

December 14, 2015

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

RE: **Comments of the Minnesota Department of Commerce, Division of Energy Resources**
Docket No. E015/M-15-920

Dear Mr. Wolf:

Attached are the Comments of the Minnesota Department of Commerce, Division of Energy Resources (Department) in the following matter:

Petition of Northern States Power Company, doing business as Xcel Energy (Xcel or the Company) for Approval of a Light Emitting Diode (LED) Street Lighting Rate.

The petition was filed on October 15, 2015 by:

Amy Liberkowski
Manager, Regulatory Analysis
Rates and Regulatory Affairs
CenterPoint Energy
505 Nicollet Mall
Minneapolis, Minnesota 55402

The Department requests further information from Xcel, and will provide supplemental comments after receipt and review of the information requested. 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

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

COMMENTS OF THE
MINNESOTA DEPARTMENT OF COMMERCE
DIVISION OF ENERGY RESOURCES

DOCKET No. E015/M-15-920

I. SUMMARY OF FILING

On October, 2015, Northern States Power Company, doing business as Xcel Energy, filed with the Minnesota Public Utilities Commission (Commission) its *Request to Implement LED [Light Emitting Diode] Street Lighting Rate* (Petition). The Petition included a request for approval of the addition of LED street lighting rates to its Street Lighting System Service Rate Code A30.

Xcel does not currently have rates in place for LED street lighting options. Xcel conducted a 2-year LED Street Lighting Pilot Project in West St. Paul.¹ The Petition is a request to expand LED service throughout Xcel's Minnesota service territory. Since this service will be available for the full range of Company-owned streetlight wattage options, per the petition "the majority of our Company-owned high pressure sodium (HPS) streetlights could be converted to this LED rate within the next five years." The Company indicated that it obtained competitive LED street lighting fixture pricing for cobra-head fixtures through an enterprise-wide Request for Proposals.

Xcel proposed to add LED rate options as an addition to their existing Street Lighting System Service, introducing LED fixture options at lighting levels equivalent to high pressure sodium (HPS) 100-Watt, 150-Watt, 250-Watt, and 400-Watt lighting levels.

¹ See the Commission's November 5, 2012 Order in Docket No. E002/M-12-974.

II. DEPARTMENT ANALYSIS

The Minnesota Department of Commerce's (Department) analysis addresses the following topics:

- Applicable Minnesota Rules;
- Proposed tariff language; and
- Proposed LED rates.

A. MINNESOTA RULES

Minn. Rule 7825.3200 requires that utilities serve notice to the Commission at least 90 days prior to the proposed effective date of modified rates. Xcel is not proposing to implement the LED street lighting rates prior to Commission approval. Therefore, the Department recommends that, if approved, the Cooperative's proposed LED street lighting rates be implemented 90 days after the Petition's filing date, or within 30 days of the Commission's Order, whichever is later.

B. LED LIGHTING SERVICE PROPOSAL

After reviewing results of the pilot LED program, Xcel proposed that customers using this service will pay the monthly rates below:

Table 1: Proposed LED Monthly Rates

Designation of Lamps	Standard Service		Pre-Pay Option
	Overhead	Underground	
39W Light Emitting Diode	\$9.59	\$18.31	\$4.38
65W Light Emitting Diode	\$10.21	\$18.92	\$4.89
155W Light Emitting Diode	\$13.36	\$21.87	\$6.27
246W Light Emitting Diode	\$16.63	\$24.85	\$7.89

The Department notes that the rates in the proposed tariff are listed by exact wattage levels. However, Xcel stated in Footnote 2 of the petition:

The LED equivalent wattage is a simple average across vendor fixtures that qualify for the Company's technical specification, at each size level. We recognize that LED technology will continue to evolve and perhaps become more efficient. For this reason the Company will monitor this evolution over time, and adjust accordingly.

Since LED lighting technology is still evolving, the rated wattages of the most reasonable LED street lighting options at a required level of illumination would no longer match the proposed tariff. The Department requests that Xcel propose a tariff that takes this into

consideration, perhaps by proposing a range of wattages or lumens for each category of lighting service.

C. PROPOSED RATES OF LED LIGHTING SERVICE

In order to calculate its proposed LED street lighting rates, Xcel started with the current HPS rates and incorporated the incremental costs and savings for HPS-equivalent LED rates. The proposed LED rates for the “Pre-Pay Option”, in which the customer pays for the lighting system before establishing service, are lower than for the equivalent High Pressure Sodium fixtures.

Table 2: Pre-Pay Option Rate Comparison

	Pre-Pay Option	High Pressure Sodium Equivalent	Decrease in Price
39W Light Emitting Diode	\$4.38	\$6.14	(\$1.76)
65W Light Emitting Diode	\$4.89	\$6.94	(\$2.05)
155W Light Emitting Diode	\$6.27	\$8.83	(\$2.56)
246W Light Emitting Diode	\$7.89	\$11.38	(\$3.49)

Although Xcel indicated that these LED rates reflect savings in energy costs and maintenance, in the standard case in which Xcel, rather than the customer, invests the initial capital for the lights, the higher capital costs associated with LED lighting fixtures drive an overall price increase relative to equivalent High Pressure Sodium lights.

Table 3: Standard Service Rate Comparison

	Overhead LED	High Pressure Sodium Equivalent	Increase in Price
39W Light Emitting Diode	\$9.59	\$9.44	\$0.15
65W Light Emitting Diode	\$10.21	\$10.15	\$0.06
155W Light Emitting Diode	\$13.36	\$12.77	\$0.59
246W Light Emitting Diode	\$16.63	\$15.50	\$1.13

The Department generally concludes that the proposed rates are correctly calculated based on the limited data provided by Xcel. However, the Department requests further information to support these rates, as discussed in the section below.

D. REPLACEMENT OF EXISTING LIGHTS AND CAPITAL COSTS

Support for Xcel’s proposed LED Street Lighting rates was provided in Xcel’s Attachment A. Attachment A consists of a two related tables summarizing the incremental costs and savings of LED Street Lighting over HPS Street Lighting. The underlying data supporting Xcel’s Attachment A was not provided (such as how Xcel calculated monthly fuel and

resource adjustment savings, demand-related expense savings, maintenance savings, etc.). The Department issued Information Request Nos. 1 and 2 on December 2, 2015;² responses are due December 14, 2015. Pending receipt of this information, the Department is unable to verify Xcel's proposed LED street lighting rates.

Further, the Department notes that Xcel indicated that existing HPS lights would be replaced, but did not clearly indicate that the Incremental Capital Revenue Requirement (as shown on Xcel's Attachment A of the petition) accounts for the undepreciated value of existing street lighting fixtures that might be replaced with LED light fixtures. In reviewing this filing the Department also examined the results of a similar filing for Minnesota Power in Docket No. E015/M-14-675. In that case the Department noted that if a customer requested to replace a street lighting fixture that was less than 10 years old, Minnesota Power would charge the customer for the undepreciated cost of the fixture. The Department, however, noticed that these street lighting fixtures have a longer lifetime than 10 years, and thus a replaced fixture could still be reused by Minnesota Power. Thus the Department recommended that Minnesota Power reduce the undepreciated costs charged to customers replacing existing Sodium Vapor light fixtures with LED fixtures by the salvage value of the facilities. The Commission approved this methodology in its January 9, 2015 Order. The Department requests that Xcel provide in reply comments an explanation of what would be charged to customers requesting to replace an existing street light with an LED street light, including whether the Incremental Capital Revenue Requirements listed in Xcel's Attachment A includes recovery of the undepreciated street lighting fixture cost less any salvage value.

III. RECOMMENDATIONS

The Department requests that Xcel provide additional support for structuring of the tariff by exact wattage levels given the evolving nature of LED technology, or updating the proposed tariff to allow for improvements in LED lighting technology. The Department also requests that Xcel provide full support for its proposed LED rates, including an explanation of whether Incremental Capital Revenue Requirements listed in Xcel's Attachment A includes recovery of the undepreciated street lighting fixture cost less any salvage value. The Department will provide supplemental comments after receiving and reviewing the information requested.

/lt

² See Attachment 1.

State of Minnesota
DEPARTMENT OF COMMERCE
DIVISION OF ENERGY RESOURCES

Nonpublic Public

Utility Information Request

Docket Number: E002/M-15-920

Date of Request: ???

Requested From: Amy Liberkowski & Amber Hedlund
Xcel Energy

Response Due: ??

Analyst Requesting Information: Samuel Wils

Type of Inquiry: [].....Financial [].....Rate of Return [].....Rate Design
 [].....Engineering [].....Forecasting [].....Conservation
 [].....Cost of Service [].....CIP [].....Other:

If you feel your responses are trade secret or privileged, please indicate this on your response.

Request No.	
#	Please provide detailed cost support data for each of the cost savings/increases shown in Attachment A of Xcel's initial petition.

Response by: _____

List sources of information:

Title: _____

Department: _____

Telephone: _____

State of Minnesota
DEPARTMENT OF COMMERCE
DIVISION OF ENERGY RESOURCES

Nonpublic
Public

Utility Information Request

Docket Number: E002/M-15-920

Date of Request: ???

Requested From: Amy Liberkowski & Amber Hedlund
Xcel Energy

Response Due: ??

Analyst Requesting Information: Samuel Wils

Type of Inquiry: [].....Financial [].....Rate of Return [].....Rate Design
 [].....Engineering [].....Forecasting [].....Conservation
 [].....Cost of Service [].....CIP [].....Other:

If you feel your responses are trade secret or privileged, please indicate this on your response.

Request No.	
#	<p>Given that LED street light technology has potential for additional refinement and efficiency gains, the LED-equivalent wattage expressed by equivalence to HPS wattage as shown in Table 1 of the initial petition will become obsolete.</p> <p>A. Please explain what other rate structures were considered, if any, and the reasons for Xcel's conclusion that rates based on LED-equivalent wattage would be the most reasonable rate structure for LED street lighting.</p> <p>B. Please explain how Xcel plans to monitor technological advances in LED lighting for their impact on Xcel's LED Street Lighting System Service.</p>

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
Comments**

Docket No. E015/M-15-920

Dated this 14th day of December 2015

/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
Alison C	Archer	alison.c.archer@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 5 Minneapolis, MN 55401	Electronic Service	No	OFF_SL_15-920_M-15-920
James J.	Bertrand	james.bertrand@stinson.com	Stinson Leonard Street LLP	150 South Fifth Street, Suite 2300 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_15-920_M-15-920
Jeffrey A.	Daugherty	jeffrey.daugherty@centerpointenergy.com	CenterPoint Energy	800 LaSalle Ave Minneapolis, MN 55402	Electronic Service	No	OFF_SL_15-920_M-15-920
Ian	Dobson	ian.dobson@ag.state.mn.us	Office of the Attorney General-RUD	Antitrust and Utilities Division 445 Minnesota Street, BRM Tower St. Paul, MN 55101	Electronic Service	No	OFF_SL_15-920_M-15-920
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_15-920_M-15-920
Michael	Hoppe	il23@mtn.org	Local Union 23, I.B.E.W.	932 Payne Avenue St. Paul, MN 55130	Electronic Service	No	OFF_SL_15-920_M-15-920
Alan	Jenkins	aj@jenkinsatlaw.com	Jenkins at Law	2265 Roswell Road Suite 100 Marietta, GA 30062	Electronic Service	No	OFF_SL_15-920_M-15-920
Richard	Johnson	Rick.Johnson@lawmoss.com	Moss & Barnett	150 S. 5th Street Suite 1200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_15-920_M-15-920

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Mark J.	Kaufman	mkaufman@ibewlocal949.org	IBEW Local Union 949	12908 Nicollet Avenue South Burnsville, MN 55337	Electronic Service	No	OFF_SL_15-920_M-15-920
Thomas	Koehler	TGK@IBEW160.org	Local Union #160, IBEW	2909 Anthony Ln St Anthony Village, MN 55418-3238	Electronic Service	No	OFF_SL_15-920_M-15-920
Michael	Krikava	mkrikava@briggs.com	Briggs And Morgan, P.A.	2200 IDS Center 80 S 8th St Minneapolis, MN 55402	Electronic Service	No	OFF_SL_15-920_M-15-920
Douglas	Larson	dlarson@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	OFF_SL_15-920_M-15-920
John	Lindell	agorud.ecf@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes	OFF_SL_15-920_M-15-920
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 7th St E St. Paul, MN 55106	Electronic Service	No	OFF_SL_15-920_M-15-920
Andrew	Moratzka	apmoratzka@stoel.com	Stoel Rives LLP	33 South Sixth Street Suite 4200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_15-920_M-15-920
David W.	Niles	david.niles@avantenergy.com	Minnesota Municipal Power Agency	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Electronic Service	No	OFF_SL_15-920_M-15-920
Richard	Savelkoul	rsavelkoul@martinsquires.com	Martin & Squires, P.A.	332 Minnesota Street Ste W2750 St. Paul, MN 55101	Electronic Service	No	OFF_SL_15-920_M-15-920
Ken	Smith	ken.smith@districtenergy.com	District Energy St. Paul Inc.	76 W Kellogg Blvd St. Paul, MN 55102	Electronic Service	No	OFF_SL_15-920_M-15-920

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Ron	Spangler, Jr.	rlspangler@otpc.com	Otter Tail Power Company	215 So. Cascade St. PO Box 496 Fergus Falls, MN 565380496	Electronic Service	No	OFF_SL_15-920_M-15-920
Byron E.	Starns	byron.starns@stinson.com	Stinson Leonard Street LLP	150 South 5th Street Suite 2300 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_15-920_M-15-920
James M.	Strommen	jstrommen@kennedy-graven.com	Kennedy & Graven, Chartered	470 U.S. Bank Plaza 200 South Sixth Street Minneapolis, MN 55402	Electronic Service	No	OFF_SL_15-920_M-15-920
Eric	Swanson	eswanson@winthrop.com	Winthrop Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	OFF_SL_15-920_M-15-920
SaGonna	Thompson	Regulatory.records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	OFF_SL_15-920_M-15-920
Lisa	Veith	lisa.veith@ci.stpaul.mn.us	City of St. Paul	400 City Hall and Courthouse 15 West Kellogg Blvd. St. Paul, MN 55102	Electronic Service	No	OFF_SL_15-920_M-15-920
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 551012147	Electronic Service	Yes	OFF_SL_15-920_M-15-920