

ANNUAL REPORT

OF

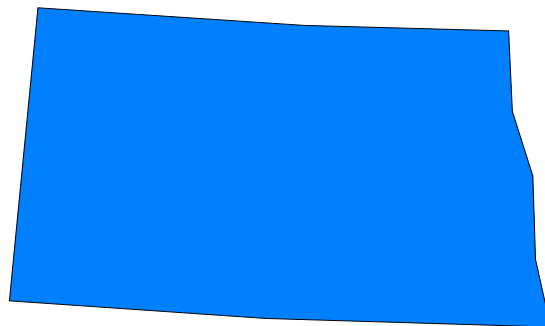
NORTHERN STATES POWER COMPANY
(A MINNESOTA CORPORATION)

TO THE

NORTH DAKOTA PUBLIC SERVICE COMMISSION

FOR THE YEAR ENDING
DECEMBER 31, 2015

North Dakota Jurisdiction
Electric Utility



2015

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Northern States Power Company

Electric Utility - North Dakota

(Dollars In Thousands)

I. RETURN ON EQUITY (ROE)

<u>Actual Return on Equity (ROE)</u>	<u>2015</u>	<u>2014</u>
1 Operating Income from Electric Operations (E-2):	\$33,713	\$31,669
2 Average Regulated Rate Base (E-3):	\$514,809	\$453,402
3 Rate of Return on Rate Base (ROR) (line 1 / line 2):	6.55%	6.98%
4 Weighted Cost of Debt (E-4):	2.25%	2.23%
5 Weighted Cost of Preferred Stock (E-4):	0.00%	0.00%
6 % of Equity in Capital Structure (E-4):	52.76%	52.87%
7 Return on Equity (ROE):	8.15%	8.99%

<u>ROE, Normalized for Weather Impact on Sales</u>	<u>2015</u>	<u>2014</u>
8 Operating Income from Electric Operations:	\$33,713	\$31,669
9 Impact of weather on Mwh Sales:	(21,111)	22,865
10 Impact of weather on Electric Operating Income: ¹	(\$622)	\$537
11 Weather-Normalized Operating Income:	\$34,335	\$31,132
12 Average Regulated Rate Base:	\$514,593	\$453,588
13 Weather-Normal Rate of Return on Rate Base (ROR):	6.67%	6.86%
14 Weather-Normalized Return on Equity (ROE):	8.38%	8.76%

¹ The weather impact estimate includes a demand component in addition to sales.

Northern States Power Company

Electric Utility - North Dakota

(Dollars In Thousands)

II. OPERATING INCOME

<u>Line</u>	<u>Item</u>	<u>2015</u> <u>Total NSP</u>	<u>2015</u> <u>N.D. Juris.</u>	<u>N. D. %</u>	<u>2014</u> <u>N.D. Juris.</u>	<u>Annual</u> <u>Change</u>
<u>Operating Revenues:</u>						
1	Residential	1,234,203	82,172	6.7%	81,066	1.4%
2	Small Comm. & Ind.	1,442,344	101,810	7.1%	98,244	3.6%
3	Large Comm. & Ind.	670,110	27,904	4.2%	24,600	13.4%
4	Public Street & Highway Ltg	25,908	1,635	6.3%	1,577	3.7%
5	Other Sales to Publ Auth	<u>8,422</u>	<u>1,356</u>	<u>16.1%</u>	<u>1,376</u>	<u>-1.4%</u>
	Total Retail	3,380,987	214,877	6.4%	206,861	3.9%
6	Interdepartmental	791	0	0.0%	0	*
7	Sales for Resale	118,691	7,687	6.5%	9,009	-14.7%
8	Interchange Agreement	466,042	29,954	6.4%	30,419	-1.5%
9	Other	<u>250,945</u>	<u>14,149</u>	<u>5.6%</u>	<u>11,608</u>	<u>21.9%</u>
10	Total Revenues:	4,217,457	266,667	6.3%	257,897	3.4%
<u>Operating Expenses:</u>						
11	Fuel & Purchased Energy	1,180,957	76,884	6.5%	85,188	-9.7%
12	Production	783,636	50,193	6.4%	49,767	0.9%
13	Transmission	309,442	19,777	6.4%	17,224	14.8%
14	Distribution	106,452	6,319	5.9%	6,727	-6.1%
15	Customer Billing	55,350	4,198	7.6%	4,300	-2.4%
16	Customer Service	114,178	425	0.4%	439	-3.3%
17	Sales & Marketing	2	0	5.8%	0	-68.5%
18	Admin. & General	229,485	15,462	6.7%	14,664	5.4%
19	Depreciation & Amortization	509,940	32,204	6.3%	25,265	27.5%
20	Property Taxes	177,790	9,404	5.3%	8,727	7.8%
21	Payroll & Other Taxes	31,371	2,014	6.4%	2,055	-2.0%
22	Income Taxes	0	0	*	0	*
23	Deferred Income Taxes & ITC	<u>191,157</u>	<u>16,074</u>	<u>8.4%</u>	<u>11,871</u>	<u>35.4%</u>
24	Total Expenses:	3,689,760	232,954	6.3%	226,228	3.0%
25	Regulated Operating Income	527,697	33,713	6.4%	31,669	6.5%

Percentage calculations based on whole numbers

Northern States Power Company
Electric Utility - North Dakota

(Dollars In Thousands)

III. AVERAGE RATE BASE

<u>Line</u>	<u>Item</u>	<u>2015</u> <u>Total NSP</u>	<u>2015</u> <u>N.D. Juris.</u>	<u>N. D. %</u>	<u>2014</u> <u>N.D. Juris.</u>	<u>Annual</u> <u>Change</u>
1	Plant in Service	17,744,356	1,085,399	6.1%	980,723	10.7%
2	Accumulated Depreciation	<u>7,870,822</u>	<u>476,534</u>	<u>6.1%</u>	<u>445,595</u>	<u>6.9%</u>
3	Net Plant in Service	9,873,534	608,865	6.2%	535,128	13.8%
4	Plant Held for Future Use	0	0	*	0	*
5	Construct Work in Progress	32,384	2,040	6.3%	2,527	-19.3%
6	Materials and Supplies	173,085	11,066	6.4%	9,305	18.9%
7	Fuel Stocks	94,804	6,140	6.5%	4,753	29.2%
8	Prepayments & Other Rate Base	154,776	6,745	4.4%	7,980	-15.5%
9	Customer Deposits	(73,556)	(176)	0.2%	(179)	-1.8%
10	Cash Working Capital	0	0	*	0	*
11	Other Rate Base ¹	4,692	243	5.2%	95	155.1%
12	Accum. Deferred Taxes	<u>(2,124,701)</u>	<u>(120,114)</u>	<u>5.7%</u>	<u>(106,208)</u>	<u>13.1%</u>
13	Total Other Rate Base	(1,738,516)	(94,056)	5.4%	(81,727)	15.1%
14	Total Average Rate Base	8,135,018	514,809	6.3%	453,402	13.5%

¹ Includes deferred assets and liabilities such as accrued vacations, post-retirement medical benefits (FASB 106), post employment benefits (FASB 112), unfunded pension liability, environmental cleanup, severance accrual, etc.
Percentage calculations based on whole numbers

Northern States Power Company

Electric Utility - North Dakota

(Dollars In Thousands)

IV. COST OF CAPITAL

2015 Actual

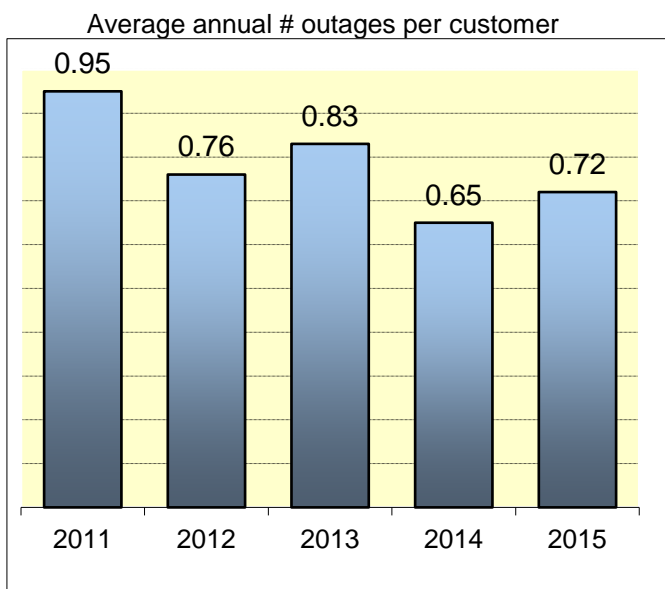
<u>Line</u>	<u>Item</u>	<u>Amount</u>	<u>% of Total</u>	<u>Cost</u>	<u>Weighted Cost</u>
1	Long-Term Debt	\$4,248,830	46.15%	4.85%	2.24%
2	Short-Term Debt	<u>\$100,750</u>	<u>1.09%</u>	<u>0.93%</u>	<u>0.01%</u>
3	Total Debt	\$4,349,580	47.24%	4.76%	2.25%
4	Preferred Stock	\$0	0.00%	0.00%	0.00%
5	Common Equity	<u>\$4,856,662</u>	<u>52.76%</u>	<u>8.15%</u>	4.30%
6	Total Equity	\$4,856,662	52.76%		
7	Total Capital	\$9,206,242	100.00%		6.55%

2015 Normalized

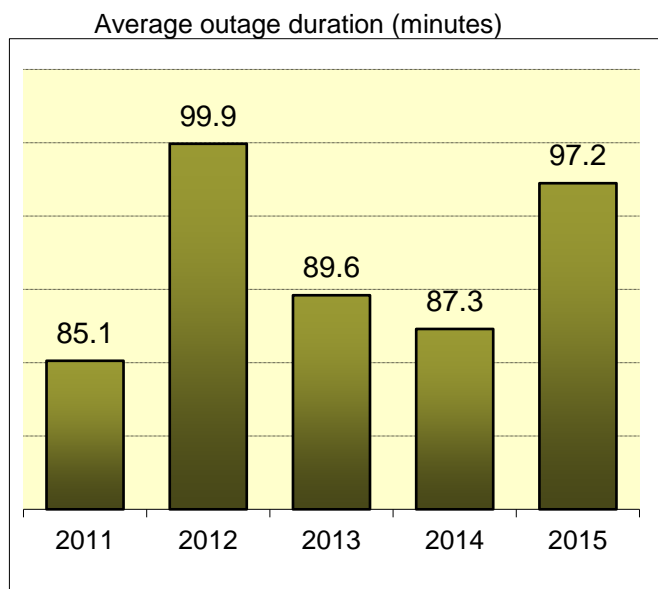
<u>Line</u>	<u>Item</u>	<u>Amount</u>	<u>% of Total</u>	<u>Cost</u>	<u>Weighted Cost</u>
8	Long-Term Debt	\$4,248,830	46.15%	4.85%	2.24%
9	Short-Term Debt	<u>\$100,750</u>	<u>1.09%</u>	<u>0.93%</u>	<u>0.01%</u>
10	Total Debt	4,349,580	47.24%	4.76%	2.25%
11	Preferred Stock	\$0	0.00%		0.00%
12	Common Equity	<u>\$4,856,662</u>	<u>52.76%</u>	<u>8.38%</u>	4.42%
13	Total Equity	\$4,856,662	52.76%		
14	Total Capital	\$9,206,242	100.00%		6.67%

**Northern States Power Company
Electric Utility - North Dakota
Outage Frequency and Duration Indices - 2015**

System Avg Interruption Frequency Index (SAIFI)



Customer Avg Interruption Duration Index (CAIDI)



SAIFI - Largest Five Substations

	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>5 Yr. Avg</u>
Souris (Mnt)	0.88	0.36	1.08	0.40	0.44	0.63
Cass County (Fgo)	0.82	0.71	0.90	0.36	0.42	0.64
Gateway (GF)	0.78	0.59	0.54	1.74	0.62	0.85
Red River (Fgo)	1.02	0.70	0.86	0.78	0.93	0.86
Nordic (GF)	0.88	1.01	0.58	0.41	0.88	0.75

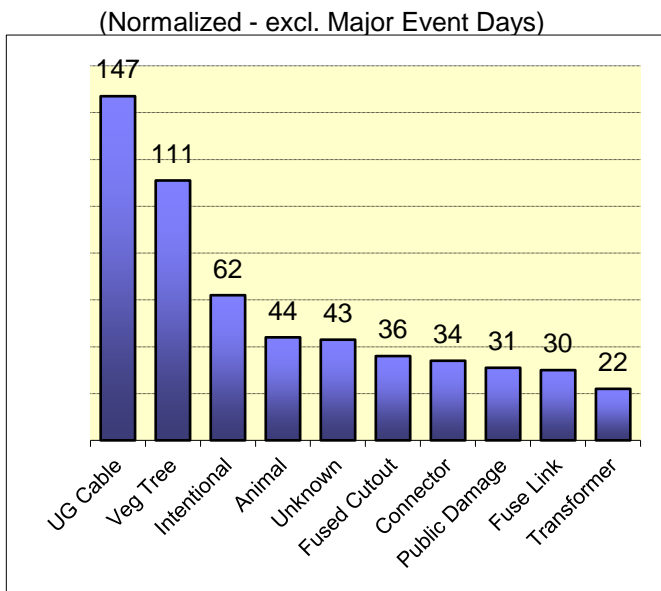
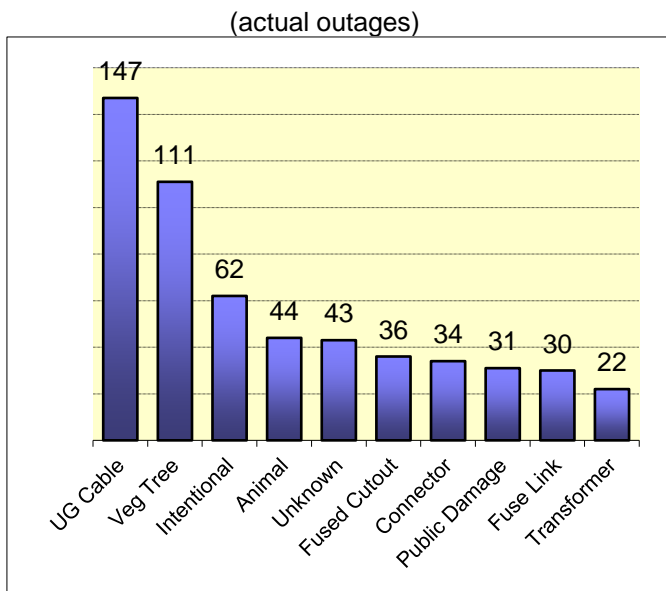
CAIDI - Largest Five Substations

	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>5 Yr. Avg</u>
Gateway (GF)	109.1	89.1	100.3	54.9	75.1	85.7
Red River (Fgo)	73.8	110.1	88.7	88.7	75.8	87.4
Nordic (GF)	95.7	74.1	104.7	97.6	98.8	94.2
Souris (Mnt)	71.2	105.8	72.4	80.5	166.3	99.2
Cass County (Fgo)	103.3	78.6	109.3	158.7	104.7	110.9

Data reflects normalized outages lasting 5 minutes or longer. In 2015 there no Major Event Days to normalize.

**Northern States Power Company
Electric Utility - North Dakota
Most Common Outage Causes - 2015**

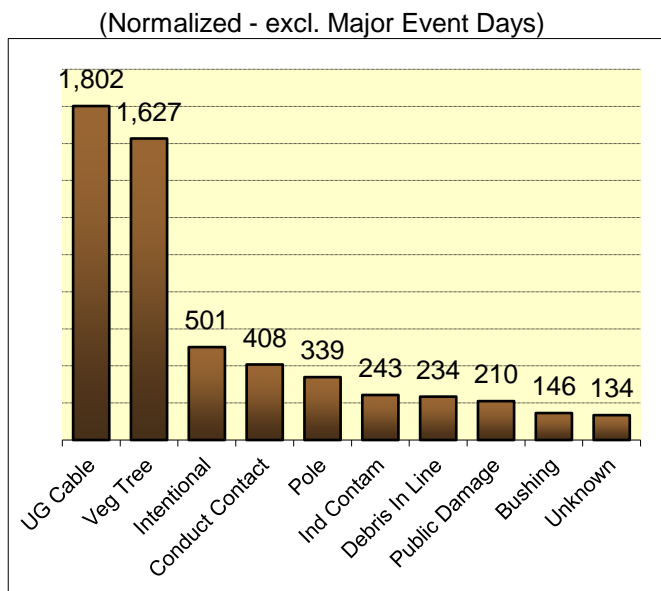
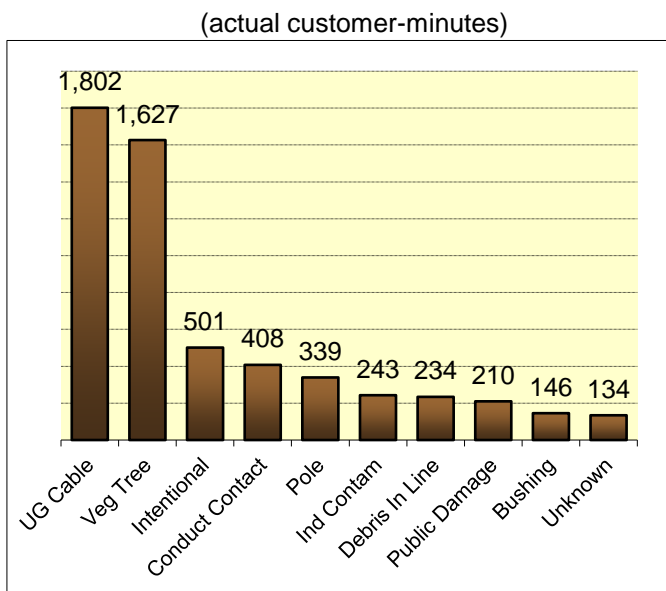
Top 10 Outage Causes



Total outage events: **665**

Top 10 Causes of Lengthy or Wide-spread Interruptions

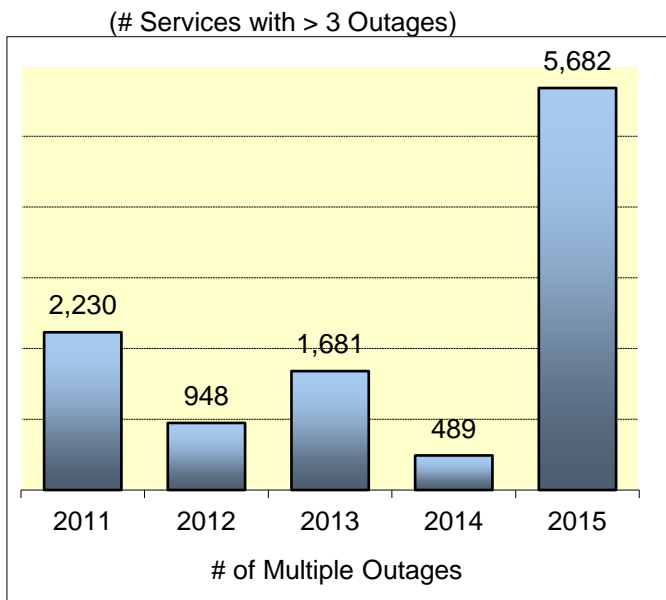
(measured in customer-minutes without power - 000's)



Note: Data reflects outages lasting 5 minutes or longer.

**Northern States Power Company
 Electric Utility - North Dakota
 CEMI, Feeder Outages, and Underground Cable Failures - 2015**

**Customers Experiencing Multiple Interruptions
 (CEMI)**



Note: Pre-2013 CEMI counts are approximations.

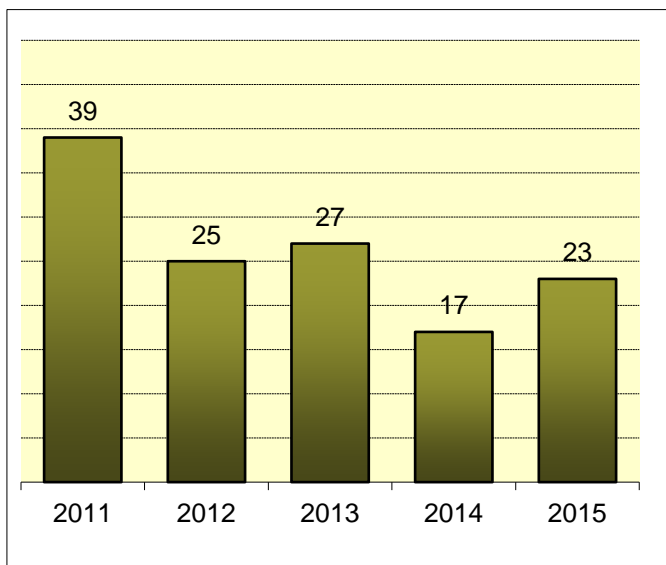
Breakdown of 2015 CEMI Levels

# Outages	Customers
4	3,707
5	1,645
6+	330
	5,682

CEMI Credits Issued

2013	\$84,050
2014	\$24,650
2015	\$284,100

Feeder-Level Outages



Underground Cable Failures

Year	UG Cable Failures
2011	147
2012	139
2013	159
2014	155
2015	147

(reflects primary, secondary cable failures)

Data reflects outages lasting 5 minutes or longer; Major Event Days and public damage events excluded.

**Northern States Power Company
Electric Utility - North Dakota
Reliability Performance Plan Results**

A. SAIDI (System Average Interruption Duration Index)

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
1 Excellence Threshold (minutes):	57.0	57.0	57.0	
2 Actual SAIDI Result (minutes):	74.3	57.1	69.7	
3 Base Award:	\$0	\$0	\$0	
4 Authorized Return on Equity:	9.75%	10.00%	10.25%	
5 Actual Return on Equity:	9.19%	8.99%	8.13%	
6 Revenue Deficiency:	\$1,856,153	\$3,910,149	\$8,121,692	
7 Final SAIDI Award:	\$0	\$0	\$0	

B. CEMI (Customers Experiencing Multiple Interruptions)

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
8 # Customers receiving credits:	1,651	489	5,682	
9 Total CEMI Payout:	\$84,050	\$24,650	\$284,100	

C. Reliability Satisfaction Survey

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
10 % Customers Rating "Positive" (6-10):	97%	98%	98%	
11 % Customers Rating "Excellent" (8-10):	86%	88%	91%	

Xcel Energy

Electric Utility - State of North Dakota

2015 RELIABILITY PLAN SUMMARY

Overhead Line Upgrades - \$1,912,000

Xcel Energy's 2016 capital budget includes about \$1,912,000 to upgrade its electric overhead system in North Dakota. These improvements include replacing failed devices, installing upgrades necessary to the backbone system to serve new customers, and improvements to enhance reliability. This amount also funds maintenance of our Reliability Exception Monitoring System ("REMS") program. This outage tracking and reporting system initiates an engineering review of a part of our system by flagging any device that has tripped more than twice in a rolling 12 month period. Following such a review, corrective actions are identified and implemented where appropriate.

Infrared scanning is also being implemented in 2016 across ND. This process includes early detection of failing components within our overhead distribution system. The infrared scanner identifies hot equipment so they may be replaced proactively before they fail and cause unplanned distribution outages.

2016 is also the first year we will be implementing our LED streetlight program. Approximately \$717,000 will be used to upgrade our existing high pressure sodium streetlights to a more efficient and dependable LED lighting system.

Underground Cable Upgrade - \$1,809,000

In 2016, Xcel Energy plans to spend about \$1,809,000 to upgrade its underground cable system in North Dakota. Approximately \$465,000 of these expenditures will include replacing cables that have failed but are not fit to be repaired and returned to service. However, the Company will repair cables that have experienced multiple failures in the past if such repairs still present a viable remedy. Key projects will involve the installation of additional backbone system capacity to serve new load or relieve load on existing facilities.

These funds also reflect the Company's continued efforts to proactively locate and remove non-jacketed 500 MCM cable. This began as part of an initial 3 year (2012-2014), \$750,000 commitment included in the Settlement of Case No. PU-10-657. In our most recent rate case Settlement (Case No. PU-12-813) the project was extended an additional year (2015) and the overall expenditure level increased to \$1.7 million using funds available from the Company's completed Intelliteam project. In 2016, the company plans to continue this effort with a budget of \$400,000 for removal of additional non-jacketed cable.

Distribution Pole Testing - \$268,000

Xcel Energy's 2016 pole replacement plan includes an operating and maintenance expense budget of \$268,000 for testing wood distribution poles in North Dakota. The testing methodology conforms to a scientific procedure that is utilized throughout the industry. It includes a visual check and test of remaining pole strength. If a pole is identified as having strength characteristics below acceptable standards, the pole is scheduled for replacement or reinforcement. The expense budget for this program is subject to review and adjustment based on unforeseen events impacting the overall operations expense budget.

Northern States Power Company

Electric Utility - North Dakota

I. SALES AND CUSTOMER DATA

Electric Utility (N. D. Jurisdiction)

<u>Line</u>	<u>Customers (@ Dec)</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>
1	Residential	80,245	79,206	78,156	77,231	76,126
2	Small C & I	12,705	12,475	12,317	12,182	12,033
3	Large C & I	22	18	20	21	20
4	PSHL/OSPA	<u>351</u>	<u>342</u>	<u>330</u>	<u>322</u>	<u>280</u>
5	Total Retail	93,323	92,041	90,823	89,756	88,459
<u>Line</u>	<u>Mwh Sales</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>
6	Residential	770,530	818,018	827,062	758,810	776,125
7	Small C & I	1,099,372	1,117,581	1,108,370	1,069,443	1,085,821
8	Large C & I	349,571	335,058	335,530	349,595	350,764
9	PSHL/OSPA	<u>28,450</u>	<u>29,944</u>	<u>30,582</u>	<u>29,553</u>	<u>29,790</u>
10	Total Retail	2,247,923	2,300,601	2,301,544	2,207,401	2,242,500
11	Ave. ¢/Kwh	9.59¢	9.08¢	8.86¢	8.10¢	7.85¢
12	Ave. Res. Mo. Usage (kwh)	800	861	882	819	850
13	Ave. Res. Monthly Bill	\$85.59	\$86.01	\$86.26	\$74.46	\$75.16

Northern States Power Company Electric Utility - North Dakota

II. AFFILIATED TRANSACTION SUMMARY

			North Dakota Jurisdiction Electric and Gas Totals (1)	
			Expense (2)	Revenue (3)
Affiliate Name	Services Rendered			
1	NSP Wisconsin	Electric and Gas Utility	10,470,570	31,381,304
2	Public Service of Colorado	Electric and Gas Utility	8,538	12,329
3	Southwestern Public Service	Electric Utility	386	1,855
4	Hayden Joint Venture	Electric Utility	-	-
5	Xcel Energy Services	Xcel Energy Inc. Service Company	77,060,783	48,242,104
6	Xcel Energy, Inc.	Engineering services	5,663,559	639
			93,203,835	79,638,231

Notes:

- (1) The amounts allocated to North Dakota electric and gas jurisdictions represent an estimate based on an overall allocation factor applied to the revenues and expenses for each affiliate. To derive the actual amounts by jurisdiction would require an allocation of each transaction by account number and would require significant analysis and expense to perform.
- (2) Expense to North Dakota electric and gas jurisdictions. Revenue to affiliate for services provided to NSP (MN)
- (3) Revenue to North Dakota electric and gas jurisdictions. Expense to the affiliate for services provided to the affiliate by NSP (MN).

Northern States Power Company Electric Utility - North Dakota

III. AFFILIATED TRANSACTION ALLOCATION DETAIL

	<u>Total Expense</u>	<u>Total Revenue</u>	<u>Elec % (Labor)</u>	<u>Gas % (Labor)</u>	<u>ND Elec % (Customers)</u>	<u>ND Gas % (Customers)</u>
NSP Wisconsin	321,191	14,397,569	92.2367%	7.7633%	6.4239%	10.5733%
PSCo	132,907	191,919	100.0000%	0.0000%	6.4239%	0.0000%
SPS	6,003	28,871	100.0000%	0.0000%	6.4239%	0.0000%
Hayden Joint Venture	-	-	100.0000%	0.0000%	6.4239%	0.0000%
XES	1,142,313,010	715,118,392	92.2367%	7.7633%	6.4239%	10.5733%
XEI	88,163,876	9,942	100.0000%	0.0000%	6.4239%	0.0000%
	<u>\$1,230,936,986</u>	<u>\$729,746,693</u>				

Notes:

Allocation of Revenues & Expenses between NSP Minnesota and Affiliates

Common Allocation Method: Labor

	<u>Electric</u>	<u>Gas</u>		
Utility Labor Allocator	92.2367%	7.7633%	Load Dispatch	11.0931%
ND Jur. Customer Allocator	6.4239%	10.5733%	Design Day	11.5758%

Factor Formula: ((Util Elec)*ND Jur Ele)+((Util Gas)*ND Jur Gas) = 6.7460%

Affiliated Transactions between Minnesota and Wisconsin (Interchange Agreement)

	<u>Total Revenue</u>	<u>ND Alloc.</u>	<u>Total Expense</u>	<u>ND Alloc.</u>	<u>Alloc Method</u>	<u>ND Alloc %</u>
Fixed	\$228,879,913	\$14,628,173	\$52,974,220	\$3,385,688	Demand	6.3912%
Variable	\$197,322,241	\$12,779,575	\$17,529,413	\$1,135,292	Energy	6.4765%
Transmission	\$46,896,539	\$2,997,252	\$92,751,312	\$5,927,922	Demand	6.3912%
Electric Total	<u>\$473,098,693</u>	<u>\$30,405,000</u>	<u>\$163,254,944</u>	<u>\$10,448,903</u>		

Gas SCADA Agreement

	<u>Total Rev</u>	<u>ND Alloc.</u>	<u>Alloc Method</u>	<u>ND Alloc %</u>
SCADA	45,433	5,040	Load Dispatch	11.0931%