when it should have been $48,260. DOC Ex. 218 at 25, 52, col. (c) MAS-6 (St. Pierre Direct Attach.). Further, in DOC Ex. 218 at MAS-19 (St. Pierre Direct Attach.), Ms. St. Pierre stated that "the DOC's property tax adjustment was inadvertently misstated as $48,233 when it should have been $48,260. These errors were corrected in my Surrebuttal Testimony and Attachments."

decrease the test year property tax expense, to reflect MERC's proposed decrease in Kansas property tax on stored gas, by an additional $70,000, for a total adjustment of $118,260 ($48,260 + $70,000). *Id.*

J. EMPLOYEE BENEFIT COSTS (Issue II-16)

Resolved: DOC and MERC agreed upon employee benefit plan valuation dates. DOC and MERC agree with the Department's recommendation to update the pension and post-retirement life plan asset values to reflect the balance on December 31, 2013. DOC Ex. 217 at 34 (St. Pierre Direct). MERC Ex. 26 at 5, 7 (Hans Rebuttal). DOC Ex. 219 at 25–26 (St. Pierre Surrebuttal).

Resolved: DOC and MERC agree upon MERC's proposal to update the post-retirement medical plan asset values and discount rates as of March 1, 2014. DOC Ex. 219 at 26, 31–33 (St. Pierre Surrebuttal), which reduces by $140,720 MERC's proposed post-retirement medical expense. DOC Ex. 219 at 33, MAS-S-12 (St. Pierre Surrebuttal).

Disputed: DOC and MERC disagree regarding MERC's proposal to use a discount rate that is lower than the expected return on assets to determine test-year costs. DOC Ex. 217 at 34 (St. Pierre Direct); DOC Ex. 219 at 25, 32, 34 (St. Pierre Surrebuttal).

The Company implemented changes in recent years to control pension costs. In 2007, before the Company's last rate case, MERC shifted non-union employees' benefits from defined benefit to a defined contribution, which reduced future costs; in 2008, MERC closed the pension plan to administrative, non-union, new hires. DOC Ex. 217 at 26–27 (St. Pierre Direct) (*citing* MERC Ex. 26 at 11-12 (Hans Direct)); MERC Ex. 13 at 14 (Cleary Direct).

Since its last general rate case, the Company made additional changes to control pension costs. Effective March 22, 2011 MERC closed the defined benefit pension plan to non-administrative (union) new hires employees of Local 31 of the International Brotherhood of Electrical Workers union. Instead, these union employees began to receive an annual contribution to the defined contribution plan. MERC then made contributions to fund the pension plan. MERC funded $7.7 million in 2012 and $2.6 million in 2013. MERC expects to contribute an additional $3.5 million to the pension plan in 2014. As a result of these

contributions to MERC's pension plan, there are higher plan assets. The higher plan assets result in higher expected earnings, thus decreasing pension expense. DOC Ex. 217 at 26 (St. Pierre Direct) (*citing* MERC Ex. 26 at 12 (Hans Direct)).

The Department does not take a position on MERC's change from a defined benefit to a defined contribution plan for union or non-union employees, other than to note that the Department has not advocated for reductions, increases, or other changes in pensions to be paid to utility employees. The Department has, however challenged the assumptions that utilities propose in rate cases to estimate the amounts to charge to ratepayers in current rates to fund pensions in future years.

In this rate case, MERC's actuary, Towers Watson, determined through actuarial analysis the 2014 employee benefit costs related to:

1. Employee Pension Expense (pension),
2. Post-Retirement Medical Plan Expense (post-retirement medical) and
3. Post-Retirement Life Plan Expense (post-retirement life).

DOC Ex. 217 at 28 (St. Pierre Direct) (*citing* MERC Ex. 26 at 8 (Hans Direct)).

The Company is ultimately responsible for selecting the discount rate and long-term growth rate assumptions used in the actuarial calculations. The types of actuarial assumptions used in MERC's actuarial calculations included assumptions about the measurement date, plan asset value date, discount rate, and expected earnings (long-term growth rate) on plan assets. DOC Ex. 217 at 28–29 (St. Pierre Direct) (*citing* MERC Ex. 26 at 11, 14, 15 (Hans Direct)).

Discount rates are used to account for the time value of money. In employee benefit calculations, discount rates are used to discount future expected employee benefits, such as pension obligations, back into current dollars. The discount rate and the expected return on plan assets are inversely related to costs. That is, if either discount rate or the expected return on plan

assets decreases then the employee benefit cost increases and vice versa. DOC Ex. 217 at 29 (St. Pierre Direct).

The Department investigated the actuarial assumptions MERC used to calculate its test-year employee benefit costs. Actuarial calculations are done at a specific point in time and can vary significantly year to year. The Department Witness, Ms. St. Pierre investigated whether MERC:

1. used a current measurement date and plan asset value date to determine the investment or plan asset level,
2. discounted future costs to today's rates, and
3. used a reasonable long-term growth rate.

Id. at 30. Based on her review of MERC's benefit cost proposal, Ms. St. Pierre determined that two of these three assumptions were not reasonable for rate making purposes.

First, MERC's assumptions about the measurement date and its method for selecting a discount rate were unreasonably biased, and inappropriately inflated MERC's proposed recovery of pension, post-retirement medical, and post retirement life (actuarially determined costs). *Id.* Ms. St. Pierre determined that MERC's proposed measurement date and plan asset valuation date of December 31, 2012 for the test year were outdated and would unreasonably bias the results of the measurement and asset valuation. They are unreasonable because the financial markets had recovered significantly since the end of 2012, and use of older dates would fail to capture the change. For this reason, Ms. St. Pierre recommended that the plan asset values be corrected to reflect the balance on the more current date of December 31, 2013. DOC Ex. 217 at 30 (St. Pierre Direct). MERC agreed. MERC Ex. 27 at 5 (Hans Rebuttal). For the pension and post-retirement life insurance plan, MERC agreed to use the plan asset values and discount rates as of December 31, 2013. For the post-retirement medical plan, MERC proposed to update the

plan asset values and discount rates as of March 1, 2014,[58] to which the Department agreed. DOC Ex. 219 at 25–26 (St. Pierre Surrebuttal).

Ms. St. Pierre also concluded that the discount rate MERC proposed for its Pension and Post-Retirement Life Insurance Expense Discount Adjustment was unreasonable for ratemaking purposes because MERC selected a discount rate that was less than the expected rate of return on plan assets. DOC Ex. 217 at 30 (St. Pierre Direct).

Use of a discount rate that is less than the expected rate of return on plan assets was rejected in Northern States Power, d/b/a Xcel Energy's most recent rate case; there, the Commission agreed with the Department position and ALJ's Recommendation that it is unreasonable for ratemaking purposes to select a discount rate that is less than the expected rate of return on plan assets when setting test-year pension expenses.[59] In the Xcel Energy rate case, the Department, ALJ and the Commission agreed, over Xcel's objections, that the discount and expected return on plan assets used to determine test-year pension expense should be equal. The ALJ explained the value of this approach:[60]

> This approach ensures that the discount rate, which is used to measure the time value of money, is consistent with the level of expected return on assets . . . if the two do not match, then the pension obligation will be overstated and unnecessarily increase the liability to be addressed.

[58] On March 25, 2014, MERC received an updated actuarial analysis from Towers for the post-retirement medical plans. MERC Ex. 27 at 5 (Hans Rebuttal). The reason for the update was that Integrys was "simplifying the current structure by offering a single Medicare Advantage plan to all eligible retiree groups starting in 2015." The plan change triggered an interim measurement of the affected plans as of March 1, 2014, the date the plan change was communicated to affected participants. MERC Ex. 27 at 6 (Hans Rebuttal).

[59] *In the Matter of the Application of Northern States Power company for authority to Increase Rates for Electric Service in the State of Minnesota*, Docket No. E002/GR-12-961 (Docket No. E002/GR-12-961).

[60] Docket No. E002/GR-12-961, Finding of Fact, Conclusions, and Order, Dated: September 3, 2013, p. 33. MERC Witness Ms. Han notes that the ALJ also stated that "this approach is consistent with the approach used by the Company for the NSPM plan." MERC Ex. 27 at 10 (Hans Rebuttal). This factual observation does not undercut the ALJ's reasoning.

The Commission agreed with the ALJ's finding that "the challenged discount rate and earnings projections were neither adequately supported nor adequately correlated."[61]

Precisely the same circumstance is at issue in this MERC rate case, where MERC has selected, for purposes of setting test-year pension expenses, a discount rate that is lower than the rate of return on plan assets.[62] At the Department's request, MERC recalculated the 2014 test year amounts, using updated plan asset values as of December 31, 2013 and changing the discount rate to equal MERC's expected rate of return of 8 percent. DOC Ex. 217 at 31 (St. Pierre Direct); DOC Ex. 218 MAS-21 (St. Pierre Direct Attach.) (MERC Resp. to DOC IRs 154, 155, 156, and 157). Based on the recalculation, Ms. St. Pierre recommended that MERC's test-year actuarially-determined costs be based on equal discount and long-term growth rates of eight percent. Eight percent is set forth as the Company's expected return on plan assets in its January 2014 update. MERC Ex. 26 at 11, 14, 15 (Hans Direct).

MERC's disagreement with Ms. St. Pierre's recommendation to set the discount rate equal to the expected eight percent rate of return on plan assets is not well founded. MERC Witness Ms. Hans relies on the assumptions used in actuarially-determined pension and other post-retirement employee benefit (OPEB) costs (post-retirement medical plan expense and post-retirement life plan expense) under the provisions of Generally Accepted Accounting Principles (GAAP), and, specifically the provisions of Accounting Standards Codification Topic 715 (ASC 715, formerly FAS 87). Ms. Hans argued that the discount rate and the Company's expected

[61] Findings of Fact, Conclusions and Order, p. 7

[62] MERC made changes to its post-retirement medical plans which triggered a March 1, 2014 actuarial update with lower projected post-retirement medical expense than the December 31, 2013 actuarial update. DOC Ex. 219 at 31 (St. Pierre Surrebuttal).

return on plan assets are independently determined in accordance with GAAP. DOC Ex. 219 at n. 7 (St. Pierre Surrebuttal).

It is not reasonable for ratemaking purposes to establish a level of pension expense in the test year based on ASC 715. The Commission's ratemaking function of establishing a reasonable level of pension expense in rates materially differs from the utilities' financial reporting and accounting functions prescribed under ASC 715. First, companies annually change the level (update) of pension expense based on the requirements in ASC 715, as well as for its post-retirement medical plan change.[63] Thus, if the level of pension expense in rates is determined based on ASC 715, it is highly unlikely that the pension expense going forward will be the same over time because of the frequent updates. In contrast, for ratemaking purposes, the level of pension expense in rates should reflect the likely and reasonable expense going forward over time, until the utility's next rate case. DOC Ex. 219 at 26–27 (St. Pierre Surrebuttal).

Second, MERC provided no support for its proposition that the ratemaking function should anticipate that regulated utilities may experience severe financial distress, under which that utility company could be required to "settle" its pension benefits, as contemplated under ASC 715. *Id.* at 28. Under the prescriptions of ASC 715,

> The discount rate is developed by selecting an actual bond portfolio *to settle* each plan's expected future benefit payments**.**

MERC Ex. 27 at 9:5-6 (Hans Rebuttal) (emphasis added). Furthermore, under the prescriptions of ASC 715:

> …the discount rate is intended to represent the rate at which benefit obligations, payable by the plan in the future, *could be settled.* The rates of return on high-quality fixed-income investments currently available and expected to be available during

[63] As discussed below, MERC made changes to its post-retirement medical plans which triggered a March 1, 2014 actuarial update with lower projected pension expense than the December 31, 2013 actuarial update.

> the period to maturity of the benefits are used in determining the discount rate.

MERC Ex. 27 at 8 (Hans Rebuttal) (emphasis added).

Regulated utilities like MERC are highly unlikely to ever have to "settle" their pension benefits in the manner contemplated under ASC 715 and would be expected to inform the Commission about any such occurrence of severe financial distress that could compel a non-regulated company into settlement of pensions. Further, regulated utilities like MERC have the right under Minnesota Statutes to request an increase in retail rates and receive interim-rate revenues, should they encounter such distress. Minn. Stat. §216B.16. Moreover, even if MERC were to go experience such financial distress, it is highly unlikely that MERC would be required to immediately settle its future pension benefits. In any event, MERC has not shown that it is likely to incur financial distress and be required to "settle" (cash out) its pension benefits as contemplated under ASC 715. DOC Ex. 219 at 28 (St. Pierre Surrebuttal). ASC simply provides no reasonable basis for the Commission to use in deciding the reasonable discount rate for setting a regulated utility's pension expense in a retail ratemaking proceeding. Further, given the purpose of ASC 715 of protecting pension assets when a company is under financial duress and the ratemaking provisions under Minnesota statues, it is unreasonable for the rates set in this rate case to be determined based on requirements for annual financial statement purposes. Tr. at 217 (St. Pierre). Use of a discount rate developed under ASC 715 for the purpose of ratemaking would introduce a bias toward inflated expenses, because discount rates developed under ASC 715 are generally lower than the expected return on assets. The assumption under ASC 715 is that a company would pay more to settle each plan's expected future benefit payments, so the discount rate is lower than the long-term expected return on the investment assets. DOC Ex. 219 at 28 (St. Pierre Surrebuttal).

Third, any concern that the Department's recommendation is not consistent with the pension plan's target allocation is misplaced. Ms. Hans noted that "[c]urrently, the pension plan assets have a target allocation of 70% equity and 30% fixed income." DOC Ex. 219 at 28 (St. Pierre Surrebuttal) (*citing* MERC Ex. 27 at 11 (Hans Rebuttal)). If no financial duress is presumed, however, there is also no need to figure out an allocation of investment income to calculate a discount rate. The recommendation was not to change the underlying economics used to determine these two independent discount and return on plan assets rates in order to produce the same results, as suggested by Ms. Hans. The recommendation is simply to match the discount rate to the eight percent expected return on assets to avoid unreasonable biased (and inflated) test-year expenses for ratemaking purposes. DOC Ex. 219 at 28 (St. Pierre Surrebuttal).

Finally, the Commission is not required to follow GAAP's ASC 715 for ratemaking purposes, and it would be wrong in this circumstance to do so. There may be some similarities, but there are also important differences between a decision by the Commission for ratemaking purposes and financial standards used for other purposes. The Commission's ratemaking function, of establishing a reasonable level of pension expense in rates differs from the utility's accounting or bookkeeping functions as prescribed under ASC 715. The level of such expense in rates must reflect the likely and reasonable expense going forward until the Company's next rate case. In contrast, financial reporting for companies changes every year (and sometimes more often) to reflect changing circumstances. DOC Ex. 219 at 29 (St. Pierre Surrebuttal).

To summarize, as to the post-retirement medical, the Department accepted MERC's updated costs of $278,962.[64] It is not reasonable, however, to use a discount rate lower than the

[64] The update provides the only available evidence that reflects the decrease in test-year costs due to the change in post-retirement medical plans. Ms. St. Pierre noted that actuarial updates are costly and the test-year post retirement
(Footnote Continued on Next Page)

expected return on assets, which is included in the Company's revised post-retirement medical expense. The Department recommended that the Commission require MERC to decrease Administrative and General (A&G) costs by $139,077 for MERC's updated reduction in post-retirement medical expense and for MERC's share plus $1,643 for IBS's share, for a total decrease of $140,720 in post-retirement medical expense.[65] DOC Ex. 219 at 32 (St. Pierre Surrebuttal). As to the pension and post retirement life insurance expense, the Department recommended that MERC's test-year actuarially determined costs also be based on equal discount and long-term growth rates, and the rates used for the discount rate and long-term growth be set at 8 percent. DOC Ex. 217 at 34 (St. Pierre Direct). DOC Ex. 219 at 33 (St. Pierre Surrebuttal). The Department recommended that the Commission should require MERC to:

- Decrease A&G costs by $1,350,012 from $584,731 to $(765,281) for pension expense;
- Decrease A&G by $140,720 for post-retirement medical; and
- Increase A&G by $3,853 from a credit of $7,819 to a credit of $3,966 for post-retirement life.

DOC Ex. 219 at 29 (St. Pierre Surrebuttal).

K. EXECUTIVE INCENTIVE COMPENSATION (Issue II-18)

Resolved: DOC and MERC agreed on the amount of executive incentive compensation to be included in the test year, which reduced executive incentive compensation costs by $27,857. MERC. DOC Ex. 217 at 37 (St. Pierre Direct); MERC Ex. 24 at 8 (DeMerritt Rebuttal).

Resolved: DOC and MERC agreed that the Commission should retain the current refund mechanism, under which the Company will return the funds to ratepayers in the event incentive compensation payouts are lower than the at the approved test-year level. DOC Ex. 217 at 37 (St. Pierre Direct); MERC Ex. 24 at 14 (DeMerritt Rebuttal).

(Footnote Continued from Previous Page)

costs are not high. For that reason she did not recommend that MERC be required to update the post-retirement costs for the Department's discount position in this case. DOC Ex. 219 at 32 (St. Pierre Surrebuttal).

[65] The calculation of this adjustment is shown in DOC Ex. 219 MAS-S-12 (St. Pierre Surrebuttal).

First, as to the amount of the refund, the Commission in recent dockets has ordered a fifteen percent cap per employee on incentive pay.[66] DOC Ex. 217 at 36 (St. Pierre Direct).

The Company initially proposed to charge ratepayers for incentive compensation at 30 percent of the Company's executive incentive compensation payments. MERC Ex. 19 at 24, SSD-16 (DeMerritt Direct). MERC provided a listing of 23 IBS and MERC employees that had incentive pay in the test year that exceeded base pay by more than 15 percent of their base pay totaling $185,709. The Company limited the amount of incentive compensation for these employees in the test year to thirty percent or $55,713. DOC Ex. 217 at 36 (St. Pierre Direct).

Consistent with more recent decisions, the Department Witness, Ms. St Pierre, recommended that the Commission reduce the executive incentive compensation costs from 30 percent to 15 per cent of the Company's executive incentive compensation, which reduced Administrate and General Expense by $27,857, one-half of $55,713 proposed by MERC. DOC Ex. 217 at 37 (St. Pierre Direct.) MERC agreed with recommendation. MERC Ex. 24 at 8 (DeMerritt Rebuttal).

Second, as to the refund mechanism, Ms. Pierre, recommended that MERC retain its existing incentive compensation refund mechanism, which provides customer refunds in the event that the incentive compensation payouts are lower than the test-year level approved in rates. Ms. St. Pierre recommended that the Commission's *Findings of Fact, Conclusions and Order* in the instant matter specifically state the amount of incentive compensation approved in the test year. DOC Ex. 217 at 37 (St. Pierre Direct). MERC agreed with the recommendation to require MERC to retain its existing incentive compensation refund mechanism at the approved test-year level. MERC Ex. 24 at 14 (DeMerritt Rebuttal).

[66] *See, e.g.*, Docket Nos. E002/GR-12-961 (Xcel Electric's 2012 general rate case) and E002/GR-10-971 (Xcel Electric's 2010 general rate case.)

L. UNCOLLECTIBLE DEBT EXPENSE (Issue II-20)

Disputed: The DOC and MERC disagree regarding the methodology for determining the test year uncollectible debt expense. DOC recommended use of the 2013 actual uncollectible expense ratio. MERC recommended a three-year average of historic years (2010, 2011, and 2012). Ms. St. Pierre and Mr. DeMerritt agree on the process for calculating the denominator used in the uncollectible expense ratio but not on the specific revenue deficiency amount because the revenue deficiency remains "in flux" until other items in the revenue deficiency calculation are resolved. DOC Ex. 219 at 37, 44 (St. Pierre Surrebuttal).

MERC initially proposed to recover $1,765,884 for its test-year uncollectible debt expense. Mr. DeMerritt explained that MERC calculated the 2014 test-year uncollectible expense using the same methodology approved in the Company's 2010 rate case,[67] using an average of the three past years 2010-2012; dividing those years' of uncollectible expense by tariff revenues generated a percentage of tariff revenues of 0.650401 percent. MERC then applied this percentage to MERC's 2014 test year forecasted tariff revenues plus an assumed rate increase of $14,000,000. MERC Ex. 19 at 16–17 (DeMerritt Direct); MERC Ex. 24 at 9:20-22 (DeMerritt Rebuttal).

MERC explained that the $14,000,000 proposed rate increase is not equal to the revenue deficiency amount proposed in this docket because, by changing the bad debt expense, the revenue deficiency changes, and a "circular reference" is created. Therefore, MERC proposed a number in close proximity to the revenue deficiency to get what it proposed to be a reasonable uncollectible expense forecast. MERC Ex. 19 at 16–17 (DeMerritt Direct).

The Department disagreed with the Company's proposal for four reasons. First, averaging several years' costs is not a reasonable methodology for calculating an expense in circumstances where there is a clear trend in a single direction. Averaging several years' costs can be appropriate when costs vary significantly up and down from year to year. DOC Ex. 219

[67] Docket No. G007,011/GR-10-977.

at 36 (St. Pierre Surrebuttal.) In those circumstances, averaging allows for a leveling of booms and busts, which is a fair approach. This is not the case here, however. An averaging methodology is not reasonable for MERC's uncollectable debt expense because there is a clear downward trend, with lower and lower costs every year, as shown in the table below.[68] DOC Ex. 219 at 36 (St. Pierre Surrebuttal). It is not appropriate to use averaging when there is a trend of diminution cost, especially when any doubt as to reasonableness must be resolved in favor of the consumer. Minn. Stat. § 216B.03 (2012).

The table below demonstrates that MERC's uncollectible ratio has been dropping year after year by approximately 0.10 percent each year since MERC's last general rate case test year, 2011.

	Approved	**2011 Actual[69]**	**2012 Actual**	**2013 Actual[70]**
Uncollectible Exp.	$2,031,888	$1,984,374	$1,313,501	$1,481,318
Tariffed Revenue		$255,269,107	$200,736,162	$26,9448,208
% of Tariffed Rev.		0.777366%	0.654342%	0.549760%

The table shows that the actual 2013 uncollectible expense ratio decreased from 2012 by approximately 0.105 percent (0.654342 - 0.549760). Further, the actual 2013 uncollectible expense ratio is also lower, by approximately 0.101 percent (0.650401 - 0.549760), than MERC's forecasted test year ratio. The Department concluded that MERC's proposed test-year

[68] The table is from information shown in DOC Ex. 218 MAS-25 (St. Pierre Direct Attach.).
[69] MERC provided the 2011 and 2012 information in MERC Ex. 19 at SSD-4 (DeMerritt Direct).
[70] MERC provided 2013 information in response to DOC IR 143. DOC Ex. 218 MAS-24 (St. Pierre Direct Attach.). The actual 2013 uncollectible expense ratio was 0.549760 percent. DOC Ex. 217 at 39 (St. Pierre Direct).

uncollectible expense ratio of 0.650401 percent is unreasonable and that the more current 2013 ratio of 0.549760 percent should be used. DOC Ex. 219 at 36 (St. Pierre Surrebuttal).

Second, 2010 data is old. Tr. at 229-230 (St. Pierre). The Company has not shown that it is reasonable to use historical data from a period that began in 2010 and ended in 2012, or why 2013 data should not also be used for the 2014 uncollectable debt forecast. Tr. at 229 (St. Pierre).

Third, the 2013 actual uncollectable expense was $1,481,318, whereas MERC's proposed recovery in the test year was an increased amount of $1,765,884. DOC Ex. 218 at MAS-25 (St. Pierre Direct Attach.). The data indicates that the uncollectible expense rate has been going down, rather than up as MERC forecasted for the test year. DOC Ex. 217 at 39 (St. Pierre Direct); DOC Ex. 219 at 36 (St. Pierre Surrebuttal). MERC provided no factual evidence to support a conclusion that uncollectable debts reasonably could be expected to be greater in the 2014 test year than in 2013. Also, in every year since 2011, MERC's actual uncollectible expense was less than the $2,031,888 amount approved in the last rate case. DOC Ex. 219 at 36 (St. Pierre Surrebuttal). The Department concluded that MERC's proposed test-year uncollectible expense ratio is unreasonable. The more current 2013 ratio of 0.549760 percent should be used. DOC Ex. 217 at 39 (St. Pierre Direct); DOC Ex. 219 at 36 (St. Pierre Surrebuttal).

Finally, the uncollectible expense ratio is calculated by dividing bad debt expense by "tariffed revenues." Tariffed revenues is a combination of two figures: tariffed sales revenue at present rates of $257,506,848 plus the revenue deficiency. With respect to the problem that the

calculation of uncollectible expense is "circular,"[71] MERC initially recommended using a revenue deficiency of $14,000,000 to calculate the amount of sales of $271,506,848. MERC Ex. 19 at 16–17 (DeMerritt Direct); MERC Ex. 19 at SSD-4 (DeMerritt Direct); Tr. at 223–225 (St. Pierre). Department witness Ms. St. Pierre recommended that the revenue deficiency in the Department's Direct Testimony, an amount of $2,858,021, be used as the revenue deficiency proxy for calculating test-year uncollectible expense. Further, if there are material changes to that amount once the Commission determines the revenue deficiency, she noted, the Commission could require MERC to adjust the uncollectible expense in its compliance filing for final rates accordingly. DOC Ex. 217 at 40 (St. Pierre Direct); DOC Ex. 219 at 37 (St. Pierre Surrebuttal). In Rebuttal, MERC Witness Mr. DeMerritt disagreed and proposed "to update the uncollectible expense with revenues calculated in Rebuttal Exhibit ___ (GJW-1)" and to "include $12,000,000 for an assumed rate increase based on MERC's current position for the revenue requirement," referring to his Rebuttal Ex. 24 (SSD-3) for the calculation of his uncollectible expense. DOC Ex. 219 at 37 (St. Pierre Surrebuttal) (*citing* MERC Ex. 24 at 9–10 (DeMerritt Rebuttal)).

For all of these reasons, the Department recommends that the Commission use MERC's *actual* 2013 uncollectible expense ratio of 0.549760 percent rather than MERC's *proposed* ratio of 0.650401 percent. To determine the test-year amount in the compliance filing, MERC should multiply this actual 2013 uncollectible expense ratio (of 0.549760) by the Department's test-year tariffed sales revenue at present rates of $257,506,848 and add the revenue deficiency amount as determined by the Commission. Ms. St. Pierre and Mr. DeMerritt both agree on the process for calculating the denominator used in the uncollectible expense ratio but not on the specific

[71] Department Witness Ms. St. Pierre agreed with Mr. DeMerritt that the calculation of uncollectible expense was "circular" because cash working capital and interest synchronization calculations are also based on including the revenue deficiency amount. DOC Ex. 219 at 37 (St. Pierre Surrebuttal).

revenue deficiency amount to include in the calculation of tariffed revenues.[72] DOC Ex. 219 at 37, 44 (St. Pierre Surrebuttal). The effect of that recommendation for the test-year uncollectible expense decreases Customer Accounts for uncollectible expense in the amount of $332,072, as shown on DOC Ex. 219 at 38 and MAS-S-10 (St. Pierre Surrebuttal).

M. SEWER LATERALS PILOT PROGRAM (Issue II-24)

Resolved: DOC and MERC agree that MERC's proposed level of cost for the Sewer Laterals Pilot Program is reasonable. DOC Ex. 219 at 39 (St. Pierre Surrebuttal).

The Company explained that the Sewer Laterals Pilot Program increased 2014 proposed O&M costs by $340,000, as shown on MERC Ex. 19 at SSD-5 (DeMerritt Direct). The sewer lateral legacy pilot program is being conducted to comply with requests from the Minnesota Office of Pipeline Safety (MNOPS). Due to incidents in the industry and the state, MNOPS required other gas utilities to inspect legacy installations. During investigations, some utilities found conflicts between gas lines and sewer laterals. These conflicts create a risk to the public if a sewer cleaning company attempts to clean a sewer line with a cutter. There is a potential for the gas line to be cut, resulting in a gas leak into the sewer system. MERC's pilot program is to determine the best practice, time to complete, identify risks and determine the cost to achieve a complete assessment. The goal is to validate that MERC's gas lines do not conflict with sewer lines that could present risk to our customers. MERC Ex. 19 at 17 (DeMerritt Direct).

MNOPS has not issued a written directive requiring MERC to begin this project. Shortly after the explosion of two homes in St. Paul due to cross bores by Xcel, MNOPS personnel began to elevate this topic in their verbal discussions with MERC. Each year MERC has up to two informal meetings with MNOPS. This Pilot Program, which commenced in January 2014, is

[72] Similar to the interest synchronization, the final revenue deficiency amount remains "in flux" until other items in the revenue deficiency calculation are resolved.

planned to be in MERC's Cannon Falls service area. The inspection work will be performed by contractors, with oversight provided by MERC employees. The non-labor cost of $340,000 will consist of contractor costs to perform the inspections. The Company has printed door tags and mailers to notify the residents of Cannon Falls about the inspections. The cost of printing these items will be less than $1,000. The costs are O&M rather than capital because they are for inspecting non-MERC owned sewer lines. The scope of this Pilot Program is only to perform these inspection services. DOC Ex. 218 MAS-26 (St. Pierre Direct Attach.) (MERC Resp. to DOC IR 147). The Sewer Lateral Program is a multi-year project that will extend beyond 2014 and the community of Cannon Falls. DOC Ex. 219 at 39 (St. Pierre Surrebuttal) (*citing* MERC Ex. 24 at 10:8-16 (DeMerritt Rebuttal)).

Based on the information that the sewer lateral pilot program is a multi-year project, not a one-time project, and will extend to communities other than just Cannon Falls, the Department agreed that the proposed test year Sewer Laterals Pilot Program costs were reasonable. DOC Ex. 219 at 39 (St. Pierre Surrebuttal).

N. MAPPING PROJECT (Issue II-22)

Disputed: The DOC and MERC did not agree on the amount of the adjustment to the test year expense for the Mapping Project. The Department recommended that the Commission levelize the test year cost of this one-time project for a three year period, which reduced Distribution Expense by $220,000 ($330,000 - $110,000) for the Mapping Project. DOC Ex. 217 at 46 (St. Pierre Direct). DOC Ex. 218 MAS-29 (St. Pierre Direct Attach.).

The Company explained that the "Mapping Project" was designed to address "gaps" in the accuracy of the MERC mapping systems that are used by MERC's field personnel:

> …to locate lines, manage outages, determine flow modeling, and other critical infrastructure tasks. These errors have come from a number of map conversions as companies were acquired, sold and consolidated. To improve the quality and utilization of the mapping systems, we plan to validate the accuracy by verifying as built drawings and actual field data. Today we do not have the ability to verify

> age of pipe, materials, fittings, etc. This information is needed to complete required Department of Transportation reporting….

MERC Ex. 19 at 18-19 (DeMerritt Direct).

MERC specified that the Mapping Project was designed to begin in February 2014 and conclude eleven months later, in December 2014, and that the work was to be performed by independent contractors, not MERC staff. DOC Ex. 218 MAS-28 (St. Pierre Direct Attach.) (MERC Resp. to DOC IR 149). Importantly, all of the costs identified to the project are non-labor O&M costs (MERC Ex. 19 SSD-7 (DeMerritt Direct)) consisting of payments of invoices of the contractor(s). MERC employees will provide oversight for this project, but that expense is not part of the known and measurable adjustment. DOC Ex. 218 MAS-28 (St. Pierre Direct Attach.) (MERC Resp. to DOC IR 149). MERC explained that these costs are O&M costs rather than capitalized costs because MERC is not installing new software, but rather is updating information that is not currently [in] its existing mapping software. The updated data is from MERC's "main as-built records" that will provide additional detail in the GIS Small World application. *Id.* The adjustment MERC proposed for the mapping project increased 2014 proposed O&M by $330,000. DOC Ex. 217 at 44 (St. Pierre Direct) *citing* MERC Ex. 19 at 18-19 and SSD-7 (DeMerritt Direct).

Because the Company acknowledged that the Mapping Project is a project that will only incur costs in 2014, (DOC Ex. 219 at 40 (St. Pierre Surrebuttal) *citing* MERC Ex. 24 at 10:20-11:8 (DeMerritt Rebuttal)) it is apparent that the Mapping Project is a one-time project, expected to be finished by the end of the test year. The Department Witness, Ms. St. Pierre, explained that it is important to level costs of one-time projects for rate making purposes; with levelization, the Company will annually recover the same amount until its next rate case because rates do not change between rate cases. DOC Ex. 219 at 41 (St. Pierre Surrebuttal).

For these reasons, the Department recommended that the Mapping Project costs be levelized over the same period as the Department's recommended rate case expense period of three years. This adjustment results in an annual expense of $110,000 ($330,000/3). For purposes of the test year, the Department recommends that the Commission reduce Distribution Expense by $220,000 ($330,000 - $110,000) for the Mapping Project. DOC Ex. 218 MAS-29 (St. Pierre Direct Attach.).

O. GATE STATIONS PROJECT (Issue II-23)

Resolved: DOC and MERC agreed that the Gate Stations Project is a long-term rather than a one-time project, the Gate Stations Project O& M costs need not be levelized, and MERC's proposed recovery is reasonable. DOC Ex. 217 at 48 (St. Pierre Direct); MERC Ex. 24 at 28:3-5 (DeMerritt Rebuttal).

The gate station project, MERC indicated, will add remote monitoring and test measurement to the distribution delivery points where MERC receives its natural gas supply by pipeline. By implementing certain technology, MERC anticipates having improved information for engineers and gas supply teams to design systems and purchase gas more accurately. Remote monitoring will give MERC engineering and gas control more real time remote monitoring ("visibility") of the performance of MERC's systems. The present lack of visibility of pressure, temperature or volumes on a real-time basis has also created maintenance-related issues. The Company's proposed adjustment for the gate stations added to 2014 proposed O&M by $330,000, as shown on MERC Ex. ___ (SSD-6). MERC Ex. 19 at 18 (DeMerritt Direct).

The gate station project began in January 2014. It primarily will be a capital project; the $330,000 represents the O&M portion of the project. DOC Ex. 217 at 47 (St. Pierre Direct) *citing* DOC Ex. 218 MAS-30 (St. Pierre Direct Attach.) (MERC Resp. to DOC IR 148). MERC anticipates that the project will be ongoing for a period of 5 years. *Id.* The Company stated that MERC employees will be involved in the capital side of the project and will provide oversight of

contractors installing the equipment. *Id.* The Company stated that the increase in O&M costs is primarily due to system operations costs that are not part of the capital project, including phone and electric bills, and monitoring and repair activity which, in the initial phase of this project, will be done primarily by outside contractors whose work will be overseen by MERC employees. *Id.* The Company stated that the gate station equipment and installation costs will be capitalized; however, these costs represent incremental costs of operating and maintaining the equipment that are not capitalized. *Id.*

The Department concluded that, because the Gate Stations Project is a long-term rather than a one-time project, projected to be ongoing for a period of five years, and because the gate station equipment and installation costs will be capitalized and the O&M costs represent incremental costs of operation and maintenance of equipment by outside contractors, with oversight from MERC employees, the Gate Stations Project O&M costs be need not be levelized. That is, MERC's proposed recovery is reasonable. DOC Ex. 217 at 48 (St. Pierre Direct).

P. INTEREST SYNCHRONIZATION (Issue II-10)

Resolved: DOC and MERC agreed upon the methodology for calculating interest synchronization. DOC Ex. 219 at 41 (St. Pierre Surrebuttal) *citing* MERC Ex. 24 at 11:15-22 (DeMerritt Rebuttal).

Interest synchronization is used for ratemaking to determine the amount of interest expense to be used in the calculation of income tax. Thus, when an adjustment is made to MERC's weighted cost of debt, test-year rate base or operating income statement, it is also necessary to make an interest synchronization adjustment.

MERC used interest synchronization when it calculated income tax. DOC Ex. 217 at 49 (St. Pierre Direct). MERC calculated a $98,779 tax effect of interest expense, based on the proposed cost of debt rather than the booked interest expense included in the income tax

accruals, to determine the test-year net operating income shown on MERC Ex. 4 at Vol. 3, Doc. #5, Sched. C-1 (Information Requirements). DOC Ex. 217 at 49 (St. Pierre Direct).

Ms. St. Pierre proposed an adjustment to MERC's interest synchronization, explaining that, as a result of the various Department adjustments to the test-year, MERC's interest synchronization figure needed further adjustment. The Department recommended that the test-year interest synchronization be adjusted as detailed in DOC Ex. 218 MAS-7 (St. Pierre Direct Attach.). DOC Ex. 217 at 49 (St. Pierre Direct). MERC agreed with the proposed methodology for calculating interest synchronization. DOC Ex. 219 at 41 (St. Pierre Surrebuttal) *citing* MERC Ex. 24 at 11:15-22 (DeMerritt Rebuttal).

Q. CASH WORKING CAPITAL (Issue II-11)

Resolved: DOC and MERC agreed on the methodology and future rate case reporting. In its future general rate cases, MERC will: provide a schedule that reconciles the expenses in the CWC to the expenses in its test-year income statement; and base the CWC schedule on the number of days rather than percentages. DOC Ex. 217 at 50-51 (St. Pierre Direct); DOC Ex. 219 at 42 (St. Pierre Surrebuttal).
DOC and MERC agreed to the Department's proposed methodology for future rate case reporting. DOC Ex. 217 at 51 (St. Pierre Direct); DOC Ex. 219 at 42 (St. Pierre Surrebuttal).
DOC and MERC agreed that the final CWC amount necessarily remains in flux until other items in the revenue deficiency calculation are resolved. DOC Ex. 219 at 42 (St. Pierre Surrebuttal) *citing* MERC Ex. 24 at 12:16-19 (DeMerritt Rebuttal).

MERC included CWC costs in its test-year rate base and its calculations were shown in in MERC Ex. 19 at 6 SSD-21 (DeMerritt Direct). The Department did not oppose MERC's number of lead/lag days and was able to reconcile MERC's expenses in the CWC to the expenses in MERC's test-year income statement, as shown in DOC Ex. 218 MAS-8a (St. Pierre Direct Attach.). DOC Ex. 217 at 50-51 (St. Pierre Direct).

The Department recommended improvements for future cases to which the Company agreed. First, the amounts in MERC's CWC reflect total MERC costs. The Minnesota allocator of 99.8 percent is applied before including the CWC figure in rate base. The Department

recommended that, in the Company's future rate cases, MERC provide a schedule that reconciles the expenses in the CWC to the expenses in its test-year income statement. DOC Ex. 217 at 50-51 (St. Pierre Direct); MERC agreed with this recommendation. DOC Ex. 219 at 42 (St. Pierre Surrebuttal).

Second, for property tax, federal and state income tax, the number of days rather than percentages is typically what is shown in lead/lag studies and makes comparisons with other utilities' lead/lag days readily apparent. The Department Witness Ms. Pierre recommended that MERC's CWC schedule be based on number of days rather than percentages in its future rate cases. DOC Ex. 217 at 51 (St. Pierre Direct); MERC agreed with this recommendation. DOC Ex. 219 at 42 (St. Pierre Surrebuttal).

Finally, as a result of the various Department adjustments to the test-year expenses, MERC's CWC needed to be further adjusted. Therefore, the Department Witness Ms. St. Pierre recommended that the test-year CWC requirement be adjusted as detailed in DOC Ex. 218 MAS-8 (St. Pierre Direct Attach.). DOC Ex. 217 at 51 (St. Pierre Direct). MERC and the Department agreed that an adjustment needed to be made, that the calculations underlying Ms. St. Pierre's adjustment were correct, and that the final cash working capital amount necessarily remained "in flux" until other items in the revenue deficiency calculation were resolved. DOC Ex. 219 at 42 (St. Pierre Surrebuttal) *citing* MERC Ex. 24 at 12:16-19 (DeMerritt Rebuttal).

VII. CLASS COST OF SERVICE STUDY (ISSUE III-3)

Allocation of Income Taxes
Resolved: Between DOC and MERC. DOC recommends that the Commission accept MERC's allocation of income taxes in its proposed CCOSS on the basis of taxable income attributable to each customer class that fully and only reflects the cost of providing service. DOC Ex. 206 at 12–13 (Ouanes Direct).

Allocation of Meter Reading Expenses (FERC Account 902)
Resolved: Between DOC and MERC. **Disputed:** By OAG. *See* Section G, below.

Allocation of Customer Records and Collection Expenses (FERC Account 903)
Resolved: Between DOC and MERC. **Disputed:** By OAG. *See* Section G, below.

Classification of Distribution Mains (FERC Account 376)
Resolved: Between DOC and MERC. **Disputed:** By OAG. *See* Section G, below.

A. The Objective and Steps in a Class Cost of Service Study

The purpose of a Class Cost of Service Study ("CCOSS") is to identify, as accurately as possible, the responsibility of each customer class for each cost incurred by the utility in providing service. DOC Ex. 206 at 3 (Ouanes Direct). The CCOSS can then be used as one important factor in determining how costs should be recovered from a utility's customer classes through rate design. *Id.* DOC witness Ms. Peirce testified as to other factors, in addition to cost (such as competition and rate shock), that must be considered for purposes of determining rates. DOC Ex. 203 at 2–5 (Peirce Direct).

There are three steps in performing any CCOSS: 1) functionalizing, or grouping, costs by their purpose; 2) classifying costs by how they are incurred; and 3) allocating costs to customer classes. DOC Ex. 206 at 3 (Ouanes Direct).

Costs are typically functionalized by the Uniform System of Accounts as provided by the Federal Energy Regulatory Commission ("FERC"). *Id.* These accounts group costs into their various functions, such as production (costs associated with producing, purchasing, or manufacturing gas), storage (costs associated with storing gas normally during off-peak for use in times of cold weather), transportation (costs incurred in transporting gas from interstate pipelines to the distribution system), distribution (*e.g.*, gas distribution lines and meters) and other costs (costs that do not fit the above functions, such as general and administrative costs). GAS DISTRIBUTION RATE DESIGN MANUAL 20–22 (Nat'l Ass'n of Regulatory Util. Comm'rs ed., June, 1989) (hereinafter "Gas Manual").

Under the second step, functionalized costs are generally classified as either customer,

demand, or energy costs according to how they are incurred:

- *Customer costs* are operating and capital costs found to vary with the number of customers served rather than with the amount of utility service provided. They include costs of metering, billing, tracking accounts, and responding to customer questions.
- *Demand or Capacity costs* are costs incurred to serve peak demand on the system (such as the size of the distribution system) and do not directly vary with the number of customers or their annual usage.
- *Energy or Commodity costs* consist of costs that vary with the quantity of gas consumed by customers.

DOC Ex. 206 at 4 (Ouanes Direct).

Finally, functionalized and classified costs are usually allocated to customer classes as follows:

- *Customer costs* are allocated among the customer classes based on the number of customers in each class, typically weighted to reflect, for example, differences in metering costs among customer classes;
- *Demand or Capacity costs* are allocated among the customer classes based on the demand imposed on the system by each class during specific peak hours; and
- *Energy or Commodity costs* are allocated among the customer classes based on the energy the system must supply to serve the various customer classes.

Costs that may not be readily categorized as customer, energy, or demand costs are generally allocated on a composite basis of other cost categories. *Id.* at 5. For example, administrative and general expenses may be allocated on the basis of the sum of the other operating and

maintenance expenses, excluding the cost of gas. *Id.*

Dr. Ouanes explained in detail how the CCOSS is a mathematical model, consisting equations that express the relationships between variables. DOC Ex. 206 at 5 (Ouanes Direct). The values of variables are, by construction, dependent on the values of variables determined outside the model (exogenous) and the specific relationships between and among variables included in the model. *Id.* at 6.

Each customer class's revenue requirement will depend not only on the Commission's decision on specific classification and allocation methods within the CCOSS, but also on the Commission's decision on specific exogenous variables of the CCOSS, such as the amounts and items in the rate base, expenses, the rate of return, and sales forecast. DOC Ex. 206 at 7 (Ouanes Direct). DOC witness Susan Peirce discusses how the Commission's decision on specific classification and allocation methods within the CCOSS and on specific exogenous variables within the CCOSS may be reflected in final rates. *Id.*

B. DOC Analysis of MERC's Proposed CCOSS

The Company submitted an embedded cost study, which is sponsored by Company witness Ms. Hoffman Malueg. *See generally* MERC Ex. 29 (Hoffman Malueg Direct). The Department examined MERC's foundations for its proposed cost allocations and is satisfied that the studies MERC used to produce the inputs used in its proposed CCOSS are reasonable and are based upon reasonably current data. DOC Ex. 206 at 8 (Ouanes Direct). The Company provided to the Department a list and short description of all such studies, and stated that these studies were based on current data at the time of the rate case filing (less than three years old). *Id.* at SO-4.

The Commission's June 29, 2009 Order in Docket No. G-007,011/GR-08-835 required that MERC's future CCOSSs allocate income taxes on the basis of taxable income attributable to

each customer class.[73] At first blush, the proposed CCOSS appears to allocate income taxes on the basis of rate base. DOC Ex. 206 at 11 (Ouanes Direct). The Department was, however, able to verify that allocating income taxes by class on the basis of taxable income that fully and only reflects the CCOSS results in an allocation identical to a rate base allocation under MERC's current circumstances.[74]

The Company stated that it used the same formulas to calculate revenue requirements (RR), taxable income (TI), and Federal and State income taxes (IT) for MERC's system and for each customer class in the proposed CCOSS, as follows:

1) RR = RB*r + OE + IT;

2) TI = RR – OE; and

3) IT = k*TI.

Id. at 11, SO-3. In these formulas, RR includes the other operating revenues, RB is the rate base, r is the allowable rate of return, k is the tax rate, and OE is operating expenses. DOC Ex. 206 at SO-3 (Ouanes Direct). The solution of this linear system with three equations ((1), (2) and (3)) and three unknowns (RR, TI and IT) is:

1) RR = (RB*r)/(1 – k) + OE;

2) TI = (RB*r)/ (1 –k); and

3) IT = k*RB*r/ (1 – k).

Id. at 12. Given the algebraic representation of MERC's revenue requirements, taxable income, and income taxes provided under (1), (2) and (3) above, the calculation of income taxes by class on the basis of taxable income that fully and only reflects the CCOSS results in an allocation

[73] *Id.*; *In the Matter of the Application of Minnesota Energy Resources Corporation for Authority to Increase Rates for Natural Gas Service in Minnesota*, Docket No. G-007,011/GR-08-835, FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER at 24 (Jun. 29, 2009) [hereinafter June 29, 2009 Order].
[74] *Id.*

identical to a rate base allocation. *Id.* The Department reached this conclusion because equation (6) shows that calculated income taxes are not only directly derived from the rate base, but are also a fixed proportion of the rate base. *Id.*

The Department concluded that MERC's proposed allocation of income taxes by class is reasonable under MERC's current circumstances because MERC showed that it allocated income taxes by class on the basis of taxable income that fully and only reflects the CCOSS. *Id.* Moreover, MERC's proposed classification and allocation of the functionalized accounts are generally consistent with Gas Manual and cost-causation principles and MERC demonstrated that it made the relevant updates to its input data. *Id.* The Department recommended that the Commission accept MERC's proposed CCOSS as a useful tool for the purpose of setting rates. DOC Ex. 206 at 13 (Ouanes Direct).

C. DOC Response to OAG-AUD Witness Mr. John Lindell Regarding Allocation of Income Taxes by Class as Proposed by MERC

OAG-AUD witness Mr. Lindell disagreed with MERC's recommended CCOSS because Mr. Lindell believes that it allocates income taxes based on each class's share of rate base, not on the share of taxable income attributed to each customer class as the Commission has ordered. OAG Ex. 151 at 28 (Lindell Direct). Mr. Lindell recommended that the "allocation of income taxes to customer classes be based on taxable income for each class." *Id.*

As the Department concluded that MERC's proposed CCOSS, which appears to allocate income taxes by class on the basis of rate base, is reasonable under MERC's current circumstances. DOC Ex. 206 at 11–12 (Ouanes Direct).

The algebraic formulas for the revenue requirements, taxable income, and income taxes (shown in exhibit SO-3 to Dr. Ouanes Direct Testimony) show that in order to calculate the revenue requirements (or the cost of providing service), it is necessary to know the value of

income taxes. *Id.* While income taxes are a fixed portion of taxable income, it is still necessary to know the Company's revenue requirements to be able to calculate the taxable income that fully and only reflects the CCOSS, and hence income taxes. *Id.*

As shown in DOC Ex. 206 at SO-3 (Ouanes Direct) and discussed above, MERC used the tools of basic linear algebra to address the circular reference problem. *Id.* Moreover, as shown in exhibit SO-R-1 to DOC witness Dr. Ouanes Rebuttal Testimony, the ratio of income tax (Line H) by taxable income (Line C) for each customer class is identical to the ratio of the Minnesota Jurisdiction income tax by the Minnesota Jurisdiction taxable income. *Id.* If the proposed CCOSS allocated income taxes on the basis of taxable income calculated at the current rates, it would include embedded policy judgments as to rate design from the Company's last rate case rather than solely reflecting costs imposed by each class of customers, which is the purpose of a class cost-of-service study. *Id.* at 5. As a result, such an approach would be flawed. *Id.* Similarly, if the proposed CCOSS allocated income taxes on the basis of taxable income calculated at the proposed rates, it would also include proposed policy judgments as to rate design from the Company rather than solely reflecting costs imposed by each class of customers, which is the purpose of a CCOSS. *Id.* As a result, this approach, too, would be flawed. *Id.*

In his Rebuttal Testimony, Mr. Lindell testified that the Department calculated income "taxes for customer classes based on some theoretical algebraic basis, presumably so higher rates can be justified for the captive residential and small customer classes." OAG Ex. 153 at 8 (Lindell Rebuttal). This statement, however, does not accurately represent facts in the record. DOC Ex. 209 at 2 (Ouanes Surrebuttal). As indicated in Dr. Ouanes Direct Testimony, the Department recommended that income taxes be allocated in the proposed CCOSS on the basis of the taxable income attributable to each customer class that fully and only reflects the cost of

providing service, rather than, say, policy decisions based on rate design from a prior rate case. DOC Ex. 206 at 3 (Ouanes Direct). This allocation is necessary because a CCOSS should solely reflect cost causality, which means that customer classes that impose costs on the system should be assigned their appropriate share of each cost. *Id.* To ensure that ratepayers' long-term interests are represented when regulated public utilities propose to change their rates, it is essential not to cloud the CCOSS with policy issues that would be better addressed under rate design. *Id.*

Mr. Lindell also recommended in his Rebuttal Testimony that "income taxes should be calculated and assigned to customer classes based on taxable income for each class that reflects revenues and expenses for each class." OAG Ex. 153 at 9 (Lindell Rebuttal). As discussed above, however, a CCOSS needs to be based solely on costs. DOC Ex. 209 at 3 (Ouanes Surrebuttal). The reference to revenues in this statement is likely to result in an allocation based on factors other than costs. *Id.* Different levels of revenues could be calculated: at current rates, at proposed rates, or at rates that only allow the Company to recover from each customer class the cost of providing service to that customer class (*i.e.*, at rates that are based only on the cost of providing service). *Id.* Only the last definition of "revenues" would result in costs being allocated to classes based solely on costs. *Id.* Translating costs to revenues and back to costs, however, is needlessly complex. *Id.*

It appears that Mr. Lindell proposed to use revenues calculated at current rates, given his reference to the figure of $1,544,232 to explain how MERC's total income taxes were calculated. OAG Ex. 153 at 7 (Lindell Rebuttal). This figure represents the Company's calculation of total MERC-Minnesota jurisdictional income taxes based on revenues calculated at current rates. DOC Ex. 209 at SO-S-1 (Ouanes Surrebuttal). If the proposed CCOSS allocated income taxes

on the basis of taxable income calculated at the current rates, such an allocation would include embedded policy judgments as to rate design from the Company's last rate case. DOC Ex. 208 at 5 (Ouanes Rebuttal). While the Commission may choose to continue to use such a policy judgment as it sets rates in this proceeding, the Commission needs to have reasonable information as it makes its decisions. DOC Ex. 209 at 4 (Ouanes Surrebuttal). To this end, the goal of the CCOSS is to be based solely on costs imposed by each class of customers. *Id.* By contrast, allocating income taxes to customer classes based on policy judgments from MERC's prior rate case would provide skewed information to the Commission. *Id.*

As indicated above, the Department recommended that income taxes be allocated to customer classes in the CCOSS based on taxable income by class that fully and only reflects the CCOSS. DOC Ex. 208 at 5 (Ouanes Rebuttal). Under the circumstances described in DOC Ex. 206 at 10–11 (Ouanes Direct), the calculation of income taxes by class on the basis of taxable income that fully and only reflects the CCOSS results in an allocation identical to a rate base allocation. *Id.* This result does not, however, mean that the "correct" income tax allocation should always be a rate base allocation. DOC Ex. 208 at 5 (Ouanes Rebuttal). Therefore, the Department recommended that the Commission require the Company in future rate cases to calculate and allocate income taxes by class, on the basis of taxable income by class that fully and only reflects the CCOSS. *Id.* at 5–6.

D. DOC Response to OAG-AUD Witness Mr. Ron Nelson: Allocation of Meter Reading Expenses (FERC Account No. 902)

While Mr. Nelson agreed with the Company that FERC account 902 should be classified as customer-related costs, he disagreed with MERC's allocation of costs in this account "solely based on the number of customers within each class." OAG Ex. 155 at 40 (Nelson Direct). According to Mr. Nelson, MERC's allocation of costs in FERC account 902 does not

acknowledge that there are other cost causation factors associated with this account. *Id.* at 41. He noted in particular that "large volume customers have different and more complex meters that take more time to read than do meters servicing residential customers. However, this cost causation factor is not reflected in MERC's allocation." *Id.*

MERC addressed the issue of allocating meter-reading expenses by the number of customers in each class in response to the Department's Information Request number 726. DOC Ex. 208 at 6 (Ouanes Rebuttal).[75] According to the Company, FERC account 902 includes labor, materials, and expenses related to reading customer meters and determining customer usage. *Id.* at SO-R-2. Most costs within this account are labor costs associated with the physical act of reading meters. *Id.* There are two components to these labor costs: a) the act of reading the meter; and b) traveling to the meter to read it. *Id.* Any difference in the act of reading meters among customer classes is minimal: the act of reading a meter generally varies between two and thirty seconds. *Id.* On the other hand, the bigger difference among classes is traveling to the meter to read it, which customers with telemetry do not require.[76] *Id.* General Service customers, however, do not have telemetry meters. *Id.* MERC witness Ms. Hoffman Malueg provided examples in support of her claim that, for General Service customers (*e.g.*, Residential, Small C&I, or Large C&I), there is no distinct, consistent variation by customer classes for the second component (traveling to the meter to read it), but there can be much variation among customers within each customer class. *Id.*

Based on the Department's review of MERC's response to discovery summarized above, the Department agreed with MERC's following assessment:

[75] MERC's full response is attached to DOC witness Dr. Ouanes' Rebuttal Testimony, and can be found at DOC Ex. 208 at SO-R-2 (Ouanes Rebuttal).

[76] Telemetry meters are meters that generally have the ability to directly communicate customer usage data to the utility for monitoring and billing purposes.

> MERC has already determined that there is no cost difference in component a), the act of reading the meter itself. In addition to this fact, along with the reasons explained above, it's not viewed by MERC as being beneficial to spend what would be estimated as an elaborate and unduly burdensome amount of time determining if there would be any difference by customer class in component b), the act of physically getting to the meter to read it, especially in consideration of the fact that the costs booked to Account 902 comprises only 1.2% of Total O&M expense for MERC for the 2014 test year.

DOC Ex. 208 SO-R-2 (Ouanes Rebuttal).

E. DOC Response to OAG-AUD Witness Mr. Ron Nelson: Allocation of Customer Records and Collection Expenses (FERC Account 903)

Mr. Nelson agreed with the Company that FERC account 903 should be classified as customer-related costs, but disagreed again with MERC's allocation of costs in this account "solely based on the number of customers within each class." OAG Ex. 155 at 40 (Nelson Direct). According to Mr. Nelson, MERC's allocation of costs in FERC account 903 does not acknowledge that there are other cost causation factors associated with this account. *Id.* at 41. In particular, he noted:

> MERC negotiates contracts with interruptible customers and manages possible curtailment of these customer's accounts, but they are allocated the same amount of the account's cost as a residential customer (who cause neither of these costs). Large volume users obviously have much more complex billing, accounting, contracts, and complaints than do residential customers. However, MERC's allocation of FERC account 903 does not reflect these cost causation factors.

Id.

As with FERC account 902, the Company similarly addressed Mr. Nelson's concerns with FERC account 903. DOC Ex. 208 at SO-R-3 (Ouanes Rebuttal). According to the Company, FERC account 903 includes costs for labor, materials, and expenses related to work on customer applications, contracts, orders, credit investigations, billing and accounting,

collections, and complaints. *Id.* MERC witness Ms. Joylyn C. Hoffman Malueg, in MERC's response to the Department's Information Request number 727, stated that the only significant cost differences between the customer classes as they relate to FERC account 903 are the costs attributable to administering MERC's transportation program. *Id.* MERC allocated those costs separately within the CCOSS to transportation customer classes only. *Id.* After removing the costs of administering MERC's transportation program, the remaining costs in FERC account 903 are related to customer service and billing functions performed for all of MERC's customers by Vertex, an external service provider. *Id.* Vertex charges MERC a flat (per account) and there is no difference in this flat rate based on the type of customer. *Id.*

Based upon current information available to the Department, the Department did not recommend a change to the proposed allocation of costs in FERC account 903. DOC Ex. 208 at 10 (Ouanes Rebuttal). The Department concluded that it is appropriate to allocate costs differently to transportation customers, as MERC has done; however, based on the Department's review of MERC's response to discovery summarized above, the Department agreed with MERC's following assessment:

> MERC does not believe a change or refinement in the current allocation methods used against Account 903 in MERC's CCOSS is warranted. MERC appropriately segregates the costs attributable to administering their transportation program such that these account 903 costs can be, and are, allocated to only transportation customer classes within MERC's CCOSS. Additionally, MERC uses an allocation method based upon customer counts (non-weighted) by customer class against the remaining costs in Account 903. This is appropriate because the majority of these remaining allocated costs in Account 903 are attributable to the cost of utilizing Vertex for customer service functions. As stated in 2) above, those costs are charged to MERC by Vertex via a flat, per account charge. Therefore, it is the number of customers (which has a close, if not 1-for-1, relationship with a customer's account) that is causing the majority of the remaining expenses in Account 903.

Id. at SO-R-3.

F. DOC Response to OAG-AUD Witness Mr. Ron Nelson: Classification of Distribution Mains (FERC Account 376)

In his Direct Testimony, Mr. Nelson suggested that "the Commission order MERC to classify 30% of the [Distribution] Mains account as customer costs and 70% as capacity costs." OAG Ex. 155 at 40 (Nelson Direct). Mr. Nelson's suggestion is based on his zero-intercept "analysis which indicates that 26% of the Mains account should be classified as the minimum system, while the rest of the system should be classified as capacity." *Id.* at 37.[77]

In light of the large difference between Mr. Nelson's suggestion (30% of Distribution Mains to be classified as customer cost) and MERC's proposal (68% of Distribution Mains to be classified as customer cost), and given the questions raised by Mr. Nelson regarding the reliability of MERC's and OAG-AUD's regression analyses for the zero-intercept method used to classify Distribution Mains, the Department requested that MERC classify Distribution Mains costs using the minimum-size method as is discussed in the Gas Manual. DOC Ex. 208 at 11 (Ouanes Rebuttal). While serving the same purpose as the zero-intercept method, the minimum-size method has the added advantage that it does not rely on a regression analysis. *Id.* In the most recently decided general rate case by the Commission (Docket No. 13-316), even Mr. Nelson believed that one should verify the results of a costs study under zero-intercept method with the results of a costs study under the minimum-size method because it is difficult to calculate the exact costs of a zero diameter main. Trial Vol. 1 at 165.

In support of the reliability of its study, MERC also demonstrated that a minimum-sized

[77] Interestingly, Mr. Nelson does not believe that his model specification is correct because he stated that "it [his model specification] suffers from the same OLS [Ordinary Least Squares] assumption violations as MERC's." *Id.* at 38.

pipe of two inches is the most appropriate pipe size to use when conducting a minimum-size study using the minimum-size method. DOC Ex. 208 at SO-R-4 (Ouanes Rebuttal).[78] MERC went on to state that:

> Because this minimum system study is going to be used within the CCOSS, which not only portrays data that is based upon a forecasted test year, but is also premised upon creating an accurate cost causation portrayal of MERC's current customers, MERC believes that it is most appropriate to conduct the minimum system study based upon what is considered to be MERC's current installation standards. MERC's installation standards take into consideration current industry standards and practices, safety measures, as well as what is most appropriate given MERC's service territory.
>
> . . . For MERC, 96.1% and 95.6% of plastic and steel pipes, respectively, less than 2" diameter were installed prior to 1992. While there were some installations that occurred after 1992, those installations were unique circumstances that warranted installation of a pipe diameter less than the current installation standard.

Id. Accordingly, basing any minimum system study on pipe infrastructure on anything less than two-inch pipes would not be reasonable. *Id.*

MERC's analysis, as described by MERC witness Ms. Hoffman Malueg in MERC's response to the Department Information Request number 725, shows that at least seventy-three percent of the Distribution Mains would be classified as customer costs under the minimum-size method based on two-inch pipes. DOC Ex. 208 at SO-R-4 (Ouanes Rebuttal). Based on the discussion above, and given that the outcome of MERC's minimum-size method study (seventy-three percent to seventy-four percent of the Distribution Mains classified as customer costs) is consistent with the outcome of MERC's zero-intercept method study (sixty-eight percent of the Distribution Mains classified as customer costs), the Department recommended that the

[78] MERC's full response is attached to DOC witness Dr. Ouanes's Rebuttal Testimony and can be found at DOC Ex. 208 at SO-R-4 (Ouanes Rebuttal).

Commission accept MERC's assignment of Distribution Mains costs. *Id.* at 12. In the end, an analyst needs to consider whether the pipe size under the minimum-size method should be based upon the minimum-size equipment currently installed, historically installed, or the minimum size necessary to meet safety regulations. Trial Vol. 1 at 195. It is a judgment call. *Id.* In this case, the Department concludes that MERC's recommendation is reasonable. DOC Ex. 208 at 12 (Ouanes Rebuttal).

G. Summary of CCOSS Recommendations

First, the Department recommended that the Commission approve MERC's allocation of income taxes in the proposed CCOSS on the basis of the taxable income attributable to each customer class that fully and only reflects the cost of providing service. DOC Ex. 209 at 4 (Ouanes Surrebuttal). This approach is the only reasonable proposal in this proceeding. *Id.*

Second, the Department recommended that the Commission accept MERC's allocation of costs in FERC accounts 902 and 903. DOC Ex. 208 at 6–10 (Ouanes Rebuttal). MERC appropriately allocates these costs based on the number of customers in each customer class. *Id.* MERC also acknowledged that it allocates costs attributable to administering MERC's transportation program to transportation customer classes only. *Id.* at 9.

Third, the Department recommended that the Commission not accept OAG-AUD witness Mr. Ron Nelson's suggestion that the Commission order MERC to classify 30% of the Mains account as customer costs and 70% as capacity costs. *Id.* at 10–12. The Department recommended that the Commission accept MERC's assignment of Distribution Mains costs. *Id.* at 12.

Finally, given that the only issues raised in this proceeding by any party (the allocation of income taxes, FERC accounts 902 and 903, and the classification of FERC account 376) were resolved between MERC and the Department, the Department recommends that the Commission

accept MERC's proposed CCOSS as a useful tool for the purpose of setting rates. DOC Ex. 209 at 4 (Ouanes Surrebuttal).

VIII. RATE DESIGN (ISSUE III-1)

Apportionment of Revenue Responsibility
Resolved: Between DOC and MERC. *See* DOC's Summary of Recommendations, Section H, below.

Customer Charges
Resolved: Between DOC and MERC. **Disputed:** Between MERC and OAG-AUD. *See* DOC's Summary of Recommendations, Section H, below.

A. Rate Design Background

Without competition, government regulation approximates the results that would be achieved in a competitive environment. Rate design is the second step of the two-step rate making process. In the first step, the Commission determines the revenue requirement, which is quasi-judicial and fact intensive. *See Matter of Request of Interstate Power Co. for Authority to Change Rates* (*Interstate Power*), 559 N.W.2d 130, 133 (Minn. Ct. App. 1997), *aff'd* 574 N.W.2d 408 (Minn. 1998). The second step, designing rates to charge customers, is largely a quasi-legislative function. *Interstate Power*, 559 N.W.2d at 133. While the second step of rate making largely involves facts, it also involves policy decisions. *Id.*

B. Rate Design Goals

The Commission has relied on the following principles in designing reasonable and just rates:

1. Rates should be designed to allow the Company a reasonable opportunity to recover its revenue requirement, including the cost of capital;
2. Rates should promote efficient use of resources by sending appropriate price signals to customers, reflecting the costs of serving them. For example, an appropriate price signal encourages conservation by customers;

3. Rate changes should be gradual so as to limit rate shock to consumers. Rate stability and continuity are important to both the utility and the consumer; and

4. Rates should be understandable and easy to administer. Maintaining ease in administration helps ensure that customers understand their utility bills better.

DOC Ex. 203 at 2 (Peirce Direct).

The first principle recognizes that MERC should be afforded the opportunity to recover its revenue requirement, including recovery of its capital costs, which ties into the notion that in the absence of competition, government regulation attempts to approximate the results that would be achieved in a competitive environment. *Id.* at 3.

The second principle reflects the goal that rates should send an appropriate price signal to customers by reflecting the cost of serving them. *Id.* Rates set at marginal cost (the cost of producing the next increment of service) result in an efficient allocation of resources used to produce the incremental unit of service. *Id.* In other words, an efficient allocation of resources takes place when the value a customer places on a product is equal to the cost of producing the product. *Id.* Although the costs in the current case are based on the embedded or historical cost of the system, setting rates at or near the embedded cost to serve each customer class should provide adequate price signals to customers. DOC Ex. 203 at 3 (Peirce Direct).

The third principle requires that current and proposed rates have some continuity with past rates. *Id.* Rate stability and continuity are important both to the utility and the consumer. *Id.* Consumers benefit by limiting rate shock associated with wide swings in rates, and utilities are afforded the opportunity to recover a steady revenue requirement. *Id.*

Finally, the fourth principle provides that rates should be understandable and easy to administer. *Id.* Maintaining ease in administration will help ensure that customers have a better understanding about the amounts and parts of their utility bills. *Id.*

C. Legal Standards Reflected in Rate Design Principles

The four rate-design principles reflect Minnesota law. Regulated public utilities can only charge just and reasonable rates. Minn. Stat. § 216B.03 (2012). The burden is on the public utility to show that its requested rate change is just and reasonable. Minn. Stat. § 216B.16, subd. 4. Rates must also encourage energy conservation "to the maximum reasonable extent." § 216B.03. In that regard, the Minnesota legislature has found that:

> [I]t is in the public interest to review, analyze and encourage those energy programs that will minimize the need for annual increases in fossil fuel consumption by 1990 and the need for additional electrical generating plants, and provide for an optimum combination of energy sources consistent with environmental protection and the protection of citizens.

Minn. Stat. § 216C.05 (2012). Minnesota law also encourages rate designs that promote the use of renewable energy. *Id.* Moreover, if there is any doubt as to the reasonableness of a particular rate design, such doubt must be resolved in the consumer's favor. § 216B.03. In other words, in a situation where different rates appear to be equally valid, the Commission must choose the rate design that favors the consumer. *Id.*

Minnesota law also prohibits public utilities from charging unreasonably discriminatory rates:

> Rates shall not be unreasonably preferential, unreasonably prejudicial or discriminatory, but shall be sufficient, equitable and consistent in application to a class of consumers.

§ 216B.03; DOC Ex. 203 at 4 (Peirce Direct). Similarly, a "public utility [shall not], as to rates or service, make or grant any unreasonable preference or advantage to any person or subject any

person to any unreasonable prejudice or disadvantage." Minn. Stat. § 216B.07 (2012). The Commission is also required to consider the ability to pay as a factor when setting public utility rates. Minn. Stat. § 216B.16, subd. 15 (2012).

Because rates differ among the various classes of service, DOC concludes that there must be a cost basis for any differences to be deemed reasonable, unless one of the rate-design principles above is used to adjust rates. DOC Ex. 203 at 4 (Peirce Direct).

D. Approach to Designing Rates for MERC

MERC provides two basic types of service: sales service and transportation service. *Id.* at 5. Under sales service, customers rely on MERC's regulated utility to obtain their natural gas[79] and arrange transportation of that gas on the interstate pipeline and via the Company's distribution system. *Id.* at 5–6. Under transportation service, customers acquire their own gas supplies through an unregulated gas supplier and arrange for its delivery to a Town Border Station (TBS), at which point MERC's distribution system is used to transport the gas to the customer. *Id.* at 6. Transportation customers typically bear more responsibility for balancing and nominating than sales customers. *Id.*

Both sales and transportation customers may take either firm or interruptible service. *Id.* Firm service is typically not subject to curtailment and is priced to include the costs of providing this reliability. DOC Ex. 203 at 6 (Peirce Direct). Service to customers on interruptible tariffs can be curtailed as needed to maintain system reliability. *Id.*

Fundamental regulatory rate-design principles should be considered in pricing the regulated services that the Company provides. *Id.* A fundamental principle in designing transportation and sales rates is that the regulated rates should be designed to keep MERC

[79] In this section, "natural gas" and "gas" are used interchangeably.

indifferent as to whether customers take transportation or sales service. *Id.* In other words, customers should decide whether to use MERC's sales or transportation services based primarily on a comparison between the costs of purchasing gas from MERC and the cost of purchasing gas from a third-party unregulated supplier. *Id.*

Regardless of where customers obtain gas supplies, all customers must pay MERC to transport gas through its distribution system, which includes town border stations, different sizes of underground pipes, and associated equipment. *Id.* This transportation component is regulated in Minnesota because the distribution of natural gas is considered a "natural monopoly." DOC Ex. 203 at 6 (Peirce Direct). Therefore, rates for all of these services include, at a minimum, the incremental cost of transporting natural gas through the distribution system. *Id.* at 6–7.

The Department recommended that MERC's rates include at least the incremental cost of providing service. *Id.* at 7. Minnesota Statutes section 216B.163, subdivision 4(1) is a special statute that allows natural gas utilities to charge somewhat lower rates to customers who are subject to "effective competition" (meaning that the customer could leave the utility's distribution system) in order to keep those customers on the utility's system, contributing to recovery of fixed costs that would otherwise need to be charged to other customers. *Id.* There are limits to the rate discount, however; the statute states that the minimum tariffed rate much recover at least the incremental cost of providing service. *Id.* Therefore, by law, all of MERC's rates must include at least the incremental cost of providing service. *Id.*

There are also considerations besides the cost of natural gas that can affect rates that MERC charges its customers. DOC Ex. 203 at 7 (Peirce Direct). Pricing for MERC's non-general service customers, who can use alternative energy sources (such as propane, or No. 2, or No. 6 fuel oil) to replace natural gas, must consider the prices of those alternatives. *Id.* In

addition, as noted above, some non-general service customers may have the ability to bypass MERC's distribution system altogether. *Id.* Consequently, balancing the cost to serve these customers with the competition from alternative sources or the ability to bypass is important in designing rates. *Id.* If the rates charged to these non-general service customers do not at least cover the incremental cost of serving these customers, then MERCs general service customers would subsidize these customers. *Id.* at 7–8. It is important to prevent such subsidies. *Id.*

MERC has the following service classes:

1. Three General Service (GS) firm sales classes:
    a. Residential;
    b. Small Commercial (usage less than 1,500 therms per year); and
    c. Large Commercial (usage greater than 1,500 therms per year).
2. Interruptible sales classes:
    a. Small Volume Interruptible (SVI) & Small Volume Joint (SVJ);
    b. Large Volume Interruptible (LVI) & Large Volume Joint (LVJ); and
    c. Super Large Volume (usage of 1,200,000 dekatherms per year).
3. Transportation Classes:
    a. MERC-PNG offers Transportation service to customers corresponding to the non-general service classes listed above.
4. Flexible Rate Customers
    a. Available to customers subject to effective competition.
5. One Transportation for Resale Class

a. Available to Northwest Natural Gas, the gas company serving Ogilvie, Minnesota. Northwest transports its gas supplies through the existing MERC-PNG's pipeline to serve its customers.

Id. at 8. Table 1 below summarizes the number of MERC customers taking Firm Service, Joint and Interruptible Service, or Transportation Service. DOC Ex. 203 at 9 (Peirce Direct).

Table 1: Summary of MERC Customers

	Total Customers	Percent of Total	Annual Usage	Percent of Total
General Service	214,058	99.7%	260,133,116	39.2%
Interruptible & Joint Service	465	0.2%	28,057,151	4.3%
Transportation Service	166	0.1%	374,643,310	56.5%
Total	214,689	100.0%	662,833,577	100.0%

As shown in this table, the majority of MERC'S customers are firm service, sales customers, with less than one percent of its total customers taking transportation service. *Id.* Regarding total usage, however, approximately sixty percent of annual usage on MERC's system is from transportation customers, while firm service customers account for only about thirty-nine percent of annual usage. *Id.*

E. Apportionment of Revenue Responsibility

Once the Commission sets the revenue requirement, the total sum is apportioned to customer classes in order to determine how much each class will be charged. *Id.* at 9. Tables 2 and 3 below, and DOC Ex. 203 at SLP-2 (Peirce Direct), summarize MERC's proposed apportionment of revenue responsibility among its various rate classes based on current and proposed revenues, as well as the cost of service reflected in the Class Cost of Service Study. *Id.* Table 2 summarizes the apportionment including gas costs, while Table 3 excludes gas costs, which compares MERC's proposed increase assigned to sales customers and the increase

assigned to transportation customers who are purchasing their gas supply from a third-party vendor. *Id.*

Table 2: Summary of MERC's Proposed Apportionment of Revenue Responsibilities to Customer Classes with Gas Costs

Customer Class	Current Apport.	MERC Proposed Apport.	% Increase from Current	CCOSS Apport.	DOC Proposed Apport.	DOC % Increase from Current
Sales						
NNG Sales:						
Residential	52.5%	53.2%	6.9%	56.0%	52.8%	6.2%
Small C& I	3.1%	3.2%	8.7%	3.1%	3.1%	7.1%
Large C& I	21.7%	20.9%	1.5%	18.8%	21.2%	3.0%
Small Vol. Interruptible	3.1%	3.0%	1.4%	2.6%	3.0%	2.8%
Lg. Vol. Interruptible	1.2%	1.2%	2.7%	1.2%	1.2%	4.2%
Small Vol. Joint	0.0%	0.0%	1.5%	0.0%	0.0%	2.9%
Consolidated Sales:						
Residential	7.8%	8.0%	7.9%	8.5%	7.9%	6.7%
Small C& I	0.8%	0.9%	9.9%	0.8%	0.8%	7.7%
Large C& I	5.7%	5.5%	1.9%	4.8%	5.6%	3.3%
Small Vol. Interruptible	0.9%	0.9%	1.3%	0.7%	0.9%	2.7%
Lg. Vol. Interruptible	0.9%	0.8%	2.7%	0.8%	0.8%	4.1%
Small Vol. Joint	0.1%	0.1%	1.6%	0.1%	0.1%	3.0%
Transportation						
NNG Transport						
Small Vol. Interruptible	0.1%	0.1%	5.3%	0.0%	0.1%	6.8%
Lg. Vol. Interruptible CIP Applicable & CIP Exempt	0.6%	0.8%	30.4%	0.7%	0.8%	32.2%
Small Vol. Joint	0.1%	0.1%	8.6%	0.0%	0.1%	10.2%
Lg. Vol. Joint	0.2%	0.3%	30.9%	0.3%	0.3%	32.7%
Super Lg. Vol. Interrupt. – CIP Exempt and CIP Applicable	0.3%	0.3%	1.8%	0.1%	0.3%	3.3%
Super Lg. Vol. Joint	0.2%	0.2%	0.5%	0.4%	0.2%	1.9%
Transport for Resale	0.0%	0.0%	3.9%	0.0%	0.0%	5.4%
Lg. Vol. Joint Flex	0.1%	0.1%	1.9%	0.2%	0.1%	3.4%
Lg. Vol. Interrupt. Flex.	0.1%	0.1%	1.0%	0.2%	0.1%	2.4%
Consolidated Transport						
Small Vol. Interruptible	0.1%	0.1%	7.2%	0.1%	0.1%	8.7%
Lg. Vol. Interruptible	0.2%	0.2%	34.8%	0.2%	0.2%	36.7%
Small Vol. Joint	0.0%	0.0%	9.0%	0.0%	0.0%	10.6%
Lg. Vol. Joint	0.1%	0.1%	29.6%	0.1%	0.1%	31.4%
Super Lg. Vol. Interrupt.	0.1%	0.1%	2.7%	0.3%	0.1%	4.2%
Total MERC	100.0%	100.0%	5.5%	100.0%	100.0%	5.5%

Table 3: Summary of MERC's Proposed Apportionment of Revenue Responsibilities to Customer Classes Excluding Gas Costs

Customer Class	Current Apport.	MERC Proposed Apport.	% Increase from Current	CCOSS Apport.	DOC Proposed Apport.	DOC % Increase from Current
Sales						
NNG Sales:						
Residential	53.4%	55.2%	20.8%	56.0%	54.3%	18.7%
Small C& I	3.5%	3.7%	23.7%	3.1%	3.5%	19.3%
Large C& I	17.1%	15.5%	6.0%	18.8%	16.4%	11.6%
Small Vol. Interruptible	2.4%	2.1%	5.5%	2.6%	2.2%	11.4%
Lg. Vol. Interruptible	0.4%	0.4%	24.9%	1.2%	0.5%	38.1%
Small Vol. Joint	0.0%	0.0%	5.7%	0.0%	0.0%	11.3%
Consolidated Sales:						
Residential	9.0%	9.3%	21.0%	8.5%	9.1%	17.8%
Small C& I	1.1%	1.1%	23.7%	0.8%	1.1%	18.4%
Large C& I	5.2%	4.7%	6.3%	4.8%	4.9%	11.2%
Small Vol. Interruptible	0.7%	0.6%	5.3%	0.7%	0.6%	11.3%
Lg. Vol. Interruptible	0.2%	0.2%	33.2%	0.8%	0.3%	51.2%
Small Vol. Joint	0.0%	0.0%	5.9%	0.1%	0.0%	11.2%
Transportation						
NNG Transport						
Small Vol. Interruptible	0.3%	0.3%	5.3%	0.0%	0.3%	6.8%
Lg. Vol. Interruptible CIP Applicable & CIP Exempt	2.0%	2.2%	30.4%	0.7%	2.2%	32.2%
Small Vol. Joint	0.2%	0.2%	8.6%	0.0%	0.2%	10.2%
Lg. Vol. Joint	0.7%	0.8%	30.9%	0.3%	0.8%	32.7%
Super Lg. Vol. Interrupt. – CIP Exempt and CIP Applicable	1.0%	0.9%	1.8%	0.1%	0.9%	3.3%
Super Lg. Vol. Joint	0.5%	0.4%	0.5%	0.4%	0.4%	1.9%
Transport for Resale	0.0%	0.0%	3.9%	0.0%	0.0%	5.4%
Lg. Vol. Joint Flex	0.4%	0.3%	1.9%	0.2%	0.4%	3.4%
Lg. Vol. Interrupt. Flex.	0.3%	0.3%	1.0%	0.2%	0.3%	2.4%
Consolidated Transport						
Small Vol. Interruptible	0.3%	0.3%	7.2%	0.1%	0.3%	8.7%
Lg. Vol. Interruptible	0.5%	0.6%	34.8%	0.2%	0.6%	36.7%
Small Vol. Joint	0.1%	0.1%	9.0%	0.0%	0.1%	10.6%
Lg. Vol. Joint	0.2%	0.3%	29.6%	0.1%	0.3%	31.4%
Super Lg. Vol. Interrupt.	0.4%	0.4%	2.7%	0.3%	0.4%	4.2%
Total MERC	100.0%	100.0%	5.5%	100.0%	100.0%	5.5%

1. The Department's Initial Evaluation of MERC's Proposed Apportionment of Revenue Responsibility

The Department begins any evaluation of a public utility's proposed apportionment of revenue responsibility by comparing the current and proposed revenues with the results of the CCOSS in order to determine which customer classes are substantially below their respective cost of service, and which classes are expected to contribute revenues in excess of their cost of service, and therefore resulting in a so-called inter-class subsidy. DOC Ex. 203 at 12 (Peirce Direct). In addition, the Department reviews the proposed revenue responsibilities from customer classes with bypass or alternative fuel options to ensure that the rates and revenue responsibilities remain competitive with the available alternatives. *Id.*

An inter-class subsidy occurs when the revenue responsibility apportioned to a class of customers fails to recover the cost of serving those customers, and the difference is made up in over-recovering from other customer classes. *Id.* Minimizing inter-class subsidies is important for a few reasons. *Id.* Certainly, rates should be fair, and the best way to define "fair" is that, all else being equal, each customer class would reasonably pay enough to cover its share of costs. *Id.* Moreover, customers need reasonably accurate information about the cost of natural gas service so they can make informed decisions about how much to use. *Id.* This price information is often called "price signals." DOC Ex. 203 at 12 (Peirce Direct).

Initially, in this case, the Department did not entirely agree with MERC's apportionment of revenue responsibility. *Id.* at 13. The Department was concerned that the proposed increases for the Residential and Small Commercial and Industrial sales classes were significant compared to the overall proposed increase requested by the Company, which could result in rate shock. *Id.* Rate shock is a relative concept that reflects the impact of a rate increase on total customer bills. *Id.* The Department sought to balance the goal of establishing cost-based rates with the goal of

achieving a moderate impact to customer bills. *Id.* Therefore, the Department recommended mitigating the increases to the Residential and Small Commercial and Industrial sales classes slightly. *Id.* In the Department's proposal, shown in the Column labeled "DOC Proposed Apportionment" in Tables 2 and 3 above and in DOC Ex. 203 at SLP-3 (Peirce Direct), the Department recommended moving the percentage of revenue responsibilities apportioned to these classes to the mid-point between the current and MERC proposed apportionment. DOC Ex. 203 at 13 (Peirce Direct). For example, for Residential customers on MERC's Northern Natural Gas (NNG) system, MERC proposed to move apportionment from 52.5 percent to 53.2 percent of total revenues, which resulted in a 6.9 percent increase. *Id.* The Department's initial proposal apportioned 52.8 percent of the revenue responsibility to the Residential customers on MERC's NNG system, which resulted in a slight moderation in the increase to 6.2 percent and proposed allowing MERC to recover the remaining revenue responsibility proportionally from all remaining customer classes. *Id.*

The Department's rationale for the reasonableness of its initial proposal was that its apportionment continued to move the Residential and Small Commercial and Industrial classes closer to cost, albeit in a slightly smaller increment than that proposed by MERC, while at the same time, maintaining the general contribution of the Transport classes to MERC's overall revenue requirement which should prevent bypass. *Id.* at 14.

Some of MERC's customers, however, have the ability to bypass MERC's system. *Id.* Super Large Volume and Super Large Volume Interruptible class customers are the most sensitive to a rate increase since they can easily bypass MERC's system if the price charged for natural gas service is not competitive. *Id.* To evaluate the proposed rates for the Super Large Volume class, the Department reviewed the incremental cost analysis provided by MERC

witness Ms. Joylyn Hoffman Malueg in MERC Ex. 4 at Volume 3, Document 12, Schedule 6 (Informational Requirements). DOC Ex. 203 at 14 (Peirce Direct). Under the Department's initial proposed apportionment of revenue, the percent of total revenues apportioned to the Super Large Volume classes remained the same as that proposed by MERC. *Id.* From the cost information included in Schedule 6, the Department concluded that its initial apportionment proposal of revenue responsibility to the Super Large Volume customer classes was reasonable. *Id.*

Interruptible customers have the ability to use alternate fuels, and therefore could choose an alternative should the price of natural gas service become non-competitive relative to the price of alternative fuels. *Id.* Consequently, the Department considered the price of alternative fuels in evaluating the revenue contribution of interruptible service classes. *Id.* at 14–15.

In response to DOC Information Request No. 213 (DOC Ex. 203 at SLP-4 (Peirce Direct)), MERC provided a summary of alternative fuel prices. *Id*. at 15. Using information from the Department of Energy's Energy Information Agency, the Department calculated an equivalent price per therm for each of the alternative fuels. *Id.* As reflected in Table 4 below, the price of natural gas continues to be well below the equivalent price per therm for alternative fuels. *Id.*

Table 4: Summary of Alternative Fuel Prices – October, 2013

	Price	**Equivalent Price per therm**
Natural Gas	$0.54320	$0.54320
Fuel Oil	$3.57/gallon	$2.57
Propane	$1.70/gallon	$1.86

From the price information provided by MERC, the Department initially concluded that its proposed revenue apportionment was reasonable. DOC Ex. 203 at 15 (Peirce Direct). If the

Commission approved a lower revenue requirement than that requested by MERC, however, the Department recommended that the revenue requirement be apportioned proportionately to all classes as set forth above. *Id.* at 16.

2. The Department's Proposed Apportionment of Revenue Responsibility

MERC Witness Mr. Greg Walters accepted the Department's proposed apportionment of revenue responsibility with some slight modifications. MERC Ex. 42 at 4–5 (Walters Rebuttal). Specifically, MERC recommended maintaining its proposed rates for the Super Large Volume customer class and Flex customer class because these customer classes are very cost-sensitive with the capability of leaving MERC's system entirely. *Id.* at 4. In addition, Mr. Walter's apportionment of revenue responsibility in his Rebuttal Testimony reflected the Company's acceptance of DOC witness Ms. Otis's proposed updated sales forecast. *Id.* at 4–5. In order to reflect the Department's proposed revenue apportionment and keep distribution rates the same for similar sales and transportation customer groups, the Company proposed to group customers with the same distribution rates together for revenue apportionment purposes. *Id.* at 5, GJW-2.

The Department accepted the Company's apportionment of revenue responsibility with Mr. Walter's modification for the Super Large Volume and Flex customer classes. DOC Ex. 205 at 2. The Department came to fully appreciate the ability of those two customer groups to leave MERC's system in the face of a cost increase. *Id.* at 2–3. Consequently, the Department agreed with MERC's proposal to maintain the distribution rates for Super Large Volume and Flex customer classes, and agreed with MERC's proposed apportionment of revenue responsibilities to customer classes in Mr. Walter's Rebuttal Testimony. *Id.* at 3.; MERC Ex. 42 at GJW-2 (Walters Rebuttal). In addition to addressing concerns about large customers leaving MERC's system, MERC's proposed apportionment ensures that distribution rates for similar sales and

transportation classes remain the same. DOC Ex. 205 at 3 (Peirce Surrebuttal); *see* MERC Ex. 42 at GJW-2 (Walters Rebuttal).

F. Customer Charges (Issue III-2)

MERC proposed changes to its customer charges as shown in Table 5, below, which also includes the Department's proposals. DOC Ex. 203 at 16 (Peirce Direct).

Table 5: Summary of MERC's Customer Charges

	Current Charges	MERC Proposed Charges	DOC Proposed Charges
Residential	$8.50	$11.00	$9.50
Small Vol. C&I	$14.50	$18.00	$18.00
Large Vol. C&I	$35.00	$45.00	$45.00
Small Vol. Interruptible & Joint	$150.00	$160.00	$160.00
Large Vol. Interruptible & Joint	$175.00	$185.00	$185.00
Flex Rate	$175.00	$185.00	$185.00
Super Lg. Volume	$300.00	$350.00	$350.00

MERC Ex. 40 at GJW-1, Schedule 2 (Walters Direct).

The Department agreed with all of MERC's proposed customer charges with the exception of the Residential class. DOC Ex. 203 at 16 (Peirce Direct).[80] While the Department generally agreed with the Company that the Residential customer charge should be brought closer to cost, the Department recommended a more modest increase in the Residential customer charge of $1.00, from $8.50 to $9.50 per month. *Id.* The Department's recommendation would move customer charges slightly closer to cost of service, slightly reduce intra-class subsidies, and is in line with the Department's recommendation to increase the Residential customer charge to $9.50 in CenterPoint Energy's recent rate case (Docket No. G008/GR-13-316). *Id.* at 16–17.

[80] OAG-AUD filed testimony in which it does not agree that MERC's proposed customer charges for Residential and Small GS-C&I customers are reasonable. OAG Ex. 150 (Lindell Adopted Direct). The OAG avers that MERC's proposed customer charges are unprecedented, will cause MERC's customers to experience rate shock, will unduly burden low income households, and will not promote efficient use of energy resources and allow customers to control their own bills. *Id.* at 59–60.

As discussed above, *inter*-class subsidies occur when the revenue apportioned to a customer class fails to recover the cost of serving those customers, and the difference is made up in over-recovering costs from other classes. *Id.* at 17. Likewise, *intra*-class subsidies arise when certain customers within a class pay in excess of the cost to serve them, and subsidize other customers within the same class who pay less than the cost to serve them. *Id.* These intra-class subsidies occur because revenue responsibility apportioned to the class must be recovered either through a customer charge or through a volumetric distribution charge. *Id.*

To use Residential customers as an example, to the extent that the $8.50 customer charge does not recover the full cost of connecting and keeping a customer on the system (including connecting to the system, along with ongoing metering, billing, customer service and repair), the costs associated with these services will be recovered through the volumetric charge. *Id.* at 17–18. Because of intra-class subsidies, high-use customers pay not only for their own energy costs, which include customer and volumetric charges, but they also subsidize low-use customers to the extent volumetric charges for low-use customers do not recover the full cost of connecting and keeping a low-use customer on the system. DOC Ex. 203 at 18 (Peirce Direct).

The effects of rate-design policies on all customers are important to fully consider. *Id.* at 30. Because of intra-class subsidies, some customers will be made better off under certain rate-design policies, but only at the expense of making things worse for other customers within the same class. *Id.* For example, low-income customers who live in homes that are not well insulated or include multiple family members, and thus use larger amounts of energy, would pay lower bills if customer charges were set closer to costs.[81] *Id.* The lower bills for these customers would result from rate design with higher customer charges and correspondingly lower

[81] A Residential household that consists of multiple members may use gas efficiently on a per-person basis, but have higher use than the class average. *Id.* at 18.

commodity charges because these low-income customers would not have to pay the subsidy in their energy charge to offset the customer costs that low-use (but not necessarily low-income) customers impose on the system but for which they do not pay. *Id.*

Because utilities do not (and should not) collect income information for their ratepayers, it is difficult to know if low income customers have a different usage pattern from other customers. *Id*. It is, however, possible to consider information about energy used by customers who have qualified for the Low Income Home Energy Assistance Program ("LIHEAP") program to help answer this question. DOC Ex. 203 at 18 (Peirce Direct). Based on the information that is known about energy usage for customers qualifying for LIHEAP, usage does not appear to be significantly different for LIHEAP customers when compared with all MERC customers. *Id.* Table 6 below summarizes customer usage for all Residential customers and for customers receiving LIHEAP assistance. *Id.* at 19.

Table 6: Summary of Monthly Residential Customer Usage

Month	Avg. Monthly Usage – All Residential Customers	Avg. Monthly Usage - LIHEAP Customers
2012: Nov.	56.28	55.7
Dec.	93.99	95.3
2013: Jan.	154.22	149.1
Feb.	161.32	158.0
Mar.	125.96	126.3
Apr.	108.19	106.2
May	80.97	82.0
Jun.	35.35	37.3
Jul.	19.02	16.0
Aug.	14.89	11.0
Sept.	14.73	10.4
Oct.	20.63	18.4
	73.80	72.12

Id. at SLP-5, SLP-6. Because the distribution of usage is fairly similar for LIHEAP customers as for all customers at both utilities, the Department expected the bill impact to be similar between the two groups of customers. *Id.* at 19.

After review of the Department's recommendations regarding customer charges, MERC agreed with the Department's proposals, and specifically agreed that the Department's proposed Residential customer charges moves closer to cost of service. MERC Ex. 42 at 6–8 (Walters Rebuttal). Therefore, the proposed customer charges, noting MERC's agreement, with the Department's recommendations, can be provided as follows:

Table 7: Summary of Customer Charges[82]

	Current	MERC Originally Proposed	MERC Rebuttal/DOC Proposed
Residential	$8.50	$11.00	$9.50
Small Vol. C&I	$14.50	$18.00	$18.00
Large Vol. C&I	$35.00	$45.00	$45.00
Small Vol. Interruptible	$150.00	$160.00	$160.00
Large Vol. Interruptible	$175.00	$185.00	$185.00
Super Lg. Volume	$300.00	$350.00	$350.00

DOC Ex. 205 at 3 (Peirce Surrebuttal).

G. Joint Service Customers

Some of MERC's customers are so-called joint service customers. DOC Ex. 203 at 20 (Peirce Direct). Joint service allows an interruptible customer to designate a portion of its interruptible service as firm service. *Id.* Thus, during a curtailment event, MERC could curtail joint service customers' service down to the level of usage designated as firm. *Id.* Joint service customers pay a per therm rate for daily firm capacity based on the amount of capacity designated as firm. *Id.*

[82] Flex Rate Customers are included as Large Volume Customers.

In its 2008 Rate Case, MERC stated that it does not purchase firm pipeline capacity to serve its joint service customers, but rather serves the firm contracted demand needs of its joint service customers out of its reserve margin. *Id.* The Company indicated that it evaluates each request for Joint Service individually to ensure that it does not negatively impact firm customers. *Id.* at SLP-5. The Department understands that MERC continues to serve its joint service customers in this same manner. *Id.*

On December 26, 2013, MERC witness Gregory Walters filed supplemental testimony explaining how MERC charges joint service customers for their designated firm service, as the Commission ordered in its November 27, 2013 Notice and Order for Hearing. *See generally* MERC Ex. 41 (Walters Supplemental Direct). According to Mr. Walter's Supplemental Testimony, joint service customers specify a Maximum Daily Quantity (MDQ) of firm gas on an annual basis. *Id.* at 3. MERC charges Joint Service customers the Daily Firm Capacity rate (DFC charge) plus the DFC Tariff Margin for their firm capacity. *Id.* at 3–4. Joint Transportation customers are charged only the DFC Tariff Margin rate since they are securing their own pipeline capacity. *Id.* at 4. In addition, the Company indicated that the revenues collected via the assessment of the current effective DFC Tariff Rate (without the margin rate factor) is credited back to all customers through the Purchased Gas Adjustment (PGA). *Id.* at 8.

The Department concluded that MERC's firm rate customers do not appear to be subsidizing its joint service customers. DOC Ex. 203 at 21 (Peirce Direct). This conclusion is important because joint service customers must be sufficiently charged to cover their cost of service so as to ensure the reasonableness of charged rates for both firm rate customers and joint service customers. *Id.* MERC is not purchasing additional capacity to serve its joint service customers, but rather serves them from its reserve margin and then credits back the revenues for

the benefit of all firm customers. *Id.* The Department asked MERC how it treats joint service customers in the event MERC needs to use reserve margins to serve firm customers, and MERC stated:

> Joint customers would be held to their daily firm capacity, and then would be curtailed. In the event of system constraints due to pipeline issues, MERC would curtail all of the joint customer's gas, including the daily firm. This would be a rare occurrence.

DOC Ex. 203 at SLP-5 (Peirce Direct). Because MERC's service of joint service customers appears to be reasonable, the Department recommended that the Commission accept MERC's explanation on administering its joint service. *Id.*

G. Summary of DOC's Rate Design Recommendations

The Department recommends that the Commission:

1. Adopt MERC's recommended revenue apportionment as contained in Mr. Walter's Rebuttal Testimony, and reflected in SLP-S-1 and SLP-S-2 to Department witness Ms. Peirce's Surrebuttal Testimony. In the event the Commission approves a lower revenue requirement that requested by MERC, the Department recommends that the Commission apportion the revenue requirement responsibilities proportionately among all classes except the Super Large Volume and Flex rate customer classes.
2. Adopt the following customer charges as agreed to by the Department and the Company:

	MERC Rebuttal/DOC Proposed
Residential	$9.50
Small Vol. C&I	$18.00
Large Vol. C&I	$45.00
Small Vol. Interrupt. & Joint	$160.00
Large Vol. Interrupt. & Joint	$185.00
Super Large Volume	$350.00

IX. CONCLUSION

The Department respectfully requests a recommendation from the Administrative Law Judge and an Order from the Commission, determining that the rates filed by MERC have not been shown to be just and reasonable, as required by Minn. Stat. § 216B.16, subd. 5 (2012), for the reasons discussed in this Initial Brief. The Department requests that the Commission establish rates consistent with the principles, analyses, and recommendations as addressed in the Department's testimony, its response to MERC's Issues Matrix, and this Initial Brief.

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Respectfully Submitted,

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