

February 18, 2016

Daniel P. Wolf  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7<sup>th</sup> Place East, Suite 350  
Saint Paul, Minnesota 5510-2147

RE: **Response Comments of the Minnesota Department of Commerce, Division of Energy Resources**  
Docket No. E002/M-15-920

Dear Mr. Wolf:

On December 29, 2015, Northern States Power Company, doing business as Xcel Energy (Xcel or the Company) filed reply comments to the comments of the Minnesota Department of Commerce, Division of Energy Resources (Department) regarding Xcel's *Petition for Approval of a Light Emitting Diode (LED) Street Lighting Rate* (Petition). The Department provides the following response to Xcel's reply comments.

In its December 14, 2015 comments, the Department requested that Xcel consider a tariff structure that would be sufficiently flexible to remain valid as technology advances. Xcel agreed and noted that, "The LED equivalent wattage we presented in our Petition is a simple average across vendor fixtures, which was calculated using a range of wattages." Xcel proposed to add the wattage ranges and their lumen equivalents to its Street Lighting System Service tariff. The Department supports Xcel's revised proposal as found in Attachment A to Xcel's reply comments.

In response to Department Information Request No. 1 requesting supporting data for the proposed LED street lighting rates, Xcel provided detailed cost information and revenue requirements.<sup>1</sup> The Department has reviewed the information provided and concludes that the resulting rates appear to be reasonable. However, given that Xcel is currently undergoing a rate case proceeding (Docket No. E001/GR-15-826), the Department recommends that the Commission require the Company to propose revised LED street lighting rates if needed to conform to the Commission's decisions in the rate case once those decisions have been made.<sup>2</sup>

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<sup>1</sup> See Attachment 1 for Xcel's response to Department Information Request No. 1. The Excel spreadsheet format of Xcel's response is available upon request.

<sup>2</sup> Xcel's proposed tariff as filed in Docket No. E002/GR-15-826 does not include LED street lighting rates.

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The Department recommends that the Minnesota Public Utilities Commission (Commission) **approve** Xcel's proposed Light Emitting Diode (LED) Street Lighting Rate, as amended in the Company's December 29, 2015 reply comments. If approved, the Department recommends that the Commission require Xcel to update the LED street lighting rates if needed to conform to the Commission's decisions in Docket No. E002/GR-15-826.

The Department is available to answer any questions that the Commission may have in this matter.

Sincerely,

/s/ SAMUEL WILS  
Rate Analyst

SW/lt  
Attachment

- Non Public Document – Contains Trade Secret Data  
 Public Document – Trade Secret Data Excised  
 Public Document

Xcel Energy

Docket No.: E002/M-15-920

Response To: Department of Commerce Information Request No. 1

Requestor: Samuel Wils

Date Received: December 2, 2015

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Question:

Please provide detailed cost support data for each of the cost savings/increases shown in Attachment A of Xcel's initial petition.

Response:

Please see the attached spreadsheets to this response for the supporting data to Attachment A of the Company's initial petition. Workpapers for the LED streetlighting rate system service rate design are detailed in Attachment A and key input data is included in Attachment B (levelized annual revenue requirement) and Attachment C (energy and demand rates) to this response.

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Preparer: Nick Paluck

Title: Rate Consultant

Department: Regulatory Analysis

Telephone: (612) 330-2905

Date: December 14, 2015

# Company-Owned LED Street Lighting System Service Rate Design

Rate Code A30

## Monthly LED Street Lighting Rate Design Summary

	NSP-MN			
	Per HPS/LED Street Light Equivalent			
	100W/39W	150W/65W	250W/155W	400W/246W
<b>Current HPS Street Lighting Overhead Rates</b>	<b>\$9.44</b>	<b>\$10.15</b>	<b>\$12.77</b>	<b>\$15.50</b>
<i>Maintenance Expense Impact (Savings)</i>	(\$0.91)	(\$0.91)	(\$0.91)	(\$0.91)
System Allocation Expense Savings	(\$0.85)	(\$1.14)	(\$1.65)	(\$2.58)
<i>Incremental Capital Revenue Requirement</i>	\$1.91	\$2.11	\$3.15	\$4.62
Net LED SL Fixture Rate Impact - Company Owned Street Lights	\$0.15	\$0.06	\$0.59	\$1.13
<b>Proposed Monthly LED SL Overhead Rates</b>	<b>\$9.59</b>	<b>\$10.21</b>	<b>\$13.36</b>	<b>\$16.63</b>
<b>Current HPS Monthly Average Bill Per Street Light - Overhead</b>	<b>\$10.34</b>	<b>\$11.46</b>	<b>\$15.12</b>	<b>\$19.19</b>
LED Fixture Impact on HPS Street Lighting Rate	\$0.15	\$0.06	\$0.59	\$1.13
Fuel & Resource Adj. Savings Estimate	(\$0.60)	(\$0.81)	(\$1.17)	(\$1.82)
Total Monthly Bill Impact (savings)	(\$0.45)	(\$0.75)	(\$0.58)	(\$0.69)
<b>Proposed LED Monthly Average Bill Per Street Light - Overhead</b>	<b>\$9.89</b>	<b>\$10.70</b>	<b>\$14.54</b>	<b>\$18.50</b>
<i>Percentage Savings (increase)</i>	4.4%	6.6%	3.9%	3.6%
<i>Memo: LED Fixture Rate Impact - Pre Pay Option</i>	(\$1.76)	(\$2.05)	(\$2.56)	(\$3.49)

## Annual Impact of LED Fixtures on the A30 Street Lighting System Service Rate

	NSP-MN			
	Per HPS/LED Street Light Equivalent			
	100W/39W	150W/65W	250W/155W	400W/246W
<b>Maintenance Savings</b>				
Relamp Expense Savings	\$4.57	\$4.57	\$4.57	\$4.57
Service Order Expense Savings	\$6.36	\$6.36	\$6.36	\$6.36
Total Maintenance Savings	\$10.93	\$10.93	\$10.93	\$10.93
<i>Monthly Savings (increase)</i>	\$0.91	\$0.91	\$0.91	\$0.91
<b>System Allocation Cost Savings</b>				
Base Rate Energy Charge Savings	\$7.18	\$9.66	\$13.96	\$21.80
Demand Related Expense Savings	\$3.02	\$4.08	\$5.89	\$9.19
Total Maintenance Savings	\$10.20	\$13.74	\$19.85	\$30.99
<i>Monthly Savings (increase)</i>	\$0.85	\$1.14	\$1.65	\$2.58
<b>Incremental Capital Revenue Requirement</b>	(\$22.94)	(\$25.34)	(\$37.81)	(\$55.49)
<i>Monthly Savings (increase)</i>	(\$1.91)	(\$2.11)	(\$3.15)	(\$4.62)
<b>LED SL Base Rate Savings (Increase)</b>	<b>(\$1.81)</b>	<b>(\$0.67)</b>	<b>(\$7.03)</b>	<b>(\$13.57)</b>
<i>Monthly Savings (increase)</i>	(\$0.15)	(\$0.05)	(\$0.59)	(\$1.12)
<b>Fuel &amp; Resource Adj. Savings Estimate</b>	<b>\$7.20</b>	<b>\$9.70</b>	<b>\$14.00</b>	<b>\$21.86</b>
<i>Monthly Savings (increase)</i>	\$0.60	\$0.81	\$1.17	\$1.82
<b>Annual Bill Savings - LED Street Lights</b>	<b>\$5.39</b>	<b>\$9.03</b>	<b>\$6.97</b>	<b>\$8.29</b>
<i>Monthly Savings (increase)</i>	\$0.45	\$0.76	\$0.58	\$0.70

## Company-Owned LED Street Lighting System Service Rate Design

Rate Code A30

		NSP-MN Per HPS/LED Street Light Equivalent			
		100W/39W	150W/65W	250W/155W	400W/246W
<b>Relamp Expense</b>	<b>Total</b>				
Relamp Exp Forecast	\$502,344				
No. of Rate Code A30 Street Lights	109,872				
<b>Relamp Expense Savings</b>	<b>\$4.57</b>	<b>\$4.57</b>	<b>\$4.57</b>	<b>\$4.57</b>	<b>\$4.57</b>
<b>Service Order Expense</b>					
	<b>Total</b>				
Annual HPS Fixture Related Service Order Expense	\$698,703				
No. of Rate Code A30 Street Lights	109,872				
<b>Service Order Expense Savings</b>	<b>\$6.36</b>	<b>\$6.36</b>	<b>\$6.36</b>	<b>\$6.36</b>	<b>\$6.36</b>
<b>Incremental Fixture &amp; Installation Cost</b>					
		<b>100W/39W</b>	<b>150W/65W</b>	<b>250W/155W</b>	<b>400W/246W</b>
Net LED Installed Cost		\$202.69	\$223.85	\$334.01	\$490.19
29-Year LARR %		11.32%	11.32%	11.32%	11.32%
LED Fixture Incremental Annual Revenue Requirement		\$22.94	\$25.34	\$37.81	\$55.49
Incremental Monthly Capital Related Revenue Requirement		\$1.91	\$2.11	\$3.15	\$4.62

# Company-Owned LED Street Lighting System Service Rate Design

Rate Code A30

	Total	NSP-MN Per HPS/LED Street Light Equivalent			
		100W/39W	150W/65W	250W/155W	400W/246W
<b>Base Rate Energy Related Expense</b>					
Energy Related Expense Rate (Cents/kWh)	4.299¢				
Fuel Expense Rate(Cents/kWh)	2.098¢				
<b>Base Rate Energy Related Expense Rate (Cents/kWh)</b>	<b>2.201¢</b>				
HPS Annual Energy Usage (kWh)		487	711	1,277	2,005
Base Rate Energy Related Expense Rate (Cents/kWh)		2.201¢	2.201¢	2.201¢	2.201¢
<b>HPS Base Rate Energy Related Expense</b>		<b>\$10.72</b>	<b>\$15.65</b>	<b>\$28.11</b>	<b>\$44.14</b>
LED Annual Energy Usage (kWh)		161	272	643	1,015
Base Rate Energy Related Expense Rate (Cents/kWh)		2.201¢	2.201¢	2.201¢	2.201¢
<b>LED Base Rate Energy Related Expense</b>		<b>\$3.54</b>	<b>\$5.99</b>	<b>\$14.15</b>	<b>\$22.34</b>
<b>Base Rate Energy Related Expense Saving</b>		<b>\$7.18</b>	<b>\$9.66</b>	<b>\$13.96</b>	<b>\$21.80</b>
<b>Demand Related Expense Savings</b>					
HPS Demand (Watts)		117	171	307	482
HPS Demand Expense Rate (\$/kW)		\$38.60	\$38.60	\$38.60	\$38.60
<b>HPS Demand Expense (\$/kW)</b>		<b>\$4.52</b>	<b>\$6.60</b>	<b>\$11.85</b>	<b>\$18.60</b>
LED Annual Demand (Watts)		39	65	155	244
LED Demand Expense Rate (\$/kW)		\$38.60	\$38.60	\$38.60	\$38.60
<b>LED Demand Expense (\$/kW)</b>		<b>\$1.49</b>	<b>\$2.52</b>	<b>\$5.96</b>	<b>\$9.42</b>
<b>Demand Related Expense Savings</b>		<b>\$3.02</b>	<b>\$4.08</b>	<b>\$5.89</b>	<b>\$9.19</b>
<b>Based Cost of Energy Estimated Savings (FCC)</b>					
HPS Annual Energy Usage (kWh)		487	711	1,277	2,005
Base Cost of Energy Street Lighting Rate (Cents/kWh)		2.098¢	2.098¢	2.098¢	2.098¢
<b>Base Cost of Energy Related Expense</b>		<b>\$10.22</b>	<b>\$14.92</b>	<b>\$26.79</b>	<b>\$42.06</b>
<i>Monthly Base Cost of Energy Related Expense</i>		<i>\$0.85</i>	<i>\$1.24</i>	<i>\$2.23</i>	<i>\$3.50</i>
LED Annual Energy Usage (kWh)		161	272	643	1,015
Base Cost of Energy Street Lighting Rate (Cents/kWh)		2.098¢	2.098¢	2.098¢	2.098¢
<b>Base Cost of Energy Related Expense</b>		<b>\$3.38</b>	<b>\$5.71</b>	<b>\$13.49</b>	<b>\$21.29</b>
<i>Monthly Base Cost of Energy Related Expense</i>		<i>\$0.28</i>	<i>\$0.48</i>	<i>\$1.12</i>	<i>\$1.77</i>
<b>Base Cost of Energy Related Expense Savings</b>		<b>\$6.84</b>	<b>\$9.21</b>	<b>\$13.30</b>	<b>\$20.77</b>
<b>Resource Adjustment Estimated Savings</b>					
HPS Annual Energy Usage (kWh)		487	711	1,277	2,005
Resource Adjustment Street Lighting Rate (Cents/kWh)		0.1108¢	0.1108¢	0.1108¢	0.1108¢
<b>Resource Adjustment Expense</b>		<b>\$0.54</b>	<b>\$0.79</b>	<b>\$1.41</b>	<b>\$2.22</b>
<i>Monthly Base Cost of Energy Related Expense</i>		<i>\$0.04</i>	<i>\$0.07</i>	<i>\$0.12</i>	<i>\$0.19</i>
LED Annual Energy Usage (kWh)		161	272	643	1,015
Resource Adjustment Street Lighting Rate (Cents/kWh)		0.1108¢	0.1108¢	0.1108¢	0.1108¢
<b>Resource Adjustment Expense</b>		<b>\$0.18</b>	<b>\$0.30</b>	<b>\$0.71</b>	<b>\$1.12</b>
<i>Monthly Base Cost of Energy Related Expense</i>		<i>\$0.01</i>	<i>\$0.03</i>	<i>\$0.06</i>	<i>\$0.09</i>
<b>Resource Adjustment Expense Savings</b>		<b>\$0.36</b>	<b>\$0.49</b>	<b>\$0.70</b>	<b>\$1.10</b>



# Levelized Annual Revenue Requirement Percentage Calculation

LED Streetlighting Investment

Docket No. E002/M-15-920  
Information Request No. DOC-001

Attachment B

Capital Structure

Long Term Debt  
Short Term Debt  
Preferred Stock  
Common Equity  
Required Rate of Return

MN Composite Tax rate

Book Life

ITC Rate

20 Yr MACRS

Capital Investment

Net Salvage

0.0452      0.0446      0.0446      0.0446      0.0446      0.0446      0.0446      0.0446      0.0446

8                      9                      10                      11                      12                      13                      14                      15                      16  
2023                      2024                      2025                      2026                      2027                      2028                      2029                      2030                      2031

**Plant In-service**

1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
<u>1,000,000</u>	<u>1,000,000</u>	<u>1,000,000</u>	<u>1,000,000</u>	<u>1,000,000</u>	<u>1,000,000</u>	<u>1,000,000</u>	<u>1,000,000</u>	<u>1,000,000</u>	<u>1,000,000</u>
1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000

**Depreciation Reserve**

302,586	349,138	395,690	442,241	488,793	535,345	581,897	628,448	675,000	675,000
<u>349,138</u>	<u>395,690</u>	<u>442,241</u>	<u>488,793</u>	<u>535,345</u>	<u>581,897</u>	<u>628,448</u>	<u>675,000</u>	<u>721,552</u>	<u>721,552</u>
325,862	372,414	418,966	465,517	512,069	558,621	605,172	651,724	698,276	698,276

**Accumulated Deferred Taxes**

39,096	38,545	37,746	36,943	36,144	35,340	34,541	33,738	32,939	32,939
<u>38,545</u>	<u>37,746</u>	<u>36,943</u>	<u>36,144</u>	<u>35,340</u>	<u>34,541</u>	<u>33,738</u>	<u>32,939</u>	<u>32,136</u>	<u>32,136</u>
38,821	38,146	37,344	36,543	35,742	34,941	34,140	33,338	32,537	32,537

**Average Rate Base**

635,317      589,440      543,690      497,939      452,189      406,438      360,688      314,937      269,187

**Debt Return**

14,269      13,239      12,211      11,184      10,156      9,129      8,101      7,073      6,046

**Equity Return**

32,420      30,079      27,745      25,410      23,075      20,741      18,406      16,071      13,737

**Book Depreciation**

46,552      46,552      46,552      46,552      46,552      46,552      46,552      46,552      46,552

**20 Yr MACRS Tax Depr**

45,220      44,620      44,610      44,620      44,610      44,620      44,610      44,620      44,610

**Removal Costs**

46,552      46,552      46,552      46,552      46,552      46,552      46,552      46,552      46,552

**SL for Deferred**

46,552      46,552      46,552      46,552      46,552      46,552      46,552      46,552      46,552

**Deferred Taxes**

(551)      (799)      (803)      (799)      (803)      (799)      (803)      (799)      (803)

**Net Deferred ITC**

-      -      -      -      -      -      -      -      -

**O&M (input by year)**

-      -      -      -      -      -      -      -      -

**Property Taxes (input by year)**

16,000      16,000      16,000      16,000      16,000      16,000      16,000      16,000      16,000

**Current Tax RR**

23,427      22,023      20,380      18,729      17,085      15,434      13,791      12,139      10,496

**Total Revenue Requirements**

132,117      127,094      122,084      117,075      112,065      107,056      102,046      97,037      92,027

**NPV Rev Req**

80,311      72,596      65,528      59,048      53,112      47,677      42,704      38,158      34,005

**LARR**

113,196      113,196      113,196      113,196      113,196      113,196      113,196      113,196      113,196

**LARR%**

Total to collect from customers

Annual ongoing charge



# Levelized Annual Revenue Requirement Percentage Calculation

LED Streetlighting Investment

Docket No. E002/M-15-920  
Information Request No. DOC-001

Attachment B

Capital Structure

Long Term Debt  
Short Term Debt  
Preferred Stock  
Common Equity  
Required Rate of Return

MN Composite Tax rate

Book Life

ITC Rate

20 Yr MACRS

Capital Investment

Net Salvage

0.0446      0.0446      0.0446      0.0446      0.0223

	17 2032	18 2033	19 2034	20 2035	21 2036	22 2037	23 2038	24 2039	25 2040
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Plant In-service

	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
	<u>1,000,000</u>	<u>1,000,000</u>	<u>1,000,000</u>	<u>1,000,000</u>	<u>1,000,000</u>	<u>1,000,000</u>	<u>1,000,000</u>	<u>1,000,000</u>	<u>1,000,000</u>
	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000

Depreciation Reserve

	721,552	768,103	814,655	861,207	907,759	954,310	1,000,862	1,047,414	1,093,966
	<u>768,103</u>	<u>814,655</u>	<u>861,207</u>	<u>907,759</u>	<u>954,310</u>	<u>1,000,862</u>	<u>1,047,414</u>	<u>1,093,966</u>	<u>1,140,517</u>
	744,828	791,379	837,931	884,483	931,034	977,586	1,024,138	1,070,690	1,117,241

Accumulated Deferred Taxes

	32,136	31,336	30,533	29,734	28,931	18,902	(357)	(19,615)	(38,874)
	<u>31,336</u>	<u>30,533</u>	<u>29,734</u>	<u>28,931</u>	<u>18,902</u>	<u>(357)</u>	<u>(19,615)</u>	<u>(38,874)</u>	<u>(58,132)</u>
	31,736	30,935	30,133	29,332	23,916	9,273	(9,986)	(29,244)	(48,503)

Average Rate Base

	223,436	177,686	131,935	86,185	45,049	13,141	(14,152)	(41,445)	(68,739)
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Debt Return

	5,018	3,991	2,963	1,936	1,012	295	(318)	(931)	(1,544)
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Equity Return

	11,402	9,067	6,733	4,398	2,299	671	(722)	(2,115)	(3,508)
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Book Depreciation

	46,552	46,552	46,552	46,552	46,552	46,552	46,552	46,552	46,552
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20 Yr MACRS Tax Depr

	44,620	44,610	44,620	44,610	22,310	-	-	-	-
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Removal Costs

	46,552	46,552	46,552	46,552	46,552	46,552	46,552	46,552	46,552
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SL for Deferred

	46,552	46,552	46,552	46,552	46,552	46,552	46,552	46,552	46,552
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Deferred Taxes

	(799)	(803)	(799)	(803)	(10,029)	(19,258)	(19,258)	(19,258)	(19,258)
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Net Deferred ITC

	-	-	-	-	-	-	-	-	-
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O&M (input by year)

	-	-	-	-	-	-	-	-	-
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Property Taxes (input by year)

	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000
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Current Tax RR

	8,845	7,201	5,550	3,907	11,651	19,732	18,749	17,766	16,783
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Total Revenue Requirements

	87,017	82,008	76,998	71,989	67,485	63,991	61,002	58,014	55,025
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NPV Rev Req

	30,214	26,757	23,607	20,740	18,269	16,278	14,582	13,031	11,614
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LARR

	113,196	113,196	113,196	113,196	113,196	113,196	113,196	113,196	113,196
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LARR%

Total to collect from customers

Annual ongoing charge

# Levelized Annual Revenue Requirement Percentage Calculation

LED Streetlighting Investment

Docket No. E002/M-15-920

Information Request No. DOC-001

Attachment B

Capital Structure

Long Term Debt  
Short Term Debt  
Preferred Stock  
Common Equity  
Required Rate of Return

MN Composite Tax rate

Book Life  
ITC Rate  
20 Yr MACRS  
Capital Investment  
Net Salvage

	26 2041	27 2042	28 2043	29 2044	30 2045
<b><u>Plant In-service</u></b>	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
	<u>1,000,000</u>	<u>1,000,000</u>	<u>1,000,000</u>	<u>1,000,000</u>	<u>-</u>
	1,000,000	1,000,000	1,000,000	1,000,000	500,000
<b><u>Depreciation Reserve</u></b>	1,140,517	1,187,069	1,233,621	1,280,172	1,326,724
	<u>1,187,069</u>	<u>1,233,621</u>	<u>1,280,172</u>	<u>1,326,724</u>	<u>-</u>
	1,163,793	1,210,345	1,256,897	1,303,448	663,362
<b><u>Accumulated Deferred Taxes</u></b>	(58,132)	(77,390)	(96,649)	(115,907)	(135,166)
	<u>(77,390)</u>	<u>(96,649)</u>	<u>(115,907)</u>	<u>(135,166)</u>	<u>-</u>
	(67,761)	(87,020)	(106,278)	(125,537)	(67,583)
<b>Average Rate Base</b>	(96,032)	(123,325)	(150,618)	(177,912)	(95,779)
<b>Debt Return</b>	(2,157)	(2,770)	(3,383)	(3,996)	(2,151)
<b>Equity Return</b>	(4,901)	(6,293)	(7,686)	(9,079)	(4,888)
<b>Book Depreciation</b>	46,552	46,552	46,552	46,552	23,276
20 Yr MACRS Tax Depr	-	-	-	-	-
Removal Costs					350,000
SL for Deferred	46,552	46,552	46,552	46,552	23,276
<b>Deferred Taxes</b>	(19,258)	(19,258)	(19,258)	(19,258)	135,166
<b>Net Deferred ITC</b>	-	-	-	-	-
<b>O&amp;M (input by year)</b>	-	-	-	-	-
<b>Property Taxes (input by year)</b>	16,000	16,000	16,000	16,000	16,000
<b>Current Tax RR</b>	15,801	14,818	13,835	12,852	(138,615)
<b>Total Revenue Requirements</b>	52,036	49,048	46,059	43,071	28,788
NPV Rev Req	10,321	9,141	8,066	7,088	4,452
<b>LARR</b>	113,196	113,196	113,196	113,196	
<b>LARR%</b>					

Total to collect from customers

Annual ongoing charge

NSPM - Electric Utility - State of Minnesota  
**Street Lighting Power Costs**  
**2015 Test Year**

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Information Request No. DOC-001  
Attachment C  
Page 1 of 1

	<b>2015</b>
	Non-APL
	<u>Lighting</u>
1 Energy Cost	\$5,228
2 Baseload Cost	<u>\$936</u>
3 Energy + BL	\$6,164
4 MWH	143,362
5 Energy + BL per kWh	<b>4.299¢</b>
Energy Only	<b>3.646¢</b>
6 Peak Cost	\$184
7 Transmission Cost	\$6
8 Distribution Cost	<u>\$1,140</u>
9 Demand Cost Total	\$1,330
10 Unit Demand Cost per kWh	<b>0.928¢</b>
11 Unit Demand Cost per kW	<b>\$38.60</b>

## **CERTIFICATE OF SERVICE**

I, Sharon Ferguson, hereby certify that I have this day, served copies of the following document on the attached list of persons by electronic filing, certified mail, e-mail, or by depositing a true and correct copy thereof properly enveloped with postage paid in the United States Mail at St. Paul, Minnesota.

**Minnesota Department of Commerce  
Response Comments**

**Docket No. E002/M-15-920**

**Dated this 18<sup>th</sup> day of February 2016**

**/s/Sharon Ferguson**

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Christopher	Anderson	canderson@allete.com	Minnesota Power	30 W Superior St  Duluth, MN 558022191	Electronic Service	No	OFF_SL_15-920_M-15-920
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134	Electronic Service	Yes	OFF_SL_15-920_M-15-920
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