NOTICE OF CONFIDENTIALITY*:*
ATTACHMENTS TO THIS TESTIMONY HAVE BEEN FILED UNDER SEAL.

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF COLORADO

* * * * *

RE: IN THE MATTER OF ADVICE LETTER NO. 912-GAS FILED BY PUBLIC SERVICE COMPANY OF COLORADO TO REVISE ITS COLORADO PUC NO. 6-GAS TARIFF TO IMPLEMENT A GENERAL RATE SCHEDULE ADJUSTMENT AND OTHER RATE CHANGES EFFECTIVE ON 30-DAYS NOTICE.	**) PROCEEDING NO. 17AL-____G**

<u>DIRECT TESTIMONY AND ATTACHMENTS OF STEVEN P. BERMAN</u>

ON

BEHALF OF

PUBLIC SERVICE COMPANY OF COLORADO

NOTICE OF CONFIDENTIALITY:
ATTACHMENTS TO THIS TESTIMONY HAVE BEEN FILED UNDER SEAL.

Confidential: Confidential Attachment

June 2, 2017

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

*** * * * ***

RE: IN THE MATTER OF ADVICE LETTER NO. 912-GAS FILED BY PUBLIC SERVICE COMPANY OF COLORADO TO REVISE ITS COLORADO PUC NO. 6-GAS TARIFF TO IMPLEMENT A GENERAL RATE SCHEDULE ADJUSTMENT AND OTHER RATE CHANGES EFFECTIVE ON 30-DAYS NOTICE.	**)**	**PROCEEDING NO. 17AL-____G**

SUMMARY OF DIRECT TESTIMONY OF STEVEN P. BERMAN

Mr. Steven P. Berman is Manager, Revenue Analysis for Xcel Energy Services Inc. In this position, Mr. Berman is responsible for determining the overall revenue levels required by Public Service Company of Colorado ("Public Service" or "Company").

In his testimony, Mr. Berman presents the gas department's revenue requirements studies, also known as the cost of service studies, which support the required increase in base rate revenues the Company is requesting in this case. As discussed by Public Service witness Mr. Scott Brockett, the Company is proposing a Multi-Year Plan ("MYP") covering the Forward Test Years 2018 (twelve months ending December 31, 2018), 2019 (twelve months ending December 31, 2019), and 2020 (twelve months ending December 31, 2020). Therefore, Mr. Berman presents three separate revenue requirements studies for the 2018, 2019, and 2020 Forward Test Years. The overall retail revenue requirement for 2018 through 2020 is $523,648,000, $657,616,537, and $704,291,574, respectively.

Mr. Berman explains the rationale for, and effect of, many of the adjustments included in the cost of service studies. The Company is proposing a General Rate Schedule Adjustment ("GRSA") that will be implemented in a series of three base rate revenue increases. Mr. Berman presents the calculation of the GRSA factors that are based on the revenue deficiencies for which cost recovery is sought in this case:

- 16.52 percent for the 12 months ending December 31, 2018 ("2018 Forward Test Year") (based on a revenue deficiency of $63,195,261);
- 32.29 percent for the 12 months ending December 31, 2019 ("2019 Forward Test Year") (based on a revenue deficiency of $126,826,936); and
- 10.53 percent for the 12 months ending December 31, 2020 ("2020 Forward Test Year") (based on a revenue deficiency of $42,915,002).

The GRSA factors requested in this case are in addition to the GRSA factor approved in the 2015 Gas Phase I Rate Case, Proceeding No. 15AL-0135G, of 17.12 percent, which is currently in place. The cumulative GRSA, inclusive of the existing GRSA and the GRSA factors for each of the 2018, 2019, and 2020 Test Years included in the MYP, is 76.46 percent. The total gas department increase in base rates Public Service is requesting in this proceeding over the MYP period of 2018 through 2020 is $232,937,199.

Mr. Berman testifies that under the Company's MYP proposal, the Pipeline System Integrity Adjustment ("PSIA") will not continue after December 31, 2018 (except for the true-up of actual 2018 costs), and costs that would have historically been recovered through this mechanism are therefore included in the revenue requirement for the 2019 Forward Test Year and the 2020 Forward Test Year. As a result, the base rate increase may appear higher than in past rate cases, but that is because of the different recovery structure and lack of a PSIA mechanism going forward.

Mr. Berman also presents a historical test year ("HTY") for the twelve months ending December 31, 2016 with pro forma adjustments. This HTY is being provided consistent with a Public Utilities Commission ("Commission") decision in the Company's 2012 Rate Case, where the Commission expressed "concern with the ability of the parties to examine the three FTYs without the ability to examine the growth in revenue requirements in relation to a recent HTY." The HTY is being filed for informational purposes and was the starting point for the development of operating and maintenance ("O&M") expenses in the MYP.

Mr. Berman, in addition to Company witness Mr. Scott Brockett, addresses the drivers of this rate filing. Generally speaking, the MYP is structured so as to correct the Company's continued under-earning and close out the use of the PSIA while smoothing rate impacts to customers. The major differences between the 2018 Forward Test Year and the HTY cost of service are changes in rate base driven by the capital spend for routine work and major projects (as discussed in detail by Company witness Ms. Cheryl Campbell) and expenses related to rate base. Beginning in the 2019 Forward Test Year and continuing through the 2020 Forward Test Year, a major driver is the roll-in of system integrity costs following the expiration of the PSIA on December 31, 2018. The other primary driver across the entire MYP is rate mitigation, *i.e.,* the Company's efforts to smooth rate impacts to customers over the three-year MYP period, primarily through the structuring of amortizations of previously deferred costs. For MYP amortizations, the

Company is proposing to use a 24-month amortization period beginning with the 2019 Forward Test Year on January 1, 2019. The exceptions to this treatment are: (1) Property Tax, which will use a 12-month amortization period beginning January 1, 2020; and (2) Pension and Benefits, which will use a 35-month amortization period beginning upon the effective date of rates in this rate case. Mr. Berman provides details regarding the impacts of the use of these amortization periods as compared to a universal 35-month amortization period for all deferrals and illustrates how the Company's proposed amortization period approach mitigates rate impacts to customers.

The Company is also proposing to implement an Earnings Test for the gas department. Therefore, Mr. Berman presents: (1) the ratemaking principles that will be used to calculate the annual Earnings Tests and (2) the implementation procedures that will be used.

In order to assist the Commission and the parties in assessing the reasonableness of the Company's Forward Test Years, Mr. Berman presents Attachment SPB-6, which compares:

- The 2018 Forward Test Year to the HTY provided for informational purposes;
- The 2018 Forward Test Year to the 2019 Forward Test Year; and
- The 2019 Forward Test Year to the 2020 Forward Test Year.

Mr. Berman recommends that the Commission approve the retail gas revenue requirements for the 2018, 2019, and 2020 Forward Test Years of $523,648,000, $657,616,537, and $704,291,574, and the resulting GRSA factors.

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

*****

RE: IN THE MATTER OF ADVICE LETTER NO. 912-GAS FILED BY PUBLIC SERVICE COMPANY OF COLORADO TO REVISE ITS COLORADO PUC NO. 6-GAS TARIFF TO IMPLEMENT A GENERAL RATE SCHEDULE ADJUSTMENT AND OTHER RATE CHANGES EFFECTIVE ON 30-DAYS NOTICE.	**)**	**PROCEEDING NO. 17AL-____G**

DIRECT TESTIMONY AND ATTACHMENTS OF STEVEN P. BERMAN

TABLE OF CONTENTS

SECTION **PAGE**

LIST OF ATTACHMENTS

Attachment SPB-1	Revenue Requirements Study for Public Service Company's Gas Department Based on the 2018 Test Year
Attachment SPB-2	Revenue Requirements Study for Public Service Company's Gas Department Based on the 2019 Test Year
Attachment SPB-3	Revenue Requirements Study for Public Service Company's Gas Department Based on the 2020 Test Year
Attachment SPB-4	Revenue Requirements Study for Public Service Company's Gas Department Based on the Historical Test Year for the 12 Months Ending December 31, 2016
Attachment SPB-5	Comparison of the 2016 Test Year versus the cost of service supporting the Company's current base rates approved in Proceeding No. 15AL-0135G.
Attachment SPB-6	Comparison of the 2016 Test Year versus the 2018 FTY, and comparison of the 2018 FTY versus the 2019 FTY, and comparison of the 2019 FTY versus the 2020 FTY.
Attachment SPB-7	Regulatory Principles and Adjustments underlying the MYP Test Years and the HTY
Attachment SPB-8	Lead Lag Study Summary that supports the Cash Working Capital Factors Used in the Cost of Service Study
Attachment SPB-9	Lead Lag Study Support, including CD-ROM of Revenue Lag detail
Attachment SPB-10	Year detail of Per Book Operating and Maintenance (O&M) expenses.
Attachment SPB-11	2016 detail of Per Book Operating and Maintenance expenses split by Service Company and native Public Service expenses
Attachment SPB-12	CD ROM - Copies of Recoverable Advertisements for 12 Months Ending December 31, 2016
Attachment SPB-13	Gas Department Earnings Test Calculations Methodologies and Adjustments

Attachment SPB-14	Labor Productivity Study
Attachment SPB-15	Treatment of Accounts in Test Years

GLOSSARY OF ACRONYMS AND DEFINED TERMS

Acronym/Defined Term	Meaning
2002 Rate Case	Proceeding No. 02S-315EG
2010 Rate Case	Proceeding No. 10AL-963G
2012 Gas Rate Case	Proceeding No. 12AL-1268G
2015 Phase I	Proceeding No. 15AL-0135G
2018 Forward Test Year or 2018 FTY	The 12 months ending December 31, 2018
2019 Forward Test Year or 2019 FTY	The 12 months ending December 31, 2019
2020 Forward Test Year or 2020 FTY	The 12 months ending December 31, 2020
ADIT	Accumulated Deferred Income Tax
AFUDC	Allowance for Funds Used During Construction
AGIS	Advanced Grid Initiative and Security
A&G	Administrative and general
CAGR	Compound annual growth rate
CIP	Critical Infrastructure Protection
Commission	Colorado Public Utilities Commission
CRS	Customer Resource System
CWIP	Construction Work in Progress
DSM	Demand Side Management

Acronym/Defined Term	**Meaning**
DSMCA	Demand Side Management Cost Adjustment
Dth	Dekatherm
EEI	Edison Electric Institute
EOC	Energy Outreach Colorado
ESS	Enterprise Security Services
FAN	Field Area Network
FAS 109	Financial Accounting Standard 109
FIN 48	Financial Interpretation 48, “Accounting for Uncertainty in Income Taxes”
FERC	Federal Energy Regulatory Commission
GAP	Gas Affordability Program
GCA	Gas Cost Adjustment
GRSA	General Rate Schedule Adjustment
Historical Test Year or HTY	Historical Test Year - Calendar Year of 2016
IRS	Internal Revenue Service
ITC	Investment Tax Credits
I&S	Investigation and suspension
MGP	Manufactured Gas Plant

Acronym/Defined Term	**Meaning**
MYP	Multi-Year Plan period of January 1, 2018 through December 31, 2020, which includes the 2018, 2019, and 2020 Test Years.
New Prepaid Pension Asset	Any new prepaid pension balance accumulating on or after January 1, 2015
NOL	Net Operating Loss
OCC	Office of Consumer Counsel
OCI	Other comprehensive income
O&M	Operating and Maintenance
PHFU	Plant Held for Future Use
PPS	Probability Proportional to Size
PSIA	Pipeline System Integrity Adjustment
Public Service, or the Company	Public Service Company of Colorado
ROE	Return on Equity
Schedule M items	Taxable addition/deductions
Service period	Period of time from when the Company receives goods or services and the date the expense is paid
TIMP	Transmission Integrity Management Program
WACC	Weighted average cost of capital
WYCO	Xcel Energy Inc WYCO
Xcel Energy	Xcel Energy Inc.

Acronym/Defined Term	**Meaning**
XES	Xcel Energy Services Inc.

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

* * * * *

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DIRECT TESTIMONY AND ATTACHMENTS OF STEVEN P. BERMAN

I. INTRODUCTION AND QUALIFICATIONS, PURPOSE OF TESTIMONY, AND RECOMMENDATION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Steven P. Berman. My business address is 1800 Larimer Street, Suite 1400, Denver, Colorado 80202.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by Xcel Energy Services Inc. ("XES" or "Service Company") as Manager, Revenue Analysis. XES is a wholly-owned subsidiary of Xcel Energy Inc. ("Xcel Energy"), and provides an array of support services to Public Service Company of Colorado ("Public Service" or the "Company") and the other utility operating company subsidiaries of Xcel Energy on a coordinated basis.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A. I am testifying on behalf of Public Service.

Q. PLEASE SUMMARIZE YOUR RESPONSIBILITIES AND QUALIFICATIONS.

A. I am responsible for determining the overall revenue levels required by Public Service. A detailed statement of my qualifications and experience is set forth at the end of my Testimony, but as the Manager of Revenue Analysis, I lead a team of analysts who develop revenue requirements models to support the rates charged by Public Service. I direct, review, and analyze the revenue requirements that support the base rates, rate riders, and Federal Energy Regulatory Commission ("FERC") formula rates used by Public Service.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY AND ATTACHMENTS?

A. The purpose of my Direct Testimony is to present the gas department's revenue requirements study, also known as the cost of service study, which supports the required increase in base rate revenues the Company is requesting in this case. As discussed by Company witness Mr. Scott Brockett, the Company is proposing a Multi-Year Plan ("MYP") covering the period of 2018 through 2020. Therefore, I am presenting three separate revenue requirements studies for calendar years 2018, 2019, and 2020. The overall retail revenue requirement for 2018 through 2020 is $523,648,000, $657,616,537 and $704,291,574, respectively. I also explain the rationale for, and effect of, many of the adjustments included in the cost of service studies. The Company is proposing a General Rate Schedule Adjustment ("GRSA") that will be implemented in a series of three base rate revenue increases. I present the calculation of the GRSA factors that are based on the rate increases requested in this case. Further, and as discussed by Mr. Brockett and in my testimony below, the Company is proposing to implement an Earnings Test for the gas department. Thus, I also present the ratemaking principles that will be used to calculate the annual Earnings Tests and the associated implementation procedures.

In addition, consistent with the direction received from the Colorado Public Utilities Commission ("Commission") in the Company's 2012 Phase I rate case, Proceeding No. 12AL-1268G ("2012 Gas Rate Case"),[1] I present the gas department's revenue requirements study based on a Historical Test Year ("HTY") with pro forma adjustments. Moreover, I present a variance analysis showing the changes between the HTY and the MYP period of 2018 through 2020. The HTY cost of service presented is the 12 months ending December 31, 2016. The HTY is being filed for informational purposes and was the starting point for the development of Operating and Maintenance ("O&M") expenses in the MYP.

Q. ARE YOU SPONSORING ANY ATTACHMENTS AS PART OF YOUR DIRECT TESTIMONY?

A. Yes, I am sponsoring the following:

- Attachment SPB-1 - Revenue Requirements Study for Public Service Company's Gas Department Based on the 2018 Test Year
- Attachment SPB-2 - Revenue Requirements Study for Public Service Company's Gas Department Based on the 2019 Test Year

[1] 2012 Rate Case, Decision No. C13-0064, ¶¶11, 13-15.

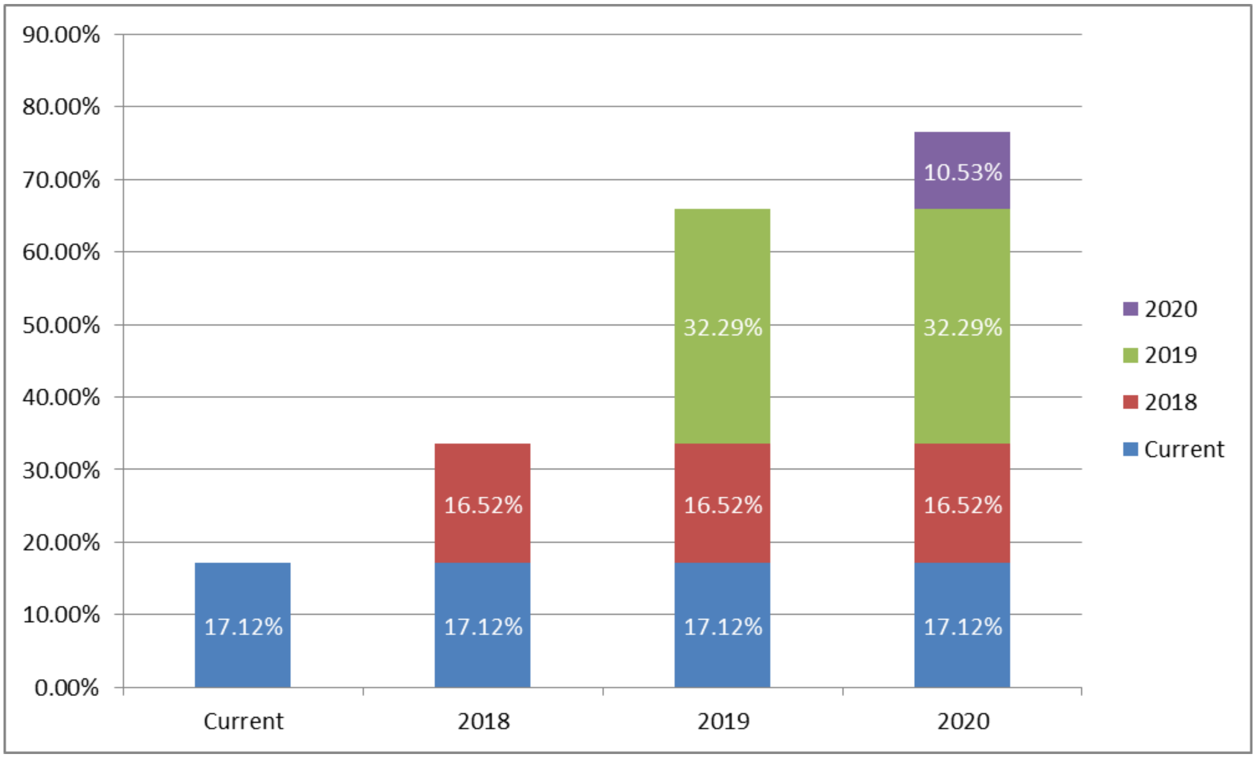
- Attachment SPB-3 - Revenue Requirements Study for Public Service Company's Gas Department Based on the 2020 Test Year
- Attachment SPB-4 - Revenue Requirements Study for Public Service Company's Gas Department Based on the Historical Test Year for the 12 Months Ending December 31, 2016
- Attachment SPB-5 - Comparison of the 2016 Test Year versus the cost of service supporting the Company's current base rates approved in Proceeding No. 15AL-0135G
- Attachment SPB-6 - Comparison of the 2016 Test Year versus the 12 months ending December 31, 2018 ("2018 Forward Test Year"), and comparison of the 2018 FTY versus the 12 months ending December 31, 2019 ("2019 FTY"), and comparison of the 2019 FTY versus the 12 months ending December 31, 2020 ("2020 FTY").
- Attachment SPB-7 - Regulatory Principles and Adjustments underlying the MYP Test Years and the HTY
- Attachment SPB-8 - Lead-lag Study Summary that supports the Cash Working Capital Factors Used in the Cost of Service Study
- Attachment SPB-9 - Detailed Lead-Lag Study Support, including CD-ROM of Revenue Lag detail
- Attachment SPB-10 - Ten Year detail of Per Book Operating and Maintenance expenses
- Attachment SPB-11 - 2016 detail of Per Book Operating and Maintenance expenses split by Service Company and native Public Service expenses
- Attachment SPB-12 - CD-ROM - Copies of Recoverable Advertisements for 12 Months Ending December 31, 2016
- Attachment SPB-13 - Gas Department Earnings Test Calculations Methodologies and Adjustments

- Attachment SPB-14 - Labor Productivity Study
- Attachment SPB-15 – Treatment of accounts in Test Years

Q. WHAT RECOMMENDATION ARE YOU MAKING IN YOUR TESTIMONY?

A. I recommend that the Commission approve the retail gas revenue requirements for the 2018, 2019, and 2020 Forward Test Years of $523,648,000, $657,616,537 and $704,291,574, and the resulting GRSA factors. The GRSA factors requested in this case are in addition to the current GRSA factor approved in the 2015 Gas Phase I Rate Case, Proceeding No. 15AL-0135G ("2015 Phase I") of 17.12 percent that is currently in place. The GRSA factor for 2018 is 16.52 percent. The 2019 GRSA factor is an increase of 32.29 percent over 2018, for a cumulative GRSA factor in 2019 of 65.35 percent (including the roll-in of PSIA costs). The 2020 GRSA factor is an increase of 10.53 percent over 2019 for a cumulative GRSA of 76.46 percent (again, including the roll-in of PSIA costs). The GRSA factors over the course of the MYP are reflected in the figure below.

Figure SPB-D-1



II. TEST YEARS REVENUE DEFICIENCY

Q. PLEASE SUMMARIZE THE RESULTS OF THE REVENUE REQUIREMENTS STUDIES FOR THE MYP PERIOD OF 2018 THROUGH 2020.

A. The 2018 Forward Test Year revenue requirements study shows a total revenue requirement, excluding gas costs collected through the Gas Cost Adjustment ("GCA"), costs collected through the Gas Demand Side Cost Adjustment ("DSMCA"), and costs currently collected through the Pipeline Safety Integrity Adjustment ("PSIA"), of $523,648,000. This is based on the proposed return on equity ("ROE") of 10.00 percent, as recommended by Company witness Mr. John Reed, and a capital structure of 55.25 percent equity, 44.75 percent debt, as recommended by Company witness Ms. Mary Schell, which results in a return on rate base of 7.49% (*i.e.,* the company's Weighted Average Cost of Capital ("WACC")). When compared to our present revenue estimate of $460,452,740, which includes the current GRSA of 17.12 percent, this revenue requirement results in a base rate revenue increase of $63,195,261.

The 2019 Forward Test Year revenue requirements study shows a total revenue requirement, excluding gas costs collected through the GCA and costs collected through the Gas DSMCA, of $657,616,537. This is based on the proposed return on equity of 10.00 percent, as recommended by Company witness Mr. Reed, and a capital structure of 55.25 percent equity, 44.75 percent debt, as recommended by Company witness Ms. Mary Schell, which results in a return on rate base of 7.47% (*i.e.,* the company's WACC). When compared to present revenue of $530,789,601, which includes the 2018 proposed base rate increase, this revenue requirement results in a base rate revenue increase of $126,826,936. The current PSIA approved by the Commission in the 2015 Rate Case expires on December 31, 2018, and therefore costs that would have historically been recovered through this mechanism are included in the revenue requirement. This is the case in the 2020 Forward Test Year as well.

Moving to the 2020 Forward Test Year, the revenue requirements study shows a total revenue requirement, excluding gas costs collected through the GCA and costs collected through the Gas DSMCA, of $704,291,574. Again, this is based on the proposed return on equity of 10.00 percent, as recommended by Company witness Mr. Reed, and a capital structure of 55.25 percent equity, 44.75 percent debt, as recommended by Company witness Ms. Schell, which results in a return on rate base of 7.49% (*i.e.,* the company's WACC). When compared to present revenue of $661,376,572, which includes the 2018 and 2019 proposed base rate increases, this revenue requirement results in a base rate revenue increase of $42,915,002.

The total gas department increase in base rates Public Service is requesting in this proceeding over the MYP period of 2018 through 2020 is $232,937,199.

Q. ARE THERE ADDITIONAL DETAILS ABOUT THIS BASE RATE INCREASE THAT YOU WOULD LIKE TO CALL ATTENTION TO?

A. Yes. An important distinction between this rate case and prior rate cases filed with the Commission is that the Company is not proposing to continue the PSIA after it expires on December 31, 2018, if the proposed MYP is approved by the Commission. As a result of this approach, any PSIA costs will be rolled in to base rates in 2019 and 2020 as the rider would no longer exist. Table SPB-D-1 below shows how costs are split between base rates and the PSIA during 2018 and then how all costs are collected cumulatively through base rates beginning in 2019. For illustrative purposes, Table SPB-D-1 shows the costs that would be projected for recovery through the PSIA if the PSIA were to remain in effect in 2019 and 2020. To be clear, this is not the Company's proposal in this case; rather, under the Company's MYP proposal the PSIA will not continue after December 31, 2018 (except for the true-up of actual 2018 costs), and all costs will be recovered through base rates. As a result, the base rate increase may appear higher than in past rate cases, but that is because of the different recovery structure and lack of a PSIA mechanism going forward.

Table SPB-D-1

	2018	***2019***	***2020***
Base Rate Revenue Deficiency	$ 63,195,261	$ 80,583,362	$ 104,888,818
PSIA Revenue Requirement	$ 93,883,036	$ 0	$ 0
Revenue Requirement Attributable to the PSIA	N/A	$ 109,438,835	$ 128,048,381
Total	$ 157,078,297	$ 190,022,197	$ 232,937,199

III. SELECTION OF TEST YEARS AND OTHER DATA PROVIDED

Q. WHAT TEST YEARS HAS THE COMPANY CHOSEN FOR PURPOSES OF ITS REVENUE REQUIREMENTS STUDIES IN THIS PROCEEDING?

A. As I previously stated, Public Service is filing a MYP that consists of three test years in this proceeding. Calendar years 2018, 2019, and 2020 were selected as the test years for this filing. These test years use the Company's forecasted capital additions for 2018 through 2020 as of our February 2017 forecast. We then update the forecasted capital additions through the date of filing. This serves as the basis for developing the majority of rate base, and other plant-related costs. O&M expenses for the MYP are based on the HTY adjusted for a limited number of known and measurable changes in expenses that occurred in the HTY and that are expected to occur within 12 months after the end of the HTY, in compliance with previous Commission findings. The adjusted HTY O&M expenses were then indexed forward into the MYP periods. The Company's treatment of O&M for purposes of developing the MYP is discussed further below. Base revenue is based on our current customer and sales forecast. The treatment of all costs in the MYP is summarized by account in my Attachment SPB-15.

Q. PLEASE DESCRIBE WHAT DATA YOU USED TO PREPARE THE TEST YEARS IN THIS CASE.

A. As explained by Company witness Mr. Greg Robinson, the basis for the 2018 through 2020 plant in-service balances is our February 2017 capital additions forecast updated for known changes through the date of our filing. Several

Company witnesses, including Ms. Cheryl Campbell, Mr. David Harkness, Mr. Tim Brossart, and Mr. Robinson, provide testimony supporting the Company's forecasted capital additions through the end of December 2020. This information is used by the capital asset accounting group, as explained by Company witness Ms. Melissa Ostrom, to develop the projected 13-month average plant in-service balances from which the MYP Forward Test Years' rate bases are derived.

With regard to O&M expense, the Company is using an indexing approach, which is explained in more detail by Company witness Mr. Brockett. The indexing approach is grounded in the fully adjusted HTY, as discussed above. Our indexing approach applies to non-labor O&M expense and labor O&M expense in similar but not identical ways.

For non-labor O&M expense in the Forward Test Years in the MYP, we started with fully adjusted HTY amounts for the twelve months ending December 31, 2016. Next, we held these actual non-labor O&M expense amounts, as adjusted, flat for each year of the MYP, resulting in an indexing of 0.00 percent.

For labor O&M expense in the Forward Test Years, we also started with the fully adjusted HTY amounts for the twelve months ending December 31, 2016. Next, we escalated these amounts by 3.00 percent to account for expected wage increases in 2017, as discussed in more detail by Company witness Ms. Sharon Koenig. Finally, we applied a 2.00 percent escalation to each of the 2018, 2019, and 2020 Forward Test Years. In addition, the related payroll taxes and employee incentive amounts were calculated in this manner.

For employee benefits expense recorded in FERC Accounts 925 and 926, we utilized the Company's latest forecast for the MYP. The forecasting of these expenses is discussed by Company witness Mr. Schrubbe.

I discuss all of the adjustments to the HTY and the MYP Forward Test Years later in my testimony. Company witnesses Mr. Litteken, Mr. Harkness, Ms. Koenig, Mr. Schrubbe, and Mr. Paul Simon provide testimony supporting our adjustments to the HTY expenses for the additional expense changes anticipated in the MYP period that are reflected in the Forward Test Years.

Q. HAS THE COMPANY PREPARED ADDITIONAL INFORMATION IN THIS CASE TO EXPLAIN THE MYP AND DEMONSTRATE THE REASONABLENESS OF THE 2018, 2019, and 2020 FORWARD TEST YEARS?

A. Yes. Mr. Brockett explains the MYP in his testimony and discusses the policy bases in support of approving the use of a MYP in this proceeding. Company witnesses Ms. Campbell, Mr. Harkness, Mr. Robinson, Mr. Brossart, and Mr. Litteken provide an explanation of the major drivers of the increase in capital additions from the 2015 Rate Case to the Forward Test Years. These witnesses also address the major drivers of O&M increase since the 2015 Rate Case and into the 2016 HTY. As to O&M in the 2018, 2019, and 2020 Forward Test Years, our indexing approach shows that the O&M costs included in the MYP are reasonable. Attachment SPB-10 shows the compound annual growth rate ("CAGR") over a 3-year, 5-year, and 10-year period of 7.53 percent, 2.58 percent, and 5.59 percent, respectively. Conversely, the table below shows the indexed O&M costs from the

HTY through the MYP period. This results in a CAGR over this period of 1.24%. This lower rate supports the reasonableness of the indexed O&M figures over the MYP.

Table SPB-D-2

	2016 HTY	*2018*	*2019*	*2020*
Base Labor	$ 80,071,105	$ 81,672,527	$ 83,305,978	$ 84,972,097
Indexed Non-Labor	$109,538,797	$109,538,797	$109,538,797	$109,538,797
Forecasted Benefits and Adjustments	$ 26,311,878	$ 27,712,510	$ 29,395,541	$ 32,363,378
Total O&M	**$215,921,780**	**$218,923,835**	**$222,240,316**	**$226,874,272**

I have also prepared several attachments that illustrate the reasonableness of the 2018, 2019, and 2020 Forward Test Years. First, Attachment SPB-5 provides a comparison of the 2016 HTY to the 2014[2] cost of service that is the basis for the Company's current base rates as approved in the 2015 Rate Case. Second, Attachment SPB-6 provides the following comparisons: (1) the 2018 Forward Test Year to the 2016 HTY cost of service; (2) the 2018 Forward Test Year versus the 2019 Forward Test Year; and (3) the 2019 Forward Test Year versus the 2020 Forward Test Year. Third, Attachment SPB-10 provides a ten-year O&M expense trend by FERC account. And fourth, Attachment SPB-11 provides O&M expense detail by FERC account broken out by Public Service native expenses and Service Company expenses. The HTY cost of service study together with these comparisons and detail schedules should assist the Commission and the intervenors in assessing the reasonableness of the Company's cost of service in the Forward Test Years.

[2] Historical Test Year ending December 31, 2014.

Q. WHAT IS THE PURPOSE OF THE HTY THAT THE COMPANY IS PROVIDING IN THIS PROCEEDING?

A. The HTY is being provided consistent with a Commission decision in the Company's 2012 Rate Case, where the Commission expressed "concern with the ability of the parties to examine the three FTYs without the ability to examine the growth in revenue requirements in relation to a recent HTY."[3] The HTY is the starting point for the O&M expenses in the MYP Forward Test Years filed in this case. The HTY cost of service is provided as Attachment SPB-4. Attachment SPB-6 provides a full comparison of the 2018 Test Year to the HTY, and Attachment SPB-7 compares the regulatory principles and adjustments underlying the MYP and the HTY cost of service studies.

Q. PLEASE SUMMARIZE THE RESULTS OF THE HTY REVENUE REQUIREMENTS STUDY.

A. The HTY cost of service study shows a total revenue requirement for base rate revenues, excluding gas costs collected through the GCA, costs collected through the DSMCA, and costs currently collected through the PSIA, of $523,880,814. This is based on the proposed return on equity of 10.00 percent, and the actual capital structure of 56.06 percent equity, 43.94 percent debt.

[3] 2012 Rate Case, Decision No. C13-0064, ¶¶10-11, 13-15 ("[I]t is important to the Commission and its advisors that an HTY is submitted into the record as a basis for evaluating the FTY sponsored by Public Service. The HTY we are directing Public Service to submit should be the HTY, including all pro forma adjustments that Public Service would have submitted had Public Service sought to use an HTY as the basis for its revenue requirements showing. The additional point of reference provided by an HTY is necessary for the Commission to perform a full investigation of the FTY.")

When compared to present revenue of $456,307,446, the result is a revenue increase of $67,573,368.

Q. WHAT ARE THE MAJOR DIFFERENCES BETWEEN THE MYP TEST YEARS AND THE HTY COST OF SERVICE STUDIES FILED IN THIS CASE?

A. Attachment SPB-6 illustrates that the major differences between the 2018 Forward Test Year and the HTY cost of service are changes in rate base driven by the capital spend for routine work and major projects (as discussed in detail by Ms. Campbell) and expenses related to rate base. Beginning in the 2019 Forward Test Year and continuing through the 2020 Forward Test Year, a major driver is the roll-in of system integrity costs following the expiration of the PSIA on December 31, 2018. The other primary driver across the entire MYP is rate mitigation, *i.e.,* the Company's efforts to smooth rate impacts to customers over the three-year MYP period, primarily through the structuring of amortizations of previously deferred costs. The MYP is therefore structured so as to correct the Company's continued under-earning and close out the use of the PSIA while smoothing rate impacts to customers.

IV. MYP CAPITAL ADDITIONS DEVELOPMENT

Q. DID THE COMPANY MAKE ANY ADJUSTMENTS TO THE FEBRUARY 2017 CAPITAL FORECAST IN ORDER TO DEVELOP THE INPUTS TO THE 2018, 2019 AND 2020 COST OF SERVICE STUDIES PRESENTED IN THIS CASE?

A. Yes. We have made select adjustments to the February 2017 capital forecast to ensure that our MYP Forward Test Years' cost of service reflect the most up to date and accurate forecast of the costs the Company expects to incur during the period in which rates will be in effect. These adjustments were made to incorporate more current information (*i.e.,* updated since the February 2017 capital forecast) that materially impacted our MYP Forward Test Years' cost of service studies. Specifically, adjustments were made to reflect the depreciation changes proposed by Company witness Ms. Ostrom and several business system capital projects, as shown on Attachments SPB-1, SPB-2, and SPB-3, Schedules 3 through 5.

Company witnesses Ms. Campbell, Mr. Harkness, Mr. Brossart, and Mr. Robinson address the total amount of the capital additions reflected in the MYP Forward Test Years' rate bases, including the adjustments discussed above. The capital additions supported by these witnesses were then used by Ms. Ostrom to develop the monthly roll-forward of plant and other plant-related balances from January 1, 2018 through December 31, 2020 that she provides in Attachment MLO-1. The plant and accumulated reserve for depreciation balances as shown on Attachment Nos. SPB-1, SPB-2 and SPB-3, are equal to the amounts presented by Ms. Ostrom on Attachment MLO-2.

V. COST OF SERVICE STUDY

Q. WHAT IS A COST OF SERVICE STUDY?

A. A cost of service study – also referred to as a revenue requirements study or pro forma rate of return study – examines all of the Company's investments, revenues, and expenses associated with providing a utility's service over a specific twelve-month period, or "test year," with the goal of determining the Company's cost of providing service to its customers during the period of time in which new rates will be in effect. The revenue requirements study indicates the overall level of revenues necessary for the Company to have an opportunity to earn its authorized return, which is used in setting the Company's base rates for service. In effect, the revenue requirement establishes a proxy for what the Company's cost of service will be in future periods when the new requested rates will be in effect.

Q. HOW WAS THE COST OF SERVICE STUDY DEVELOPED FOR THIS CASE?

A. As previously stated, the cost of service study calculates the base rate revenues required to recover the cost of providing utility service, otherwise known as the revenue requirement. The cost of service study measures revenue, expense and investment levels, as well as the relationship among those factors. A number of rate case principles established in previous cases have been used to calculate the cost of service. To the extent that the cost of service study departs from principles applied in previous cases, I discuss the changes below or such proposed changes are addressed by Company witness Mr. Brockett.

The starting point in developing the cost of service for each of the MYP Forward Test Years is the HTY, updated to reflect our February 2017 capital forecast, including changes in our projected capital additions since February 2017 and changes to labor and non-labor O&M expense for calendar years 2018 through 2020. To develop the cost of service in each of the 2018, 2019, and 2020 Forward Test Years, the labor and non-labor O&M expenses are indexed as described above. There are three types of regulatory adjustments that have been made to the HTY cost of service:

1) Accounting adjustments;
2) Commission-ordered adjustments; and
3) *Pro forma* adjustments.

The resulting required revenues computed by the model are then compared to the revenues the Company expects to collect during the test period, based on current rates applied to projected customers and sales, to determine any deficiency or excess. If present revenues are greater than the required revenues, the result indicates excess revenues and the need for a rate decrease. If present revenues are less than the required revenues, the result indicates a revenue deficiency and the need for a rate increase.

As noted above, the three cost of service studies being presented in this case for calendar years 2018, 2019, and 2020 are shown on Attachments SPB-1 through SPB-3, and the HTY cost of service is presented on Attachment SPB-4. For ease of reference, I have included an Index of Schedules at the beginning of these Attachments. The Schedules generally follow this order:

- Schedule 1 – Revenue Requirements
- Schedule 2 – Capital Structure
- Schedules 3 through 20 – Rate Base
- Schedules 21 and 22 – Jurisdictional Allocation Factors
- Schedules 23 through 26 – Income Statement
- Schedule 27 through end – Support for Adjustments and Present Revenue

Q. HAS THERE BEEN ANY CHANGE IN THE COST OF SERVICE MODELS USED BY THE COMPANY IN THIS CASE FROM PRIOR CASES?

A. Yes. The Company converted its cost of service model from an Excel® spreadsheet model to a new software system, the Rate Information System ("RIS"), a system developed by Utilities International. The revenue requirements formula has not changed. The Company is providing an executable model in Excel® format, exported from RIS, that performs the revenue requirements calculations, plus the supporting schedules.

Q. PLEASE DESCRIBE WHAT IS MEANT BY "ACCOUNTING ADJUSTMENTS."

A. Accounting adjustments are made either to eliminate certain accounts or expenses that should not be included in the base rate calculation or to add accounts that should be included in the calculation. For example, gas costs collected through the GCA and costs collected through the DSMCA are removed. These costs are tracked and recovered through adjustment mechanisms, and are therefore excluded for purposes of determining the Company's base rates.

Q. PLEASE DESCRIBE WHAT IS MEANT BY "COMMISSION-ORDERED ADJUSTMENTS."

A. Commission-ordered adjustments are made to comply with rate recovery policies and principles established by the Commission pursuant to orders issued in prior Public Service rate proceedings. For example, advertising expenses incurred for marketing, promotional, community relations, image, and political purposes are costs that the Commission has specifically ordered be eliminated from the regulated cost of service study in the past. If we ever wished to include such items in the cost of service, we would explicitly request Commission authorization to do so.

Q. PLEASE DESCRIBE WHAT IS MEANT BY "*PRO FORMA* ADJUSTMENTS."

A. *Pro forma* adjustments are made to test year results in order for that period to be representative of future conditions. Adjustments are made for known and measurable or contracted for changes occurring both in the test year (in-period adjustments) and outside the test year (out-of-period adjustments). *Pro forma* adjustments are typically made to a HTY cost of service in order to make the HTY more representative of the costs the Company expects to incur during the period of time in which new rates will be in effect. There is less need to make such *pro forma* adjustments when rates are being set on the basis of a Forward Test Year or indexed expenses from the HTY. Accordingly, there is only one such adjustment to the MYP for the Gas Enhanced Emergency Response 2.0 program, which is discussed in detail later in my testimony.

Q. WHAT ADJUSTMENTS AND REGULATORY PRINCIPLES, AS ADOPTED IN THE COMPANY'S PREVIOUS GENERAL RATE CASES, ARE INCORPORATED INTO THE MYP TEST YEARS AND HTY COST OF SERVICE STUDIES PRESENTED IN THIS CASE?

A. I have incorporated the following adjustments and regulatory principles, as previously established by the Commission in previous general rate cases, into the MYP Forward Test Years and HTY revenue requirements studies presented in Attachments SPB-1 through SPB-4.

- Rate Base is calculated using a 13-month average balance method for the MYP Forward Test Years, except for Cash Working Capital, and the Accumulated Deferred Income Tax ("ADIT") balances;
- Rate Base is calculated using a year-end balance method for the HTY;
- Common plant is allocated to the gas department based on a study of all common plant assets and assigning an allocation method for each type of asset;
- An adjustment is made to eliminate the investment in the SmartGridCity™ project from the Common General plant in-service balances allocated to the gas energy departments;
- Capital lease assets are not included in rate base;
- Plant Held for Future Use ("PHFU") is included in rate base;
- The gas stored underground inventory balance is collected through the GCA and has been eliminated from rate base;
- An adjustment is made to eliminate a portion of the materials and supplies inventory balance allocated to construction-related projects;
- Cash working capital components consist of gas purchased for resale, operation and maintenance expenses both directly incurred by the

Company and charges from XES, paid time off, taxes other than income, federal and state income taxes, and franchise and sales taxes;

- Cash working capital factors are based on a lead-lag study;
- The ADIT balances are a net reduction to rate base, as opposed to a cost-free component in the capital structure. The ADIT balances are functionalized. Adjustments to ADIT include eliminating amounts that are not included in the cost of service calculation and adjustments related to plant adjustments;
- Full normalization is the method of accounting for income taxes, allowing the Company to provide for deferred taxes on all book/tax timing differences, including any offset to ADIT for net operating losses ("NOL") or NOL carry forward;
- Deductions from rate base include customer deposits and customer advances for construction;
- Retail base rate revenue does not include revenues expected to be billed through various recovery mechanisms: GCA, gas DSMCA, PSIA, and Gas Affordability Program ("GAP"). Any costs or incentives recovered through these recovery mechanisms are eliminated from the cost of service;
- Retail base rate revenue does not include unbilled revenue;
- Gas sales are normalized for weather;
- Adjustments are made to Other Gas Revenue to exclude revenues related to residential late payments, rate refunds, Quality of Service Plan bill credits, and Demand Side Management ("DSM") incentives;
- Purchased Gas costs are eliminated from the determination of revenue requirements;
- Expenses associated with the Front Range Pipeline are eliminated from the cost of service;

- Adjustments are made to O&M expense for known and measurable changes occurring both in the test period (in-period adjustments), and outside the test period (out-of period adjustments);
- No out-of-period adjustments to O&M expense have been made for the HTY for items expected to occur more than one year after the end of the test period and limited adjustments to O&M expense occurring in MYP period have been made for the MYP Forward Test Years;
- Interest expense on customer deposits is included in Customer Operations expense;
- DSM costs are eliminated from the cost of service;
- Advertising expenses related to marketing, promotion, community relations, image, and political ads are eliminated;
- Advertising expenses related to safety, conservation and customer programs are included in the cost of service;
- All lobbying expenses and donations are excluded from the cost of service;
- Executive long-term incentive pay is excluded from the cost of service;
- Discretionary pay is excluded from the cost of service;
- Employee expenses that do not meet travel policy guidelines as recoverable from customers are eliminated;
- Exclude 91.45 percent of aviation expenses;
- Cost allocation between regulated and non-regulated business activities is based on the Cost Allocation and Assignment Manual and the Fully Distributed Cost Allocation Study filed in this case and sponsored by Company witness Mr. Adam Dietenberger;
- Adjustments to depreciation and amortization expense are made to correspond with adjustments made to plant and accumulated depreciation or to exclude amounts not included in the cost of service calculation;

- Adjustments to payroll taxes are made to correspond with the labor adjustments made to O&M expense;
- Current federal and state income taxes are calculated as follows: taxable income is determined by using the return on rate base; then synchronized interest expense is deducted, taxable additions/deductions are added, and permanent tax differences are added; and then state and federal income taxes are applied;
- Adjustments to current and deferred income tax expense are made to correspond with adjustments made to plant or to exclude amounts not included in the cost of service calculation;
- Income tax credits and the amortization of Investment Tax Credits (“ITCs”) are included in total income tax expense;
- Adjustments are made to the capital structure to eliminate the following items:
    1) Notes payable/receivable with subsidiaries;
    2) Investment in subsidiaries;
    3) Subsidiary retained earnings;
    4) Net non-utility plant;
    5) Other investments at cost;
    6) Other funds; and
    7) Other comprehensive income;
- The cost of debt corresponds with the debt balances in the capital structure, and includes bond premiums or discounts, underwriting expenses, and other expenses of issue; and
- The allocation between the gas department retail and wholesale jurisdictions is performed on a line-by-line basis for both rate base and earnings, and based on the methodology last approved by the Commission.

I have prepared Attachment SPB-7 that summarizes the regulatory principles and adjustments included in the MYP Forward Test Years and HTY cost of service studies presented in this case.

Q. ARE THERE ANY REGULATORY PRINCIPLES THAT HAVE BEEN ADOPTED IN THE COMPANY'S PREVIOUS GENERAL RATE CASES THAT ARE TREATED DIFFERENTLY IN THE MYP TEST YEARS' COST OF SERVICE THAN IN THE HTY COST OF SERVICE PRESENTED IN THIS CASE?

A. Yes, there is one regulatory principle that has been adopted in the Company's previous general rate cases that is being treated differently in the MYP Forward Test Years' cost of service than in the HTY cost of service. The MYP Forward Test Years' cost of service does not include Construction Work in Progress ("CWIP") balances in rate base; however, CWIP is included in rate base in the HTY cost of service. As a result, several adjustments are included in the HTY cost of service that are not included in the MYP Forward Test Years' cost of service, including the following:

- An offsetting adjustment to earnings for Allowance for Funds Used During Construction ("AFUDC");
- Annualizing the AFUDC addition to earnings because rate base was calculated using year-end balances;
- An adjustment to ADIT and Deferred Income Tax expense associated with interest on CWIP; and
- Elimination of contractor retentions from the CWIP balance.

Q. WERE THERE ANY REGULATORY AMORTIZATIONS APPROVED BY THE COMMISSION IN THE 2015 RATE CASE THAT ARE NOT INCLUDED IN THE COST OF SERVICE STUDIES PRESENTED IN THIS CASE?

A. Yes, there is one regulatory amortization approved in the 2015 Rate Case that is currently being amortized and will be expiring on December 31, 2017 related to rate case expenses from the 2015 Rate Case. This regulatory amortization has not been included in the cost of service studies presented in this case.

In addition, in Proceeding No. 10AL-963G, (“the 2010 Rate Case”), the Commission approved the amortization of deferred Transmission Integrity Management Program (“TIMP”) O&M costs over five (5) years, which expired September 4, 2016. As discussed later in my testimony, this amortization has not been included in the Forward Test Years or the HTY in this case.

Q. IS THE COMPANY PROPOSING ANY CHANGES TO THE TREATMENT OF ANY OF ITS COSTS OR REVENUES IN THIS PROCEEDING FROM THE WAY IT HAS TREATED SUCH COSTS IN THE COST OF SERVICE PREPARED FOR PRIOR RATE CASES?

A. Yes. First, as explained by Company witness Ms. Ostrom, proration was not used to calculate the ADIT in past rate cases. Ms. Ostrom explains that the assumption that 13-month averaging was representative of the intent of applicable Internal Revenue Service (“IRS”) regulation was incorrect when a Forward Test Year is at issue. Accordingly, she explains that the Company is now using proration for the change in ADIT for the MYP and requesting that this

IRS averaging be applied instead of the 13-month averaging method to avoid a potential violation of tax normalization rules.

Second, the cost of service studies presented in this case include changes to the treatment of the prepaid pension asset in rate base and include other post-employment benefits regulatory assets and liabilities in rate base, including; retiree medical (FAS 106), self-insured long term disability (FAS 112), and non-qualified pension. The Company proposes to earn a full return at the WACC on the balance of over/under funding on all pension and other post-employment benefits. This proposal is explained in more detail in the testimony of Company witnesses Mr. Schrubbe and Mr. Wickes.

Third, the Company proposes to include the unamortized balances of regulatory assets in rate base and earn a full return at the WACC. These regulatory assets include:

- Rate Case expenses;
- Gas Enhanced Emergency Response;
- Damage Prevention;
- Environmental Clean-Up; and
- Property Tax expense.

Fourth, the Company has presented the HTY using the year-end rate base methodology. To provide a better match for year-end rate base, the Company proposes to increase the HTY base revenue to account for the level of customers at year-end, as discussed later in my testimony.

Q. WHY IS THIS TREATMENT OF THE AMORTIZATIONS APPROPRIATE?

A. The approval by the Commission to defer these items creates a regulatory asset that is then amortized off as an expense over several years. Accordingly, where a regulatory asset is created, the Company pays for the service at the time the costs are incurred but these costs are not recovered from customers. Rather, the costs are deferred in the regulatory asset, which is created by the decision to defer the costs. These costs remain in the regulatory asset, without appropriate carrying costs, until they are brought forward for recovery in a subsequent rate proceeding. Including the unamortized portion of the regulatory asset in rate base provides a return to the shareholder until the cost is recovered in the period amortized to compensate for the carrying costs of these assets. A return at the authorized WACC is appropriate because it represents the components of the carrying costs of these assets, *i.e.,* the Company's weighted average debt and equity.

Q. HAS THE COMPANY MADE ANY NEW ADJUSTMENTS TO THE MYP PERIOD PRESENTED IN THIS CASE OTHER THAN THOSE APPROVED BY THE COMMISSION IN PRIOR RATE CASES?

A. Yes. The Company is proposing several new adjustments to the MYP data as well as application of new regulatory principles in this case. These items are detailed in the sections of my testimony below addressing rate base and O&M.

VI. RATE BASE

Q. WHAT METHOD OF DETERMINING RATE BASE HAVE YOU USED?

A. The cost of service rate bases for each of the MYP Forward Test Years are calculated using a 13-month average balance methodology for all items except for Cash Working Capital and ADIT. Cash Working Capital is calculated based on the test period operating expenses multiplied by a cash working capital factor premised on a lead-lag study, which is discussed in more detail in the following section of my testimony. The ADIT balance is calculated using an end of year balance and prorated pursuant to applicable IRS regulations, as discussed by Company witness Ms. Ostrom.

Company witness Mr. Brockett explains that the HTY cost of service rate base was calculated using a year-end balance methodology for all items except for the following: (1) inventory balances and non-plant rate base items were calculated using a 13-month average balance methodology; (2) pension and employment benefit-related assets were calculated using a 13-month average balance methodology; and (3) Cash Working Capital was calculated using the same lead-lag factors as we have used in the MYP Test Years' cost of service. Each of these items are discussed later in my testimony.

Q. PLEASE PROVIDE BACKGROUND ON THE USE OF YEAR-END RATE BASE BEFORE THE COMMISSION.

A. The Commission first adopted the use of year-end rate base in setting rates for Public Service's gas and electric services in 1974, Decision No. 85724, Investigation and Suspension ("I&S") Docket No. 868. In every Public Service rate case for nearly three decades following that decision, the Commission continuously reaffirmed its policy of using year-end rate base for setting base rates for Public Service.

In Proceeding No. 02S-315EG ("2002 Rate Case"), however, the Commission approved a Settlement Agreement in which the settling parties agreed to use a 13-month average rate base in developing the settled rates. The 2002 Rate Case was unique because it was a combination gas, electric and steam case and the Company's first electric rate case for nearly ten years since Proceeding No. 93S-001EG, which included several years of performance-based rate regulation resulting from the Company's merger with Southwestern Public Service Company. For the Company's gas business, however, the Commission continued to approve the use of year-end rate base, after a full hearing on the merits, in each of the Company's previous three gas-only rate cases since the 2002 Rate Case, in Proceeding Nos. 96S-290G, 98S-518G and 02S-422G.

Since the 2002 Rate Case Settlement, the majority of separate gas and electric rate cases filed by Public Service have settled. As is typical under rate case settlement agreements, the settling parties expressly agree that the provisions resolving issues in the determination of revenue requirements have no precedential effect in the Company's next rate case. It was not until the 2012 Gas Rate Case that the Commission, again after a full hearing on the merits, approved the use of year-end rate base for the HTY cost of service approved in that case.

In the 2015 Phase I, after a full hearing on the merits, the Administrative Law Judge ("ALJ") found in Decision No. R15-1204 that Public Service must establish that "extraordinary conditions such as earnings attrition" exist for the Commission to adopt the use of year-end rate base. The ALJ ordered that rate base be calculated using a 13-month average with the exception of the net investment in the Cherokee pipeline, which was to be calculated using year-end rate base. The Commission upheld this finding by Decision No. C16-0123.

Q. WHY IS IT APPROPRIATE TO USE YEAR-END RATE BASE IN DETERMINING THE REVENUE REQUIREMENTS FOR THE HTY FILED IN THIS CASE?

A. Where a HTY is used to set rates, a year-end rate base more closely reflects the rate base of the Company when rates are actually in effect as plant investment may be moved to plant in service throughout the year and the year-end plant balance accounts for accumulated depreciations as well as other plant impacts. As discussed by several of the Company's witnesses, the Company is making significant investments in the gas department. By using year-end rate base for the HTY, Public Service begins to capture some of these significant investments, but not all.

The MYP Test Years were filed to capture these significant investments, and to include rate base balances that are closer to the time when rates are in effect. The 13-month average balance method for valuing rate base was used in the MYP Test Years. At this point, base rates from this case are expected to be effective in February 2018, which is much closer to the rate base balances used in the 2018

Forward Test Year (*i.e.,* mid-year 2018) than even the year-end balances used in the HTY, which are as of December 31, 2016.

The Company does not agree that year-end rate base with an HTY is only appropriate where "extraordinary conditions" exist, and the long-standing use of year-end rate base for HTYs before this Commission support that position. Nevertheless, setting aside this disagreement, the Commission explicitly noted that earnings attrition would serve as evidence of "extraordinary conditions" that would support the use of year-end rate base. As explained in more detail by Company witness Mr. Brockett and as reflected in the table below, the gas department is experiencing earnings attrition, which supports the use of year-end rate base if the Commission does not approve the MYP Forward Test Years.

Table SPB-D-3

	2012	***2013***	***2014***	***2015***	***2016***
Earned ROE*	7.23%	9.01%	7.59%	6.04%	6.47%

*Earned ROE numbers are as presented in PSCo Annual Appendix A Reports

Q. PLEASE DESCRIBE THE BASIS FOR THE GROSS PLANT, PHFU, CWIP, AND OTHER PLANT-RELATED ITEMS THAT ARE INCLUDED COST OF SERVICE STUDIES FILED IN THIS CASE.

A. The projected capital expenditures, forecasted in-service dates, along with other relevant information, were used in the development of the plant-related information included in the MYP period cost of service. Company witness Ms. Ostrom discusses how the projected capital expenditures, plus other information, are used to derive the monthly gross plant, PHFU and CWIP balances. In addition, several other plant-related items were then derived from this information, including accumulated reserve for depreciation and amortization, ADIT, depreciation and amortization expense, additions and deductions for current income taxes, deferred tax expense, and AFUDC. The plant in-service balances and plant-related items included in the HTY cost of service are based on the Company's actual books and records at December 31, 2016.

Q. PLEASE DESCRIBE HOW THE INFORMATION PRESENTED BY MS. OSTROM CORRESPONDS TO THE RATE BASE BALANCES PRESENTED IN ATTACHMENTS SPB-1 THROUGH SPB-3.

A. In preparing the plant and plant-related rate base balances presented in Attachments SPB-1 through SPB-3, Schedule 3, I started with the Company's February 2017 capital forecast for plant in-service, CWIP, and accumulated reserve for depreciation and amortization balances. This forecast utilizes historical balances through December 31, 2016 and then adds the forecast for 2017 and each of the 2018, 2019, and 2020 Forward Test Years in the MYP. In preparing this case, the February 2017 capital forecast was further reviewed by business area witnesses, and it was determined that minor adjustments were necessary to more accurately reflect the Company's most current estimates. These adjustments are detailed on Schedules 3 through 5. These adjusted balances match the balances presented by Company witness Ms. Ostrom on Attachment MLO-2, which shows the calculation of the 13-month average balances for plant in service and accumulated reserve for depreciation and amortization.

Q. PLEASE DISCUSS THE BASIS FOR THE ALLOCATION OF COMMON PLANT THAT IS INCLUDED IN THE GAS DEPARTMENT RATE BASE PRESENTED IN THIS CASE.

A. Annually, the Company prepares a study to determine the amount of Common Plant that should be assigned to the electric, gas, thermal energy and non-utility operations. Allocation factors are calculated from the study, which are then applied to the Common Plant balances included in rate base. The allocation factors used in the MYP Forward Test Years and HTY presented in this case are based on the Common Plant study that was prepared using calendar year 2016 data.

Q. WHAT ADJUSTMENTS DID YOU MAKE TO PLANT IN-SERVICE BALANCES THAT FOLLOW PREVIOUSLY ESTABLISHED RATEMAKING PRINCIPLES?

A. Adjustments were made to eliminate the investment in SmartGridCity™ from the Common General plant in-service balance and plant-related cost of service items allocated to the gas department (Attachments SPB-1 through SPB-4, Schedule 33). In addition, in the 2018 Forward Test Year and the HTY cost of service studies, the Company made adjustments to eliminate the PSIA from the plant in-service balances and plant-related cost of service items (Attachments SPB-1 and SPB-4, Schedule 46). Adjustments to the plant-related cost of service items include those made to accumulated reserve for depreciation, ADIT, depreciation expense, current tax additions and deductions, and deferred income tax expense.

Q. HAS THE COMPANY MADE ADJUSTMENTS TO THE PLANT IN-SERVICE BALANCES PRESENTED IN THIS CASE OTHER THAN THOSE APPROVED BY THE COMMISSION IN PRIOR RATE CASES?

A. Yes. The Company made adjustments to the plant in-service balances and plant-related cost of service items in the 2018 through 2020 Forward Test Years' cost of service studies:

1) Adjustments were made to remove a common general project related to the Advanced Grid Initiative and Security ("AGIS") project as discussed by Company witness Mr. Harkness;
2) An adjustment was made to reclassify the Critical Infrastructure Protection ("CIP") Substation Phase 2 project out of common intangible and move it to Electric Intangible; and
3) An adjustment was made to reflect a change in the in-service date associated with an upgrade to the Customer Resource System ("CRS").

Q. PLEASE DESCRIBE THE ADJUSTMENTS MADE TO REMOVE AN INVESTMENT ASSOCIATED WITH THE AGIS PROJECT FROM THE COST OF SERVICE STUDIES PRESENTED IN THIS CASE.

A. As discussed by Company witness Mr. Harkness the Field Area Network ("FAN") component of the AGIS project is classified as a common general asset. This is the appropriate classification because this component may benefit the Public Service gas department and the Company's gas customers, as well as the electric side of the business and electric customers. Benefit to the gas department and gas customers will not occur when this asset is initially put in service in 2017, and therefore the Company has removed the investment from the cost of service studies presented in this case for each of the MYP Forward Test Years. In addition, the Company has removed all CWIP and related cost of service items that tie to the FAN component of the AGIS project from the HTY. Adjustments were made to the plant in-service and all plant-related costs as shown on Attachments SPB-1 through SPB-4, Schedule 99.

Q. WILL THE COMPANY EVER RECLASSIFY THE PLANT-RELATED COST OF SERVICE ITEMS RELATED TO THE COMMON GENERAL FUNCTION?

A. Given that the FAN will benefit electric customers at the outset, we intend to seek recovery through our upcoming electric rate case filing. In a future rate case for the gas side of the business, however, we may reclassify the FAN component of the AGIS project as a common general asset and seek recovery at that time, if and when the FAN is used by the gas department.

Q. PLEASE DESCRIBE THE ADJUSTMENT TO RECLASSIFY THE CIP SUBSTATION PHASE 2 PROJECT.

A. This project was inadvertently classified to the common intangible function in the budget. Expenditures associated with this project began in 2016 and are included in CWIP. The project is expected to be in-service in 2018. Therefore, I made an adjustment to reclassify the project to the electric intangible function, which results in it being removed from this case in the MYP Forward Test Years. Adjustments were made to the plant in-service and all plant-related costs as shown on Attachments SPB-1 through SPB-4, Schedule 92.

Q. PLEASE DESCRIBE THE ADJUSTMENTS TO CHANGE THE IN-SERVICE DATE ASSOCIATED WITH THE REPLACEMENT OF CRS, THE COMPANY'S CUSTOMER BILLING SYSTEM.

A. In the capital budget used as the basis for the plant in-service balances, the Company had included a replacement of the CRS system with an assumed in-service date of December 2020. However, the project timeline is being re-evaluated and will not be placed in service until after the MYP period, *i.e.,* sometime after 2020. Adjustments were made to the plant in-service balances and other plant-related items as shown on Attachment SPB-3, Schedule 89.

Q. PLEASE DESCRIBE THE ADJUSTMENTS MADE TO THE ACCUMULATED RESERVE FOR DEPRECIATION AND AMORTIZATION BALANCE.

A. The adjustments to the accumulated reserve for depreciation and amortization are related to plant in-service adjustments that have already been discussed earlier in my testimony, as shown on Attachments SPB-1 through SPB-4, Schedule 5.

Q. HOW WAS CWIP TREATED IN THE COST OF SERVICE STUDIES PRESENTED IN THIS CASE?

A. In the cost of service studies for the MYP Forward Test Years presented in this case, the CWIP balances are zero. CWIP has not been included in rate base, as shown on Attachments SPB-1 through SPB-3, Schedule 3. As previously discussed, in the HTY cost of service presented in this case, CWIP has been included in rate base with an AFUDC offset to earnings as shown in Attachment

SPB-4, Schedule 3. Including an AFUDC offset to earnings has been a long-standing regulatory practice when CWIP is included in rate base.

Q. WHY DID YOU ELIMINATE ALL CWIP FROM RATE BASE IN THE MYP TEST YEARS' COST OF SERVICE?

A. The Commission has a long-standing practice of allowing a utility to include CWIP in rate base with an offset to earnings for AFUDC. This practice has been used in prior Company rate cases when a historical test year was used for developing the cost of service, and was adopted by the Commission to compensate the Company, in part, for attrition attributable to growth in plant when a historical test year is used to set rates. Because the Company is using projected plant balances as the basis for the MYP Forward Test Years in this case, the attrition issues that were addressed by including CWIP in rate base with an AFUDC offset to earnings are not present.

Q. DID THE COMPANY INCLUDE ANY OTHER ADJUSTMENTS TO THE CWIP BALANCES PRESENTED IN THE HTY COST OF SERVICE?

A. Yes, an adjustment to eliminate the amounts recorded for contractor retentions, booked in FERC Account 252, from the CWIP balance, as shown on Attachment SPB-4, Schedule 18. For some construction projects, the Company retains a portion of the contractor's charges until after the completion of the project. These amounts are funds available for general corporate purposes and the Company has use of these funds until remitted to contractors. As such, these funds must be deducted from rate base, similar to customer deposits and customer advances for construction.

Q. PLEASE DESCRIBE THE BASIS FOR THE BALANCES ASSOCIATED WITH MATERIALS AND SUPPLIES, CUSTOMER DEPOSITS, AND CUSTOMER ADVANCES FOR CONSTRUCTION INCLUDED IN THE COST OF SERVICE STUDIES PRESENTED IN THIS CASE.

A. The materials and supplies (Attachments SPB-1 through SPB-3, Schedule 7), customer deposits (Attachments SPB-1 through SPB-3, Schedule 15), and customer advances for construction (Attachments SPB-1 through SPB-3, Schedule 31) included in the MYP Forward Test Year cost of service studies were all based on the actual 13-month average balances during the test period ending December 31, 2016. These balances are used as a proxy for the MYP Forward Test Years, and are also the balances used in the HTY cost of service (Attachment SPB-4, Schedules 7, 15 and 31).

Q. PLEASE DESCRIBE THE ADJUSTMENT TO THE MATERIALS AND SUPPLIES BALANCE.

A. The Commission has established in previous rate cases that an adjustment should be made to the materials and supplies balance to eliminate a portion that is attributable to capital. These adjustments to the MYP Forward Test Years' cost of service studies and the HTY cost of service study are shown on Attachments SPB-1 through SPB-4, Schedule 7.

Q. PLEASE DESCRIBE THE BASIS FOR THE LEGACY PREPAID PENSION ASSET BALANCE INCLUDED IN THE COST OF SERVICE STUDIES PRESENTED IN THIS CASE.

A. The basis for the legacy prepaid pension asset in the HTY and each year of the MYP reflects the unamortized net balance of the amount approved in the Commission's decision in Proceeding No. 15AL-0135G as of December 31, 2014 of $59,641,232 (gas retail jurisdiction gross balance of $94,326,560 minus $34,685,328 of pension related Accumulated Deferred Income Tax). The Commission approved balance has been reduced annually by $3,976,082 for the approved 15-year amortization.

Q. PLEASE DESCRIBE THE BASIS FOR THE NEW PREPAID PENSION ASSET BALANCE INCLUDED IN THE COST OF SERVICE STUDIES PRESENTED IN THIS CASE.

A. Any new prepaid pension balance accumulating on or after January 1, 2015 is known as the "New Prepaid Pension Asset." The basis for the new prepaid pension asset balance included in the Test Years' cost of service studies presented in this case is describe below. First, the per book prepaid pension asset balance included in the cost of service studies presented in this case are forecasted based on the 13-month average balances during the MYP. Second, the HTY balance used is a 13-month average balance. The Company adjusted the per book balances to the retail gas department's portion of the new prepaid pension asset, net of the ADIT associated with the new pension asset. The net new prepaid pension asset balance is a liability and is included in rate base, as shown on Attachments SPB-1 through SPB-4, Schedule 96.

Q. HOW DOES THE COMPANY ACCOUNT FOR INCOME TAXES?

A. The Company uses the tax normalization method to account for income taxes. Tax normalization refers to the practice of providing deferred taxes on all book/tax timing differences. Timing differences are transactions that impact book income and taxable income in different periods. This issue arises because taxes are not always required to be paid by a utility at the same time the tax obligation is incurred. In contrast, "flow-through" is the accounting method which, for ratemaking purposes, provides for income tax expense payable currently to be included as cost of service income tax expense for the period, and deferred income taxes are not recorded.

The classic example of a timing difference is related to depreciation. Book depreciation is recorded based on a straight line basis. Current taxes are reduced by the value of the accelerated depreciation deduction multiplied by the tax rate. Accelerated depreciation is also known as tax depreciation. The difference between the accelerated deduction used for tax and the straight line depreciation used for book multiplied by the tax rate is recorded as Deferred Income Tax expense. This deferred income tax expense represents the tax effect of this accelerated depreciation compared to book accounting, and is added to the ADIT balance. For the purpose of setting customer rates, in the cost of service study, customer rates are charged for both the current income tax expense and the deferred income tax expense. However, the ADIT balance is applied as a reduction to rate base, which gives customers credit and a reduction in rates. The reduction in rates reflects the Company's use of income taxes that have been collected from customers that are not due and payable in the Company's current taxes.

Q. HAS THIS COMMISSION APPROVED THE USE OF TAX NORMALIZATION FOR RATEMAKING PURPOSES?

A. Yes. The Company has used tax normalization associated with depreciation for setting customers' rates since 1977; however, it was not until 1993 that the Company went to full tax normalization on all timing differences. The Company's first request to use tax normalization for ratemaking purposes was in a 1975 rate case, I&S Proceeding No. 935. In Decision No. 87474, dated September 12, 1975, the Commission did not allow the Company to change from flow-through accounting to normalizing timing differences arising from accelerated depreciation. The Company in its next rate case, I&S Docket No. 1116, again requested approval to normalize timing differences arising from accelerated depreciation. In Decision No. 91581, dated November, 1, 1977 the Commission approved tax normalization arising from accelerated depreciation. The Commission stated:

> We find that normalization assigns proper costs to both present and future customers on a basis of equality. Under flow through, by contrast, present ratepayers pay less than the straight line cost of depreciation and future ratepayers pay more than the straight line cost of depreciation. Normalization equalizes the burden between

present and future ratepayers and, accordingly, is more equitable to both.

In the 1993 Rate Case, Proceeding No. 93S-001EG, the Company requested to use full tax normalization as the method of accounting for income taxes going-forward. In Decision No. C93-1346, adopted October 14, 1993, the Commission approved full tax normalization and allowed the Company to provide for deferred taxes on all timing differences, and allowed the Company to recover a "catch-up" provision for additional deferred taxes which would have accrued had full normalization been used during past periods of time. In addition, the normalization method of accounting is provided for as "comprehensive inter-period income tax allocation" in General Instruction 18 of the FERC Uniform System of Accounts, 18 Code of Federal, which includes the 2015 proposed base rate increase, Regulations, Part 201, and has been adopted by the Commission for all gas utilities in Colorado.

Q. WHAT IS BONUS TAX DEPRECIATION?

A. Bonus tax depreciation is the result of provisions in federal tax laws that allow the Company to deduct a percentage of qualifying capital investments in the first year an investment is placed in-service. For example, if the percentage allowed for bonus depreciation in the first year is 50 percent, 50 percent of the qualifying capital investment is depreciated in the first year that the underlying asset is in service. The remaining 50 percent is then depreciated for tax purposes using existing accelerated depreciation schedules. Both the bonus tax depreciation deductions and the existing accelerated depreciation deductions are normalized for accounting and ratemaking purposes. The Consolidated Appropriations Act of 2016 provided a phase-out of bonus tax depreciation with bonus tax depreciation of 50 percent on eligible assets placed into service in 2015, 2016, and 2017, bonus tax depreciation of 40 percent on eligible assets placed into service in 2018, and bonus tax depreciation of 30 percent on eligible assets placed into service in 2019. Company witness Ms. Ostrom explains the application and effects of this 2015 bonus depreciation law in more detail.

Q. HAS THE COMPANY'S USE OF ACCELERATED AND BONUS DEPRECIATION PROVIDED SUBSTANTIAL BENEFITS TO CUSTOMERS?

A. Yes, customers benefit from reductions to rate base that flow from the application of both accelerated and bonus depreciation. Income tax normalization accounting has led to substantial reductions in the Company's rate base due to the offsets from ADIT, and this reduced rate base in turn drives lower required earnings.

Q. HAS TAX NORMALIZATION BECOME MORE COMPLEX AS A RESULT OF BONUS TAX DEPRECIATION?

A. Yes. The Company must determine if the bonus tax depreciation results in more tax deductions than the Company can currently use. In other words, the Company must calculate if there are more deductions than net income, which results in a tax NOL. The Company has made these calculations for all the Forward Test Years and the HTY presented in this case. As shown on Attachments SPB-1 through SPB-4, Schedule 14, the Company is not in a NOL position in the HTY, and is not in an NOL position in the MYP Forward Test

Years. However, the gas department does have an accumulated deferred tax asset balance due to net operating losses in years prior to the HTY. This NOL deferred income tax asset is added to rate base in the HTY and MYP. Due to taxable income in the HTY and continuing through the MYP Forward Test Years, the accumulated deferred income tax asset is unwinding (*i.e.,* the balance is declining); however, it does not go to zero by December 31, 2020. The accumulated deferred income tax asset is included in rate base to offset the ADIT balances, as shown on Attachments SPB-1 through SPB-4, Schedule 3.

Q. PLEASE DESCRIBE THE BASIS FOR THE ADIT BALANCES INCLUDED IN RATE BASE IN THIS CASE.

A. The ADIT balance included in rate base consists of both plant and non-plant related items booked to FERC Accounts 281, 282, 283, and 190 and reflect the proration discussed by Company witness Ms. Ostrom. The plant-related ADIT balance is primarily due to the book-tax timing difference relating to depreciation. The book plant-related ADIT balances are detailed on Attachments SPB-1 through SPB-4, Schedule 3. The non-plant ADIT balance is primarily due to the book-tax timing differences relating to pensions and benefits and other non-depreciation related items. The Company has detailed the ADIT balance by each non-plant income tax addition/deduction (also known as “Schedule M items”), and has functionalized the plant-related ADIT items. This level of detail allows the Company to accurately assign the ADIT balances to the correct jurisdiction. The details of the non-plant ADIT balances are presented on Attachments SPB-1 through SPB-4, Schedule 19.

The Company has also correspondingly presented the deferred income tax expense and additions/deductions to current income taxes for both plant and non-plant related items consistent with the ADIT balances.

Q. PLEASE DISCUSS THE ADJUSTMENTS TO THE ADIT BALANCE INCLUDED IN RATE BASE.

A. There are several adjustments to the ADIT balance included in rate base in the cost of service studies presented in this case. First, there are several adjustments related to the plant adjustments as previously discussed. Second, adjustments have been made to eliminate ADIT balances that are related to items not included in the cost of service. For example, we have eliminated the ADIT balances associated with unbilled revenue, deferred gas costs associated with the GCA, and, ITCs, and Financial Interpretation Number 48 “Accounting for Uncertainty in Income Taxes” (“FIN 48”), Financial Accounting Standard 109 (“FAS 109”), and other comprehensive income (“OCI”). Third, adjustments have been made to eliminate ADIT balances related to the prepaid pension asset, as these amounts have been netted with the asset and liability balances and included in rate base. An adjustment was made in the HTY cost of service to the ADIT balance associated with interest on the CWIP balance included in rate base in which AFUDC is calculated. The interest on CWIP adjustment to ADIT has been allowed in prior rate cases. Details of the adjustments to ADIT balances are shown on Attachments SPB-1 through SPB-4, Schedule 5.

Q. HAS THE COMPANY INCLUDED ANY OTHER NEW RATE BASE ITEMS IN THE COST OF SERVICE PRESENTED IN THIS CASE?

A. Yes. As discussed by Company witness Mr. Schrubbe, the Company has included the regulatory assets and liabilities associated with FAS 106, FAS 112, and non-qualified pension in rate base.

VII. CASH WORKING CAPITAL

Q. PLEASE DESCRIBE CASH WORKING CAPITAL INCLUDED IN RATE BASE.

A. Cash working capital is the amount of investor-supplied capital necessary to finance cost of service expenses between the time the expenditures are required to provide the service to customers and the time cash is received for that service. To determine the allowance of cash working capital, the Commission has traditionally accepted the use of a lead-lag study.

Q. DID THE COMPANY PERFORM A LEAD-LAG STUDY THAT WAS USED TO DERIVE THE CASH WORKING CAPITAL AMOUNT IN RATE BASE IN THIS CASE?

A. Yes. The Company prepared a lead-lag study based on the twelve months ending September 30, 2016, which was used for all the Forward Test Years and the HTY presented in this case. The lead-lag study is presented in two Attachments: (1) Attachment SPB-8 is a summary of the lead-lag study for all components; and (2) Attachment SPB-9 is the detail supporting the study. Attachment SPB-9 is voluminous and being provided as a CD-ROM.

Q. PLEASE DESCRIBE A LEAD-LAG STUDY.

A. A lead-lag study is a method used to measure the amount of working capital required to finance a utility’s day-to-day operations. There are two parts in a lead-lag study. First, the expense lead must be calculated. An extensive and detailed study of the payment practices for each cash expense is made by measuring the period of time from when the Company receives goods or services and the date the expense is paid (the “service period”). Statistical sampling can be used to determine the expense lead. Once the expenses to be reviewed (census group or sample) have been determined, each invoice is reviewed to determine the service period. The service period’s mid-point date is calculated. Using the check date as the payment date, the mid-point is subtracted from the payment date, resulting in the number of lead days. Second, the revenue lag must be calculated. The revenue lag is the time between the mid-point of the service period to the date when the Company receives payment from its customer. Depending on the number of customers, statistical sampling can be used to determine the revenue lag.

The expense lead is then subtracted from the revenue lag to determine the number of days until the Company is compensated for its expense payout. This net number of days is converted to an annual number by dividing by 365 days, which is referred to as the cash working capital factor. The cash working capital factor is multiplied by the corresponding test period expense items and then added to rate base. Cash working capital factors can be positive or negative, depending upon whether the expense lead is shorter or longer than the revenue lag.

Q. WHAT STATISTICAL SAMPLING METHODOLOGY DID THE COMPANY USE IN THE LEAD-LAG STUDY PERFORMED IN THIS CASE?

A. The Company used the same statistical sampling method to calculate the lead-lag study in this case as was used in the electric rate case in Proceeding No. 06S-234EG, which both Staff and the Colorado Office of Consumer Counsel (“OCC”) agreed would be used in future studies.

Revenue lag parameters

- Confidence level: 95 percent
- Precision: 5 percent
- Proxy mean and variance: mean and variance from the 2015 gas lead-lag study as a starting point for the sample size calculation.
- For sampled data sets: any accounts drawn with records for fewer than eleven months will be discarded and a new account drawn from the sample.
- For census or population data sets: all accounts will be used, regardless of the number of records within each account.
- Sample size: consistent with the preceding two parameters, an increase in sample size of no less than 50 percent is required in order to achieve the confidence and precision requirement as stated above, to compensate for incomplete data, incomplete records, and possible distortion in sample size due to use of mean and variance from the 2015 gas lead-lag study as a proxy mean and variance in this study.
- Sampling: draw without replacement.

Expense lead parameters

- Confidence level: 90 percent
- Precision: 10 percent
- Proxy mean and variance: mean and variance from the 2015 gas lead-lag study as a starting point for sample size calculation.
- Sample size: consistent with the preceding two parameters, an increase in sample size of no less than 20 percent is required in order to achieve confidence and precision requirement as stated above, to compensate for incomplete data, incomplete records, and possible distortion in sample size due to use of mean and variance from the 2015 lead-lag study as a proxy mean and variance in this study.

- Stratified sampling/probability proportional to size ("PPS") sampling: acceptable.
- Sampling: draw without replacement.

Q. WHAT PROCESS DOES THE COMPANY FOLLOW WHEN PREPARING A LEAD-LAG STUDY FOR A RATE CASE FILING?

A. The process used to prepare a lead-lag study for a rate case filing is presented in Attachment SPB-8.

Q. WHAT CASH EXPENSE ITEMS ARE INCLUDED IN THE EXPENSE LEAD CALCULATION?

A. The following cash expense items have historically been included in the expense lead calculation, and were included in the study prepared for this case:

- Natural gas purchased for resale;
- Labor O&M expense;
- Non-Labor O&M expense;
- XES charges booked to O&M expense;
- Incentive pay;
- Paid time off;
- Taxes other than income taxes, *e.g.*, property tax and payroll taxes;
- State income taxes;
- Federal income taxes;
- Franchise fees paid; and
- Sales taxes paid.

Q. DID THE COMPANY INCLUDE INTEREST ON LONG-TERM DEBT IN THE EXPENSE LEAD CALCULATION?

A. No. Interest on long-term debt is not included in the lead-lag study. The Commission has determined in previous Public Service rate cases in Proceeding Nos. I&S 1640, 96S-290G, and 09AL-299E that interest on long-term debt should not be included as a component in the cash working capital allowance. In the 2015 Rate Case, interest on long-term debt was not included in the lead-lag study approved by the Commission.

Q. BRIEFLY EXPLAIN THE PROCEDURES USED TO DETERMINE THE EXPENSE LEAD.

A. The Company used statistical sampling to determine the expense lead for the gas for resale and non-labor O&M cash working capital expense categories. One hundred percent of the invoices and payments were reviewed and service dates gathered for the O&M Labor, and the various tax cash working capital expense categories. The expense lead is the average number of days from the time of service to the date the Company remits payment for the service to the vendor. The expense lead for each invoice is determined by taking the sum of the following periods:

1) The service period, based on the mid-point of each invoice's service period;
2) The payment period, based on the number of days it takes for the Company to remit payment to the vendor from the mid-point date of each invoice's service period; and

3) A half day is added to bring the payment date to noon of that day. The expense lead days are weighted by the amount of the invoices.

Q. HOW DID THE COMPANY CALCULATE THE CASH WORKING CAPITAL ASSOCIATED WITH THE COSTS OF GAS PURCHASED FOR RESALE COSTS?

A. The Company multiplied the applicable net lead-lag factors by the per book HTY gas purchased for resale expense amount. Currently, the gas department has no gas costs in base rates, as all gas costs are recovered through the GCA. Therefore, using per book expense is most representative for calculating a cash working capital amount.

Q. PLEASE DESCRIBE HOW THE EXPENSE LEAD WAS CALCULATED FOR THE CASH WORKING CAPITAL ITEM RELATING TO THE XES CHARGES TO PUBLIC SERVICE.

A. The Company has calculated the cash working capital expense lead for billings from XES to Public Service using the same methodology that has been used in its last several rate cases. XES provides administrative, accounting and legal services to Public Service and other Xcel Energy subsidiaries. The Company pays XES on approximately the 23rd day of the month following the month in which the services were rendered. The expense lead is calculated by adding the service period (the mid-point of each month’s service period) to the payment period (the number of days it takes for the Company to remit payment to XES).

Q. PLEASE DESCRIBE THE CASH WORKING CAPITAL ALLOWANCE THAT IS ADDED TO RATE BASE TO REIMBURSE XES FOR FINANCING THE PUBLIC SERVICE CHARGES.

A. Consistent with the methodology that has been used in its last several rate cases, the Company has calculated a cash working capital factor that is applied to the XES charges to account for the financing costs incurred by XES before they are paid for the services rendered. The revenue lag is the number of days it takes for Public Service to pay for services rendered. The expense lead is the same as those used by Public Service, since both companies have the same accounts payable payment practices.

Q. BRIEFLY EXPLAIN THE PROCEDURES USED TO DETERMINE THE REVENUE LAG.

A. The revenue lag was calculated using data from the Company's customer billing system. The Company used statistical sampling for the customers billed under rate schedules with a large number of customers, and used 100 percent sampling for the customers under rate schedules with less than 600 accounts. The revenue lag was calculated for each invoice. The revenue lag is the average number of days from the time of service to the date the Company receives payment from the customer. The revenue lag is determined by taking the sum of the following periods:

1) The meter-reading period, based on the mid-point of each month's service period;

2) The collection lag, based on the number of days it takes for the customers to pay their bills from the mid-point date of the service period; and
3) An additional half day is added to account for the posting of the customer receipts to the Company's bank account. An average lag day value for each rate schedule was calculated and weighted with the percent of total revenue.

Q. WHAT ARE THE RESULTING LEAD-LAG FACTORS THE COMPANY HAS CALCULATED FOR USE IN DETERMINING CASH WORKING CAPITAL IN THIS CASE?

A. The resulting lead-lag factors are presented on Attachment SPB-8. These cash working capital factors were then weighted by the applicable test period costs to calculate Cash Working Capital, as presented on Attachments SPB-1 through SPB-4, Schedule 9.

VIII. LABOR AND LABOR-RELATED EXPENSES

Q. PLEASE DISCUSS THE ADJUSTMENTS TO INCLUDE WAGE INCREASES IN THE COST OF SERVICE STUDIES PRESENTED IN THIS CASE.

A. As addressed earlier in my testimony and discussed in more detail by Company witness Mr. Brockett, the Company used an indexing approach with regard to labor O&M expense. To reiterate, we took actual amounts for the twelve months ending December 31, 2016, adjusted for known and measurable changes. We then escalated these amounts by 3.00 percent to account for expected wage increases in 2017 and applied a 2.00 percent escalation to each of the 2018, 2019, and 2020 Forward Test Years. This 2.00 percent indexing approach over the MYP Test Years accounts for expected wage increases, less a productivity factor, in each year of the MYP. I have incorporated these increases in the cost of service studies presented in this case, and this is reflected in the table below.

Table SPB-D-4

	2016 HTY	***2018***	***2019***	***2020***
Adjusted Base Labor	$77,738,937	$80,071,105	$81,672,527	$83,305,978
Adjustment to HTY	$ 2,332,168	N/A	N/A	N/A
Adjustment to MYP	N/A	$ 1,601,422	$ 1,633,451	$ 1,666,120
Total	**$80,071,105**	**$81,672,527**	**$83,305,978**	**$84,972,097**
Adjustment to Base (%)	3.00%	2.00%	2.00%	2.00%

Q. DID THE COMPANY CONSIDER PRODUCTIVITY GAINS WHEN MAKING THE WAGE ADJUSTMENTS TO THE MYP AND HTY COST OF SERVICE?

A. Yes. Pacific Economics Group performed a productivity analysis, which is described in detail in the testimony of Company witness Mr. Mark Lowry. We considered the results of this productivity analysis, as explained by Company witness Mr. Brockett, in developing the net percentage increase of 2.00 percent over each of the MYP Test Years. With respect to the HTY, the Company first made the out-of-period wage adjustments to the HTY cost of service because these were based on known and measurable cost increases that the Company has paid or is expected to pay. The Company followed the regulatory principle of making known and measurable adjustments for changes in costs that occur within one year after the end of the test period. In addition, the Company prepared a productivity study consistent with the productivity study filed and approved by the Commission in the 2015 Rate Case, which was modeled after the productivity study approved in the Company's 1993 rate case, in Decision No. C93-1346, adopted October 14, 1993, in Proceeding No. 93S-001EG.[4] The productivity study is a measure of the average of compound growth rates of

[4] The Company filed to include an out-of-period wage adjustment with a productivity offset in two subsequent gas rate cases in Proceeding No. 96S-290G ("1996 Rate Case") and Proceeding No. 98S-518G ("1998 Rate Case"). In the 1996 Rate Case, the Commission did not approve the Company's productivity factor, or the productivity factor advocated by the OCC. *See* Decision No. C97-118, adopted January 27, 1997. In the 1998 Rate Case, the Commission rejected the Company's productivity factors, accepted a productivity factor that removed the out-of-period wage adjustment in total. *See* Decision No. C99-579, adopted May 29, 1999.

output per unit of labor from 2006 through 2016, as shown in Attachment SPB-14.

Q. PLEASE DESCRIBE THE METHODOLOGY USED TO DEVELOP THE LABOR PRODUCTIVITY INFORMATION PROVIDED IN ATTACHMENT SPB-14.

A. The general definition of labor productivity is the ratio of output to input. It is the relationship between the quantity and value of goods and services produced (output) and the quantity of labor required (the input). The output used was gas sales, including transportation volumes, normalized for weather. The input used was total gas labor costs as reported in the Company's FERC Form No. 2, plus gas employee benefits expense. The result is negative productivity, due to sales declining over the ten-year period of time that was used for this analysis. Consequently, there is no productivity offset to the out-of-period wage adjustment for the HTY based on ten years of information using the methodology approved by the Commission.

Q. PLEASE DISCUSS THE ADJUSTMENTS TO THE ANNUAL EMPLOYEE INCENTIVE COMPENSATION THAT THE COMPANY HAS INCLUDED IN COST OF SERVICE STUDIES PRESENTED IN THIS CASE.

A. The Company makes employee incentive payments above base salaries so long as certain minimum earnings performance targets are met and other pre-established key performance indicators are met or exceeded. I made several adjustments to incentive pay in the HTY presented in this case. First, I started with the base per book incentive pay, by FERC Account for the 12 months ended

December 31, 2016, and made adjustments to limit incentive pay to 15 percent of employee base wages on a person-by-person basis in the amount of ($497,652), as shown on Attachment SPB-4, Schedule 65. Second, I increased the resulting incentive pay in the HTY and the MYP Forward Test Years for wage increases in the same manner as the wage increases were applied to base labor as described above.

In addition, I adjusted the pension and benefit expense to reflect the reduction in incentive pay. Adjustments have been made to applicable O&M expense accounts where these amounts are recorded. The adjustments were made to the HTY prior to indexing the HTY to the MYP. The adjustments are shown on Attachment SPB-4, Schedule 51. In addition, Taxes Other Than Income Taxes was adjusted for the related payroll taxes, and the Cash Working Capital Allowance related to incentive pay reflects the adjusted Test Year levels.

Q. WHAT ACCOUNTS IN THE COST OF SERVICE STUDIES ARE SUBJECT TO THIS APPROACH TO ADDRESSING LABOR AND LABOR-RELATED EXPENSES?

A. The list below identifies adjustments made to include wage increases and an adjustment to incentive pay for the bargaining unit employees and non-bargaining unit employees. These adjustments are shown on Attachments SPB-1 through SPB-4, Schedule 23.

- Other gas supply O&M expense;
- Underground storage O&M expense;
- Production operations O&M expense;

- Transmission O&M expense;
- Distribution O&M expense;
- Customer operations expense; and
- Administrative and general (“A&G”) expense.

IX. COST OF GAS PURCHASED FOR RESALE

Q. PLEASE DISCUSS THE ADJUSTMENTS TO COST OF GAS PURCHASED FOR RESALE COSTS.

A. The cost of gas purchased for resale was removed from base rates in a previous Phase II gas rate case, Proceeding No. 99S-609G. These costs are now included in the GCA. Therefore, the costs of gas purchased for resale costs are set to zero in the cost of service studies presented in this case, as shown on Attachments SPB-1 through SPB-4, Schedule 26.

X. OTHER GAS SUPPLY O&M EXPENSE ADJUSTMENTS

Q. WHAT ADJUSTMENTS WERE MADE TO OTHER GAS SUPPLY O&M EXPENSES?

A. Adjustments were made to include labor expenses recorded in FERC Account 807, Well Expenses – Purchased Gas.

Q. PLEASE DISCUSS THE ADJUSTMENT TO INCLUDE LABOR EXPENSES FROM THE PURCHASED GAS ACCOUNT TO O&M EXPENSES.

A. The Company recorded labor expenses in FERC Account 807, which is a cost of gas expense account that would normally be eliminated because these costs are recovered through the GCA. However, labor expense costs are not recovered through the GCA, so these costs needed to be reclassified as Other Gas Supply expenses and recovered in base rates. The adjustment was made to the HTY prior to indexing the HTY to the MYP. The adjustment is shown on Attachment SPB-4, Schedule 26.

XI. TRANSMISSION O&M EXPENSE ADJUSTMENTS

Q. WHAT ADJUSTMENTS HAVE YOU MADE TO TRANSMISSION O&M EXPENSE?

A. Adjustments were made to:

1) Eliminate the costs associated with the Front Range Pipeline; and
2) Account for the amortization of previously deferred TIMP O&M costs.

Q. PLEASE DISCUSS THE FRONT RANGE PIPELINE ADJUSTMENTS.

A. In Decision No. C98-556, mailed June 4, 1998, in Proceeding No. 97A-622G, the Commission approved Public Service's application for a Certificate of Public Convenience and Necessity to construct the Front Range Pipeline, subject to conditions. As one condition, the Commission required that service over the Front Range Pipeline be provided on a separate, stand-alone basis instead of being accorded "rolled-in" rate treatment with Public Service's other services. In accordance with that determination, all costs associated with the Front Range Pipeline are excluded from base rate revenue requirements. The Company made three adjustments to the gas department cost of service studies associated with the Front Range Pipeline, including:

1) Eliminating the test year lease payments (FERC Account 860);
2) Eliminating O&M expenses (FERC Account 863); and,
3) Eliminating property taxes (FERC Account 408).

All of these adjustments are shown on Attachments SPB-1 through SPB-4, Schedule 83.

Through these three adjustments, the Company has excluded all costs associated with the Front Range Pipeline consistent with Decision No. C98-556.

Q. PLEASE DISCUSS THE ADJUSTMENTS ASSOCIATED WITH THE AMORTIZATION OF THE PREVIOUSLY DEFERRED TIMP O&M COSTS.

A. In the 2010 Rate Case, the Company proposed to amortize the costs the Company had previously deferred related to TIMP O&M expenses. As approved by the Commission in Decision No. R11-0743, the Company amortized $27.082 million of TIMP O&M expenses deferred through December 31, 2010 over five years, beginning September 5, 2011, the effective date of rates from the 2010 Rate Case. In this case, the Company removed the amortization expense in the HTY that expired on September 4, 2016. The adjustment was made to the HTY prior to indexing the HTY to the MYP. The adjustment is shown on Attachment SPB-4, Schedule 105.

XII. DISTRIBUTION O&M EXPENSE ADJUSTMENTS

Q. WHAT ADJUSTMENTS HAVE YOU MADE TO DISTRIBUTION O&M?

A. Adjustments were made to include costs associated with the current Enhanced Emergency Response program, the Enhanced Emergency Response 2.0 program, and the Damage Prevention program.

Q. PLEASE DESCRIBE THE ADJUSTMENTS MADE FOR THE CURRENT ENHANCED EMERGENCY RESPONSE PROGRAM.

A. As discussed by Mr. Litteken, the Company is proposing to adjust the HTY to the 2017 forecasted level of the current Enhanced Emergency Response program. This is accomplished by first starting with per book expenses for the period ending December 31, 2016 of $13,915,963 and making an adjustment to include the additional forecasted amount of $1,682,164, which bridges the program through December 31, 2017, at which point it will be fully staffed. Adjustments were made to the HTY prior to indexing the HTY to the MYP to O&M labor and non-labor expense, and payroll taxes, as shown on Attachment SPB-4, Schedule 104.

Q. PLEASE DISCUSS THE ADJUSTMENTS TO INCLUDE COSTS ASSOCIATED WITH THE ENHANCED EMERGENCY RESPONSE 2.0 PROGRAM.

A. Mr. Litteken also addresses the Company's proposed continuation of the Enhanced Emergency Response and Damage Prevention programs approved in the 2015 Rate Case. Additionally, the Company is proposing new metrics and expenses related to the Enhanced Emergency Response to augment the safety and reliability of the gas system that are separate and apart of the projects included in the PSIA rider. Adjustments were made to the MYP and the HTY for these projects to O&M labor and non-labor expense, and payroll taxes, as shown on Attachments SPB-1 through SPB-4, Schedule 86. The adjustments for Enhanced Emergency Response 2.0 were not indexed, but made to the HTY and MYP after indexing occurred. The adjustments for Enhanced Emergency Response 2.0 are reflected in the table below.

Table SPB-D-5

	2016 HTY	***2018***	***2019***	***2020***
Labor	$ 199,599	$ 278,797	$ 621,698	$ 2,024,331
Non Labor	$ 55,912	$ 78,096	$ 174,149	$ 567,053
Total	**$ 255,511**	**$ 356,893**	**$ 795,847**	**$ 2,591,384**

Q. PLEASE DESCRIBE THE PROPOSAL TO DEFER O&M COSTS ASSOCIATED WITH THE DAMAGE PREVENTION PROGRAM.

A. Mr. Litteken testifies that the Company is proposing to continue deferral of O&M costs associated with the Damage Prevention program that are greater than or less than the amount in base rates, beginning with the rates effective from this case. The Company has included $12,763,072 in damage prevention O&M expense in the HTY and 2018, 2019, and 2020 Forward Test Years, as shown on Attachment LAL-4. The Company will address the recovery of any regulatory asset/liability that might result in its next gas rate case.

XIII. CUSTOMER OPERATIONS EXPENSE ADJUSTMENTS

Q. WHAT ADJUSTMENTS HAVE YOU MADE TO CUSTOMER OPERATIONS EXPENSES?

A. Adjustments were made to:

1) Include interest expense on customer deposits; and
2) Eliminate the gas DSM costs.

Q. PLEASE DISCUSS THE ADJUSTMENT TO INCLUDE INTEREST EXPENSE ON CUSTOMER DEPOSITS.

A. As I previously discussed, the Company includes customer deposits as a reduction to rate base, and is also allowed to include the related interest as an addition to Customer Operations expense. The customer deposit interest rate used in this case is 0.34 percent, which is the current Commission approved rate effective January 1, 2016, as approved in Decision No. C16-0989, Proceeding No. 16M-0806G. The adjustment is shown on Attachments SPB-1 through SPB-4, Schedule 15.

Q. PLEASE DISCUSS THE ADJUSTMENT TO ELIMINATE THE GAS DSM COSTS FROM THE COST OF SERVICE.

A. All costs associated with the Company's gas DSM program have been excluded from the cost of service in this case, since these costs are currently recovered through the gas DSMCA. An adjustment has been made to eliminate the amount of gas DSM costs booked in the HTY from Customer Operations expense, FERC Account 908, as shown on Attachments SPB-1 through SPB-4, Schedule 26.

Q. HAVE YOU INCLUDED SAFETY, CONSERVATION, AND CUSTOMER PROGRAM RELATED ADVERTISING COSTS IN THE COST OF SERVICE?

A. Yes, these types of advertising expenses are included in the cost of service studies presented in this case. The Company is providing copies of the ads for the twelve month period ending December 31, 2016, along with their related costs in Attachment SPB-12. As noted later in my testimony, advertising expenses related to brand or promotional advertising booked in FERC Account 930.1, Miscellaneous A&G expense are not included, consistent with prior Commission directives.

XIV. ADMINISTRATIVE & GENERAL ("A&G") EXPENSE ADJUSTMENTS

Q. WHAT ADJUSTMENTS HAVE YOU MADE TO A&G EXPENSES?

A. Adjustments were made to:

1) Eliminate the expenses associated with the long-term portion of the officers' incentive compensation;
2) Include costs associated with Gas Enhanced Emergency Response and Enhanced Emergency Response 2.0;
3) Eliminate a portion of the Company's aviation expenses;
4) Eliminate certain employee expenses;
5) Adjust the level of pension and benefits expenses in the HTY (Attachment SPB-4, Schedules 50 and 51), while forecasting pension and benefits expense over the MYP period;
6) Include the incremental costs for preparing and litigating this case;
7) Adjust the regulatory Commission expense for the Commission's current level of assessment fees;
8) Include the amortization of the net legacy prepaid pension asset (Attachments SPB-1 through SPB-4, Schedule 12);
9) Eliminate certain advertising expenses;
10) Eliminate the impact of the captive insurance dividend;
11) Adjust active healthcare expense for claims incurred-but-not-reported;
12) Include the full cost of the Cyber Security Organization; and
13) Make accounting adjustments to correctly state the HTY.

Q. PLEASE DISCUSS THE ADJUSTMENT TO ELIMINATE THE OFFICERS' INCENTIVE COMPENSATION.

A. The Company has excluded the long-term portion of the officers' incentive compensation from the cost of service study presented in this case, as discussed by Company witness Ms. Koenig. Adjustments have been made to eliminate these costs from FERC Account 920, A&G Salaries, in the cost of service studies presented in this case. Adjustments were made to the HTY in the amount of ($2,746,755) prior to indexing the HTY to the MYP. The adjustment is shown on Attachment SPB-4, Schedule 26. In addition, as with the other adjustment to employee labor expenses, adjustments were made to Taxes Other Than Income Taxes for the related payroll taxes and the Cash Working Capital Allowance factor was adjusted.

Q. PLEASE DISCUSS THE ADJUSTMENT TO ELIMINATE CERTAIN AVIATION EXPENSES ASSOCIATED WITH THE CORPORATE AIRCRAFT.

A. Consistent with the decision in the 2015 Rate Case, the Company is proposing to recover 8.55 percent of the costs associated with the corporate aircraft in base rates. An adjustment was made to eliminate 91.45 percent of the corporate aircraft costs included in the HTY cost of service study totaling ($581,422) and shown on Attachment SPB-4, Schedule 47. The adjustment was made to the HTY prior to indexing the HTY to the MYP. Some aviation expenses are recorded as labor expenses in the Company accounting system. Therefore, as with the other adjustment to employee labor expenses, adjustments were made to Taxes Other Than Income Taxes for the related payroll taxes and the Cash Working Capital Allowance factor was adjusted as well.

Q. PLEASE DISCUSS THE ADJUSTMENT TO ELIMINATE AMOUNTS ASSOCIATED WITH DISCRETIONARY PAY.

A. In the 12-month period ending December 31, 2016, the Company recorded amounts associated with discretionary pay. Discretionary pay is bonuses given at the discretion of management for high performance. Discretionary pay is not guaranteed, and may not be given every year. In the HTY cost of service, discretionary pay is included in the incentive pay amounts on Attachment SPB-4, Schedule 48. When the Company made an adjustment to bring the incentive pay to target and limit incentive pay to 15 percent of base pay, the discretionary pay in the amount of ($44,590) was eliminated from the cost of service studies presented in this case. The adjustment was made to the HTY prior to indexing the HTY to the MYP.

Q. PLEASE DISCUSS THE ADJUSTMENT THE COMPANY MADE TO ELIMINATE CERTAIN EMPLOYEE EXPENSES.

A. The employee expense adjustment resulted from a review of the actual accounting transactions for the twelve months ending December 31, 2016. The review identified approximately ($48,347) in certain costs recorded in operating accounts and assigned to the gas department that did not meet travel policy guidelines as recoverable from customers. We searched electronically the employee expense transactions that were allocated or assigned to the Company and incorrectly recorded to operating accounts based on using key words and categories. The adjustments were made to the HTY prior to indexing the HTY to the MYP, as shown on Attachment SPB-4, Schedule 49.

Q. PLEASE DISCUSS THE TREATMENT OF THE LEVEL OF PENSION AND BENEFITS EXPENSE INCLUDED IN THE 2018, 2019, AND 2020 FORWARD TEST YEARS.

A. The 2018, 2019, and 2020 Forward Test Years qualified pension and non-qualified pension expense is forecasted as discussed by Company witness Mr. Schrubbe. The Company is proposing to continue to use a pension expense tracker, in which the pension costs in the MYP will set the level of pension expenses. Pension expenses incurred in 2018, 2019, and 2020 that are greater or lower than the MYP level will be deferred in a regulatory asset/liability account, and any regulatory asset/liability would be recovered in a future rate case.

Q. PLEASE DESCRIBE THE ADJUSTMENT TO A&G EXPENSE FOR COSTS INCURRED FOR RATE CASE EXPENSES.

A. This adjustment includes the actual costs incurred to date, plus the estimated incremental costs of preparing, filing and litigating this rate case. Such incremental costs include the cost of customer noticing, duplicating, postage, consultant and outside witness fees, transcripts, and outside legal fees. The Company is proposing to amortize $1,073,682 over a 24-month amortization period, effective January 1, 2019 in the MYP, and 18 months in the HTY. The rate case expense adjustment to A&G expense is shown on Attachments SPB-1 through SPB-4, Schedule 57.

Q. HAS THE COMPANY INCLUDED ANY EXPENSE IN THE COST OF SERVICE STUDIES PRESENTED IN THIS CASE ASSOCIATED WITH RATE CASE EXPENSES FROM THE 2015 RATE CASE?

A. No. The rate case expenses from the 2015 Rate Case are being amortized over a 26-month period, which will end December 31, 2017. In the HTY, the Company recorded $335,863 associated with the amortization of the rate case expenses from the 2015 Rate Case in FERC Account 928, Regulatory Commission Expense. An adjustment has been made to remove this amount from the HTY.

Q. WHAT ADVERTISING COSTS WERE ELIMINATED?

A. Consistent with prior Commission rulings, advertising expenses related to brand or promotional advertising booked in FERC Account 930.1, Miscellaneous A&G expense, in the amount of ($926,073) have been eliminated, as shown on Attachment SPB-4, Schedule 26. The adjustment was made to the HTY prior to indexing the HTY to the MYP.

Q. PLEASE DISCUSS THE ADJUSTMENT THE COMPANY MADE RELATED TO THE CAPTIVE INSURANCE DIVIDEND.

A. As discussed by Company witnesses Mr. Schrubbe and Mr. Robinson, in 2016, the Company received a captive dividend on an insurance policy, of which the gas portion amounts to $1,741,704. The total is comprised of an adjustment to FERC Account 934, property insurance of $1,195,689 discussed by Mr. Robinson, and an adjustment to FERC Account 925, workers compensation insurance of $546,015 discussed by Mr. Schrubbe. This distribution is a means to manage excess surplus in the captive, and a distribution had not been received since 2008. This distribution, however, represented a one-time reduction to expense that is not expected to occur again in the MYP. Therefore, it has been added back into the HTY prior to indexing the HTY to the MYP as shown on Attachment SPB-4, Schedule 54.

Q. PLEASE DISCUSS THE ADJUSTMENT THE COMPANY MADE RELATED TO ACTIVE HEALTHCARE CLAIMS INCURRED-BUT-NOT-REPORTED.

A. As discussed by Company witness Mr. Schrubbe, the actual amount booked in the HTY for active healthcare expense is an estimate at year end. Claims that are incurred in the HTY but not reported until after the books close should be adjusted in the HTY. This adjustment in the amount of ($157,806) is a decrease to FERC Account 926, employee benefits expense as shown on Attachment SPB-4, Schedule 101.

Q. PLEASE DISCUSS THE ADJUSTMENT THE COMPANY MADE RELATED TO THE CYBER SECURITY ORGANIZATION.

A. As discussed by Company witness Mr. Harkness, the Enterprise Security Services ("ESS") group was consolidated during 2016 to facilitate quick response to the ever-changing security landscape. This organization was staffed over the course of 2016, with a substantial number of employees joining the group in the second half of the year. Accordingly, I made an adjustment in the amount of $166,520 to the HTY to bring the expenses to a full year level prior to indexing the HTY to the MYP, as shown on Attachment SPB-4, Schedule 53.

Q. DID THE COMPANY MAKE ANY ACCOUNTING ADJUSTMENTS TO THE HTY?

A. Yes. The Company has made several adjustments to the HTY to (1) eliminate certain expenses that should not be included in the base rate calculation; or, (2) add expenses that should be included in the calculation, as follows:

- An adjustment was made to remove ($1,471,587) of costs that were inadvertently recorded to the gas service rather than the electric service in FERC Accounts 870, 887, 892, and 912, as discussed by Mr. Robinson, as shown on Attachment SPB-4, Schedule 106.
- An adjustment was made to correct an allocation of Commission regulatory fees in FERC Account 928 in the amount of ($151,835). This amount was allocated to gas and should have been allocated to electric, as discussed by Mr. Robinson, as shown on Attachment SPB-4, Schedule 79.
- An adjustment was made to correct an allocation of Edison Electric Institute ("EEI") dues that was inadvertently recorded to the gas service in FERC Account 930.2 in the amount of ($299,658), as these costs should have all been allocated to the electric service, as discussed by Mr. Robinson, as shown on Attachment SPB-4, Schedule 84.
- An adjustment was made to add one month of the Xcel Energy Inc. WYCO ("WYCO") lease expense that was inadvertently not recorded in September 2016 in the amount of $113,848. This adjustment was made to correctly state the WYCO lease expense, but is then removed from the HTY as part of the Front Range Pipeline Lease Expenses described above. Accordingly, this adjustment does not affect the HTY as these adjustments cancel one another out.
- An adjustment was made to remove administrative and general expenses and customer expenses related to non-regulated products and services in FERC Accounts 903 and 922 in the amount of ($233,581) as discussed

by Company witness Mr. Dietenberger, as shown on Attachment SPB-4, Schedule 94.

All of these adjustments were made prior to indexing the HTY to the MYP.

XV. DEPRECIATION AND AMORTIZATION EXPENSE ADJUSTMENTS

Q. PLEASE DESCRIBE THE ADJUSTMENTS TO DEPRECIATION AND AMORTIZATION EXPENSE.

A. Several adjustments to depreciation and amortization expense have been made in the MYP Forward Test Years and HTY cost of service studies presented in this case. Adjustments were made to:

1) Adjust depreciation expenses related to the plant adjustments as previously discussed, *e.g.,* remove business system projects (Attachments SPB-1 through SPB-4, Schedule 26);
2) Include the results of new depreciation studies;
3) Adjust accumulated depreciation related to the Like-Kind Exchange program;
4) Annualize the year-end depreciation expense in the HTY cost of service; and
5) Include amortizations associated with certain regulatory assets.

Q. PLEASE DISCUSS THE NEW DEPRECIATION STUDIES.

A. Company witness Ms. Ostrom sponsors the new depreciation study and associated depreciation rates. Consistent with her testimony, I included changes to the previously approved depreciation rates for the transmission and distribution gas mains accounts, aligned the gas general assets with the currently approved depreciation parameters for the similar electric general assets from the 2016 Depreciation Settlement approved through Decision No. R16-1143 in Proceeding No. 16A-0231E, and used the approved common depreciation rates in the same 2016 Depreciation Settlement for the common assets in this case. I have also made adjustments to remove certain software assets retired as a result of the 2016 Depreciation Settlement as shown on Attachments SPB-1 through SPB-4, Schedules 97 and 98.

Q. PLEASE DISCUSS THE ADJUSTMENT TO ACCUMULATED DEPRECIATION FOR THE LIKE-KIND EXCHANGE PROGRAM.

A. As discussed by Company witness Ms. Ostrom, I have made an adjustment to accumulated depreciation related to the like-kind exchange program, as shown on Attachments SPB-1 through SPB-4, Schedule 95.

Q. PLEASE DISCUSS THE ADJUSTMENT TO ANNUALIZE THE YEAR-END DEPRECIATION EXPENSE.

A. The Company has included an adjustment to the HTY cost of service to reflect the December 31, 2016 level of depreciation expense based on the December 2016 year-end plant balances. This adjustment is a known and measurable adjustment that will occur within one year of the test year, and is consistent with prior Commission precedent. The adjustment is shown on Attachments SPB-1 through SPB-4, Schedule 55.

Q. PLEASE DISCUSS THE ADJUSTMENTS FOR THE AMORTIZATION OF GAS DEPARTMENT ENVIRONMENTAL CLEANUP COSTS.

A. The Company has included two amortizations in this rate case related to environmental cleanup costs at old manufactured gas plant (“MGP”) sites that were owned by a predecessor of Public Service. The first amortization is related to the MGP located in Fort Collins that has been included in every gas rate case since

2005, and the second is related to the MGP located in Boulder that was first included in the 2012 Rate Case.

Q. PLEASE DESCRIBE THE ADJUSTMENT FOR THE AMORTIZATION OF ENVIRONMENTAL CLEAN-UP COSTS AT THE FORT COLLINS SITE.

A. In Decision No. C06-0086, in Proceeding No. 05S-264G, the Commission approved the Stipulation and Agreement authorizing the Company to recover the deferred balance as of March 31, 2005 equal to $6,237,099, amortized over a four year period. The Company continued to defer subsequent costs, along with any related credits for recoveries under the Company's insurance policies or from other parties after April 1, 2005. The Commission authorized, in Decision No. C07-0568, mailed July 3, 2007, in Docket No. 06S-656G, the Company to amortize the deferred balance as of September 30, 2006, plus the unamortized balance from the prior rate case through July 31, 2007, for a total of $10,787,306, over an amortization period of 5 years, which expired on July 30, 2012. Again, the Company continued to defer subsequent costs along with any related credits from August 30, 2006 through December 31, 2010. The Commission authorized, in Decision No. R11-0743, in Proceeding No. 10AL-963G, the Company to amortize the deferred balance as of December 31, 2010 beginning September 5, 2011, for a total of $1,215,654, over an amortization period of 2 years. Again, the Company continued to defer subsequent costs along with any related credits from January 1, 2011 through December 31, 2012. The Commission authorized, in Decision C13-0064, in Proceeding No. 12AL-1268G, the Company to amortize the deferred balance as of December 31, 2012 for a total of $623,114 over an amortization period of 2 years, which expired August 9, 2015. Again, the Company continued to defer subsequent costs along with any related credits from January 1, 2013 through December 31, 2014. In Proceeding No. 15AL-0135G, the Commission authorized the Company to amortize the deferred balance as of December 31, 2014 beginning November 1, 2015, for a total of $(2,186,410) over an amortization period of 26 months, which expires December 31, 2017. The Company has not deferred any additional costs associated with the MGP in Fort Collins after December 31, 2014. The Company has eliminated the amortization of these costs from the cost of service studies presented in the case.

Q. PLEASE DESCRIBE THE ADJUSTMENT FOR THE AMORTIZATION OF ENVIRONMENTAL CLEAN-UP COSTS AT THE BOULDER SITE.

A. In Decision No. R11-1311, mailed December 2, 2011, in Proceeding No. 11A-646G, the Commission gave the Company approval to defer environmental cleanup costs associated with the MGP site located in Boulder. The Commission authorized, in Decision C13-0064, in Proceeding No. 12AL-1268G, the Company to amortize the deferred balance as of December 31, 2012 for a total of $93,174 over an amortization period of 2 years, which expires August 9, 2015. The Company continued to defer subsequent costs along with any related credits from January 1, 2013 through December 31, 2014. By Decision C16-0123 in Proceeding No. 15AL-0135G, the Commission authorized the Company to amortize the deferred balance as of December 2014 of $419,802, over a 26-month period beginning November 1, 2015 and ending December 31, 2017. The Company has continued to defer subsequent costs from January 1, 2015 through December 31, 2016. The current deferred balance at the end of 2016 is $50,839, as shown on Attachments SPB-1 through SPB-4, Schedule 81. The Company is proposing to amortize this deferred balance over a 24-month period in the MYP (beginning January 1, 2019) and a period of 18 months in the HTY, consistent with the other amortizations proposed in this case.

Q. DOES THE COMPANY PROPOSE TO CONTINUE THE DEFERRED ACCOUNTING AND AMORTIZATION TREATMENT APPROVED IN THE PAST FOR THE ENVIRONMENTAL CLEAN-UP COSTS?

A. The original deferred accounting and amortization was established in the Company's 1998 Gas Rate Case in Docket No. 98S-518G to account for significant non-recurring environmental clean-up costs related to the site of an old MGP owned by a predecessor of Public Service in Fort Collins. The deferred account set up for these environmental clean-up costs not only included the expenses incurred by Public Service in remediating the ground and water contamination associated with this legacy gas facility, it also allowed for offsetting proceeds received by the Company from insurance carriers, third-party contributions and damages collected in litigation. The environmental clean-up project related specifically to the Fort Collins MGP site is complete, and we will not be receiving any further insurance reimbursements. In addition, the amortization from the 2015 case will be complete at the end of 2017. Therefore, the deferred accounting and amortization procedures for the Fort Collins MGP costs can cease. However, the work is not complete at the Boulder MGP site. Accordingly, Public Service does not propose in this proceeding to terminate the deferred accounting and amortization procedures approved for environmental clean-up costs at the end of the proposed amortization included in this case.

Q. DOES THE COMPANY PROPOSE AMORTIZATION OF ANY OTHER REGULATORY ASSETS APPROVED IN THE 2015 RATE CASE?

A. Yes. The Company is proposing amortization of the regulatory assets approved in the 2015 Phase I for the Enhanced Emergency Response and Damage Prevention programs, as discussed in more detail by Company witness Mr. Litteken. The amounts for these programs forecasted through December 31, 2017 are $6,006,234 for Enhanced Emergency Response and $2,913,447 for Damage Prevention, which will be amortized over a 24-month period in the MYP (beginning January 1, 2019) and 18 months for the HTY, consistent with the other amortizations proposed in this case. In addition, the Company is proposing amortization of the regulatory assets/liabilities set up for the deferred property tax and pension expenses. The amounts for these programs forecasted through December 31, 2017 are $12,661,799, for property taxes and a ($1,667,621) liability for pension and benefits expenses. Amortization of the property tax expense is discussed below. The pension and benefits expense will be amortized over a 35-month period for the MYP (beginning with the effective date of rates in this proceeding) and 18 months for the HTY consistent with the other amortizations proposed in this case.

Q. PLEASE SUMMARIZE ALL OF THE PROPOSED AMORTIZATIONS OF AMOUNTS DEFERRED IN PRIOR PROCEEDINGS.

A. Please see the table below, which shows the amortizations for both the HTY provided for informational purposes and the 2018, 2019 and 2020 Forward Test Years that comprise the MYP. As discussed in my testimony, the HTY amortization period is 18 months. Again, the Company is proposing a MYP in this proceeding. However, if the Commission were to deny the proposed MYP and instead order use of an HTY, it is likely that a new rate case would be filed and new rates would be placed into effect prior to the expiration of the 18-month amortization period. If this were to occur, the Company would simply add the unamortized amounts into the amounts to be amortized through the next rate case.

For MYP amortizations, the Company is proposing to use a 24-month amortization period beginning with the 2019 Forward Test Year on January 1, 2019. The exceptions to this treatment are: (1) Property Tax, which will use a 12-month amortization period beginning January 1, 2020; and (2) Pension and Benefits, which will use a 35-month amortization period beginning upon the effective date of rates in this rate case. If a MYP is approved in this rate case, then amortization periods may conclude prior to new rates being in effect following the MYP. In that instance the Company would lower the GRSA to reflect the expiration of these amortization periods.

Table SPB-D-6

		HTY Amortization		
	Deferred Balance	***Time Period***	***Start Date***	***Annual Total***
Work Asset Management Capital Costs	2,630,188	18 Months	2/1/2018	1,753,459
Property Tax - Actuals vs Approved Amount	12,661,799	18 Months	2/1/2018	8,441,199
Pension & Benefits	(1,667,621)	18 Months	2/1/2018	(1,111,747)
Emergency Response	6,006,234	18 Months	2/1/2018	4,004,156
Damage Prevention	2,913,447	18 Months	2/1/2018	1,942,298
Rate Case Expenses	1,073,682	18 Months	2/1/2018	715,788
Boulder MGP	50,839	18 Months	2/1/2018	33,893

		FTY Amortization				
	Deferred Balance	***Time Period***	***Start Date***	***2018 Annual Total***	***2019 Annual Total***	***2020 Annual Total***
Work Asset Management Capital Costs	2,630,188	24 Months	1/1/2019	0	1,315,094	1,315,094
Property Tax - Actuals vs Approved Amount	12,661,799	12 Months	1/1/2020	0	0	12,661,799
Property Tax - 2018 Forecast vs. 2016 Actuals	8,977,128	12 Months	1/1/2020	0	0	8,977,128
Pension & Benefits	(1,667,621)	35 Months	2/1/2018	(524,109)	(571,756)	(571,756)
Emergency Response	6,006,234	24 Months	1/1/2019	0	3,003,117	3,003,117
Damage Prevention	2,913,447	24 Months	1/1/2019	0	1,456,724	1,456,724
Rate Case Expenses	1,073,682	24 Months	1/1/2019	0	536,841	536,841
Boulder MGP	50,839	24 Months	1/1/2019	0	25,419	25,419
TOTAL	**32,645,695**			**(524,109)**	**5,765,439**	**27,404,365**

Q. PLEASE EXPLAIN HOW YOU DETERMINED THE AMORTIZATION PERIODS FOR THE MYP.

A. Company witness Mr. Brockett provides the policy rationale for our approach to the amortization periods for the MYP, but generally speaking the Company has structured the amortization periods to levelize rate changes and smooth rate impacts to customers over the MYP. The amortization periods do not begin until January 1, 2019, and the amortization periods are then set for 24 months to coincide with the remaining two years of the MYP, i.e., the 2019 Forward Test Year and the 2020 Forward Test Year. Pension and Benefits expense is treated differently because it is in a liability position and having a 35-month amortization period results in providing customers with the benefit of this position upon the effective dates of rates for the MYP. Property tax expense is also treated differently, which I address in more detail in the following section of my testimony.

Q. WHY IS THE COMPANY PROPOSING A DIFFERENT AMORTIZATION PERIOD FOR THE MYP TEST YEARS THAN WHAT IS BEING PROPOSED FOR THE HTY?

A. In setting amortization periods of regulatory assets, one criteria used is to estimate the period of time the Company expects between rate cases, so that the regulatory asset will be fully amortized before rates are set in the next rate case. In this case, if the HTY is approved, the Company expects a shorter time period between rate cases, than if the MYP is approved. Therefore, the Company is proposing a 18 month amortization period for the HTY.

Q. HAS THE COMPANY CALCULATED HOW AMORTIZATION PERIODS AMOUNTS WOULD DIFFER IF THE COMPANY WERE TO USE A 35-MONTH AMORTIZATION PERIOD FOR ALL AMORTIZATIONS OVER THE MYP?

A. Yes. The table below reflects the changes between the amortizations (1) as proposed by the Company (and as shown in Table SPB-D-7) under a universal 35-month amortization period for all amortizations in the MYP. This comparison shows the significantly higher impacts to customers that occur in the 2018 Forward Test Year and 2019 Forward Test Year if a universal 35-month amortization period is used for the regulatory assets. A 35-month amortization period does not allow for the rate smoothing that is provided for through the Company's proposed approach.

Table SPB-D-7

	2018	***2019***	***2020***
Total Amortizations (35-month)	$ 10,260,076	$ 11,192,810	$ 11,192,810
Total Amortizations (proposed)	$ (524,109)	$ 5,765,439	$ 27,404,365
Total Change	**$ (10,784,185)**	**$ (5,427,371)**	**$ 16,211,556**

XVI. TAXES OTHER THAN INCOME TAX EXPENSE ADJUSTMENTS

Q. PLEASE DESCRIBE THE ADJUSTMENTS TO PAYROLL TAX EXPENSE.

A. Adjustments were made to eliminate the payroll taxes associated with all the labor adjustments, as previously discussed. These adjustments include:

1) Employee wage increases and incentive compensation (Attachments SPB-1 through SPB-4, Schedule 27);
2) Officers' incentive compensation (Attachments SPB-1 through SPB-4, Schedule 27);
3) Aviation labor (Attachments SPB-1 through SPB-4, Schedule 27)
4) Emergency Response labor (Attachments SPB-1 through SPB-4, Schedule 27).

Q. PLEASE DISCUSS THE PRESENTATION OF PROPERTY TAX EXPENSE IN THE COST OF SERVICE STUDIES PRESENTED IN THIS CASE.

A. Company witness Mr. Paul Simon addresses how the 2018, 2019 and 2020 Forward Test Years property tax expense is forecasted, and the Company is proposing a property tax expense tracker. Property tax expenses incurred in 2018, 2019 and 2020 that are greater or lower than the forecasted level will be deferred in a regulatory asset account, and the regulatory asset/liability would be brought forward for recovery in a future rate case. In addition, an adjustment was made to the HTY cost of service to bring the property tax to the 2016 level as a similar tracker was in place as a result of the 2015 Rate Case, which set the base amount at the 2014 level.

Q. IS THE COMPANY PROPOSING ANY NEW TREATMENT OF PROPERTY TAX RECOVERY IN THIS CASE?

A. Yes, as discussed by Company witness Mr. Brockett, the Company is proposing two changes with regard to property tax expense, which as discussed above seek to levelize rate changes and smooth rate impacts over the MYP. First, the balance of the regulatory asset established in the last rate case and forecasted through the end of 2017 will be amortized over a 12-month amortization period, effective January 1, 2020 through December 31, 2020. Second, property tax expense in the 2018 Forward Test Year is held at the 2016 level, consistent with the HTY. The difference between the 2016 amount and the 2018 forecast, totaling $8,977,128, will be deferred in 2018 and maintained on the books through 2019, then amortized over a 12-month amortization period, effective January 1, 2020 through December 31, 2020.

Table SPB-D-8

	2016	***2017***	***2018***	***2019***	***2020***
Total Company Property Taxes	$165,919,927	$184,300,000	$193,500,000	$196,000,000	$211,400,000
Net Allocation Factor (Total to Gas Retail)	21.0120%	22.4313%	22.6564%	21.9288%	21.9800%
Allocated Retail Property Tax to Gas Dept	$ 34,863,053	$ 41,340,860	$ 43,840,181	$ 42,980,524	$ 46,465,797
Allowed Level Retail Property Tax (Prior Rate Case)	$ (31,771,057)	$ (31,771,057)			
Annual Deferred Amount	$ 3,091,996	$ 9,569,803			
Total Deferred Amount		$ 12,661,799			
Hold 2018 Property Tax Expense at 2016 Actuals			$ 34,863,053		
Total Deferred Amount (2018)			$ 8,977,128		
Total Property Tax Expense	**$ 34,821,239**		**$ 34,821,239**	**$ 42,914,738**	**$ 46,399,857**
Amortizations of Deferred Balance ($12,661,799)					
2016 - 18-Month Amortization Period (beg. 2/1/2018)	$ 8,441,199				
2018-2021 - 24-Month Amortization Period (beg. 1/1/2019)			-	$ 6,330,899	$ 6,330,899
Amortizations of Deferred Balance ($8,977,128)					
2018-2021 - 12-Month Amortization Period (beg.1/1/2020)			-		$ 8,977,128
Total Property Tax and Amortization Expense	**$ 45,606,697**		**$ 34,821,239**	**$ 52,204,591**	**$ 58,680,920**

Q. PLEASE SUMMARIZE THE REGULATORY ASSET BALANCES INCLUDED IN THIS CASE THAT WILL BE USED AS THE BASIS FOR DEFERRAL BEGINNING WITH THE EFFECTIVE DATE OF RATES FROM THIS CASE.

A. Please see the table below. As discussed throughout my testimony with regard to each of the items included in this table, the amounts for the 2018, 2019, and 2020 Forward Test Years included in the MYP are forecasted while the HTY figures are based upon 2016 actual expense.

Table SPB-D-9

	2016 HTY	***2018***	***2019***	***2020***
Property Tax	$34,821,239	$34,821,239	$42,914,738	$46,399,857
Pension	$9,468,782	$9,580,200	$9,231,806	$9,063,589
Damage Prevention	$12,763,072	$12,763,072	$12,763,072	$12,763,072

XVII. INCOME TAX EXPENSE ADJUSTMENTS

Q. HOW IS THE INCOME TAX EXPENSE CALCULATED FOR THE COST OF SERVICE STUDIES PRESENTED IN THIS CASE?

A. Taxable income is determined by using return on rate base, after which synchronized interest expense is deducted, taxable additions/deductions (these are also known as "Schedule M items") were added, and permanent tax differences are added, to arrive at taxable income. In the cost of service studies presented in this case, the Schedule M items, permanent tax differences, and deferred income tax expense related to plant are detailed on Attachments SPB-1 through SPB-4, Schedule 24. The Schedule M items, permanent tax differences, and deferred income tax expense related to non-plant are detailed on Attachments SPB-1 through SPB-4, Schedule 19. The state and federal income tax rates are then applied to taxable income to arrive at current income tax expense. Deferred income tax expense, the amortization of investment tax credits, and tax credits are added to arrive at total tax expense. The taxable additions/deductions and the deferred income taxes are being presented in this case at the same level of detail, in order to properly allocate to the retail jurisdiction. In the cost of service studies, the deferred income taxes and tax credits related to non-plant are detailed on Attachments SPB-1 through SPB-3, Schedule 19.

Q. PLEASE DISCUSS THE ADJUSTMENTS TO INCOME TAX EXPENSE.

A. The adjustments to current federal and state income tax expense and deferred income tax expense include:

1) The plant adjustments previously discussed;
2) An adjustment associated with the bonus depreciation under the 2016 Tax Act;
3) An adjustment for the "NOL" carryforward; and
4) The elimination of accounts that are not included in the cost of service study.

Q. PLEASE DISCUSS THE ADJUSTMENTS FOR THE NET OPERATING LOSS CARRYFORWARD.

A. The HTY uses per book NOL beginning and ending balances for the 2016 calendar year. The Company has not prepared a cost of service study for 2017, as the MYP begins with the 2018 Forward Test Year. Accordingly, the 2016 ending balance of $74,593,809 is used as the beginning NOL balance for the 2018 Forward Test Year. The NOL continues to unwind in the MYP based on the cost of service model results.

XVIII. GAIN ON SALE OF UTILITY PLANT

Q. PLEASE DISCUSS THE ADJUSTMENT INCLUDED IN THE COST OF SERVICE STUDIES RELATED TO THE GAIN ON SALE OF UTILITY PROPERTY.

A. The adjustment in the cost of service studies presented in this case for the gain on sale of utility property relates to the gain on the sale of the Green/Clear Lakes property, which was sold on January 6, 2016 and is discussed by Company witness Mr. Brockett. Mr. Brockett further explains that the Company is proposing to share 50 percent of the gain with customers, which amounts to $26,629 as reflected in Attachments SPB-1 and SPB-4, Schedule 52. This adjustment represents a one-time sharing of the gain on the sale and thus is made to the HTY and the 2018 Forward Test Year, but no other period in the MYP.

XIX. AFUDC OFFSET TO EARNINGS

Q. PLEASE EXPLAIN THE ADJUSTMENT MADE TO INCLUDE AFUDC AS AN OFFSET TO EARNINGS IN THE HTY.

A. As previously discussed, the Commission has a long-standing ratemaking policy that if CWIP is included in rate base, than an AFUDC offset to earnings is required. When year-end rate base is used, as in the HTY presented by the Company in this case, AFUDC is annualized at the year-end level, as of December 31, 2016, to match the year-end CWIP balance. Had the Company instead used a 13-month average CWIP balance in rate base, then the booked AFUDC amount would have been used to offset earnings. The adjustment to annualize AFUDC in the HTY cost of service is shown on Attachment SPB-4, Schedule 58.

XX. <u>OTHER REVENUE ADJUSTMENTS</u>

Q. PLEASE DESCRIBE THE OTHER REVENUES THAT ARE INCLUDED AS A REDUCTION TO THE COST OF SERVICE STUDIES PRESENTED IN THIS CASE.

A. The following other revenues accounts are included in the cost of service studies presented in this case, including: FERC Account 487, Late Payment Revenue; FERC Account 488, Miscellaneous Service Revenue; FERC Account 490, Production Extraction Revenue; and FERC Account 495, Other Gas Revenue. The Company used the December 31, 2016 balances of the other revenue accounts for the development of the HTY cost of service and for the MYP Forward Test Year cost of service studies.

Q. WHAT ADJUSTMENTS DID YOU MAKE TO OTHER REVENUE CONSISTENT WITH PREVIOUS RATE CASES?

A. Several adjustments were made to other revenue, which are similar to those made in previous rate cases, including the following:

- Elimination of residential late payment revenues;
- Elimination of other revenue amounts not included in retail base rates (*i.e.*, rate refunds, DSM incentives, and deferred PSIA costs);
- Elimination of other revenue amounts recorded in the HTY cost of service that are not certain going-forward or are not recoverable from retail customers (*i.e.*, bad debt concessions, and gas transportation penalties);
- Account for the non-gratuitous revenue and damage claim revenues in other gas revenues; and

- Craig and Gunnison compression project recovery.

The adjustments to other revenue are shown on Attachments SPB-1 through SPB-4, Schedule 43.

Q. DID YOU MAKE ANY NEW ADJUSTMENTS TO OTHER REVENUE IN THIS CASE?

A. Yes. The Company made two new adjustments to other revenue in the cost of service studies presented in this case. The first adjustment is the PSIA in base adjustment addressed below. The second adjustment, as described further in the testimony of Company witness Mr. Brockett, relates to the Craig and Gunnison compressor projects developed in response to Atmos Energy's requests for increased deliverability to serve projected load growth.

Q. PLEASE DESCRIBE THE ADJUSTMENT FOR PSIA REVENUES IN BASE.

A. In the 2015 Rate Case, an amount of revenue in base related to the revenue requirement for a portion of PSIA projects was established to be $4,263,980. This amount of revenue is subtracted from the total revenue requirement in the PSIA rider. For purposes of the HTY and the 2018 Forward Test Year where the PSIA rider remains in effect, I removed all project costs recovered in the rider, including those costs that are recovered in base rates, with a revenue requirement of $4,263,980. Accordingly, I reduced the base revenues by the amount of ($4,263,980) in the HTY and the 2018 Test Year, as shown on Attachments SPB-1 and SPB-4, Schedule 102.

Q. PLEASE DESCRIBE THE COMPANY'S ADJUSTMENT FOR THE RECOVERY OF THE CRAIG AND GUNNISON COMPRESSION PROJECTS.

A. As discussed in more detail in the testimony of Company witness Mr. Brockett, two separate compression projects were developed in response to Atmos Energy's requests for increased deliverability to serve projected load growth. The first request was for increased deliveries to the Steamboat Springs area located at the terminus of Company's system in Western Colorado, with a subsequent request to serve growth Atmos anticipated in various communities served through Company's Southern System, including the towns of Buena Vista, Gunnison and Crested Butte. The Company's assessment was that in both areas, reinforcement was required to provide the increased firm deliverability needed by Atmos. While the requests were discussed separately, the overall solution in both areas is essentially the same.

Mr. Brockett explains that recovery of these costs through the GRSA is appropriate. Therefore, I adjusted revenues to remove the revenue directly received from Atmos Energy related to the Craig and Gunnison compression projects to socialize these costs through the GRSA, as shown on Attachments SPB-1 through SPB-3, Schedule 93.

Q. PLEASE DESCRIBE THE COMPANY'S TREATMENT OF RESIDENTIAL LATE PAYMENT REVENUE IN THIS CASE.

A. The Company has eliminated the residential late payment revenue billed to customers in the cost of service studies presented in this case, as shown on

Attachments SPB-1 through SPB-4, Schedule 43. The Company proposes to eliminate this revenue credit and continue the donation to Energy Outreach Colorado ("EOC"), consistent with the treatment of residential late payment revenue the Commission approved in the Company's last gas rate case.

XXI. JURISDICTIONAL ALLOCATION

Q. PLEASE DESCRIBE THE BASIS OF THE RETAIL JURISDICTIONAL ALLOCATORS USED IN THIS CASE.

A. The retail jurisdictional allocations used in this case are either a "fundamental" allocator or a "derived" allocator. Fundamental allocators include the peak day demand, annual consumption and total customer allocators. Derived allocators are determined within the cost of service study, as the resulting percentage of the total of other allocated cost items. For example, the total plant allocator would be the percentage of the total plant assigned to each jurisdiction, where each of the various components of plant would have been allocated using a different fundamental allocator.

Q. WHAT RETAIL JURISDICTIONAL ALLOCATION FACTORS DID YOU USE IN THE COST OF SERVICE STUDIES PRESENTED IN THIS CASE?

A. The jurisdictional allocation factors are presented on Attachments SPB-1 through SPB-4, Schedule 21. The derivation of the labor allocation factors are presented on Attachments SPB-1 through SPB-3, Schedule 17. The jurisdictional allocation factors for the test periods were developed using the HTY and the 2018 through 2020 budgeted dekatherm ("Dth") throughput and peak day loads for both the retail and wholesale customers.

Q. IS THE COMPANY PROPOSING TO CHANGE THE ALLOCATION OF COSTS TO THE RETAIL JURISDICTION IN THIS CASE?

A. No.

XXII. CAPITAL STRUCTURE ADJUSTMENTS

Q. WHAT IS THE BASIS FOR THE CAPITAL STRUCTURE BALANCES USED IN THE MYP TEST YEARS PRESENTED IN THIS CASE?

A. The long-term debt and equity balances included in the 2018, 2019, and 2020 Forward Test Year capital structures were calculated using the 13-month average. The 2018 through 2020 capital structures are shown on Attachments SPB-1 through SPB-3, Schedule 2.

Q. WHAT IS THE BASIS FOR THE CAPITAL STRUCTURE BALANCES USED IN THE HTY TEST YEAR?

A. The long-term debt and equity balances included in the HTY capital structure are based on the year-end December 31, 2016 balances, consistent with the rate base balances. The HTY capital structure is shown on Attachment SPB-4, Schedule 2.

Q. DID THE COMPANY MAKE ANY ADJUSTMENTS TO THE CAPITAL STRUCTURES PRESENTED IN THIS CASE?

A. Yes. These adjustments to the book balances are reflected in Attachments SPB-1 through SPB-4, Schedule 2.

Q. PLEASE DISCUSS THE ADJUSTMENTS TO COMMON EQUITY.

A. Adjustments to common equity were made to eliminate the effect of subsidiaries, net non-utility plant, other investments, other funds, and other comprehensive income. These adjustments are consistent with those approved by the Commission in previous Company rate cases.

Q. PLEASE DISCUSS THE ADJUSTMENTS TO DEBT.

A. Adjustments to debt were made to eliminate the effect of subsidiaries, specifically, eliminating any notes receivable from subsidiaries or notes payable to subsidiaries.

Q. HOW WAS THE COST OF DEBT CALCULATED IN THIS CASE?

A. As discussed by Company witness Ms. Schell, the Company calculated the cost of debt by dividing the interest costs plus all related issuance costs by the gross debt balance, which is known as the "par value" method, which is consistent with what has been approved by this Commission in previous rate cases.

XXIII. REVENUE REQUIREMENTS AND EARNINGS DEFICIENCY

Q. WHAT IS THE OVERALL RETAIL REVENUE REQUIREMENTS FOR THE MYP TEST YEARS?

A. The overall retail revenue requirements for the 2018 Test Year is $523,648,000, for the 2019 Test Year is $657,616,537, and for the 2020 Test Year is $704,291,574.

Q. PLEASE DESCRIBE HOW PRESENT BASE RATE REVENUE FOR THE MYP TEST YEARS WAS DEVELOPED FOR THIS CASE.

A. Company witness Ms. Jannell Marks presents the Sales Forecast (Customer and Dth Throughput Forecast) that was used to develop Retail Base Revenue. The base rate revenue used in the cost of service was calculated using the test period number of customers and delivery quantities, by rate schedule, from the Customer and Dth Throughput Forecast that Ms. Marks is sponsoring. The residential and commercial gas lighting billing units (mantle fixtures) and the firm, interruptible and transportation service demand capacity billing units were all based on historical levels. The resulting billing units were then multiplied by current base rates, along with the current GRSA of 17.12 percent as approved in the 2015 Rate Case.

Q. WHAT IS THE PRESENT GAS BASE RATE REVENUES FORECASTED FOR 2018 THROUGH 2020?

A. The derivation of present base revenue for 2018 through 2020 is shown on Attachments SPB-1 through SPB-3, Schedule 40, and is summarized below in Table SPB-D-10:

Table SPB-D-10

2018	$461,712,159
2019	$465,411,341
2020	$468,866,953

Q. WHAT IS DRIVING THE INCREASE IN THE GAS DEPARTMENT BASE RATE REVENUES FROM 2018 THROUGH 2020?

A. The increase in the gas department base rate revenue from 2018 through 2020 is primarily due to changes in residential revenues. Overall residential revenues are increasing from 2018 through 2020. This increase in the Service and Facility charge revenue driven by an increase in the number of residential customers and the Service and Facility charge revenue, as discussed by Company witness Ms. Marks.

Q. HAS THE GAS DEPARTMENT BASE RATE REVENUE INCREASED SINCE THE 2015 RATE CASE?

A. There has been a slight increase in residential sales, commercial sales, and firm gas transportation service since the 2015 Rate Case.

Q. WHAT IS THE TEST PERIOD REVENUE DEFICIENCY REQUESTED IN THIS CASE?

A. As discussed earlier in my testimony, the total gas department increase in base rates Public Service is requesting in this proceeding over the MYP period of 2018 through 2020 is $231,888,436.

Q. HAS THE COMPANY CALCULATED A GRSA RIDER THAT WOULD BE APPLICABLE TO ALL GAS BASE RATES BASED ON THE REVENUE DEFICIENCIES PRESENTED IN THIS CASE?

A. Yes, the Company has calculated a GRSA rider that would be implemented in three phases:

1) Effective with rates from this case, the GRSA rider would be equal to 16.52 percent, as shown on Attachment SPB-1, Schedule 1;
2) Effective January 1, 2019, the GRSA rider would be equal to 48.81 percent, an increase of 32.29 percent, as shown on Attachment SPB-2, Schedule 1; and
3) Effective January 1, 2020, the GRSA rider would be equal to 59.34 percent, an increase of 10.53 percent, as shown on Attachment SPB-3, Schedule 1.

These GRSA riders are incremental increases to the current GRSA of 17.12 percent approved in the 2015 Rate Case.

Q. WHAT IS THE OVERALL RETAIL REVENUE REQUIREMENT INDICATED BY THE HTY COST OF SERVICE STUDY?

A. The overall retail revenue requirements for the HTY cost of service is $67,573,368.

Q. PLEASE DESCRIBE HOW PRESENT BASE RATE REVENUE FOR THE HTY WAS DEVELOPED FOR THIS CASE.

A. The present base rate revenue used in the HTY cost of service was calculated using the amount the test period number of customers and sales by rate schedule. The residential and commercial gas lighting billing units (mantle fixtures) and the firm, interruptible and transportation service demand capacity billing unis were all based on the test period levels. The Company made three adjustments to the test period billing units. First, the Company made adjustments to the billing units to reflect customers changing to different rate schedules during the calendar year. Second, the Company has normalized the test period sales for weather, consistent with the weather normalization method previously approved by the Commission. Third, the Company made adjustment to annualize customers at the year-end level consistent with using year-end rate base. The resulting billing units after applying these adjustments were then multiplied by current base rates. The derivation of present base rate revenue is shown on Attachment SPB-4, Schedule 40. Retail present base rate revenue for the HTY is $451,788,858.

Q. PLEASE DESCRIBE THE COMPANY'S ADJUSTMENT TO ANNUALIZE CUSTOMERS AT THE YEAR-END LEVEL.

A. The Company has provided an HTY in this case using year-end rate base and annualized depreciation expense to supplement the MYP request in this case. The annualization adjustment to the HTY base revenue reflects the projected revenue of new residential, commercial & industrial and transportation customers that have been added to the Company's gas system that were not on the system during all of calendar year 2016, but who are expected to be served after the HTY Test Year. This adjustment results in the addition of $4,742,583 of revenue to the HTY and thus reduces the deficiency by the same amount, as shown on Attachment SPB-4, Schedule 103.

Q. PLEASE DESCRIBE THE CALCULATION OF THE ADJUSTMENT TO ANNUALIZE CUSTOMER REVENUE.

A. First, we calculated the change in customers from the beginning of the HTY to the end of the HTY. Results of this calculation shows that residential customer counts had grown by 15,282 customers, commercial & industrial customer counts had grown by 329 and transportation customer counts had grown by 331.

Next, we calculated the revenue adjustment necessary to annualize the revenues of these new customers. Public Service assumed that the base revenue for each additional customer was equal to the average base revenue per customer during the entire HTY. This approach resulted in total adjusted base rate revenue of $4,742,583 of which $3,521,754 was for residential customers, $509,077 for commercial & industrial customers and $711,752 for transportation customers.

Q. WHAT IS THE REVENUE DEFICIENCY INDICATED BY THE HTY COST OF SERVICE STUDY?

A. The HTY revenue deficiency is $67,573,368, as shown on Attachment SPB-4, Schedule 1.

XXIV. EARNINGS TEST

Q. PLEASE DESCRIBE THE EARNINGS TEST THE COMPANY IS PROPOSING IN THIS CASE.

A. As discussed by Company witness Mr. Brockett, the Company is proposing to implement an Earnings Test for the gas department for 2018, 2019 and 2020. The Company will annually calculate its actual retail jurisdictional earnings for calendar years 2018, 2019 and 2020. The proposed Earnings Test will be structured as follows for each year:

- If the Company is earning less than or equal to 10.00 percent, there is no sharing.
- In the event the Company is earning a return on equity of 10.01 percent up to and including 12.00 percent, the Company will share 50 percent of its earnings in excess of 10.00 percent with customers.
- In the event the Company is earning in excess of a return on equity of 12.01 percent or more, the Company will share 100 percent of its earnings in excess of 12.00 percent with customers.

Company witness Mr. Brockett testifies regarding how these sharing bands will ratchet up or down, while retaining the structure set forth above, if (1) the Commission approves a different authorized ROE or (2) the Commission approves the Company's proposed approach to adjust the authorized ROE in the 2019 Forward Test Year or the 2020 Forward Test Year based upon an index of bond yields. Company witness Mr. Reed explains the proposed ROE adjustment based on bond yields in his testimony.

In any event, the earnings test calculations will be based on the regulatory principles and adjustments detailed on Attachment SPB-13. In the event that the Company incurs a new cost or identifies an issue for which there is no previously established regulatory treatment during the MYP, Public Service will identify such costs or issues in its Earnings Test filing together with the proposed regulatory treatment.

Q. HAS THE COMPANY PREVIOUSLY BEEN SUBJECT TO AN EARNINGS TEST SHARING MECHANISM?

A. Yes, in several instances for the electric department, the Company was subject to an electric department earnings test sharing mechanism as approved by the Commission in Decision No. C12-0494, in Proceeding No. 11AL-947E, that measured the Company's earnings for calendar years 2012 through 2014. In addition, in the Company's most recent electric rate case, Proceeding No. 14AL-0660E, the Company agreed through a Settlement Agreement to extend the current electric department earnings test sharing mechanism for calendar years 2015 through 2017. The Commission approved this extension, as well as the sharing thresholds and percentages and Earnings Test governance principles, in Decision No. C15-0292. In addition, from 1997 through 2007, the Company was subject to an electric department earnings test sharing mechanism. The Earnings Test proposed here for the gas department is similar to the electric department earnings test sharing mechanisms that have been previously approved by this Commission.

Q. WHAT PROCEDURES WILL THE COMPANY FOLLOW FOR FILING THE GAS DEPARTMENT EARNINGS TEST?

A. The Company will file the earnings test information on or before April 30th of each year beginning April 30, 2019 and continuing through April 30, 2021. To the extent that the Company's earnings during any year in which the Earnings Test is in effect exceed a 10.00 percent return on equity, the Company will file an Advice Letter seeking to put into effect, subject to true-up, a GRSA sufficient to refund to customers the proposed earnings sharing. The earnings sharing GRSA proposed by the Company will be effective August 1st of each year through July 31st of the following year. Staff and any other person that disputes the Company's Earnings Test information will file a notice with the Commission identifying any matters in the Company's earnings test filing with which a party takes issue and the basis for the dispute, no later than June 15th in any year. If all persons disputing the earnings sharing amount and the Company cannot resolve all of the differences by July 15th, then all remaining disputes will be detailed in a written notice submitted to the Commission no later than August 1st, together with a proposed procedural schedule for addressing such issues. Any over-collection of revenues resulting from the differences between the GRSA ultimately approved by the Commission and the GRSA implemented on August 1st will be refunded to customers. Mr. Brockett is sponsoring a gas department earnings sharing adjustment tariff that the Company proposes to implement in this case.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

Statement of Qualifications

Steven P. Berman

As the Manager of Revenue Analysis, I am responsible for leading a team of analysts who develop revenue requirements models to support the rates charged by Public Service. My responsibilities include directing, reviewing, and analyzing the revenue requirements that support the base rates, rate riders, and FERC formula rates used by Public Service.

I accepted the position of Revenue Analysis Manager with Xcel Energy in April 2015 and have worked in the energy industry for over 9 years. Over that time I have worked for Xcel Energy and Colorado Springs Utilities in progressively more responsible financial roles. In June 2006 I began working at Colorado Springs Utilities as a Senior Analyst in the corporate budgeting group. In June 2008 I accepted a position as a Financial Consultant with Xcel Energy supporting the Customer Care organization, where I provided financial analysis and support for customer care and bad debt expenses used in rate cases across Xcel's jurisdictions.

In July 2010 I returned to Colorado Springs Utilities as a Principal Financial Analyst and in July 2011 accepted the position of Financial Planning & Analysis Manager. In that role I was responsible for the budget and revenue requirements of the organization. I presented them annually to the City Council who acts as the regulator for Colorado Springs Utilities. In March 2014 I accepted the position of Treasury Manager. In that role I directed all cash and financing activities of the Utility. I worked closely with the Chief Financial Officer to develop an annual financing plan and present it to the board and credit rating agencies in support of the Utility's strong "AA" credit rating. Prior to working in the utility industry, I held various positions in marketing and finance after graduating college in 1999 and moving into the utility industry in 2006.

I graduated from the University of Maryland in 1999 with a Bachelor of Science degree in Business Administration, and from George Washington University in 2005 with a Masters in Business Administration concentrating in Finance.

I have submitted written testimony before the Commission in Proceeding No. 15AL-0938ST.

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO**

* * * *

RE: IN THE MATTER OF ADVICE LETTER NO. 912-GAS FILED BY PUBLIC SERVICE COMPANY OF COLORADO TO REVISE ITS COLORADO PUC NO. 6-GAS TARIFF TO IMPLEMENT A GENERAL RATE SCHEDULE ADJUSTMENT AND OTHER RATE CHANGES EFFECTIVE ON 30-DAYS NOTICE.	)	**PROCEEDING NO. 17AL-____G**

**AFFIDAVIT OF STEVEN P. BERMAN
PUBLIC SERVICE COMPANY OF COLORADO**

I, Steven P. Berman, being duly sworn, state that the Direct Testimony and attachments were prepared by me or under my supervision, control, and direction; that the Testimony and attachments are true and correct to the best of my information, knowledge and belief; and that I would give the same testimony orally and would present the same attachments if asked under oath.

Dated at Denver, Colorado, this thirty first day of May 2017.

Steven P. Berman
Manager, Revenue Analysis

Subscribed and sworn to before me this 31st day of May, 2017.

Jennifer D. Augustine
Notary Public

My Commission expires 2/16/18

JENNIFER D. AUGUSTINE
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20064006595
MY COMMISSION EXPIRES 02/16/2018