



Your Touchstone Energy® Partner



December 9, 2016

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

**Re: Dakota Electric Association Petition to
Update Lighting Rate Schedules
Docket No. E-111/M-16-____**

Dear Mr. Wolf:

Dakota Electric Association (Dakota Electric or Cooperative) submits the attached Petition requesting Minnesota Public Utilities Commission (Commission or MPUC) approval to update security and street lighting rate schedules. These updates include closing most of the high pressure sodium (HPS) lighting options to new consumers and updating the rates for light-emitting diode (LED) lighting services. Dakota Electric's present LED lighting rate schedules were approved in an Order dated October 23, 2015, in Docket No. E-111/M-15-694. In this prior LED lighting filing, Dakota Electric indicated that we would review the costs of providing these lighting services and update the rates periodically as costs change.

If you or your staff have any questions regarding this petition, please contact me at (651) 463-6258.

Sincerely,

/s/ Douglas R. Larson

Douglas R. Larson
Vice President of Regulatory Services
Dakota Electric Association
4300 220th Street West
Farmington, MN 55024
651-463-6258
dlarson@dakotaelectric.com

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

IN THE MATTER OF A
DAKOTA ELECTRIC ASSOCIATION PETITION
TO UPDATE LIGHTING RATE SCHEDULES

DOCKET No. E-111/M-16-_____

SUMMARY

On December 9, 2016, Dakota Electric Association (Dakota Electric or Cooperative) submitted a petition requesting Minnesota Public Utilities Commission (Commission or MPUC) approval to update security and street lighting rate schedules. These updates include closing most of the high pressure sodium (HPS) lighting options to new consumers and updating the rates for light-emitting diode (LED) lighting services. Dakota Electric's present LED lighting rate schedules were approved in an Order dated October 23, 2015, in Docket No. E-111/M-15-694. In this prior LED lighting filing, Dakota Electric indicated that we would review the costs of providing these lighting services and update the rates periodically as costs change.

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

Beverly Jones Heydinger
Nancy Lange
Dan Lipschultz
Matthew Schuerger
John Tuma

Chair
Commissioner
Commissioner
Commissioner
Commissioner

IN THE MATTER OF A
DAKOTA ELECTRIC ASSOCIATION PETITION
TO UPDATE LIGHTING RATE SCHEDULES

DOCKET NO. E-111/M-16-_____

PETITION OF DAKOTA ELECTRIC ASSOCIATION

I. Introduction

Dakota Electric Association (Dakota Electric or Cooperative) submits the following Petition requesting Minnesota Public Utilities Commission (Commission or MPUC) approval to update security and street lighting rate schedules. These updates include closing most of the high pressure sodium (HPS) lighting options to new consumers and updating the rates for light-emitting diode (LED) lighting services. Dakota Electric's present LED lighting rate schedules were approved in an Order dated October 23, 2015, in Docket No. E-111/M-15-694. In this prior LED lighting filing, Dakota Electric indicated that we would review the costs of providing these lighting services and update the rates periodically as costs change.

II. Filing Requirements

Pursuant to Minn. Stat. § 216B.16, subd. 1 and Minn. Rule 7829.1300, Dakota Electric provides the following required general filing information.

1. Summary of Filing (Minn. Rule 7829.1300, subp.1)

A one paragraph summary accompanies this Petition.

2. Service on Other Parties (Minn. Rule 7829.1300, subp. 2)

Pursuant to Minn. Rules 7829.1300, subp. 2, Dakota Electric eFiles this Petition on the Minnesota Department of Commerce – Division of Energy Resources and the Office of Attorney General – Residential Utilities and Antitrust Division.

3. Name, Address and Telephone Number of Utility (Minn. Rule 7829.1300, subp. 4(A))

Dakota Electric Association
4300 220th Street West
Farmington, MN 55024
(651) 463-6212

4. Name, Address and Telephone Number of Utility Attorney (Minn. Rule 7829.1300, subp. 4(B))

Eric F. Swanson
Winthrop & Weinstine
225 South Sixth Street, Suite 3500
Minneapolis, Minnesota 55402-4629

5. Date of Filing and Date Proposed Rate Takes Effect (Minn. Rule 7829.1300, subp. 4(C))

This Petition is being filed on December 9, 2016. 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. The proposed lighting rate schedule updates will take effect upon Commission approval, but no sooner than March 9, 2017.

6. Statute Controlling Schedule for Processing the Filing (Minn. Rule 7829.1300, subp.4(D))

This Petition is made pursuant to Minn. Stat. § 216B.16. Dakota Electric’s proposed lighting rate schedules fall within the definition of a “Miscellaneous Tariff Filing” under Minn. Rules 7829.0100, subp. 11. Minn. Rules 7829.1400, subp. 1 and 4 specify that comments in response to a miscellaneous filing be filed within 30 days, and reply comments be filed no later than 10 days from the expiration of the original comment period.

7. Utility Employee Responsible for Filing (Minn. Rule 7829.1300, subp. 4(E))

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8. Impact on Rates and Services (Minn. Rule 7829.1300, subp. 4(F))

The proposal to close most of the high pressure sodium (HPS) lighting options to new consumers will result in increased energy efficiency through LED lighting. This proposal will not affect service to consumers with existing HPS security and street lighting. For new consumers, the proposed monthly rates for LED lighting are lower or very close to the monthly rates for the equivalent HPS lighting option.

The proposed LED lighting rate schedule updates will reduce the existing tariffed rates for LED lighting service options. These proposed updates/reductions in LED lighting rates reflect changes in costs of providing this service since the time that Dakota Electric submitted the original LED lighting petition as documented below.

The additional information required under Minn. Rule 7829.1300, subp. 4(F) is included throughout this Petition.

III. Petition

Background

Dakota Electric provides electric service specifically for street and security lighting through several existing rate schedules including:

Schedule 44	Security Lighting
Schedule 44-1	Street Lighting Service (Member-Owned)
Schedule 44-2	Street Lighting Service (DEA-Owned Equipment)
Schedule 44-3	Custom Residential Street Lighting (DEA-Owned Contribution by Member)
Schedule 44- 4	LED Security Lighting
Schedule 44- 5	LED Street Lighting (Member-Owned)
Schedule 44- 6	LED Street Lighting (DEA-Owned - Contribution by Member)

Schedule 44 through Schedule 44-3 include options for various sizes of mercury vapor and high pressure sodium lighting. (The mercury vapor lighting options have been closed to new installations for many years.)

The LED lighting rate options (Schedules 44-4 through 44-6) were approved by the Commission in an Order dated October 23, 2015, in Docket No. E-111/M-15-694. In this previous filing, Dakota Electric indicated that we would monitor changes in LED lighting costs and file updates to these schedules as warranted.

Updated Cost Analysis for LED Lighting

Attached is the updated cost analysis for DEA-Owned LED security (Schedule 44-4) and street lighting (Schedule 44-6) rates. This updated cost analysis includes 1) continuing improvements in the energy efficiency of available LED lighting which results in lower wholesale power costs for LED lighting and 2) declining costs for LED lighting equipment. There are no proposed updates for the cost analysis or rate schedule for Member-Owned LED lighting (Schedule 44-5) since the equipment for this lighting is owned by the member and the rates for this service are within defined blocks of monthly energy consumption.

The updated cost analysis for the proposed DEA-Owned LED lighting rate schedules includes:

- Page 1 – summary of all costs and resulting monthly rate.
- Page 2 – calculation of power supply energy costs.
- Page 3 – calculation of power supply demand costs.
- Page 4 – determination of allocated distribution costs.
- Page 5 – monthly recovery of capital costs associated with replacement of fixtures.
- Page 6 – determination of monthly maintenance costs associated with maintenance at mid-point between 16 year replacement intervals.

Overall, this updated analysis supports the following changes to LED lighting rates as follows:

<u>Schedule 44-4:</u>	<u>Present</u>	<u>Proposed</u>
LED Security Light	\$7.80	\$7.63

<u>Schedule 44-6:</u>	<u>Present</u>	<u>Proposed</u>
LED Coach Light	\$12.27	\$10.60
LED Acorn Light	\$16.40	\$11.24
LED Cobra Light	\$8.69	\$8.31
LED Shoebox Light	\$13.16	\$10.71

Proposed Lighting Rate Schedule Updates

Dakota Electric is proposing two general types of changes to the lighting rate schedules. First, we are proposing to close the high pressure sodium (HPS) lighting options to new consumers on Schedules 44 and 44-2. We are also proposing to close the 50 Watt, 150 Watt and 250 Watt HPS lighting options to new consumers on Schedule 44-3. We are not proposing to close the HPS lighting options to new consumers for Schedule 44-1 (which is for member-owned lighting) or for the 100 Watt HPS lighting option on Schedule 44-3. For operational purposes, the completion of HPS street lighting for developments in progress will be treated as existing service and not new service. This will be coordinated with municipalities and developers as appropriate to ensure uniformity in lighting throughout a development.

The proposal to close high pressure sodium (HPS) lighting options to new consumers for DEA-owned lighting will result in increased energy efficiency through LED lighting. This will also help reduce the amount of lighting fixtures that Dakota Electric must keep in inventory. This proposal will not affect service to consumers with existing HPS security and street lighting. For new consumers, the proposed monthly rates for LED lighting are lower or very close to the monthly rates for the equivalent HPS lighting option.

Second, the proposed LED lighting rate schedule updates will reduce the existing tariffed rates for LED lighting service options. These proposed updates/reductions in LED lighting rates reflect changes in costs of providing this service since the time that Dakota Electric submitted the original LED lighting petition.

The proposed changes to lighting rate schedules are attached and summarized as follows:

Schedule 44 Security Lighting

- Designate the three HPS lighting options as “Closed to new” consumers.
 - Note that this proposed tariff page modifies the tariff modification already in process that removes the mercury vapor lighting option from this page (Docket No. E-111/M-16-859).

Schedule 44-2 Street Lighting Service (DEA-Owned Equipment)

- Designate the three remaining open HPS lighting options as “Closed to new” consumers.

*Schedule 44-3 Custom Residential Street Lighting
(DEA-Owned Contribution by Member)*

- Designate the 50 Watt, 150 Watt and 250 Watt HPS lighting options as “Closed to new” consumers. The 100 Watt HPS lighting option will remain open to new consumers. Dakota Electric will continue to monitor the costs and rates for LED lighting and propose to close the 100 Watt HPS option to new consumers at a future date when the rate for LED alternatives are closer to the HPS rate.

Schedule 44- 4 LED Security Lighting

- Reduce the monthly LED Security Light rate from \$7.80 to \$7.63.

Schedule 44- 6 LED Street Lighting (DEA-Owned - Contribution by Member)

- Reduce the monthly rates for the four LED street light options based on the attached cost analysis.

IV. Conclusion

Based on the information provided in this filing, Dakota Electric requests Commission approval of the proposed updated lighting rate schedules.

If you or your staff have any questions regarding this petition, please contact me at (651) 463-6258.

Dated: December 9, 2016

Respectfully Submitted,

/s/ Douglas R. Larson

Douglas R. Larson
Vice President of Regulatory Services
Dakota Electric Association
4300 220th Street West
Farmington, MN 55024
651-463-6258

Certificate of Service

I, Cherry Jordan, hereby certify that I have this day served copies of the attached document to those on the following service list by e-filing, personal service, or by causing to be placed in the U.S. mail at Farmington, Minnesota.

Docket No. E-111/M-16-____

Dated this 9th day of December, 2016

/s/ Cherry Jordan

Cherry Jordan

LED Lighting Cost Analysis (DEA-Owned)

Summary of Monthly Costs by Component

Light Type	Power Supply Costs		Allocated Distribution		Capital	Maintenance	Total
	PS Energy	PS Demand	Consumer	Capacity	Recovery		
	(\$/mo.) 1	(\$/mo.) 1	(\$/mo.) 2	(\$/mo.) 2	(\$/mo.) 3	(\$/mo.) 4	(\$/mo.)
<u>Security Light</u>	\$0.74	\$0.38	\$2.71	\$0.55	\$2.34	\$0.89	\$7.63
<u>Street Light</u>							
Cobra	\$1.02	\$0.53	\$2.71	\$0.76	\$2.69	\$0.60	\$8.31
Shoebox	\$1.68	\$0.87	\$2.71	\$1.24	\$3.62	\$0.60	\$10.71
Coach Light	\$1.16	\$0.60	\$2.71	\$0.86	\$4.66	\$0.60	\$10.60
Acorn Light	\$0.93	\$0.48	\$2.71	\$0.69	\$5.83	\$0.60	\$11.24

¹ See pages 2 and 3 for the determination of wholesale power supply energy and demand costs per unit.

² See page 4 for the determination of allocated distribution costs per unit.

³ See page 5 for the determination of monthly capital recovery costs per unit.

⁴ See page 6 for the determination of monthly maintenance costs per unit.

LED Lighting Cost Analysis (DEA-Owned) <i>Determination of Lighting Power Supply Energy Costs</i>						
Light Type	Energy (est.)				Energy Cost	
	Monthly Usage¹	Monthly Purchased	Annual Used	Annual Purchased	Monthly	Annual
	(kWh)	(kWh)	(kWh)	(kWh)	(\$/mo.)	(\$/yr.)
<u>Security Light</u>	16	16	192	198	0.74	8.94
<u>Street Light</u>						
Cobra	22	23	264	272	1.02	12.29
Shoebox	36	37	432	445	1.68	20.11
Coach Light	25	26	300	309	1.16	13.97
Acorn Light	20	21	240	247	0.93	11.17
Assumptions/Notes:		<u>Line Loss</u> ²			<u>\$/kWh</u> ³	
		3.0%			0.04515	

¹ Based on lights being on from 1/2 hour after sunset to 1/2 hour before sunrise, or about 3,930 hours per year.

² See Workpaper 10 (Docket No. E-111/GR-14-482) for average system losses.

³ Reflects blended cost per kWh purchased.

6.23% On Peak at 5.545¢ per kWh plus 93.77% at 4.447¢ per kWh.

LED Lighting Cost Analysis (DEA-Owned)
Determination of Lighting Power Supply Demand Costs

Light Type	Summer		Winter		Other		Summer Demand Cost ¹	Winter Demand Cost ¹	Other Demand Cost ¹	Weighted Demand Cost
	Non-Coinc. Demand	Coincident Demand	Non-Coinc. Demand	Coincident Demand	Non-Coinc. Demand	Coincident Demand				
	(kW-mo.)	(kW-mo.)	(kW-mo.)	(kW-mo.)	(kW-mo.)	(kW-mo.)	(\$/mo.)	(\$/mo.)	(\$/mo.)	(\$/mo.)
<u>Security Light</u>	0.048	-	0.048	0.048	0.048	0.024	-	0.908	0.312	0.38
<u>Street Light</u>										
Cobra	0.066	-	0.066	0.066	0.066	0.033	-	1.249	0.429	0.53
Shoebox	0.109	-	0.109	0.109	0.109	0.055	-	2.062	0.708	0.87
Coach Light	0.075	-	0.075	0.075	0.075	0.038	-	1.419	0.487	0.60
Acorn Light	0.060	-	0.060	0.060	0.060	0.030	-	1.135	0.390	0.48
		<u>Coinc. Factor</u>		<u>Coinc. Factor</u>		<u>Coinc. Factor</u>	<u>\$/kW</u>	<u>\$/kW</u>	<u>\$/kW</u>	
		0%		100%		50%	\$24.85	\$18.92	\$12.99	

¹ Reflects blended cost per kW purchased based on Exhibit (DEA - 8) in Docket No. E-111/GR-14-482. See calculation below:

	<u>Summer</u>	<u>Winter</u>	<u>Other</u>
Capacity (\$/kW)	\$17.28	\$11.52	\$5.76
Transmission (\$/kW)	\$6.26	6.26	6.26
Ancillary (\$/kW)	\$0.59	0.59	0.59
GRE Total (\$/kW)	\$24.13	\$18.37	\$12.61
Line Loss	3.0%	3.0%	3.0%
	\$ 24.85	\$ 18.92	\$ 12.99

LED Lighting Cost Analysis (DEA-Owned)
Determination of Allocated Distribution Costs

Description	COS Results ¹	Consumer-Related For System ²	Capacity
	(\$)	(%)	(\$)
Allocated Distribution			
Direct (Except Account #586)			
Administrative & General	216,896	61.5%	133,391
Miscellaneous Expense	1,948	61.5%	1,198
Depreciation	187,713	61.5%	115,443
Interest-LT	112,953	61.5%	69,466
Property Taxes	84,419	61.5%	51,918
Required Margin	120,946	61.5%	74,382
	724,875		445,798
Billing Units (Cons/MWh)			279,077
Per Unit Cost (\$/light/mo. and \$/kWh)			16,112
			10,366
Other Distribution - Per Unit Cost			\$ 2.31
Total Allocated Distribution			\$ 0.0269
			\$ 0.41
			\$ 2.71
			\$ 0.0076
			\$ 0.0345

¹ See Exhibit (DEA-3), pages 20 to 22 in Docket No. E-111/GR-14-482.

² Reflects the percentage of distribution-related costs that have been classified as consumer related.

LED Lighting Cost Analysis (DEA-Owned)
Determination of Capital Recovery Factor and Cost

Description	Light Type				
	Security	Coach	Acorn	Cobra	Shoebox
Installed Capital Cost	¹ \$ 305.55	\$ 608.70	\$ 761.30	\$ 350.83	\$ 472.20
Salvage Value	² \$ 30.56	\$ 60.87	\$ 76.13	\$ 35.08	\$ 47.22
Capital Cost Recovered in Rate	\$ 275.00	\$ 547.83	\$ 685.17	\$ 315.75	\$ 424.98
Depreciable Life (Years)	³ 16.0	16.0	16.0	16.0	16.0
DEA Required Rate of Return	⁴ 6.47%	6.47%	6.47%	6.47%	6.47%
Annual Capital Recovery Factor	⁵ 10.2%	10.2%	10.2%	10.2%	10.2%
Annual Cost	\$ 28.10	\$ 55.97	\$ 70.00	\$ 32.26	\$ 43.42
Monthly Cost	\$ 2.34	\$ 4.66	\$ 5.83	\$ 2.69	\$ 3.62

¹ Based on proposed LED rate schedules. Reflects installed capital cost.
 Acorn equipment assumed at 80% retrofit kits and 20% new fixtures.

² Estimated 10% salvage value.

³ Reflects a 16-year useful life.

⁴ Rate of Return approved in Docket No. E-111/GR-14-482.

⁵ See the following formula:

$$\frac{\text{ROR \%} * ((1 + \text{ROR \%})^{\text{Life}})}{(1 + \text{ROR \%})^{\text{Life}} - 1}$$

LED Lighting Cost Analysis (DEA-Owned)

Determination of Monthly Maintenance Costs

Description	Light Type				
	Security	Coach	Acorn	Cobra	Shoebox
Hours of Lighting/Year	3,930	3,930	3,930	3,930	3,930
Hours of Lighting/Month	327.5	327.5	327.5	327.5	327.5
<u>Materials</u>					
	NA				
Annual Cost	\$ -	\$ -	\$ -	\$ -	\$ -
Monthly Cost	\$ -	\$ -	\$ -	\$ -	\$ -
<u>Labor</u>					
Crew Size	1	1	1	1	1
Hours	1.5	1.0	1.0	1.0	1.0
Rate per hour	\$ 75.10	\$ 75.10	\$ 75.10	\$ 75.10	\$ 75.10
Truck Rate per hour	\$ 39.20	\$ 39.20	\$ 39.20	\$ 39.20	\$ 39.20
Subtotal	\$ 171.45	\$ 114.30	\$ 114.30	\$ 114.30	\$ 114.30
Trips/Light/Year ¹	0.063	0.063	0.063	0.063	0.063
Annual Cost	\$ 10.72	\$ 7.14	\$ 7.14	\$ 7.14	\$ 7.14
Monthly Cost	\$ 0.89	\$ 0.60	\$ 0.60	\$ 0.60	\$ 0.60

¹ Labor for all lights includes maintenance check at 8 years and replacement at 16 years.

SCHEDULE 44
SECURITY LIGHTING SERVICE

Availability

Available for year-around illumination for private residential, farm, or commercial lighting on existing Association service poles where service poles and service wires can be connected on the line side of member's meter. Members will be required to remain on this rate for a minimum of 12 months. Service is subject to the established rules and regulations of the Association.

Type of Service

The Association shall own, operate, and maintain the security lighting system using the Association's standard security lighting equipment. The energy used by these lights is unmetered.

Monthly Rate

<u>Designation of Lamp</u>	<u>Monthly Rate Per Luminaire</u>
100 Watt High Pressure Sodium <u>(Closed to new)</u>	\$10.10
150 Watt High Pressure Sodium <u>(Closed to new)</u>	\$11.99
250 Watt High Pressure Sodium <u>(Closed to new)</u>	\$15.79
Plus Applicable Taxes	

Optional – For residential or farm installation requiring any extra equipment, or in the event the consumer requests the changeout of an existing light to a different size and/or type, a contribution to construction will be required to cover the extra costs incurred. Commercial installations on existing service poles only.

Resource and Tax Adjustment (RTA)

The Energy Charge shall be adjusted for incremental changes in purchased power costs, incremental changes in Dakota Electric's conservation tracker account balance, and incremental changes in real and personal property taxes above or below the appropriate base costs. The conservation tracker account factor shall be calculated as described in the Resource Adjustment Rider (Sheet 51). The real and personal property tax factor shall be calculated as described in the Property Tax Adjustment Rider (Sheet 53). The purchased power cost factor shall be adjusted by \$0.0001 per kilowatt-hour or major fraction thereof, of which the Association's total projected power cost per kilowatt-hour annually exceeds, or is less than \$0.0903 per kilowatt-hour sold. The year used for the annualized RTA will be January 1 through December 31. The projection shall be reviewed after six months (July) and adjusted if necessary. The RTA shall be filed with the Public Utilities Commission each year before implementation.

Taxes

The rates set forth are based on taxes as of January 1, 2014. The amount of any increase in existing or new taxes on the transmission, distribution, or sales of electricity allocable to sales hereunder, excluding real and personal property taxes already recovered through the RTA, shall be added to the above rate as appropriate.

SCHEDULE 44-2
STREET LIGHTING SERVICE
(DEA – OWNED EQUIPMENT)

Availability

Available for governmental or private year-around illumination of public or private streets, parkways, highways, and other public ways by electric lamps in luminaires supported on existing poles where secondary voltage is available and the facilities for this service are furnished by the Association.

Type of Service

The Association shall own, operate, and maintain the overhead street lighting system using the Association's standard street lighting equipment. The energy used by these lights is unmetered.

Monthly Rate

<u>Designation of Lamp</u>	<u>Monthly Rate Per Luminaire</u>
175 Watt Mercury (Closed to new)	\$15.23
250 Watt Mercury (Closed to new)	\$18.16
400 Watt Mercury (Closed to new)	\$23.25
100 Watt High Pressure Sodium <u>(Closed to new)</u>	\$12.27
150 Watt High Pressure Sodium <u>(Closed to new)</u>	\$14.16
250 Watt High Pressure Sodium <u>(Closed to new)</u>	\$17.95
400 Watt High Pressure Sodium (Closed to new)	\$22.38
Plus Applicable Taxes	

The above rates cover only an installation where the pole with secondary voltage is existing at the light location. Contributions to construction costs will be required if additional equipment is needed or if a member requests a change to a different lamp size and/or type when costs exceed \$500.

Resource and Tax Adjustment (RTA)

The Energy Charge shall be adjusted for incremental changes in purchased power costs, incremental changes in Dakota Electric's conservation tracker account balance, and incremental changes in real and personal property taxes above or below the appropriate base costs. The conservation tracker account factor shall be calculated as described in the Resource Adjustment Rider (Sheet 51). The real and personal property tax factor shall be calculated as described in the Property Tax Adjustment Rider (Sheet 53). The purchased power cost factor shall be adjusted by \$0.0001 per kilowatt-hour or major fraction thereof, of which the Association's total projected power cost per kilowatt-hour annually exceeds, or is less than \$0.0903 per kilowatt-hour sold. The year used for the annualized RTA will be January 1 through December 31. The projection shall be reviewed after six months (July) and adjusted if necessary. The RTA shall be filed with the Public Utilities Commission each year before implementation.

SCHEDULE 44-3
CUSTOM RESIDENTIAL STREET LIGHTING
(DEA-OWNED – CONTRIBUTION BY MEMBER)

Availability

Available for year-round illumination of public streets, parkways, highways, and other public ways by electric lamps mounted on standards and served through underground circuits, where the facilities for this service are furnished by the Association. Street lighting service under this schedule is limited to residential areas having an underground distribution area.

Type of Service

The Association shall own, operate, and maintain the lighting system using the Association's standard street lighting equipment which includes one lamp per standard. Member shall be required to contribute an amount equal to the installation cost of the lighting system. The energy used by these lights is unmetered.

Monthly Rate

<u>Designation of Lamp</u>	<u>Monthly Rate Per Luminaire</u>
175 Watt Mercury (Closed to new)	\$11.37
50 Watt High Pressure Sodium <u>(Closed to new)</u>	\$6.70
100 Watt High Pressure Sodium	\$8.41
150 Watt High Pressure Sodium <u>(Closed to new)</u>	\$10.30
250 Watt High Pressure Sodium <u>(Closed to new)</u>	\$14.09
Plus Applicable Taxes	

Optional – For installations requiring any extra equipment or in the event the member requests the changeout of an existing light to be a different size and/or type, the member will be required to pay all construction fees or extra charges incurred.

Resource and Tax Adjustment (RTA)

The Energy Charge shall be adjusted for incremental changes in purchased power costs, incremental changes in Dakota Electric's conservation tracker account balance, and incremental changes in real and personal property taxes above or below the appropriate base costs. The conservation tracker account factor shall be calculated as described in the Resource Adjustment Rider (Sheet 51). The real and personal property tax factor shall be calculated as described in the Property Tax Adjustment Rider (Sheet 53). The purchased power cost factor shall be adjusted by \$0.0001 per kilowatt-hour or major fraction thereof, of which the Association's total projected power cost per kilowatt-hour annually exceeds, or is less than \$0.0903 per kilowatt-hour sold. The year used for the annualized RTA will be January 1 through December 31. The projection shall be reviewed after six months (July) and adjusted if necessary. The RTA shall be filed with the Public Utilities Commission each year before implementation.

SCHEDULE 44 - 4
LED SECURITY LIGHTING
SERVICE

Availability

Available for year-around illumination for private residential, farm, or commercial lighting by Light Emitting Diode (LED) electric lamps on existing Association service poles where service poles and service wires can be connected on the utility side of the meter. Members will be required to remain on this rate for a minimum of 12 months. Service is subject to the established rules and regulations of the Association.

Type of Service

The Association shall own, operate, and maintain the LED security lighting system using the Association's standard LED security lighting equipment. Fixtures on this rate will only be attached to an existing DEA service pole. The energy used by these lights is unmetered.

Monthly Rate

Light Emitting Diode (LED) Security Light \$7.~~6380~~ per month
Plus Applicable Taxes

Optional – For installations requiring any extra equipment (excluding poles), a contribution to construction will be required to cover the extra costs incurred. In the event the member requests the change out of an existing light, the member will be required to pay all construction fees and material costs for the new installation or upgrade as well as payment for the undepreciated cost of the existing light, less any salvage value.

Resource and Tax Adjustment (RTA)

The Energy Charge shall be adjusted for incremental changes in purchased power costs, incremental changes in Dakota Electric's conservation tracker account balance, and incremental changes in real and personal property taxes above or below the appropriate base costs. The conservation tracker account factor shall be calculated as described in the Resource Adjustment Rider (Sheet 51). The real and personal property tax factor shall be calculated as described in the Property Tax Adjustment Rider (Sheet 53). The purchased power cost factor shall be adjusted by \$0.0001 per kilowatt-hour or major fraction thereof, of which the Association's total projected power cost per kilowatt-hour annually exceeds, or is less than \$0.0903 per kilowatt-hour sold. The year used for the annualized RTA will be January 1 through December 31. The projection shall be reviewed after six months (July) and adjusted if necessary. The RTA shall be filed with the Public Utilities Commission each year before implementation.

Taxes

The rates set forth are based on taxes as of January 1, 2014. The amount of any increase in existing or new taxes on the transmission, distribution, or sales of electricity allocable to sales hereunder, excluding real and personal property taxes already recovered through the RTA, shall be added to the above rate as appropriate.

SCHEDULE 44-6
LED STREET LIGHTING
(DEA-OWNED - CONTRIBUTION BY MEMBER)

Availability

Available for year-round illumination of public streets, parkways, highways, and other public ways by Light Emitting Diode (LED) electric lamps served through underground or overhead circuits, where the facilities for this service are furnished by the Association. Conversion of existing lighting to LED lighting may be limited to accommodate workload scheduling. Street lighting service under this schedule is limited to designated LED lighting fixtures offered by the Association in its distribution area. Service is subject to the established rules and regulations of the Association.

Type of Service

The Association shall own, operate, and maintain the LED lighting system using the Association's standard street lighting equipment which includes one fixture per pole. Member shall be required to contribute an amount equal to the initial installation or upgrade cost of the lighting system. The energy used by these lights is unmetered.

Monthly Rate

<u>Designation of Fixture</u>	<u>Monthly Rate Per Fixture</u>
Light Emitting Diode (LED) Coach Light (Post)	\$ 12.27 <u>10.60</u>
Light Emitting Diode (LED) Acorn Light (Post)	\$ 16.40 <u>11.24</u>
Light Emitting Diode (LED) Cobra Light (Mast)	\$ 8.69 <u>8.31</u>
Light Emitting Diode (LED) Shoebox Light (Mast)	\$ 13.16 <u>10.71</u>
Plus Applicable Taxes	

The Coach and Acorn fixtures will be mounted on a street light post. The Cobra and Shoebox fixtures will be fastened to a mast arm on existing service poles. In the event the member requests the change out of an existing light, the member will be required to pay all construction fees and material costs for the new installation or upgrade as well as payment for the undepreciated cost of the existing light, less any salvage value.

Resource and Tax Adjustment (RTA)

The Energy Charge shall be adjusted for incremental changes in purchased power costs, incremental changes in Dakota Electric's conservation tracker account balance, and incremental changes in real and personal property taxes above or below the appropriate base costs. The conservation tracker account factor shall be calculated as described in the Resource Adjustment Rider (Sheet 51). The real and personal property tax factor shall be calculated as described in the Property Tax Adjustment Rider (Sheet 53). The purchased power cost factor shall be adjusted by \$0.0001 per kilowatt-hour or major fraction thereof, of which the Association's total projected power cost per kilowatt-hour annually exceeds, or is less than \$0.0903 per kilowatt-hour sold. The year used for the annualized RTA will be January 1 through December 31. The projection shall be reviewed after six months (July) and adjusted if necessary. The RTA shall be filed with the Public Utilities Commission each year before implementation.

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	No	GEN_SL_Dakota Electric Association_General Service List
Corey	Hintz	chintz@dakotaelectric.com	Dakota Electric Association	4300 220th Street Farmington, MN 550249583	Electronic Service	No	GEN_SL_Dakota Electric Association_General Service List
Douglas	Larson	dlarson@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	GEN_SL_Dakota Electric Association_General Service List
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	No	GEN_SL_Dakota Electric Association_General Service List
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 7th St E St. Paul, MN 55106	Electronic Service	No	GEN_SL_Dakota Electric Association_General Service List
David	Moeller	dmoeller@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022093	Electronic Service	No	GEN_SL_Dakota Electric Association_General Service List
Ron	Spangler, Jr.	rlspangler@otpc.com	Otter Tail Power Company	215 So. Cascade St. PO Box 496 Fergus Falls, MN 565380496	Electronic Service	No	GEN_SL_Dakota Electric Association_General Service List
Eric	Swanson	eswanson@winthrop.com	Winthrop Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	GEN_SL_Dakota Electric Association_General Service List
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 551012147	Electronic Service	No	GEN_SL_Dakota Electric Association_General Service List