



Marcia A. Podratz
Director, Rates
218-355-3570
mpodratz@mnpower.com

July 21, 2015

VIA E-FILING

Daniel P. Wolf, Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-2147

RE: In the Matter of a Request by Minnesota Power for
Approval of Light Emitting Diode Rates for
Street and Highway Lighting Service
Docket No. E-015/M-14-675

Dear Mr. Wolf,

Minnesota Power (“Company”) is filing this letter to request a minor modification to the wattages for its two new Light Emitting Diode (“LED”) rates for Street and Highway Lighting Service that were approved in the Minnesota Public Utilities Commission’s (“Commission”) Order dated January 9, 2015.

When the Company initiated the LED street lighting pilot program in 2012, it purchased what manufacturer General Electric (“GE”) calls “first generation” products. By the time the recent Street and Highway Lighting Service LED rates were approved, GE was already producing its third generation of LED lamps. LED street light manufacturers are constantly developing new ways to increase the lumens per watt output of an LED lamp, and Minnesota Power did not anticipate how fast the available products would change. The technology continues to evolve so quickly that the specific lamp wattages of 54 and 118 watts, with respective lumens of 4,000 and 8,800, included in the Company’s filed rates are no longer available from the manufacturer. They have been replaced by 44 watt and 99 watt LED lamps, respectively, with the same respective lumens, thus making the LED lamp type and sizes as specified in the Company’s tariff sheet already out of date.

The equipment the Company received when it placed its LED order for installations under the new rate options no longer matches the lamp wattages specified in the tariff. The Company, therefore, would like to request approval to change the wattage specifications in the tariff sheet Section V, Page 46, Revision 12, under Rate, Lamp Type & Size, and Light Emitting Diode (LED) as follows:

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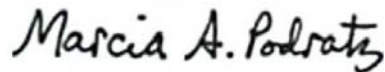
1. After "54 watts" add "or less" for the 4,000 lumen lamp size and,
2. After "118 watts" add "or less" for the 8,800 lumen lamp size.

Including a range of wattages for each LED lamp size will accommodate current and future technology improvements. The proposed tariff sheet modifications are shown in redline format in Attachment A. These suggested changes have been discussed with the Department of Commerce, Division of Energy Resources, which was the only party to submit comments on Minnesota Power's original filing.

Minnesota Power's customers are eager to have LED lights installed, and the installation of LED for interested customers is currently put on hold. Therefore, Minnesota Power respectfully requests that the Commission review and process this request as quickly as possible.

Please contact me with any questions that you may have on this.

Yours truly,



Marcia A. Podratz

MAP:sr
Attach.



STREET AND HIGHWAY LIGHTING SERVICE

RATE CODES

Highway Lighting Service	80
Overhead Street Lighting Service	83
Ornamental Street Lighting Service	84

TERRITORY

Applicable in all territories served at retail by the Company. Highway Lighting Service is subject to individual review for each point of delivery.

APPLICATION

To any governmental subdivision taking all of its street or highway lighting requirements for service within the Company's service territory under the Company's standard contract for such service, subject to any applicable Riders. Highway Lighting Service is limited to the State of Minnesota, Department of Highways exclusively for public highway lighting.

RATE

<u>Lamp Type & Size</u> Sub rate code	<u>CIS Code</u>	<u>Rate Per Fixture Per Month</u>			
		<u>Option 1</u> __A	<u>Option 2</u> __B	<u>Option 3</u> __C	<u>Option 4</u> __D
			(Option 2 Closed to New Installation)	Option 3 Closed to New Installation)	
Mercury Vapor Lamps (Closed to New Installations)					
7,000 Lumens (175 watts)	K	15.94	8.33	8.06	
10,000 Lumens (250 watts)	L			10.18	
20,000 Lumens (400 watts)	M	21.33	14.23	13.76	
55,000 Lumens (1,000 watts)	O			25.22	
Sodium Vapor Lamps					
8,500 Lumens (100 watts)	I	13.62	6.83	6.48	
14,000 Lumens (150 watts)	X	15.73	8.59	8.33	
14,000 Lumens (150 watts)	A			8.33	
20,500 Lumens (200 watts)	F	18.32	10.08	9.95	
23,000 Lumens (230 watts)	G	19.77	11.05	10.75	
45,000 Lumens (400 watts)	Z	24.22	14.95	14.09	
Metal Halide Lamps					
28,800 Lumens (400 watts)	S		13.11		
Light Emitting Diode (LED)					
4,000 Lumens (54 watts <u>or less</u>)	W	12.88			
8,800 Lumens (118 watts <u>or less</u>)	Y	17.04			
Energy Charge - Per kWh		Included	Included	Included	5.882¢
Plus any applicable adjustments					

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ADJUSTMENTS

1. There shall be added to or deducted from the monthly bill, as computed above, a fuel and purchased energy adjustment determined in accordance with the Rider for Fuel and Purchased Energy Adjustment.

The monthly fuel and purchased energy adjustment per fixture shall be determined as the above fuel and purchased energy adjustment per kWh multiplied by the monthly kWh per fixture shown in the Energy Table below for the respective fixtures.

2. There shall be add to the monthly bill, as computed above, an emissions-reduction adjustment determined in accordance with the Rider for Arrowhead Regional Emission Abatement (AREA).

3. There shall be added to the monthly bill, as computed above, a transmission investment adjustment determined in accordance with the Rider for Transmission Cost Recovery.

4. There shall be added to the monthly bill, as computed above, a renewable resources adjustment determined in accordance with the Rider for Renewable Resources.

5. There shall be added to the monthly bill, as computed above, a conservation program adjustment determined in accordance with the Rider for Conservation Program Adjustment.

6. There shall be added to the monthly bill, as computed above, an emissions-reduction adjustment determined in accordance with the Rider for Boswell Unit 4 Emission Reduction.

7. Plus the applicable proportionate part of any taxes and assessments imposed by any governmental authority which are assessed on the basis of meters or customers, or the price of or revenues from electric energy or service sold, or the volume of energy generated, transmitted or purchased for sale or sold.

8. Bills for service to parties other than the City of Duluth within the corporate limits of the City of Duluth shall include an upward adjustment as specified in the Rider for City of Duluth Franchise Fee.

PAYMENT

Bills are due and payable 15 days following the date the bill is rendered or such later date as may be specified on the bill.

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STREET AND HIGHWAY LIGHTING SERVICE

BURNING SCHEDULE

Burning schedule is from dusk until dawn each night for a total of approximately 4,200 hours per year.

ENERGY TABLE

**Fixture
CIS**

Code	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Burning Hours	4,200	462	379	367	302	264	233	252	294	336	401	435	475
Monthly kWh usage per fixture by type													
A	468	52	42	41	34	29	26	28	33	37	45	48	53
C	1,356	149	122	119	98	85	75	81	95	109	130	140	153
F	1,140	125	103	100	82	72	63	68	80	91	109	118	129
G	1,224	135	110	107	88	77	68	73	86	98	117	127	138
I	504	56	46	44	36	32	28	30	35	40	48	52	57
K	888	98	80	78	64	56	49	53	62	71	85	92	100
L	1,224	135	110	107	88	77	68	73	86	98	117	127	138
M	1,932	213	174	169	139	121	107	116	135	155	184	200	219
O	4,620	508	417	404	332	290	256	277	323	370	441	479	523
S	1,932	213	174	169	139	121	107	116	135	155	184	200	219
V	2052	226	185	179	147	129	114	123	144	164	196	213	232
W	230	24	22	19	17	15	14	13	15	18	22	24	27
X	756	83	68	66	54	48	42	45	53	60	72	78	87
Y	512	54	49	43	38	33	30	28	34	40	49	54	60
Z	2,016	222	182	176	145	127	112	121	141	161	192	209	228

Company shall furnish all electric energy required for service under this schedule.

EQUIPMENT OWNERSHIP, OPERATION AND MAINTENANCE

New Customers with new installations must select Option 1 or Option 4 only for each account served under this schedule. Options 2 and 3 are closed to new installations. Options 1 or 4 are available for Overhead Lighting Service and for Highway or Ornamental Lighting Service.

Option 1

COMPANY TO OWN AND MAINTAIN.

1. The Company shall install, own, operate and provide normal maintenance to all equipment necessary for the above service including the Lighting Equipment beyond the point of attachment to Company's facilities consisting of, but not limited to, the fixture, standard brackets or mast arms not exceeding 14 feet in length, fixture, ballast, photo-electric control, driver, and wiring.

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Option 2

1. The Customer shall own all equipment for service under this schedule beyond the point of attachment with Company's facilities. The equipment shall include, but not be limited to, the fixture, standard brackets or mast arms not exceeding 14 feet in length, lamp, ballast, photo-electric control and all minor materials. All customer-owned equipment must meet Company's specifications. In all cases, poles are owned by Company.

2. The Company shall install and operate all equipment necessary for service under this schedule and Company will own all equipment necessary for service under this Option except for that equipment as specified in paragraph 1. All Customer owned Lighting Equipment will be installed at Customer's expense. The Company shall perform all normal maintenance on equipment necessary for service under this schedule and furnish and replace all burned out lamps and photo-electric controls. Option 2 is closed to new installations.

Option 3

1. The Customer shall own, install and maintain all equipment necessary for service under this schedule beyond the point of attachment with Company's lines used to deliver power to Customer's system. The equipment shall include, but not be limited to, the posts, fixture, mounting bracket, lamp, ballast and all minor materials. In addition, Customer must furnish and install a master disconnect switch at the point of attachment to isolate Customer's equipment from Company's electrical system. All Customer owned equipment must meet Company's specifications.

2. The Company shall own all equipment necessary for service under this Option except for that equipment as specified in paragraph 1. The Company will furnish and replace all burned out lamps and photo-electric controls and will clean or replace glassware at the time of lamp replacement. Customer shall be responsible for providing replacement glassware. No maintenance will be provided by the Company on customer owned equipment except as specified in a separate agreement. Option 3 is closed to new installations.

Option 4

CUSTOMERS TO OWN AND MAINTAIN:

1. The Customer shall own, install and maintain all equipment necessary for service under this schedule beyond the point of attachment with Company's lines used to deliver power to Customer's system. The equipment shall include

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but not be limited to the poles, fixture, mounting bracket, lamp, ballast, photo-electric control and all minor materials. In addition, Customer must furnish and install in master disconnect switch at the point of attachment to isolate Customer's equipment from Company's electrical system. Customer's disconnect switch must meet Company's specifications.

2. Customer is responsible for all maintenance on all equipment beyond Company's point of attachment. Standard safety procedures followed by the Company on Company-owned lighting facilities shall be followed by Customer when maintaining its lighting equipment. Company reserves the right to disconnect Customer equipment from Company's electrical system if in the Company's opinion Customer's lighting equipment is operated or maintained in an unsafe or improper condition.

CONTRACT PERIOD

Six months, automatically renewable for six month periods unless canceled by 30 days written notice by either party to the other.

SERVICE CONDITIONS

1. Customers will contract for service under this schedule for the number of fixtures of each size installed at the time of the contract.

2. Lights shall be located at sites designated and authorized by Customer. Customer shall provide in writing suitable right-of-way and right-of-occupancy for the facilities which the Company deems necessary to render service under the option chosen. The location shall be readily accessible to Company's equipment used for servicing and/or supplying service under the option chosen. The Company shall have the right to use and occupy the street and highway rights-of-way for the purpose of performing any act of service in connection with service under this schedule.

3. Service will normally be from standard distribution facilities typical of those in the area surrounding the point of service. If it is necessary to provide non-standard distribution facilities, Customer shall pay Company for all costs in excess of standard facility costs.

4. Company will, at Customer's expense, relocate or change the position of any poles, circuits or lights owned by the Company as may be requested in writing and duly authorized by Customer.

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5. Company will install at its expense such additional street lights served under Option 1 as may be requested in writing and duly authorized by Customer from time to time during the period of the contract. Company shall provide as standard a service extension of up to the equivalent of one pole span to provide service under this schedule without cost to the Customer. No additional transformer capacity shall be provided as standard for Option 4 Lighting Service. All necessary costs for providing service under this schedule in excess of standard costs shall be paid by Customer.

6. For fixtures which satisfy the conditions as set forth in Options 1 or 2 under Equipment Ownership, Operation and Maintenance, Company will absorb the cost of replacing a lamp and photo-electric control devices damaged by a first act of vandalism at each location during each calendar year. In addition, Company will absorb the cost of replacing a lighting unit damaged by a first act of vandalism at each location during each calendar year if served under Option 1.

All subsequent and other costs due to vandalism are at Customer's expense. For those locations served under Option 1 or 2, Company will repair equipment (not covered above) damaged by vandalism and will bill customer for appropriate costs.

7. Existing Option 1 Customers who wish to replace Sodium Vapor fixtures that are less than ten years old and not in need of significant maintenance or repair with LED street lights will pay Company the remaining un-depreciated facility cost. Under Option 2, Customers who convert to LED street lights will be assessed a removal fee of \$50 if the mast arm is left up and reused or \$100 if the mast arm is removed and not reused. Under Option 3, the Company's Compatible Unit Estimator (CUE) will be used to estimate the removal fee with a true-up of actual costs once the work is completed.

SCHEDULE OF CHARGES

Applicable in conjunction with Service Conditions paragraph 6.

Labor and vehicle charges per the applicable rate as stated in the Company's Accounting Manual at the time the charge was incurred. Charges for materials used per the Company's cost for lighting replacement equipment plus the then current Materials Handling expense and A&G expense per Company's Accounting Manual.

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