

May 13, 2016

Mr. Richard R. Schrubbe  
 Director, Corporate and Benefits Accounting  
 Xcel Energy Inc.  
 414 Nicollet Mall  
 Minneapolis, Minnesota 55401

**2016 VALUATION RESULTS AND 2017-2021 CONTRIBUTION AND COST ESTIMATES**

Dear Rick:

This letter summarizes the results of the 2016 plan year IRS funding valuations for Xcel Energy’s qualified pension plans. Also included are costs for the Long-Term Disability (LTD) and Workers’ Compensation plans that have been updated from the February 17, 2016, results to reflect 2016 census data and the final 2016 discount rate developed using cash flows based on the 2016 census data. Costs for the PSCo Bargaining Plan have been updated to reflect the negotiated Retirement Spending Account contribution increase and Nonqualified Plan settlement charges have been updated to reflect known 2016 and expected 2017 lump sum payments. Costs for all other plans are unchanged from February 17, 2016.

Attached to this letter are updated PBGC variable premium and IRS funded status forecasts followed by the previously provided benefit cost exhibits with the updates mentioned above. Also included is an exhibit that provides plan specific details of the cost reconciliations for the qualified pension plans.

**PENSION PLAN FUNDING**

**Summary of Key Results**

The key results for each plan are provided in the following table:

(\$ in Millions)	Xcel Energy Pension Plan	NCE Nonbargaining Plan	SPS Bargaining Plan	PSCo Bargaining Plan
Effective Interest Rate	5.94%	5.81%	6.07%	6.04%
<b>Contributions</b>				
Minimum Required Contribution as of January 1, 2016, for the 2016 Plan Year Before Funding Balance	\$89.6	\$12.8	\$4.6	\$17.6
Minimum Required Contribution as of January 1, 2016, for the 2016 Plan Year After Funding Balance	\$0.0	\$0.0	\$0.0	\$0.0
<b>PBGC Premiums</b>				
PBGC Variable Premiums	\$3.3	\$0.9	\$0.4	\$3.4

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**Funded Status**

A plan's funded status is measured by comparing the present value of plan benefits to the value of plan assets. The following table summarizes the 2016 plan year funded percentages:

Minimum Funding and Benefit Restrictions - 2016 (\$ in Thousands)	Xcel Energy Pension Plan	NCE Nonbargaining Plan	SPS Bargaining Plan	PSCo Bargaining Plan
1. Effective Interest Rate	5.94%	5.81%	6.07%	6.04%
2. Target Liability as of January 1	\$1,536,975	\$254,236	\$295,577	\$862,991
3. Actuarial Value of Assets as of January 1	\$1,622,100	\$260,638	\$338,291	\$933,741
4. Funding Balance as of January 1	\$123,850	\$16,239	\$39,695	\$96,068
5. Funded Percentage before funding balance reduction from plan assets [(3) / (2)]	105.5%	102.5%	114.4%	108.1%
6. Funded Percentage with funding balance reduction from plan assets (FTAP) [(3) - (4)] / (2)]	97.4%	96.1%	101.0%	97.0%

**Benefit Restrictions**

Based on the 2016 funding results, no benefit restrictions will apply for the 2016 plan year since the preliminary AFTAP for each plan exceeds 80.0%. We will provide our certification of the funded status for the plans prior to the September 30, 2016 deadline.

**Funding Balances**

The following summarizes the funding balance activity for the Xcel Energy pension plans.

(\$ in Millions)	Xcel Energy Pension Plan	NCE Non-bargaining Plan	SPS Bargaining Plan	PSCo Bargaining Plan
Funding Balances at January 1, 2015	\$ 117.3	\$ 14.9	\$ 24.9	\$ 86.8
Funding Balances used during 2015	(51.0)	(7.9)	0.0	0.0
Excess contributions elected to be added to funding balance	57.9	9.5	15.0	10.0
Interest adjustments	(0.5)	(0.1)	(0.2)	(0.7)
Amount of funding balance forfeited for AFTAP purposes	0.0	0.0	0.0	0.0
Funding balance transferred as a result of the non-deminimis asset transfer	0.2	(0.2)	0.0	0.0
Funding Balances at January 1, 2016	\$ 123.9	\$ 16.2	\$ 39.7	\$ 96.1

**PBGC Premiums**

The PBGC variable premium amounts for the Xcel Energy Pension Plan and the SPS Bargaining Plan are based on the Alternative Premium Funding Target, determined without regard to 25-year average interest rate corridors. The variable premium amounts for the NCE Nonbargaining and PSCo Bargaining Plans are based on the Standard Premium Funding Target. However, the NCE Nonbargaining Plan is above the per-participant cap and the variable rate premium is limited to \$500 per participant. All other plans remain below the per-participant cap and variable rate premiums are equal to 3.0% of the unfunded vested liability.

The Xcel Energy Pension Plan, NCE Nonbargaining Plan, SPS Bargaining Plan, and PSCo Bargaining Plan can eliminate variable premium with September 15, 2016 contributions of \$114.0 million, \$34.4 million, \$15.0 million and \$117.6 million, respectively.

**ERISA 4010 Funded Status**

An ERISA 4010 filing is required if any 4010 Funding Target Attainment Percentage (4010 FTAP) for a plan within the controlled group of the plan sponsor is less than 80%. For this purpose, the target liability is calculated using interest rates that ignore the MAP-21/HATFA/BBA interest rate corridors and plan assets are reduced by the amount of the prefunding balance and funding standard carryover balance. This determination is done as of the valuation date for the plan year ending within the information year ending December 31, 2016 (i.e., the 2016 plan year). The valuation date for the 2016 plan year is January 1, 2016. The January 1, 2016 4010 FTAPs for all Xcel Energy pension plans are as follows:

4010 FTAP – 2016 (\$ in Thousands)	Xcel Energy Pension Plan	NCE Nonbargaining Plan	SPS Bargaining Plan	PSCo Bargaining Plan
1. Effective Interest Rate	4.11%	3.88%	4.30%	4.25%
2. Target Liability as of January 1	\$1,786,466	\$289,163	\$358,608	\$1,039,267
3. Actuarial Value of Assets as of January 1	\$1,622,100	\$260,638	\$338,291	\$933,741
4. Funding Balance as of January 1	\$123,850	\$16,239	\$39,695	\$96,068
5. Funded Percentage with funding balance reduction from plan assets (4010 FTAP) [((3) – (4)) / (2)]	83.9%	84.5%	83.3%	80.6%

Based on the results above, no filing will be required for the 2016 information year. However, the forecasted 2017 4010 FTAPs for all plans are below 80% and a 4010 filing may be required for the 2017 information year. If a 4010 filing is required for the 2017 information year, the submission deadline will be April 15, 2018. We will continue to monitor interest rates and asset returns throughout the year and can address contribution/funding balance forfeiture strategies to avoid a filing as part of the contribution planning process in the fall.

**LONG-TERM DISABILITY AND WORKERS' COMPENSATION RESULTS**

The combined 2016 Workers' Compensation (WC) and Long-Term Disability (LTD) cost/(income) is \$0.3 million, a \$0.1 million decrease from our February cost estimate of \$0.4 million for the plans combined. Updating the BOND:Link model results to use the cash flows based on the 2016 census data increases the discount rate from an estimated rate of 4.39% to 4.46%.

The decrease in LTD cost from \$0.0 million in the February 17 cost estimates to the final 2016 result of (\$0.7) million is due to lower projected December 31, 2016 liabilities, which is the result of fewer participants receiving payments from the plan in 2016 than expected.

The increase in WC cost from \$0.4 million in the February 17 cost estimates to the final 2016 result of \$1.1 million is due to higher projected December 31, 2016 liabilities, which is the result of increases in small claims from the 1988-1991 experience years that are below reinsurance levels.

## **RESULTS EXHIBITS**

Pension contribution and PBGC variable premium forecasts are attached to the end of this letter. The planned funding schedule provided by Xcel Energy is assumed to sufficiently cover all minimum required contributions. Contribution and PBGC premium forecasts include 5% liability increases starting in 2017 to estimate the impact of potential mortality updates. Benefit cost forecasts for all plans except PSCo Bargaining, Nonqualified Plan and LTD and Workers' Compensation have not been updated from the forecasts provided on February 17, 2016. Estimates of 2017-2021 benefit costs summarized by legal entity are also presented in the attached exhibits as follows:

- Exhibit I: Benefit Cost Estimates – Qualified Pension Plans
- Exhibit II: Benefit Cost Estimates – Nonqualified Pension Plans
- Exhibit III: Benefit Cost Estimates – Retiree Medical and Life Insurance Plan
- Exhibit IV: Liabilities – LTD and Workers' Compensation
- Exhibit V: Claims and Expenses – LTD and Workers' Compensation
- Exhibit VI: Benefit Cost Estimates – LTD and Workers' Compensation
- Exhibit VII: Benefit Cost Reconciliation Details – Qualified Pension Plans

***Plans Valued***

The attached exhibits include estimates for the following employee benefit plans maintained by Xcel Energy Inc. (Xcel Energy):

- Xcel Energy Pension Plan
- Xcel Energy Inc. Nonbargaining Pension Plan (South) [NCE Nonbargaining Plan]
- New Century Energies Inc. Retirement Plan for SPS Bargaining Unit Employees and Former Nonbargaining Unit Employees [SPS Bargaining Plan]
- New Century Energies Inc. Retirement Plan for PSCo Bargaining Unit Employees and Former Nonbargaining Unit Employees [PSCo Bargaining Plan]
- Xcel Energy Nonqualified Defined Benefit Plan
- Xcel Energy SERP
- SPS SERP
- Employment Agreements
- Fort St. Vrain Nuclear Operations Personnel Plan
- NMC SERP Part A
- Xcel Energy Retiree Medical and Life Insurance Plan (including Executive Life Insurance)
- Xcel Energy Workers' Compensation
- Xcel Energy Long-Term Disability (LTD) Income

**FORECAST RESULTS**

Forecast results are based on the information summarized below and do not reflect potential de-risking activities such as a terminated vested lump sum window or a small benefit retiree annuity purchase.

The following provides a reconciliation of actual 2016 costs to 2017 estimated costs, prior to regulatory effects:

**Reconciliation of Benefit Costs (prior to regulatory effects)**

(\$ in Millions)	Qualified Pension <sup>1</sup>	Nonqualified Pension <sup>2,3</sup>	Retiree Medical	Workers' Compensation	Long Term Disability	Total
<b>Final 2016</b>	<b>\$120.6</b>	<b>\$7.9</b>	<b>(\$3.8)</b>	<b>\$1.1</b>	<b>(\$0.7)</b>	<b>\$125.1</b>
Historical asset performance	5.4	0.0	0.0	0.0	0.0	5.4
Expected liability, asset, and loss amortization changes	(11.3)	(1.7)	(0.6)	(0.6)	1.3	(12.9)
<b>Initial 2017 Estimate</b>	<b>\$114.7</b>	<b>\$6.2</b>	<b>(\$4.4)</b>	<b>\$0.5</b>	<b>\$0.6</b>	<b>\$117.6</b>

<sup>1</sup> Qualified Pension Plan costs reflect the assumption that NSP-MN and Xcel Energy Nuclear costs are determined under the Aggregate Cost Compensation Method. No additional regulatory deferrals have been reflected. See Exhibit VII for additional details.

<sup>2</sup> 2016 Includes estimated settlement charge of \$1.9 million related to Mr. Connelly's and other participants expected payments.

<sup>3</sup> 2017 Includes estimated settlement charge of \$1.4 million assuming \$3.0 million of lump sum payments are made in 2017 (\$2.1 million of known and \$0.9 million of expected).

**DATA, ASSUMPTIONS, METHODS AND PLAN PROVISIONS**

The 2016 benefit costs, 2016 funding results and estimated 2017-2021 costs reflect the following data, assumptions, methods and plan provisions:

**Data**

The 2016 benefit cost results and results for 2017-2021 are based on participant data as of January 1, 2015, projected to the end of the year based on status, compensation and benefit changes through November 30, 2015, and known retirements for December 2015. Actual new entrants through November 30, 2015, and expected new entrants through December 31, 2015, are included. See our February 17, 2016, letter for more details. The 2016 pension funding, Workers' Compensation and Long-Term Disability results are based on data as of January 1, 2016.

**Economic Assumptions**

The key assumptions used to determine the actual 2016 and estimated 2017 - 2021 benefit cost results are provided below. The assumptions used to calculate the cost under the aggregate cost method are the same as used to prepare the ASC 715 results, except as noted. Actual asset returns net of administrative expenses are assumed to equal the expected return on assets assumptions throughout the forecast period.

May 13, 2016 results	
<b>Benefit Cost</b>	
Discount Rate – ASC 715:	
■ Xcel Energy Pension Plan	4.64%
■ NCE Nonbargaining Pension Plan	4.48%
■ SPS Bargaining Pension Plan	4.73%
■ PSCo Bargaining Pension Plan	4.71%
■ Nonqualified Pension Plan	4.34%
■ Retiree Medical and Life Insurance Plan	4.65%
■ Workers' Compensation and LTD	4.46%
Expected Return on Assets Assumption – Pension:	
■ Xcel Energy Pension Plan	7.10%
■ NCE Nonbargaining Pension Plan	6.90%
■ SPS Bargaining Pension Plan	6.75%
■ PSCo Bargaining Pension Plan	6.50%
■ Weighted Average Expected Return	6.87%
Expected Return on Assets Assumption – VEBA (Bargaining/Nonbargaining)	5.80%
Discount Rate – Aggregate Cost	7.10%
Salary Scale <sup>1</sup>	4.00%
Initial Medical Trend	6.00%
Ultimate Medical Trend	4.50%
Year Ultimate Trend is Reached	2019

<sup>1</sup> Weighted average of age-graded table (nonbargaining) and service-graded table (bargaining)

- The interest rate for converting lump sums to annuities and annuities to lump sums was updated from 4.00% to 4.25% in all years. The pre-PPA lump sum conversion interest rate was updated from 3.00% to 3.25%.
- The interest crediting rate for the 5% cash balance formula was updated from 3.00% to 3.25%. The interest crediting rate for the Retirement Spending Account was updated from 1.25% to 1.50%.
- The HRA trend assumption is 2.0%.

We have assumed Xcel Energy continues to use the 24-month average of the three-segment interest rates as of September in the year prior to the valuation date. The underlying three-segment rates from April 2016 were assumed to remain constant throughout the forecast period. This methodology produces the following effective interest rates:

	Year					
	2016	2017	2018	2019	2020	2021
Xcel Energy Pension Plan	5.94%	5.75%	5.56%	5.39%	5.24%	4.83%
NCE Nonbargaining Plan	5.81%	5.63%	5.44%	5.27%	5.12%	4.71%
SPS Bargaining Plan	6.07%	5.88%	5.69%	5.52%	5.37%	4.96%
PSCo Bargaining Plan	6.04%	5.85%	5.66%	5.49%	5.34%	4.93%

**Demographic Assumptions**

- Active participant counts are assumed to remain level throughout the forecast period.
- When not prescribed by the IRS, the mortality assumption is the RP-2014 tables (blue collar for bargaining participants and white collar for nonbargaining participants, as adjusted for 2014 Xcel Energy mortality study) projected with generational mortality improvements using an adjusted SOA MP-2014 methodology.
- When not prescribed by the IRS, the mortality assumption for converting lump sums to annuities or annuities to lump is a combined annuitant and non-annuitant RP-2014 table projected with scale MP-2014 to the commencement year plus an additional 10 years.
- Liabilities that are required to use IRS prescribed mortality are based on the tables applicable for 2016 with projections to the valuation year and increased by 5% starting in 2017 to estimate the impact of potential mortality updates.
- Demographic assumptions have been updated based on a review of experience from 2010 through 2014 and future expectations, as provided in our November 19, 2015, letter and approved by the Pension Trust Administration Committee on December 16, 2015.

**Pension Contributions**

The forecasts reflect actual 2016 contributions of \$125 million made on January 4, 2016, and planned contributions provided by Xcel Energy for 2017 through 2020. Contributions for 2021 are assumed to be equal to 2020. The table below summarizes the amounts assigned to each plan over the forecast period:

	Year					
	2016	2017	2018	2019	2020	2021 <sup>1</sup>
Xcel Energy Pension Plan	\$ 90.0	\$ 90.0	\$ 90.0	\$ 80.0	\$ 46.0	\$ 46.0
NCE Nonbargaining Plan	10.0	10.0	12.0	17.0	17.0	17.0
SPS Bargaining Plan	15.0	15.0	8.0	8.0	7.0	7.0
PSCo Bargaining Plan	10.0	10.0	15.0	20.0	55.0	55.0
<b>Total Contribution</b>	<b>\$ 125.0</b>	<b>\$ 125.0</b>	<b>\$ 125.0</b>	<b>\$ 125.0</b>	<b>\$ 125.0</b>	<b>\$ 125.0</b>

<sup>1</sup> Current projections indicate that an additional \$87 million in Xcel Energy Pension Plan contributions may be required in 2021 to meet the minimum requirements.

- Contributions in 2017 and beyond are assumed to be paid on January 15 and assigned to the prior plan year.



**PBGC Premiums**

- The PBGC Variable Premium estimates reflect the increase in premium rates under The Bipartisan Budget Act of 2015, actual January 1, 2016, asset values, demographic experience, and 5% liability increases starting in 2017 to estimate the impact of potential mortality updates.
- The estimates also assume the Xcel Energy Pension Plan and the SPS Bargaining Plan continue to use the alternative interest rate method, and the NCE Nonbargaining Plan and the PSCo Bargaining Plan continue to use the standard interest rate method.
- The PSCo Bargaining Plan is expected to be at the per-participant variable rate premium cap starting in 2017 and extending through the remainder of the forecast period. The NCE Nonbargaining Plan is expected to be at the per-participant variable rate premium cap starting in 2016 and extending through 2020.

**Retiree Medical and Life Insurance Plan – Effects of Health Care Reform**

- Our estimates continue to assume the same effects as noted in our 2016 ASC 715 cost report dated April 27, 2016.

**Plan Changes**

- Effective January 1, 2016, the annual credits contributed to the Retirement Spending Account increased from \$1,400 to \$1,700 for service after January 1, 2016 for the PSCo Bargaining Plan.

**ACTUARIAL CERTIFICATION**

As requested by Xcel Energy Inc., this report provides results of the actuarial valuations of the Xcel Energy Inc. employee benefit plans indicated above. This report should not be used for other purposes, distributed to others outside Xcel Energy Inc. or relied upon by any other person without prior written consent from Willis Towers Watson. Except where we expressly agree in writing, this report should not be disclosed or provided to any third party, other than as provided below. In the absence of such consent and an express assumption of responsibility, no responsibility whatsoever is accepted by us for any consequences arising from any third party relying on this report or any advice relating to its contents.

Xcel Energy Inc. may make a copy of this report available to auditors or appropriate governmental agencies of the plan or the plan sponsor, but we make no representation as to the suitability of this report for any purpose other than that for which it was originally provided and accept no responsibility or liability to the auditors in this regard. Xcel Energy Inc. should draw the provisions of this paragraph to the attention of the auditors or appropriate governmental agencies when providing this report to them.

In preparing this valuation, we have relied upon information and data provided to us by Xcel Energy Inc. and other persons or organizations designated by Xcel Energy Inc. An audit of the financial and participant data provided was not performed, but we have checked the data for reasonableness as appropriate based on the purpose of the valuation. The results presented in this report are directly dependent upon the accuracy and completeness of the underlying data and information. Any material inaccuracy in the data, assets, plan provisions or other information provided to us may have produced results that are not suitable for the purposes of this report and such inaccuracies, as corrected by Xcel Energy Inc., may produce materially different results that could require that a revised report be issued.

This valuation reflects our understanding of the relevant provisions of the Pension Protection Act of 2006. The IRS has yet to issue final guidance with respect to certain aspects of this law. It is possible that such guidance may conflict with our understanding of the law and could therefore affect results shown in this report.

The results summarized in this report involve actuarial calculations that require assumptions about future events. We believe the assumptions and methods used in this report are reasonable and appropriate for the purposes for which they have been used. In our opinion, all methods, assumptions and calculations are in accordance with requirements of the Internal Revenue Code and ERISA, and the applicable financial accounting standards, including ASC 712 and 715 and the procedures followed and presentation of results are in conformity with generally accepted actuarial principles and practices.

Assumptions for determining benefit cost results were selected by Xcel Energy Inc. Xcel Energy Inc. uses the standards set out in ASC 715 to calculate pension cost for each plan in total; pension cost for the subsidiaries is calculated based on plan assets allocated to each subsidiary in proportion to the PBO for each subsidiary. Beginning in fiscal 2010, Discontinued Operations is allocated assets in proportion to its PBO, similar to nondiscontinued operations. The gain/(loss) amortization is allocated to each subsidiary in proportion to the gain/(loss) balance for each subsidiary (excluding deferred asset gains and losses). This methodology is consistent with former NSP's methodology since 1998 and has been applied to the former NCE pension plans since January 1, 2001. A similar methodology is used for the ASC 715 costs for the Retiree Medical and Life Plan, except separate asset accounts are used for each subsidiary.


Except as otherwise provided herein, the results presented are based on the data, assumptions, methods and plan provisions outlined in the actuarial valuation reports to determine accounting requirements for the plan for the plan year ending December 31, 2015, and beginning January 1, 2016 dated April 27, 2016. Therefore, the descriptions of the data, assumptions, methods, plan provisions and limitations of the valuation and its use should be considered part of this letter report.

The undersigned consultants with actuarial credentials meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. Our objectivity is not impaired by any relationship between the Xcel Energy Inc. and our employer, Towers Watson Delaware Inc., a subsidiary of Willis Towers Watson PLC.

**NEXT STEPS**

If you have any questions or would like to discuss, please contact Jim at 952-842-6354 or Mark at +1 952 842 6445.

Sincerely,



James W. Shaddy, ASA  
Consulting Actuary



Mark A. Afdahl, FSA  
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# Estimated Cash Flow (\$ in Millions) and Estimated Funded Status at January 1

Calendar Year	2016		2017		2018		2019		2020	
Plan Year (Contributions)	2015	2016	2016	2017	2017	2018	2018	2019	2019	2020
<b>Xcel Energy Pension Plan</b>	<b>106%</b>		<b>98%</b>		<b>97%</b>		<b>99%</b>		<b>98%</b>	
<i>Contributions</i>	\$90.0	\$0.0	\$90.0	\$0.0	\$90.0	\$0.0	\$80.0	\$0.0	\$46.0	\$0.0
<i>PBGC Variable Premiums</i>	\$0.0	\$3.3	\$0.0	\$6.2	\$0.0	\$5.6	\$0.0	\$5.6	\$0.0	\$5.5
<b>NCE Nonbargaining Plan</b>	<b>103%</b>		<b>93%</b>		<b>92%</b>		<b>95%</b>		<b>98%</b>	
<i>Contributions</i>	\$10.0	\$0.0	\$10.0	\$0.0	\$12.0	\$0.0	\$17.0	\$0.0	\$17.0	\$0.0
<i>PBGC Variable Premiums</i>	\$0.0	\$0.9	\$0.0	\$0.9	\$0.0	\$0.9	\$0.0	\$1.0	\$0.0	\$0.9
<b>SPS Bargaining Plan</b>	<b>114%</b>		<b>108%</b>		<b>104%</b>		<b>103%</b>		<b>103%</b>	
<i>Contributions</i>	\$15.0	\$0.0	\$15.0	\$0.0	\$8.0	\$0.0	\$8.0	\$0.0	\$7.0	\$0.0
<i>PBGC Variable Premiums</i>	\$0.0	\$0.4	\$0.0	\$1.0	\$0.0	\$1.1	\$0.0	\$1.3	\$0.0	\$1.1
<b>PSCo Bargaining Plan</b>	<b>108%</b>		<b>99%</b>		<b>94%</b>		<b>93%</b>		<b>96%</b>	
<i>Contributions</i>	\$10.0	\$0.0	\$10.0	\$0.0	\$15.0	\$0.0	\$20.0	\$0.0	\$55.0	\$0.0
<i>PBGC Variable Premiums</i>	\$0.0	\$3.4	\$0.0	\$3.7	\$0.0	\$3.8	\$0.0	\$3.9	\$0.0	\$4.0
<b>Total</b>	<b>107%</b>		<b>99%</b>		<b>97%</b>		<b>97%</b>		<b>98%</b>	
<i>Contributions</i>	\$125.0		\$125.0		\$125.0		\$125.0		\$125.0	
<i>PBGC Variable Premiums</i>	\$8.0		\$11.8		\$11.4		\$11.8		\$11.5	

- Based on January 1, 2016 asset values and expected returns for the forecast period.
- Assumes Xcel Energy elects to use September three-segment rates.
- Target Liability effective rates (2016, 2017, 2018, 2019, 2020):
  - XEPP: 5.94%, 5.75%, 5.56%, 5.39%, 5.24%
  - NCE: 5.81%, 5.63%, 5.44%, 5.27%, 5.12%
  - SPS: 6.07%, 5.88%, 5.69%, 5.52%, 5.37%
  - PSCo: 6.04%, 5.85%, 5.66%, 5.49%, 5.34%
- Funding balance used to satisfy minimum required contributions and forfeited to avoid benefit restrictions and at-risk status.
- Funded status equals actuarial value of assets divided by target liability.
- Effective rates were calculated by assuming spot segment rates from mid-April 2016 of 1.36%, 3.63% and 4.68% remain unchanged throughout the remainder of the forecast period. The actual segment rates used are a 24-month average of the spot rates through August of the year prior to the valuation year, subject to the corridors of BBA.
- Forecasts do not reflect potential de-risking activities such as a terminated vested lump sum window or a small benefit retiree annuity purchase.

**XCEL ENERGY INC. - Qualified Pension Plans**  
**Benefit Cost by Legal Entity**  
(\$ in Thousands)

	Amortizations					Net Cost	Aggregate Cost Compensation Method	Aggregate Cost 20-year Amortization Method	January 1 Prepaid (Accrued) <sup>1</sup>	Contribution	PBO
	Service Cost	Interest Cost	Expected Return on Assets	Prior Service Cost	Net (Gain)/Loss						
<b>2016</b>											
<b>Xcel Energy Pension Plan (XEPP)</b>											
Discontinued Operations <sup>2</sup>	-	3,510	(4,715)	-	3,353	2,148	N/A	N/A	35,936	3,805	78,354
Xcel Energy Nuclear	6,523	4,246	(5,706)	44	559	5,666	3,150	2,608	(7,363)	4,629	94,849
NSP - MN	21,784	41,185	(55,238)	892	36,218	44,841	30,831	25,528	378,989	44,773	928,274
NSP - WI	4,417	6,816	(9,157)	111	5,392	7,579	N/A	N/A	53,939	7,436	152,545
Xcel Services <sup>3</sup>	23,328	26,949	(36,170)	245	12,661	27,013	N/A	N/A	85,540	29,333	605,484
XEPC (former EMI)	-	22	(30)	-	(7)	(15)	N/A	N/A	(185)	24	495
<b>Total XEPP</b>	<b>56,052</b>	<b>82,728</b>	<b>(111,016)</b>	<b>1,292</b>	<b>58,176</b>	<b>87,232</b>	<b>33,981</b>	<b>28,136</b>	<b>546,856</b>	<b>90,000</b>	<b>1,860,001</b>
<b>NCE Non-Bargaining Pension Plan</b>											
Discontinued Operations - Cheyenne	-	170	(232)	-	157	95	N/A	N/A	1,606	133	3,948
PSCo	5,196	8,803	(12,001)	1	3,503	5,502	N/A	N/A	19,102	6,906	205,036
SPS	3,087	3,770	(5,141)	-	3,421	5,137	N/A	N/A	34,788	2,961	87,644
<b>Total NCE</b>	<b>8,283</b>	<b>12,743</b>	<b>(17,374)</b>	<b>1</b>	<b>7,081</b>	<b>10,734</b>	<b>N/A</b>	<b>N/A</b>	<b>55,496</b>	<b>10,000</b>	<b>296,628</b>
<b>SPS Bargaining Plan</b>											
SPS	6,674	17,489	(22,461)	-	8,565	10,267	N/A	N/A	110,335	15,000	379,750
<b>Total SPS</b>	<b>6,674</b>	<b>17,489</b>	<b>(22,461)</b>	<b>-</b>	<b>8,565</b>	<b>10,267</b>	<b>N/A</b>	<b>N/A</b>	<b>110,335</b>	<b>15,000</b>	<b>379,750</b>
<b>PSCo Bargaining Plan</b>											
Discontinued Operations - Cheyenne	-	540	(680)	-	449	309	N/A	N/A	6,755	115	11,934
PSCo	20,730	46,602	(58,768)	(3,212)	23,268	28,620	N/A	N/A	297,435	9,885	1,019,820
<b>Total PSCo</b>	<b>20,730</b>	<b>47,142</b>	<b>(59,448)</b>	<b>(3,212)</b>	<b>23,717</b>	<b>28,929</b>	<b>N/A</b>	<b>N/A</b>	<b>304,190</b>	<b>10,000</b>	<b>1,031,754</b>
<b>Total Xcel Energy</b>	<b>91,739</b>	<b>160,102</b>	<b>(210,299)</b>	<b>(1,919)</b>	<b>97,539</b>	<b>137,162</b>	<b>33,981</b>	<b>28,136</b>	<b>1,016,877</b>	<b>125,000</b>	<b>3,568,133</b>

<sup>1</sup> Includes \$4,128 transfer from NCE to XEPP for non-de minimis asset transfer on December 31, 2015

<sup>2</sup> Includes NRG, BMG, Viking, Natro Gas, Utility Engineering, Seren, Quixx, Crockett and QPS

<sup>3</sup> Includes Eloigne

**Assumptions**

Discount Rate - U.S. GAAP

XEPP	4.64%
NCE	4.48%
SPS	4.73%
PSCo	4.71%

Discount Rate - Aggregate Normal Cost 7.10%

Salary Scale 4.00%

Expected Return on Assets

XEPP	7.10%
NCE	6.90%
SPS	6.75%
PSCo	6.50%

Assumed Mortality Table

Bargaining Participants RP-2014 Blue Collar projected with generational mortality improvements using an adjusted SOA MP-2014 methodology

Non-bargaining Participants RP-2014 White Collar, as adjusted for 2014 Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology

See May 13, 2016 letter for additional information on data, assumptions, methods, and plan provisions.

Contributions already made are allocated in accordance with the January 4, 2016 contribution directives provided by Xcel Energy on January 26, 2016.

**XCEL ENERGY INC. - Qualified Pension Plans  
Benefit Cost by Legal Entity  
(\$ in Thousands)**

	Amortizations					Net Cost	Aggregate Cost Compensation Method	Aggregate Cost 20-year Amortization Method	January 1 Prepaid (Accrued)	Contribution	PBO
	Service Cost	Interest Cost	Expected Return on Assets	Prior Service Cost	Net (Gain)/Loss						
<b>2017</b>											
<b>Xcel Energy Pension Plan (XEPP)</b>											
Discontinued Operations <sup>1</sup>	-	3,442	(4,741)	-	3,293	1,994	N/A	N/A	37,593	3,727	76,433
Xcel Energy Nuclear	6,362	4,433	(6,102)	44	384	5,121	3,202	2,720	(8,400)	4,831	99,048
NSP - MN	20,104	40,320	(55,443)	892	34,335	40,208	29,427	24,992	378,921	44,387	910,120
NSP - WI	4,300	6,806	(9,365)	111	5,103	6,955	N/A	N/A	53,796	7,444	152,628
Xcel Services <sup>2</sup>	23,024	27,154	(37,380)	245	11,814	24,857	N/A	N/A	87,860	29,587	606,669
XEPC (former EMI)	-	22	(31)	-	(5)	(14)	N/A	N/A	(146)	24	492
<b>Total XEPP</b>	<b>53,790</b>	<b>82,177</b>	<b>(113,062)</b>	<b>1,292</b>	<b>54,924</b>	<b>79,121</b>	<b>32,629</b>	<b>27,712</b>	<b>549,624</b>	<b>90,000</b>	<b>1,845,390</b>
<b>NCE Non-Bargaining Pension Plan</b>											
Discontinued Operations - Cheyenne	-	163	(224)	-	153	92	N/A	N/A	1,644	130	3,810
PSCo	4,878	8,687	(11,962)	1	3,386	4,990	N/A	N/A	20,506	6,885	201,951
SPS	2,913	3,765	(5,185)	-	3,148	4,641	N/A	N/A	32,612	2,985	87,536
<b>Total NCE</b>	<b>7,791</b>	<b>12,615</b>	<b>(17,371)</b>	<b>1</b>	<b>6,687</b>	<b>9,723</b>	<b>N/A</b>	<b>N/A</b>	<b>54,762</b>	<b>10,000</b>	<b>293,297</b>
<b>SPS Bargaining Plan</b>											
SPS	6,694	17,679	(23,347)	-	8,249	9,275	N/A	N/A	115,068	15,000	383,941
<b>Total SPS</b>	<b>6,694</b>	<b>17,679</b>	<b>(23,347)</b>	<b>-</b>	<b>8,249</b>	<b>9,275</b>	<b>N/A</b>	<b>N/A</b>	<b>115,068</b>	<b>15,000</b>	<b>383,941</b>
<b>PSCo Bargaining Plan</b>											
Discontinued Operations - Cheyenne	-	522	(647)	-	436	311	N/A	N/A	6,561	111	11,537
PSCo	21,194	46,975	(58,358)	(3,212)	22,384	28,983	N/A	N/A	278,700	9,889	1,028,309
<b>Total PSCo</b>	<b>21,194</b>	<b>47,497</b>	<b>(59,005)</b>	<b>(3,212)</b>	<b>22,820</b>	<b>29,294</b>	<b>N/A</b>	<b>N/A</b>	<b>285,261</b>	<b>10,000</b>	<b>1,039,846</b>
<b>Total Xcel Energy</b>	<b>89,469</b>	<b>159,968</b>	<b>(212,785)</b>	<b>(1,919)</b>	<b>92,680</b>	<b>127,413</b>	<b>32,629</b>	<b>27,712</b>	<b>1,004,715</b>	<b>125,000</b>	<b>3,562,474</b>

<sup>1</sup> Includes NRG, BMG, Viking, Natro Gas, Utility Engineering, Seren, Quixx, Crockett and QPS

<sup>2</sup> Includes Eloigne

**Assumptions**

Discount Rate - U.S. GAAP

XEPP	4.64%
NCE	4.48%
SPS	4.73%
PSCo	4.71%

Discount Rate - Aggregate Normal Cost

	7.10%
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Salary Scale

	4.00%
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Expected Return on Assets

XEPP	7.10%
NCE	6.90%
SPS	6.75%
PSCo	6.50%

Assumed Mortality Table

Bargaining Participants RP-2014 Blue Collar projected with generational mortality improvements using an adjusted SOA MP-2014 methodology

Non-bargaining Participants RP-2014 White Collar, as adjusted for 2014 Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology

See May 13, 2016 letter for additional information on data, assumptions, methods, and plan provisions.

Contributions are allocated based on PBO for each legal entity.

**XCEL ENERGY INC. - Qualified Pension Plans**  
**Benefit Cost by Legal Entity**  
(\$ in Thousands)

	Amortizations					Net Cost	Aggregate Cost Compensation Method	Aggregate Cost 20-year Amortization Method	January 1 Prepaid (Accrued)	Contribution	PBO
	Service Cost	Interest Cost	Expected Return on Assets	Prior Service Cost	Net (Gain)/Loss						
<b>2018</b>											
<b>Xcel Energy Pension Plan (XEPP)</b>											
Discontinued Operations <sup>1</sup>	-	3,358	(4,723)	-	3,270	1,905	N/A	N/A	39,326	3,700	75,364
Xcel Energy Nuclear	6,207	4,608	(6,486)	44	270	4,643	3,327	2,875	(8,690)	5,052	102,927
NSP - MN	20,013	39,322	(55,287)	892	32,992	37,932	28,716	24,815	383,100	43,612	888,517
NSP - WI	4,363	6,778	(9,537)	111	4,892	6,607	N/A	N/A	54,285	7,459	151,967
Xcel Services <sup>2</sup>	22,553	27,421	(38,584)	245	11,320	22,955	N/A	N/A	92,590	30,153	614,304
XEPC (former EMI)	-	22	(31)	-	(3)	(12)	N/A	N/A	(108)	24	490
<b>Total XEPP</b>	<b>53,136</b>	<b>81,509</b>	<b>(114,648)</b>	<b>1,292</b>	<b>52,741</b>	<b>74,030</b>	<b>32,043</b>	<b>27,690</b>	<b>560,503</b>	<b>90,000</b>	<b>1,833,569</b>
<b>NCE Non-Bargaining Pension Plan</b>											
Discontinued Operations - Cheyenne	-	155	(217)	-	150	88	N/A	N/A	1,682	150	3,622
PSCo	4,671	8,549	(11,936)	1	3,370	4,655	N/A	N/A	22,401	8,243	199,472
SPS	2,841	3,747	(5,231)	-	2,949	4,306	N/A	N/A	30,956	3,607	87,295
<b>Total NCE</b>	<b>7,512</b>	<b>12,451</b>	<b>(17,384)</b>	<b>1</b>	<b>6,469</b>	<b>9,049</b>	<b>N/A</b>	<b>N/A</b>	<b>55,039</b>	<b>12,000</b>	<b>290,389</b>
<b>SPS Bargaining Plan</b>											
SPS	6,639	17,858	(23,641)	-	8,080	8,936	N/A	N/A	120,793	8,000	388,004
<b>Total SPS</b>	<b>6,639</b>	<b>17,858</b>	<b>(23,641)</b>	<b>-</b>	<b>8,080</b>	<b>8,936</b>	<b>N/A</b>	<b>N/A</b>	<b>120,793</b>	<b>8,000</b>	<b>388,004</b>
<b>PSCo Bargaining Plan</b>											
Discontinued Operations - Cheyenne	-	504	(613)	-	427	318	N/A	N/A	6,361	160	11,150
PSCo	21,589	47,333	(57,646)	(3,212)	22,021	30,085	N/A	N/A	259,606	14,840	1,036,657
<b>Total PSCo</b>	<b>21,589</b>	<b>47,837</b>	<b>(58,259)</b>	<b>(3,212)</b>	<b>22,448</b>	<b>30,403</b>	<b>N/A</b>	<b>N/A</b>	<b>265,967</b>	<b>15,000</b>	<b>1,047,807</b>
<b>Total Xcel Energy</b>	<b>88,876</b>	<b>159,655</b>	<b>(213,932)</b>	<b>(1,919)</b>	<b>89,738</b>	<b>122,418</b>	<b>32,043</b>	<b>27,690</b>	<b>1,002,302</b>	<b>125,000</b>	<b>3,559,769</b>

<sup>1</sup> Includes NRG, BMG, Viking, Natro Gas, Utility Engineering, Seren, Quixx, Crockett and QPS

<sup>2</sup> Includes Eloigne

**Assumptions**

Discount Rate - U.S. GAAP

XEPP	4.64%
NCE	4.48%
SPS	4.73%
PSCo	4.71%

Discount Rate - Aggregate Normal Cost

7.10%

Salary Scale

4.00%

Expected Return on Assets

XEPP	7.10%
NCE	6.90%
SPS	6.75%
PSCo	6.50%

Assumed Mortality Table

Bargaining Participants

RP-2014 Blue Collar projected with generational mortality improvements using an adjusted SOA MP-2014 methodology

Non-bargaining Participants

RP-2014 White Collar, as adjusted for 2014 Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology

See May 13, 2016 letter for additional information on data, assumptions, methods, and plan provisions.

Contributions are allocated based on PBO for each legal entity.

**XCEL ENERGY INC. - Qualified Pension Plans  
Benefit Cost by Legal Entity  
(\$ in Thousands)**

	Amortizations					Aggregate Cost Net Cost	Aggregate Cost Compensation Method	Aggregate Cost 20-year Amortization Method	January 1 Prepaid (Accrued)	Contribution	PBO
	Service Cost	Interest Cost	Expected Return on Assets	Prior Service Cost	Net (Gain)/Loss						
<b>2019</b>											
<b>Xcel Energy Pension Plan (XEPP)</b>											
Discontinued Operations <sup>1</sup>	-	3,245	(4,647)	-	3,234	1,832	N/A	N/A	41,121	3,198	72,556
Xcel Energy Nuclear	6,040	4,768	(6,830)	44	182	4,204	3,413	3,009	(8,281)	4,699	106,613
NSP - MN	19,669	38,263	(54,762)	892	31,723	35,785	27,729	24,441	388,780	38,169	866,103
NSP - WI	4,319	6,728	(9,633)	111	4,695	6,220	N/A	N/A	55,137	6,677	151,497
Xcel Services <sup>2</sup>	22,075	27,573	(39,490)	245	10,884	21,287	N/A	N/A	99,788	27,235	617,994
XEPC (former EMI)	-	22	(31)	-	(1)	(10)	N/A	N/A	(72)	22	489
<b>Total XEPP</b>	<b>52,103</b>	<b>80,599</b>	<b>(115,393)</b>	<b>1,292</b>	<b>50,717</b>	<b>69,318</b>	<b>31,142</b>	<b>27,450</b>	<b>576,473</b>	<b>80,000</b>	<b>1,815,252</b>
<b>NCE Non-Bargaining Pension Plan</b>											
Discontinued Operations - Cheyenne	-	149	(215)	-	147	81	N/A	N/A	1,744	207	3,474
PSCo	4,473	8,356	(12,072)	1	3,338	4,096	N/A	N/A	25,989	11,636	195,445
SPS	2,759	3,709	(5,359)	-	2,759	3,868	N/A	N/A	30,257	5,157	86,610
<b>Total NCE</b>	<b>7,232</b>	<b>12,214</b>	<b>(17,646)</b>	<b>1</b>	<b>6,244</b>	<b>8,045</b>	<b>N/A</b>	<b>N/A</b>	<b>57,990</b>	<b>17,000</b>	<b>285,529</b>
<b>SPS Bargaining Plan</b>											
SPS	6,594	18,016	(24,006)	-	7,799	8,403	N/A	N/A	119,857	8,000	391,673
<b>Total SPS</b>	<b>6,594</b>	<b>18,016</b>	<b>(24,006)</b>	<b>-</b>	<b>7,799</b>	<b>8,403</b>	<b>N/A</b>	<b>N/A</b>	<b>119,857</b>	<b>8,000</b>	<b>391,673</b>
<b>PSCo Bargaining Plan</b>											
Discontinued Operations - Cheyenne	-	487	(587)	-	412	312	N/A	N/A	6,203	204	10,777
PSCo	22,041	47,656	(57,556)	(3,212)	21,145	30,074	N/A	N/A	244,361	19,796	1,044,361
<b>Total PSCo</b>	<b>22,041</b>	<b>48,143</b>	<b>(58,143)</b>	<b>(3,212)</b>	<b>21,557</b>	<b>30,386</b>	<b>N/A</b>	<b>N/A</b>	<b>250,564</b>	<b>20,000</b>	<b>1,055,138</b>
<b>Total Xcel Energy</b>	<b>87,970</b>	<b>158,972</b>	<b>(215,188)</b>	<b>(1,919)</b>	<b>86,317</b>	<b>116,152</b>	<b>31,142</b>	<b>27,450</b>	<b>1,004,884</b>	<b>125,000</b>	<b>3,547,592</b>

<sup>1</sup> Includes NRG, BMG, Viking, Natro Gas, Utility Engineering, Seren, Quixx, Crockett and QPS

<sup>2</sup> Includes Eloigne

**Assumptions**

Discount Rate - U.S. GAAP

XEPP	4.64%
NCE	4.48%
SPS	4.73%
PSCo	4.71%

Discount Rate - Aggregate Normal Cost

7.10%

Salary Scale

4.00%

Expected Return on Assets

XEPP	7.10%
NCE	6.90%
SPS	6.75%
PSCo	6.50%

Assumed Mortality Table

Bargaining Participants

RP-2014 Blue Collar projected with generational mortality improvements using an adjusted SOA MP-2014 methodology

Non-bargaining Participants

RP-2014 White Collar, as adjusted for 2014 Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology

See May 13, 2016 letter for additional information on data, assumptions, methods, and plan provisions.

Contributions are allocated based on PBO for each legal entity.

**XCEL ENERGY INC. - Qualified Pension Plans  
Benefit Cost by Legal Entity  
(\$ in Thousands)**

	Amortizations					Aggregate Cost Compensation Method	Aggregate Cost 20-year Amortization Method	January 1 Prepaid (Accrued)	Contribution	PBO	
	Service Cost	Interest Cost	Expected Return on Assets	Prior Service Cost	Net (Gain)/Loss						
<b>2020</b>											
<b>Xcel Energy Pension Plan (XEPP)</b>											
Discontinued Operations <sup>1</sup>	-	3,165	(4,529)	-	3,191	1,827	N/A	N/A	42,487	1,808	70,477
Xcel Energy Nuclear	5,851	4,902	(7,012)	44	118	3,903	3,470	3,125	(7,786)	2,818	109,818
NSP - MN	19,566	37,136	(53,076)	892	30,448	34,966	26,592	23,946	391,164	21,595	841,561
NSP - WI	4,270	6,634	(9,484)	111	4,498	6,029	N/A	N/A	55,594	3,842	149,726
Xcel Services <sup>2</sup>	21,538	27,640	(39,531)	245	10,496	20,388	N/A	N/A	105,736	15,925	620,615
XEPC (former EMI)	-	22	(31)	-	-	(9)	N/A	N/A	(40)	12	485
<b>Total XEPP</b>	<b>51,225</b>	<b>79,499</b>	<b>(113,663)</b>	<b>1,292</b>	<b>48,751</b>	<b>67,104</b>	<b>30,062</b>	<b>27,071</b>	<b>587,155</b>	<b>46,000</b>	<b>1,792,682</b>
<b>NCE Non-Bargaining Pension Plan</b>											
Discontinued Operations - Cheyenne	-	142	(213)	-	145	74	N/A	N/A	1,870	202	3,321
PSCo	4,320	8,161	(12,253)	1	3,330	3,559	N/A	N/A	33,529	11,594	190,498
SPS	2,686	3,661	(5,497)	-	2,606	3,456	N/A	N/A	31,546	5,204	85,509
<b>Total NCE</b>	<b>7,006</b>	<b>11,964</b>	<b>(17,963)</b>	<b>1</b>	<b>6,081</b>	<b>7,089</b>	<b>N/A</b>	<b>N/A</b>	<b>66,945</b>	<b>17,000</b>	<b>279,328</b>
<b>SPS Bargaining Plan</b>											
SPS	6,511	18,146	(24,230)	-	7,580	8,007	N/A	N/A	119,454	7,000	394,795
<b>Total SPS</b>	<b>6,511</b>	<b>18,146</b>	<b>(24,230)</b>	<b>-</b>	<b>7,580</b>	<b>8,007</b>	<b>N/A</b>	<b>N/A</b>	<b>119,454</b>	<b>7,000</b>	<b>394,795</b>
<b>PSCo Bargaining Plan</b>											
Discontinued Operations - Cheyenne	-	469	(580)	-	399	288	N/A	N/A	6,095	539	10,402
PSCo	22,515	47,935	(59,364)	(2,650)	20,532	28,968	N/A	N/A	234,083	54,461	1,051,249
<b>Total PSCo</b>	<b>22,515</b>	<b>48,404</b>	<b>(59,944)</b>	<b>(2,650)</b>	<b>20,931</b>	<b>29,256</b>	<b>N/A</b>	<b>N/A</b>	<b>240,178</b>	<b>55,000</b>	<b>1,061,651</b>
<b>Total Xcel Energy</b>	<b>87,257</b>	<b>158,013</b>	<b>(215,800)</b>	<b>(1,357)</b>	<b>83,343</b>	<b>111,456</b>	<b>30,062</b>	<b>27,071</b>	<b>1,013,732</b>	<b>125,000</b>	<b>3,528,456</b>

<sup>1</sup> Includes NRG, BMG, Viking, Natro Gas, Utility Engineering, Seren, Quixx, Crockett and QPS

<sup>2</sup> Includes Eloigne

**Assumptions**

Discount Rate - U.S. GAAP

XEPP	4.64%
NCE	4.48%
SPS	4.73%
PSCo	4.71%

Discount Rate - Aggregate Normal Cost

Salary Scale	7.10%
Expected Return on Assets	4.00%

Expected Return on Assets

XEPP	7.10%
NCE	6.90%
SPS	6.75%
PSCo	6.50%

Assumed Mortality Table

Bargaining Participants

RP-2014 Blue Collar projected with generational mortality improvements using an adjusted SOA MP-2014 methodology

Non-bargaining Participants

RP-2014 White Collar, as adjusted for 2014 Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology

See May 13, 2016 letter for additional information on data, assumptions, methods, and plan provisions.

Contributions are allocated based on PBO for each legal entity.



**XCEL ENERGY INC. - Qualified Pension Plans**  
**Benefit Cost by Legal Entity**  
(\$ in Thousands)

	Amortizations					Net Cost	Aggregate Cost Compensation Method	Aggregate Cost 20-year Amortization Method	January 1 Prepaid (Accrued)	Contribution	PBO
	Service Cost	Interest Cost	Expected Return on Assets	Prior Service Cost	Net (Gain)/Loss						
<b>2021</b>											
<b>Xcel Energy Pension Plan (XEPP)</b>											
Discontinued Operations <sup>1</sup>	-	3,088	(4,481)	-	3,044	1,651	N/A	N/A	42,468	1,799	69,019
Xcel Energy Nuclear	5,676	5,015	(7,276)	-	(27)	3,388	3,297	3,076	(8,871)	2,927	112,327
NSP - MN	19,469	35,972	(52,160)	30	28,064	31,375	23,939	22,338	377,793	21,256	815,612
NSP - WI	4,208	6,521	(9,458)	1	4,116	5,388	N/A	N/A	53,407	3,834	147,121
Xcel Services <sup>2</sup>	21,068	27,617	(40,065)	8	9,458	18,086	N/A	N/A	101,273	16,171	620,471
XEPC (former EMI)	-	22	(31)	-	1	(8)	N/A	N/A	(19)	13	481
<b>Total XEPP</b>	<b>50,421</b>	<b>78,235</b>	<b>(113,471)</b>	<b>39</b>	<b>44,656</b>	<b>59,880</b>	<b>27,236</b>	<b>25,414</b>	<b>566,051</b>	<b>46,000</b>	<b>1,765,031</b>
<b>NCE Non-Bargaining Pension Plan</b>											
Discontinued Operations - Cheyenne	-	135	(215)	-	137	57	N/A	N/A	1,998	196	3,165
PSCo	4,187	7,987	(12,695)	1	3,081	2,561	N/A	N/A	41,564	11,569	186,439
SPS	2,635	3,619	(5,752)	-	2,341	2,843	N/A	N/A	33,294	5,235	84,368
<b>Total NCE</b>	<b>6,822</b>	<b>11,741</b>	<b>(18,662)</b>	<b>1</b>	<b>5,559</b>	<b>5,461</b>	<b>N/A</b>	<b>N/A</b>	<b>76,856</b>	<b>17,000</b>	<b>273,972</b>
<b>SPS Bargaining Plan</b>											
SPS	6,431	18,242	(24,753)	-	7,024	6,944	N/A	N/A	118,447	7,000	397,240
<b>Total SPS</b>	<b>6,431</b>	<b>18,242</b>	<b>(24,753)</b>	<b>-</b>	<b>7,024</b>	<b>6,944</b>	<b>N/A</b>	<b>N/A</b>	<b>118,447</b>	<b>7,000</b>	<b>397,240</b>
<b>PSCo Bargaining Plan</b>											
Discontinued Operations - Cheyenne	-	452	(583)	-	376	245	N/A	N/A	6,346	517	10,030
PSCo	23,118	48,173	(62,248)	16	18,983	28,042	N/A	N/A	259,576	54,483	1,057,164
<b>Total PSCo</b>	<b>23,118</b>	<b>48,625</b>	<b>(62,831)</b>	<b>16</b>	<b>19,359</b>	<b>28,287</b>	<b>N/A</b>	<b>N/A</b>	<b>265,922</b>	<b>55,000</b>	<b>1,067,194</b>
<b>Total Xcel Energy</b>	<b>86,792</b>	<b>156,843</b>	<b>(219,717)</b>	<b>56</b>	<b>76,598</b>	<b>100,572</b>	<b>27,236</b>	<b>25,414</b>	<b>1,027,276</b>	<b>125,000</b>	<b>3,503,437</b>

<sup>1</sup> Includes NRG, BMG, Viking, Natro Gas, Utility Engineering, Seren, Quixx, Crockett and QPS

<sup>2</sup> Includes Eloigne

**Assumptions**

Discount Rate - U.S. GAAP

XEPP	4.64%
NCE	4.48%
SPS	4.73%
PSCo	4.71%

Discount Rate - Aggregate Normal Cost

Salary Scale	7.10%
	4.00%

Expected Return on Assets

XEPP	7.10%
NCE	6.90%
SPS	6.75%
PSCo	6.50%

Assumed Mortality Table

Bargaining Participants RP-2014 Blue Collar projected with generational mortality improvements using an adjusted SOA MP-2014 methodology

Non-bargaining Participants RP-2014 White Collar, as adjusted for 2014 Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology

See May 13, 2016 letter for additional information on data, assumptions, methods, and plan provisions.

Contributions are allocated based on PBO for each legal entity.

**XCEL ENERGY INC. - Nonqualified Pension Plans**  
**Benefit Cost by Legal Entity**  
**(\$ in Thousands)**

2016	Amortizations						Net Cost	January 1 Prepaid (Accrued)	Expected Benefit Payments
	Service Cost	Interest Cost	Expected Return on Assets	Prior Service Cost	Net (Gain)/Loss	FAS 88 Settlement <sup>4</sup>			
Discontinued Operations <sup>1</sup>	-	57	-	-	12	-	69	(1,286)	159
Xcel Energy Nuclear	73	42	-	-	(24)	-	91	(1,299)	175
NSP - MN	16	164	-	-	308	-	488	(982)	613
NSP - WI	15	31	-	-	11	-	57	(641)	65
PSCo <sup>2</sup>	37	144	-	-	404	-	585	458	567
SPS	17	105	-	-	126	-	248	(1,308)	315
Xcel Services <sup>3</sup>	1,827	1,126	-	240	1,253	1,900	6,346	(14,637)	4,766
XEPC (former EMI)	-	-	-	-	(4)	-	(4)	(37)	-
<b>Total Xcel Energy</b>	<b>1,985</b>	<b>1,669</b>	<b>-</b>	<b>240</b>	<b>2,086</b>	<b>1,900</b>	<b>7,880</b>	<b>(19,732)</b>	<b>6,660</b>

<sup>1</sup> Includes NRG, BMG, Viking, Natrogas, Quixx, Seren and UE

<sup>2</sup> Includes Fort St. Vrain

<sup>3</sup> Includes Eloigne

<sup>4</sup> Estimated settlement amount for payments expected to be made to Mr. Connelly and other participants.

*Assumptions*

Discount Rate 4.34%

Salary Scale 4.00%

Assumed Mortality Table RP-2014 White Collar, as adjusted for 2014 Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology

See May 13, 2016 letter for additional information on data, assumptions, methods and plan provisions.

**XCEL ENERGY INC. - Nonqualified Pension Plans**  
**Benefit Cost by Legal Entity**  
**(\$ in Thousands)**

2017	Amortizations							January 1 Prepaid (Accrued)	Expected Benefit Payments
	Service Cost	Interest Cost	Expected Return on Assets	Prior Service Cost	Net (Gain)/Loss	FAS 88 Settlement <sup>4</sup>	Net Cost		
Discontinued Operations <sup>1</sup>	-	56	-	-	17	-	73	(1,196)	155
Xcel Energy Nuclear	80	43	-	-	(16)	-	107	(1,215)	105
NSP - MN	17	154	-	-	290	-	461	(857)	555
NSP - WI	16	32	-	-	13	-	61	(633)	64
PSCo <sup>2</sup>	40	138	-	-	372	-	550	440	381
SPS	19	102	-	-	123	-	244	(1,241)	295
Xcel Services <sup>3</sup>	847	1,138	-	240	1,050	1,400	4,675	(16,217)	3,233
XEPC (former EMI)	-	-	-	-	(3)	-	(3)	(33)	-
<b>Total Xcel Energy</b>	<b>1,019</b>	<b>1,663</b>	<b>-</b>	<b>240</b>	<b>1,846</b>	<b>1,400</b>	<b>6,168</b>	<b>(20,952)</b>	<b>4,788</b>

<sup>1</sup> Includes NRG, BMG, Viking, Natrogas, Quixx, Seren and UE

<sup>2</sup> Includes Fort St. Vrain

<sup>3</sup> Includes Eloigne

<sup>4</sup> Estimated settlement amount assuming \$3.0 million of lump sum payments are made in 2017 (\$2.1 million of known and \$0.9 million of expected).

**Assumptions**

Discount Rate 4.34%

Salary Scale 4.00%

Assumed Mortality Table RP-2014 White Collar, as adjusted for 2014 Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology

Estimates reflect a 5% load on the projected liabilities to reflect the potential for demographic experience that is less favorable than expected.

See May 13, 2016 letter for additional information on data, assumptions, methods and plan provisions.

**XCEL ENERGY INC. - Nonqualified Pension Plans**  
**Benefit Cost by Legal Entity**  
**(\$ in Thousands)**

2018	Amortizations						Net Cost	January 1 Prepaid (Accrued)	Expected Benefit Payments
	Service Cost	Interest Cost	Expected Return on Assets	Prior Service Cost	Net (Gain)/Loss	FAS 88 Settlement <sup>4</sup>			
Discontinued Operations <sup>1</sup>	-	51	-	-	14	-	65	(1,114)	150
Xcel Energy Nuclear	83	44	-	-	(14)	-	113	(1,217)	100
NSP - MN	18	138	-	-	248	-	404	(763)	500
NSP - WI	17	31	-	-	11	-	59	(630)	62
PSCo <sup>2</sup>	42	129	-	-	320	-	491	271	373
SPS	20	94	-	-	105	-	219	(1,190)	281
Xcel Services <sup>3</sup>	881	1,089	-	227	765	-	2,962	(17,659)	2,735
XEPC (former EMI)	-	-	-	-	(3)	-	(3)	(30)	-
<b>Total Xcel Energy</b>	<b>1,061</b>	<b>1,576</b>	<b>-</b>	<b>227</b>	<b>1,446</b>	<b>-</b>	<b>4,310</b>	<b>(22,332)</b>	<b>4,201</b>

<sup>1</sup> Includes NRG, BMG, Viking, Natrogas, Quixx, Seren and UE

<sup>2</sup> Includes Fort St. Vrain

<sup>3</sup> Includes Eloigne

<sup>4</sup> Settlement accounting may be required if actual lump sum benefit payments exceed the sum of service cost and interest cost. No settlements have been estimated at this time.

**Assumptions**

Discount Rate 4.34%

Salary Scale 4.00%

Assumed Mortality Table RP-2014 White Collar, as adjusted for 2014 Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology

Estimates reflect a 5% load on the projected liabilities to reflect the potential for demographic experience that is less favorable than expected.

See May 13, 2016 letter for additional information on data, assumptions, methods and plan provisions.

**XCEL ENERGY INC. - Nonqualified Pension Plans**  
**Benefit Cost by Legal Entity**  
**(\$ in Thousands)**

2019	Amortizations						Net Cost	January 1 Prepaid (Accrued)	Expected Benefit Payments
	Service Cost	Interest Cost	Expected Return on Assets	Prior Service Cost	Net (Gain)/Loss	FAS 88 Settlement <sup>4</sup>			
Discontinued Operations <sup>1</sup>	-	47	-	-	11	-	58	(1,029)	146
Xcel Energy Nuclear	86	46	-	-	(12)	-	120	(1,230)	57
NSP - MN	19	123	-	-	218	-	360	(667)	450
NSP - WI	18	30	-	-	9	-	57	(627)	60
PSCo <sup>2</sup>	44	120	-	-	282	-	446	153	358
SPS	21	87	-	-	92	-	200	(1,128)	262
Xcel Services <sup>3</sup>	916	1,059	-	133	669	-	2,777	(17,886)	2,417
XEPC (former EMI)	-	-	-	-	(2)	-	(2)	(27)	-
<b>Total Xcel Energy</b>	<b>1,104</b>	<b>1,512</b>	<b>-</b>	<b>133</b>	<b>1,267</b>	<b>-</b>	<b>4,016</b>	<b>(22,441)</b>	<b>3,750</b>

<sup>1</sup> Includes NRG, BMG, Viking, Natrogas, Quixx, Seren and UE

<sup>2</sup> Includes Fort St. Vrain

<sup>3</sup> Includes Eloigne

<sup>4</sup> Settlement accounting may be required if actual lump sum benefit payments exceed the sum of service cost and interest cost. No settlements have been estimated at this time.

*Assumptions*

Discount Rate 4.34%

Salary Scale 4.00%

Assumed Mortality Table RP-2014 White Collar, as adjusted for 2014 Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology

Estimates reflect a 5% load on the projected liabilities to reflect the potential for demographic experience that is less favorable than expected.

See May 13, 2016 letter for additional information on data, assumptions, methods and plan provisions.

**XCEL ENERGY INC. - Nonqualified Pension Plans**  
**Benefit Cost by Legal Entity**  
**(\$ in Thousands)**

2020	Amortizations						Net Cost	January 1 Prepaid (Accrued)	Expected Benefit Payments
	Service Cost	Interest Cost	Expected Return on Assets	Prior Service Cost	Net (Gain)/Loss	FAS 88 Settlement <sup>4</sup>			
Discontinued Operations <sup>1</sup>	-	42	-	-	10	-	52	(941)	141
Xcel Energy Nuclear	89	49	-	-	(11)	-	127	(1,293)	86
NSP - MN	20	109	-	-	191	-	320	(577)	402
NSP - WI	19	30	-	-	8	-	57	(624)	63
PSCo <sup>2</sup>	46	111	-	-	248	-	405	65	343
SPS	22	80	-	-	80	-	182	(1,066)	259
Xcel Services <sup>3</sup>	953	1,020	-	133	584	-	2,690	(18,246)	3,131
XEPC (former EMI)	-	-	-	-	(2)	-	(2)	(25)	-
<b>Total Xcel Energy</b>	<b>1,149</b>	<b>1,441</b>	<b>-</b>	<b>133</b>	<b>1,108</b>	<b>-</b>	<b>3,831</b>	<b>(22,707)</b>	<b>4,425</b>

<sup>1</sup> Includes NRG, BMG, Viking, Natrogas, Quixx, Seren and UE

<sup>2</sup> Includes Fort St. Vrain

<sup>3</sup> Includes Eloigne

<sup>4</sup> Settlement accounting may be required if actual lump sum benefit payments exceed the sum of service cost and interest cost. No settlements have been estimated at this time.

**Assumptions**

Discount Rate 4.34%

Salary Scale 4.00%

Assumed Mortality Table RP-2014 White Collar, as adjusted for 2014 Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology

Estimates reflect a 5% load on the projected liabilities to reflect the potential for demographic experience that is less favorable than expected.

See May 13, 2016 letter for additional information on data, assumptions, methods and plan provisions.

**XCEL ENERGY INC. - Nonqualified Pension Plans**  
**Benefit Cost by Legal Entity**  
**(\$ in Thousands)**

2021	Amortizations							January 1 Prepaid (Accrued)	Expected Benefit Payments
	Service Cost	Interest Cost	Expected Return on Assets	Prior Service Cost	Net (Gain)/Loss	FAS 88 Settlement <sup>4</sup>	Net Cost		
Discontinued Operations <sup>1</sup>	-	38	-	-	8	-	46	(852)	135
Xcel Energy Nuclear	93	51	-	-	(10)	-	134	(1,334)	77
NSP - MN	21	98	-	-	168	-	287	(495)	357
NSP - WI	20	29	-	-	7	-	56	(618)	61
PSCo <sup>2</sup>	48	102	-	-	220	-	370	3	335
SPS	23	73	-	-	71	-	167	(989)	236
Xcel Services <sup>3</sup>	991	977	-	130	511	-	2,609	(17,805)	2,567
XEPC (former EMI)	-	-	-	-	(2)	-	(2)	(23)	-
<b>Total Xcel Energy</b>	<b>1,196</b>	<b>1,368</b>	<b>-</b>	<b>130</b>	<b>973</b>	<b>-</b>	<b>3,667</b>	<b>(22,113)</b>	<b>3,768</b>

<sup>1</sup> Includes NRG, BMG, Viking, Natrogas, Quixx, Seren and UE

<sup>2</sup> Includes Fort St. Vrain

<sup>3</sup> Includes Eloigne

<sup>4</sup> Settlement accounting may be required if actual lump sum benefit payments exceed the sum of service cost and interest cost. No settlements have been estimated at this time.

**Assumptions**

Discount Rate 4.34%

Salary Scale 4.00%

Assumed Mortality Table RP-2014 White Collar, as adjusted for 2014 Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology

Estimates reflect a 5% load on the projected liabilities to reflect the potential for demographic experience that is less favorable than expected.

See May 13, 2016 letter for additional information on data, assumptions, methods and plan provisions.

**XCEL ENERGY INC. - Postretirement Benefits**  
**Benefit Cost by Legal Entity**  
(\$ in Thousands)

2016	Service Cost	Interest Cost	Expected Return on Assets	Amortizations		Net Cost	January 1 Prepaid (Accrued)	Contribution
				Prior Service Cost	Net (Gain)/Loss			
Discontinued Operations <sup>1</sup>	1	391	(79)	(103)	106	316	(5,424)	694
Xcel Energy Nuclear	14	33	-	49	(14)	82	(567)	14
NSP - MN <sup>2</sup>	109	3,892	(172)	(3,085)	1,617	2,361	(65,753)	8,560
NSP - WI	24	651	(24)	(351)	330	630	(8,383)	1,435
PSCo	768	18,070	(22,299)	(6,247)	1,931	(7,777)	11,152	-
SPS <sup>3</sup>	775	1,821	(2,377)	(401)	(583)	(765)	(16,081)	-
Xcel Services <sup>3</sup>	36	1,248	(44)	(549)	659	1,350	(13,339)	1,626
XEPC (former EMI)	-	1	-	1	(4)	(2)	(125)	6
<b>Total Xcel Energy</b>	<b>1,727</b>	<b>26,107</b>	<b>(24,995)</b>	<b>(10,686)</b>	<b>4,042</b>	<b>(3,805)</b>	<b>(98,520)</b>	<b>12,335</b>

<sup>1</sup>Includes NRG, BMG, Viking, Natrogas, Cheyenne, Quixx and UE.

<sup>2</sup>Includes Eloigne and Seren.

<sup>3</sup>Includes Executive Life Insurance benefits.

**Assumptions**

Discount Rate	4.65%
Expected Return on Assets	5.80%

**Medical Trend**

Initial (2016)	6.00%
Ultimate	4.50%
Year Ultimate Reached	2019

**Assumed Mortality Table**

Bargaining:	RP-2014 Blue Collar headcount-weighted table adjusted for Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology.
Non-bargaining:	RP-2014 White Collar headcount-weighted table adjusted for Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology.

Contributions for PSCo and SPS are assumed equal to the net cost, but not less than zero. Contributions for other legal entities are assumed equal to the expected benefit payments.

See May 13, 2016 letter for additional information on data, assumptions, methods, and plan provisions.



**XCEL ENERGY INC. - Postretirement Benefits**  
**Benefit Cost by Legal Entity**  
(\$ in Thousands)

2017	Service Cost	Interest Cost	Expected Return on Assets	Amortizations		Net Cost	January 1 Prepaid (Accrued)	Contribution
				Prior Service Cost	Net (Gain)/Loss			
Discontinued Operations <sup>1</sup>	1	378	(84)	(103)	105	297	(5,046)	698
Xcel Energy Nuclear	14	35	-	49	(13)	85	(635)	16
NSP - MN <sup>2</sup>	104	3,682	(182)	(3,085)	1,575	2,094	(59,554)	8,046
NSP - WI	24	615	(26)	(351)	320	582	(7,578)	1,301
PSCo	632	17,558	(21,853)	(6,247)	1,897	(8,013)	18,929	-
SPS <sup>3</sup>	750	1,792	(2,320)	(401)	(566)	(745)	(15,316)	-
Xcel Services <sup>3</sup>	35	1,235	(47)	(549)	648	1,322	(13,063)	1,590
XEPC (former EMI)	-	1	-	1	(4)	(2)	(117)	5
<b>Total Xcel Energy</b>	<b>1,560</b>	<b>25,296</b>	<b>(24,512)</b>	<b>(10,686)</b>	<b>3,962</b>	<b>(4,380)</b>	<b>(82,380)</b>	<b>11,656</b>

<sup>1</sup>Includes NRG, BMG, Viking, Natrogas, Cheyenne, Quixx and UE.

<sup>2</sup>Includes Eloigne and Seren.

<sup>3</sup>Includes Executive Life Insurance benefits.

**Assumptions**

Discount Rate	4.65%
Expected Return on Assets	5.80%

**Medical Trend**

Initial (2016)	6.00%
Ultimate	4.50%
Year Ultimate Reached	2019

**Assumed Mortality Table**

Bargaining:	RP-2014 Blue Collar headcount-weighted table adjusted for Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology.
Non-bargaining:	RP-2014 White Collar headcount-weighted table adjusted for Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology.

Contributions for PSCo and SPS are assumed equal to the net cost, but not less than zero. Contributions for other legal entities are assumed equal to the expected benefit payments.

See May 13, 2016 letter for additional information on data, assumptions, methods, and plan provisions.

**XCEL ENERGY INC. - Postretirement Benefits**  
**Benefit Cost by Legal Entity**  
(\$ in Thousands)

2018	Service Cost	Interest Cost	Expected Return on Assets	Amortizations		Net Cost	January 1 Prepaid (Accrued)	Contribution
				Prior Service Cost	Net (Gain)/Loss			
Discontinued Operations <sup>1</sup>	1	363	(88)	(104)	102	274	(4,645)	709
Xcel Energy Nuclear	13	36	-	49	(13)	85	(704)	17
NSP - MN <sup>2</sup>	97	3,490	(193)	(3,085)	1,533	1,842	(53,602)	7,798
NSP - WI	23	585	(27)	(351)	311	541	(6,859)	1,259
PSCo	541	17,014	(21,384)	(6,178)	1,846	(8,161)	26,942	-
SPS <sup>3</sup>	736	1,759	(2,267)	(404)	(550)	(726)	(14,571)	-
Xcel Services <sup>3</sup>	33	1,221	(49)	(557)	631	1,279	(12,795)	1,592
XEPC (former EMI)	-	1	-	1	(3)	(1)	(110)	5
<b>Total Xcel Energy</b>	<b>1,444</b>	<b>24,469</b>	<b>(24,008)</b>	<b>(10,629)</b>	<b>3,857</b>	<b>(4,867)</b>	<b>(66,344)</b>	<b>11,380</b>

<sup>1</sup>Includes NRG, BMG, Viking, Natrogas, Cheyenne, Quixx and UE.

<sup>2</sup>Includes Eloigne and Seren.

<sup>3</sup>Includes Executive Life Insurance benefits.

**Assumptions**

Discount Rate	4.65%
Expected Return on Assets	5.80%

**Medical Trend**

Initial (2016)	6.00%
Ultimate	4.50%
Year Ultimate Reached	2019

**Assumed Mortality Table**

Bargaining:	RP-2014 Blue Collar headcount-weighted table adjusted for Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology.
Non-bargaining:	RP-2014 White Collar headcount-weighted table adjusted for Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology.

Contributions for PSCo and SPS are assumed equal to the net cost, but not less than zero. Contributions for other legal entities are assumed equal to the expected benefit payments.

See May 13, 2016 letter for additional information on data, assumptions, methods, and plan provisions.

**XCEL ENERGY INC. - Postretirement Benefits**  
**Benefit Cost by Legal Entity**  
(\$ in Thousands)

2019	Service Cost	Interest Cost	Expected Return on Assets	Amortizations		Net Cost	January 1 Prepaid (Accrued)	Contribution
				Prior Service Cost	Net (Gain)/Loss			
Discontinued Operations <sup>1</sup>	-	347	(93)	(110)	99	243	(4,210)	699
Xcel Energy Nuclear	11	38	-	57	(13)	93	(772)	20
NSP - MN <sup>2</sup>	88	3,303	(204)	(3,075)	1,487	1,599	(47,646)	7,469
NSP - WI	22	556	(29)	(351)	302	500	(6,141)	1,229
PSCo	451	16,442	(20,893)	(5,399)	1,792	(7,607)	35,103	-
SPS <sup>3</sup>	718	1,731	(2,218)	(466)	(533)	(768)	(13,845)	-
Xcel Services <sup>3</sup>	29	1,206	(52)	(565)	612	1,230	(12,482)	1,556
XEPC (former EMI)	-	1	-	-	(3)	(2)	(104)	5
<b>Total Xcel Energy</b>	<b>1,319</b>	<b>23,624</b>	<b>(23,489)</b>	<b>(9,909)</b>	<b>3,743</b>	<b>(4,712)</b>	<b>(50,097)</b>	<b>10,978</b>

<sup>1</sup>Includes NRG, BMG, Viking, Natrogas, Cheyenne, Quixx and UE.

<sup>2</sup>Includes Eloigne and Seren.

<sup>3</sup>Includes Executive Life Insurance benefits.

**Assumptions**

Discount Rate	4.65%
Expected Return on Assets	5.80%

**Medical Trend**

Initial (2016)	6.00%
Ultimate	4.50%
Year Ultimate Reached	2019

**Assumed Mortality Table**

Bargaining:	RP-2014 Blue Collar headcount-weighted table adjusted for Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology.
Non-bargaining:	RP-2014 White Collar headcount-weighted table adjusted for Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology.

Contributions for PSCo and SPS are assumed equal to the net cost, but not less than zero. Contributions for other legal entities are assumed equal to the expected benefit payments.

See May 13, 2016 letter for additional information on data, assumptions, methods, and plan provisions.

**XCEL ENERGY INC. - Postretirement Benefits**  
**Benefit Cost by Legal Entity**  
(\$ in Thousands)

2020	Service Cost	Interest Cost	Expected Return on Assets	Amortizations		Net Cost	January 1 Prepaid (Accrued)	Contribution
				Prior Service Cost	Net (Gain)/Loss			
Discontinued Operations <sup>1</sup>	-	331	(99)	(111)	96	217	(3,754)	675
Xcel Energy Nuclear	10	39	-	95	(12)	132	(845)	24
NSP - MN <sup>2</sup>	81	3,119	(216)	(3,014)	1,433	1,403	(41,776)	7,263
NSP - WI	20	527	(30)	(337)	291	471	(5,412)	1,191
PSCo	345	15,828	(20,357)	(3,762)	1,726	(6,220)	42,710	-
SPS <sup>3</sup>	704	1,704	(2,171)	(425)	(513)	(701)	(13,077)	-
Xcel Services <sup>3</sup>	26	1,194	(55)	(365)	589	1,389	(12,156)	1,460
XEPC (former EMI)	-	1	-	-	(3)	(2)	(97)	1
<b>Total Xcel Energy</b>	<b>1,186</b>	<b>22,743</b>	<b>(22,928)</b>	<b>(7,919)</b>	<b>3,607</b>	<b>(3,311)</b>	<b>(34,407)</b>	<b>10,614</b>

<sup>1</sup>Includes NRG, BMG, Viking, Natrogas, Cheyenne, Quixx and UE.

<sup>2</sup>Includes Eloigne and Seren.

<sup>3</sup>Includes Executive Life Insurance benefits.

**Assumptions**

Discount Rate	4.65%
Expected Return on Assets	5.80%

**Medical Trend**

Initial (2016)	6.00%
Ultimate	4.50%
Year Ultimate Reached	2019

**Assumed Mortality Table**

Bargaining:	RP-2014 Blue Collar headcount-weighted table adjusted for Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology.
Non-bargaining:	RP-2014 White Collar headcount-weighted table adjusted for Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology.

Contributions for PSCo and SPS are assumed equal to the net cost, but not less than zero. Contributions for other legal entities are assumed equal to the expected benefit payments.

See May 13, 2016 letter for additional information on data, assumptions, methods, and plan provisions.

**XCEL ENERGY INC. - Postretirement Benefits**  
**Benefit Cost by Legal Entity**  
(\$ in Thousands)

2021	Service Cost	Interest Cost	Expected Return on Assets	Amortizations		Net Cost	January 1 Prepaid (Accrued)	Contribution
				Prior Service Cost	Net (Gain)/Loss			
Discontinued Operations <sup>1</sup>	-	316	(105)	(111)	92	192	(3,296)	655
Xcel Energy Nuclear	9	40	-	95	(12)	132	(953)	28
NSP - MN <sup>2</sup>	73	2,940	(228)	(3,014)	1,379	1,150	(35,916)	6,890
NSP - WI	19	498	(32)	(337)	280	428	(4,692)	1,141
PSCo	226	15,172	(19,783)	(3,762)	1,659	(6,488)	48,930	-
SPS <sup>3</sup>	678	1,675	(2,120)	(425)	(493)	(685)	(12,376)	-
Xcel Services <sup>3</sup>	25	1,183	(58)	(365)	567	1,352	(12,085)	1,459
XEPC (former EMI)	-	1	-	-	(3)	(2)	(94)	1
<b>Total Xcel Energy</b>	<b>1,030</b>	<b>21,825</b>	<b>(22,326)</b>	<b>(7,919)</b>	<b>3,469</b>	<b>(3,921)</b>	<b>(20,482)</b>	<b>10,174</b>

<sup>1</sup>Includes NRG, BMG, Viking, Natrogas, Cheyenne, Quixx and UE.

<sup>2</sup>Includes Eloigne and Seren.

<sup>3</sup>Includes Executive Life Insurance benefits.

**Assumptions**

Discount Rate	4.65%
Expected Return on Assets	5.80%

**Medical Trend**

Initial (2016)	6.00%
Ultimate	4.50%
Year Ultimate Reached	2019

**Assumed Mortality Table**

Bargaining:	RP-2014 Blue Collar headcount-weighted table adjusted for Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology.
Non-bargaining:	RP-2014 White Collar headcount-weighted table adjusted for Xcel Energy mortality study, projected with generational mortality improvements using an adjusted SOA MP-2014 methodology.

Contributions for PSCo and SPS are assumed equal to the net cost, but not less than zero. Contributions for other legal entities are assumed equal to the expected benefit payments.

See May 13, 2016 letter for additional information on data, assumptions, methods, and plan provisions.

**XCEL ENERGY INC. - LTD and Workers' Compensation**  
**Liabilities by Legal Entity**  
(\$ in Thousands)

EXHIBIT IV

<i>Fiscal Year Ending</i>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>ASC 712</b>	Actual	Budget	Budget	Budget	Budget	Budget	Budget
<i>Discount Rate- Workers' Compensation</i>	3.86%	4.46%	4.46%	4.46%	4.46%	4.46%	4.46%
<i>Former NSP - Workers' Compensation</i> <sup>1</sup>							
<i>MN/SD</i>	9,476	9,497	8,862	8,282	7,736	7,209	6,697
<i>MI/WI</i>	371	238	232	225	220	214	209
<i>Subtotal</i>	9,847	9,735	9,094	8,507	7,956	7,423	6,906
<i>Former NCE - Workers' Compensation</i> <sup>1</sup>							
<i>Colorado - PSCo</i>	1,673	1,538	1,475	1,420	1,371	1,326	1,285
<i>Deductible States - Workers' Compensation</i>							
<i>Deductible States - SPS (KS, OK, NM, and TX)</i>	-	-	-	-	-	-	-
<b>Total Xcel Energy Workers' Compensation</b>	<b>11,520</b>	<b>11,273</b>	<b>10,569</b>	<b>9,927</b>	<b>9,327</b>	<b>8,749</b>	<b>8,191</b>
<i>Discount Rate - LTD Income</i>	3.86%	4.46%	4.46%	4.46%	4.46%	4.46%	4.46%
<i>LTD Income</i>							
<i>Discontinued Operations - Cheyenne</i>	-	141	117	94	70	58	47
<i>Discontinued Operations</i> <sup>2</sup>	737	598	568	540	512	485	458
<i>NSP-MN</i>	9,142	7,704	7,307	6,920	6,542	6,171	5,809
<i>NSP-WI</i>	1,665	1,574	1,498	1,424	1,351	1,280	1,211
<i>PSCo</i>	2,710	2,347	1,840	1,432	1,090	800	621
<i>SPS</i>	1,087	877	733	619	504	389	273
<i>Utility Engineering</i>	-	49	45	41	37	33	29
<i>Xcel Services</i>	1,082	406	338	270	209	174	145
<i>XEPC</i>	78	60	40	20	-	-	-
<b>Total Xcel Energy LTD Income</b>	<b>16,501</b>	<b>13,756</b>	<b>12,486</b>	<b>11,360</b>	<b>10,315</b>	<b>9,390</b>	<b>8,593</b>
<b>Total Xcel Energy ASC 712</b>	<b>28,021</b>	<b>25,029</b>	<b>23,055</b>	<b>21,287</b>	<b>19,642</b>	<b>18,139</b>	<b>16,784</b>

<sup>1</sup> Results for former NSP states include income replacement and medical benefits as well as reserve for bankrupt insurers.

Colorado results include reserve for bankrupt insurers.

<sup>2</sup> Includes NRG, BMG, Viking and Natrogas.

The results above are based on the data, assumptions, methods, and plan provisions described in our May 13, 2016 letter.

**XCEL ENERGY INC. - LTD and Workers' Compensation  
Claims and Expenses by Legal Entity  
(\$ in Thousands)**

**EXHIBIT V**

<i>Fiscal Year Ending</i> <b>ASC 712</b>	<b>2015</b> Actual	<b>2016</b> Actual	<b>2017</b> Budget	<b>2018</b> Budget	<b>2019</b> Budget	<b>2020</b> Budget	<b>2021</b> Budget
<i>Discount Rate- Workers' Compensation</i>	3.86%	4.46%	4.46%	4.46%	4.46%	4.46%	4.46%
<i>Former NSP - Workers' Compensation</i> <sup>1</sup>							
<i>MN/SD</i>	1,156	1,141	1,035	955	895	853	816
<i>MI/WI</i>	77	18	17	16	16	15	14
<i>Subtotal</i>	1,233	1,159	1,052	971	911	868	830
<i>Former NCE - Workers' Compensation</i> <sup>1</sup>							
<i>Colorado - PSCo</i>	278	144	129	118	110	104	98
<i>Deductible States - Workers' Compensation</i>							
<i>Deductible States - SPS (KS, OK, NM, and TX)</i>	(29)	-	-	-	-	-	-
<b>Total Xcel Energy Workers' Compensation</b>	<b>1,482</b>	<b>1,303</b>	<b>1,181</b>	<b>1,089</b>	<b>1,021</b>	<b>972</b>	<b>928</b>
<i>Discount Rate - LTD Income</i>	3.86%	4.46%	4.46%	4.46%	4.46%	4.46%	4.46%
<i>LTD Income</i> <sup>2</sup>							
<i>Discontinued Operations - Cheyenne</i>	-	31	29	28	27	14	14
<i>Discontinued Operations</i> <sup>3</sup>	118	59	55	53	51	49	47
<i>NSP-MN</i>	867	754	723	696	671	647	623
<i>NSP-WI</i>	141	149	143	138	133	128	124
<i>PSCo</i>	726	665	598	479	396	329	210
<i>SPS</i>	262	204	178	144	139	134	130
<i>Utility Engineering</i>	-	6	6	6	6	6	5
<i>Xcel Services</i>	117	119	84	82	71	43	35
<i>XEPC</i>	23	23	22	21	21	-	-
<b>Total Xcel Energy LTD Income</b>	<b>2,254</b>	<b>2,010</b>	<b>1,838</b>	<b>1,647</b>	<b>1,515</b>	<b>1,350</b>	<b>1,188</b>
<b>Total Xcel Energy ASC 712</b>	<b>3,736</b>	<b>3,313</b>	<b>3,019</b>	<b>2,736</b>	<b>2,536</b>	<b>2,322</b>	<b>2,116</b>

<sup>1</sup> Results for former NSP states include income replacement and medical benefits as well as reserve for bankrupt insurers.

Colorado results include reserve for bankrupt insurers.

<sup>2</sup> Does not include administrative expenses.

<sup>3</sup> Includes NRG, BMG, Viking and Natrogas.

The results above are based on the data, assumptions, methods, and plan provisions described in our May 13, 2016 letter.

**XCEL ENERGY INC. - LTD and Workers' Compensation  
Benefit Cost Estimates by Legal Entity  
(\$ in Thousands)**

**EXHIBIT VI**

<i>Fiscal Year Ending</i>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>ASC 712</b>	Actual	Budget	Budget	Budget	Budget	Budget	Budget
<i>Discount Rate- Workers' Compensation</i>	3.86%	4.46%	4.46%	4.46%	4.46%	4.46%	4.46%
<i>Former NSP - Workers' Compensation</i> <sup>1</sup>							
<i>MN/SD</i>	1,009	1,162	400	375	349	326	304
<i>MI/WI</i>	46	(115)	11	9	11	9	9
<i>Subtotal</i>	1,055	1,047	411	384	360	335	313
<i>Former NCE - Workers' Compensation</i> <sup>1</sup>							
<i>Colorado - PSCo</i>	(43)	9	66	63	61	59	57
<i>Deductible States - Workers' Compensation</i>							
<i>Deductible States - SPS (KS, OK, NM, and TX)</i>	-	-	-	-	-	-	-
<b>Total Xcel Energy Workers' Compensation</b>	<b>1,012</b>	<b>1,056</b>	<b>477</b>	<b>447</b>	<b>421</b>	<b>394</b>	<b>370</b>
<i>Discount Rate - LTD Income</i>	3.86%	4.46%	4.46%	4.46%	4.46%	4.46%	4.46%
<i>LTD Income</i>							
<i>Discontinued Operations - Cheyenne</i>	100	172	5	5	3	2	3
<i>Discontinued Operations</i> <sup>2</sup>	(1)	(80)	25	25	23	22	20
<i>NSP-MN</i>	837	(684)	326	309	293	276	261
<i>NSP-WI</i>	255	58	67	64	60	57	55
<i>PSCo</i>	223	302	91	71	54	39	31
<i>SPS</i>	166	(6)	34	30	24	19	14
<i>Utility Engineering</i>	59	55	2	2	2	2	1
<i>Xcel Services</i>	733	(557)	16	14	10	8	6
<i>XEPC</i>	9	5	2	1	1	-	-
<b>Total Xcel Energy LTD Income</b>	<b>2,381</b>	<b>(735)</b>	<b>568</b>	<b>521</b>	<b>470</b>	<b>425</b>	<b>391</b>
<b>Total Xcel Energy ASC 712</b>	<b>3,393</b>	<b>321</b>	<b>1,045</b>	<b>968</b>	<b>891</b>	<b>819</b>	<b>761</b>

<sup>1</sup> Results for former NSP states include income replacement and medical benefits as well as reserve for bankrupt insurers.

Colorado results include reserve for bankrupt insurers.

<sup>2</sup> Includes NRG, BMG, Viking and Natrogas.

The results above are based on the data, assumptions, methods, and plan provisions described in our May 13, 2016 letter.



# Xcel Energy Inc. - Qualified Pension Plans

## Exhibit VII

### Benefit Cost Reconciliation Details

(\$ in Thousands)

	ASC 715 <sup>1</sup>					NSP-MN & Xcel Energy Nuclear		
	XEPP	NCE	SPS	PSCo	Total	ASC 715 <sup>1</sup>	Aggregate Cost Compensation Method	Aggregate Cost 20-Year Amortization Method
<b>Initial 2016 Estimate (May 7, 2015)</b>	<b>87,834</b>	<b>9,553</b>	<b>10,128</b>	<b>29,273</b>	<b>136,788</b>	<b>52,323</b>	<b>31,013</b>	<b>24,321</b>
Experience study assumption changes	(3,113)	(432)	79	(446)	(3,912)	(2,128)	(1,646)	522
Estimated demographic experience <sup>2</sup>	1,678	977	(37)	859	3,477	96	646	351
Discount rates <sup>3</sup>	(3,634)	(452)	(1,157)	(3,187)	(8,430)	(2,096)	13	10
Asset performance <sup>4</sup>	4,143	1,074	515	1,319	7,051	2,317	1,521	1,122
Pension contributions increased from \$90M to \$125M	(2,087)	-	(557)	194	(2,450)	(1,146)	-	-
Expected rate of return update <sup>5</sup>	2,350	501	1,669	2,292	6,812	1,289	1,372	955
<b>Updated 2016 Estimate (December 16, 2015)</b>	<b>87,171</b>	<b>11,221</b>	<b>10,640</b>	<b>30,304</b>	<b>139,336</b>	<b>50,655</b>	<b>32,919</b>	<b>27,281</b>
Final demographic experience <sup>6</sup>	703	(364)	(171)	(248)	(80)	174	408	372
Final discount rates	(1,991)	(445)	(321)	(1,350)	(4,107)	(1,088)	1	-
Final asset values	1,349	322	119	138	1,928	766	653	483
PSCo RSA contribution level increase	-	-	-	85	85	-	-	-
<b>2016 Costs (May 13, 2016)</b>	<b>87,232</b>	<b>10,734</b>	<b>10,267</b>	<b>28,929</b>	<b>137,162</b>	<b>50,507</b>	<b>33,981</b>	<b>28,136</b>
Historical asset performance	3,049	583	521	2,005	6,158	1,701	946	699
Expected liability, asset and loss amortization changes	(11,160)	(1,594)	(1,513)	(1,640)	(15,907)	(6,879)	(2,298)	(1,123)
<b>Initial 2017 Estimate (May 13, 2016)</b>	<b>79,121</b>	<b>9,723</b>	<b>9,275</b>	<b>29,294</b>	<b>127,413</b>	<b>45,329</b>	<b>32,629</b>	<b>27,712</b>

<sup>1</sup> Does not include potential settlement charges.

<sup>2</sup> Estimated impact of updated participant status and compensation data through September 30, 2015, with the primary factors being mortality and termination losses.

<sup>3</sup> December 31, 2015 discount rates assumed to be equal to the discount rates from Willis Towers Watson's BOND:Link model results as of November 30, 2015.

<sup>4</sup> 2015 asset returns equal actual returns through November 30, 2015 plus expected returns for the remainder of 2015 for an estimated pension return of 1% for 2015

<sup>5</sup> Weighted average rate of return for the pension plan assets was updated from 7.09% to 6.87%.

<sup>6</sup> Estimated impact of updated participant status and compensation data through November 30, 2015.

See May 13, 2016 letter for additional information on data, assumptions, methods and plan provisions.