



AN ALLETE COMPANY

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June 21, 2017

VIA ELECTRONIC 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 Minnesota Power's Petition for
Approval of Revisions to Rider for Parallel Generation
Docket No. E015/M-16-204

In the Matter of a Commission Inquiry into Fees Charged on Qualifying Facilities
Docket No. E999/CI-15-755

Dear Mr. Wolf:

Minnesota Power hereby submits its Response to Minnesota Public Utility Commission's IR No. 2 in the above-referenced Dockets.

Please contact me at the number or the email address provided if you have any questions.

Yours truly,

A handwritten signature in black ink that reads "Marcia A. Podratz".

Marcia A. Podratz

MAP:sr
Attach.
cc: Official Service List

This question is:

Trade Secret

X

Public

**State of Minnesota
Public Utilities Commission**

Utility Information Request

Docket Numbers: E015/M-16-204
E999/CI-15-755

Date of Request: 06/05/2017

Requested From: Minnesota Power

Response Due: 06/19/2017

Analyst Requesting Information: Michelle Rosier

Type of Inquiry:

Financial		Rate of Return		Rate Design
Engineering		Forecasting		Conservation
Cost of Service		CIP	<input checked="" type="checkbox"/>	Other:

If you feel your responses are proprietary, please indicate.

Request Number	
1.	a. Please explain and demonstrate with a side-by-side comparison the incremental costs used to establish the monthly service charges, as listed in the Company's initial February 29, 2016 filing, for various customers with distributed generation in comparison with a typical customer in the same customer class and, if applicable, rate code.

RESPONSE:

a. After completing the necessary analysis needed to answer this Information Request, Minnesota Power (or "the Company") proposes to eliminate the current monthly service charge and remove all related language from its tariff. This is due to the recent transition from the Company's legacy Automated Meter Reading ("AMR") System to the Advanced Metering Infrastructure ("AMI") System.

The current monthly service charge was based on Minnesota Power's costs associated with its use of the Landis+Gyr TS1 AMR system. To communicate power flow in both directions, two pulse boards had to be added to the meter, and a software key purchased for the meter. Two external devices were also needed to communicate both readings on the TS1 AMR

system. None of these extra items are needed to provide service to the standard non-cogeneration customer.

By the end of 2016, Minnesota Power reached a point in its rollout of its Sensus Flexnet AMI system that a majority of customers were now in the AMI coverage area. This allowed the Company to begin transitioning in 2017 from the AMR system to the AMI system as the standard cogeneration meter. Only a programming change is required when using an AMI meter with cogeneration service - no additional hardware or software keys are needed.

PUC IR 2 Attach gives examples of a Residential and General Service customer's incremental cost. This uses the same three-step process as outlined in the Company's initial filing in this Docket. Since the AMI meter costs are the same for a standard customer and a customer on the Rider for Parallel Generation, the only cost difference is related to the reprogramming of the meter. Using this methodology, the difference between the calculated costs is only five cents per month. Given the reprogramming process may be required whenever any customer changes rate codes, the Company proposes to eliminate the monthly service charge as it is no longer warranted given the transition to the AMI system. Minnesota Power reserves the right to seek approval from the Minnesota Public Utilities Commission to recover the Company's reasonable costs through a monthly service charge should the cost differential for a customer with cogeneration service become material.

TAB: Compare

Residential kWh or TOD Meter

	Standard	Bidirectional
[1] Meter Cost 1/	\$86.80	\$86.80
[2] installation/removal cost 2/	\$75.00	\$75.00
[3] * Bidirectional additional labor 3/		\$20.98
[4] Total Meter Cost	\$161.80	\$182.78
[5] Administration & General Service Expense is: of direct cost per Accounting	0.28%	0.28%
[6] Distribution and General Engineering is: of direct cost per Accounting	12%	12%
[7] Administration & General Service Expense [6]x[5]	\$0.45	\$0.50
[8] Distribution and General Engineering Cost [7]X[5]	\$19.42	\$21.93
[9] Total investment [5]+[8]+[9]	\$181.66	\$205.22
[10] Meter Maintenance as a percent of meter investment 4/	2.53%	2.53%
[11] Meter Maintenance Expense [11]X[10]	\$4.60	\$5.20
[12] Customer Accounting Expense 5/	\$3.64	\$3.64
[13] Total Annual Cost [12]+[13]	\$8.24	\$8.83
[14] Total Monthly Cost [14]/12 months	\$0.69	\$0.74

General Service kWh or TOD Meter

	Standard	Bidirectional
[1] Meter Cost 1a/	\$343.91	\$343.91
[2] installation/removal cost 2/	\$75.00	\$75.00
[3] * Bidirectional additional labor 3/		\$20.98
[5] Total Meter Cost	\$418.91	\$439.89
[6] Administration & General Service Expense is: of direct cost per Accounting	0.28%	0.28%
[7] Distribution and General Engineering is: of direct cost per Accounting	12%	12%
[8] Administration & General Service Expense [6]x[5]	\$1.16	\$1.21
[9] Distribution and General Engineering Cost [7]X[5]	\$50.27	\$52.79
[10] Total investment [5]+[8]+[9]	\$470.33	\$493.89
[11] Meter Maintenance as a percent of meter investment 4/	2.53%	2.53%
[12] Meter Maintenance Expense [11]X[10]	\$11.91	\$12.50
[13] Customer Accounting Expense 5/	\$3.64	\$3.64
[14] Total Annual Cost [12]+[13]	\$15.55	\$16.14
[15] Total Monthly Cost [14]/12 months	\$1.30	\$1.35

- 1/ Sensus IconA 2S - 2017 pricing
- 1a/ Elster A3 -2017 pricing
- 2/ Per Metering
- 3/ Includes half hour tech time to cover reprogramming, testing and minor updates to CC&B.
- 4/ Meter Maintenance costs divided by Meters Plant in Service per FERC form 1: Page 207, column g, line 70
- 5/ See tab Cust_Acct_Exp

*Note all labor rates and costs are not overheaded, vehicle added or taxed yet

TAB: Meter_Maint

Calculation: Meter Maintenance as a Percent of Meter Investment

1/	1,277,322.06	Meter Maintenance
2/	50,448,845.00	Meters-Plant in Service
	<hr/>	
	2.53%	Meter maintenance as a percent of meter investment

1/ Per metering

2/ FERC Form 1: Page 207, column g, line 70

TAB: Cust_Acct_Exp

Calculate customer accounting expense

The average customer accounting cost per Residential and General Service Customers is the quotient of Residential and General Service Customer accounting cost excluding uncollectible accounts divided by the total number of Residential and General Service Customers

			<u>Calculation Notes</u>
[1] Total Customer Accounts Expense	1a/ \$ 5,473,122.00		
[2] Less Uncollectibles	1b/ \$ 738,626.00		
[3]	\$ 4,734,496.00		[1] - [2]
[4] Meter Reading Expense	1c/ \$ 375,806.00		
[5] As a percent of Customer Accounts Expense	7.94%		[4] / [3]
	<u>2010 Cost of Service</u>		
	<u>Residential</u>	<u>General Service</u>	
[6] Customer Accounts	5,134,850	869,104	
[7] Customer Service & Info	1,117,804	488,994	
[8] Total Customer Accounts/ Service Revenue Requirement		\$ 7,610,752.00	[6] + [7]
[9] 2015 Customer Accounts Expense Less Uncollectibles		\$ 4,734,496.00	[3]
[10] 2010 Customer Accounts Expense Less Uncollectibles		\$ 5,983,690.00	
[11] Customer Accounts Expense Ratio		0.791233503	[9] / [10]
[12] Customer Accounts Revenue Requirements		\$ 6,021,881.97	[8] * [11]
	2015 Average Monthly Customers		
[13]	Residential	111,502	
[14]	General Service	19,897	
[15]	Total	131,399	
[16] Average Customer Accounting Cost per Residential or General Service Customer		\$ 45.83	[12] / [15]
[17] Customer Accounting Expense		\$ 3.64	[5] * [16]

1a/ FERC Form 1: Page 322, column b, line 164

1b/ FERC Form 1: Page 322, column b, line 162

1c/ FERC Form 1: Page 322, column b, line 160