

December 9, 2015

Executive Secretary  
North Dakota Public Service Commission  
State Capitol  
Bismarck, ND 58505-0480

Re: Electric Meter Test Results

Pursuant to Section 69-09-02-28, Item 3, Montana-Dakota Utilities Co. (Montana-Dakota), a Division of MDU Resources Group, Inc., herewith files the results of its 2012, 2013, and 2014 sample meter tests on residential, commercial and industrial watt-hour meters. The results of the random sample tests for each meter group and vintage class, as shown on Attachment A, indicate that for 2012 and 2014 the percent defective are within allowable limits described in Montana-Dakota's approved meter testing plan. Montana-Dakota requires a deviation from its Selective Testing Plan for Watthour Meters Rate 131 for the 2013 Electric Meter Testing Results provided in this report as shown on Attachment B.

In 2013 a deviation from Montana-Dakota's approved Electric Meter Testing Plan for the Company's random sampling program of meters as part of the Testing Plan was necessary:

- Inspection Level IV was applied for three of the ten groups for 2013 as not enough data was available to meet the standard of Inspection Level V. All selected meters for all ten groups were tested, however, approximately 10% of the test results were lost or destroyed before the data was transferred from the test equipment to the Company network. As shown on Attachment B, the 2013 results indicate performance of the meters is well within the allowable levels. This is affirmed by the 2014 results.

To reduce the chance of future lost test data, the Company is evaluating the economics of a meter data management system to potentially be installed in 2016. This system is intended to begin storing past and future test data. From this system, Montana-Dakota intend to make uploads from test equipment daily and weekly and expect to dramatically reduce our chances of lost test data.

Please acknowledge receipt by stamping or initiating the duplicate copy of this letter attached hereto and returning the same in the enclosed self-addressed, stamped envelope.

Sincerely,

A handwritten signature in black ink, appearing to read "Tamie A. Aberle". The signature is fluid and cursive, with the first name being the most prominent.

Tamie A. Aberle  
Director of Regulatory Affairs

Attachments

**Montana-Dakota Utilities Co.  
Electric Utility  
Meter Test Report - Year 2012  
Results of Sample Tests  
on Residential, Commercial and Industrial Watthour Meters  
North Dakota, South Dakota, Montana and Wyoming**

Meter Group & Vintage Class	Minimum Number Sampled	Number of Meters Represented	Percent Fast	Percent Slow	Total Percent Defective 1/
B (1960-1969)	40	1,149	<0.001	<0.001	<0.002
C (1970-1979)	50	2,284	<0.001	<0.001	<0.002
D (1980-1989)	50	1,355	<0.001	<0.001	<0.002
E (1990-1999)	75	4,388	<0.002	<0.002	<0.004
F (2000-2009)	150	84,906	<0.003	<0.003	<0.006
G (2010-2011)	100	9,993	<0.003	<0.003	<0.006
M (1960-1969)	<i>This group of meters was removed from service during year 2012.</i>				
Q (1980-1989)	30	269	<0.001	<0.001	<0.002
R (1990-1999)	25	156	<0.001	<0.001	<0.002
S <sup>2/</sup> (1990-1999)	25	148	<0.001	<0.001	<0.002
T <sup>2/</sup> (2000-2009)	50	2099	<0.001	<0.001	<0.002
H <sup>2/</sup> (2010-2011)	35	413	<0.001	<0.001	<0.002
V (1970-1979)	15	64	<0.001	<0.001	<0.002
W (1980-1989)	10	30	<0.001	<0.001	<0.002
X (1990-1999)	5	14	<0.001	<0.001	<0.002
Y <sup>2/</sup> (1990-1999)	25	171	<0.001	<0.001	<0.002
Z <sup>2/</sup> (2000-2009)	75	5409	<0.002	<0.002	<0.004
J <sup>2/</sup> (2010-2011)	40	638	<0.001	<0.001	<0.002

1/ The maximum total percent defective limits as described in Rate 131 for North Dakota, Montana and Chapter II of the Rules of the Wyoming Public Service Commission are:

- 4% for Residential vintage groups D, E, F, G
- 2% for Commercial vintage groups Q, R, S, T, H
- 1% for Industrial vintage groups V, W, X, Y, Z, J

2/ The S, T, H, Y, Z and J are groups of solid state electric watthour meters.

**Montana-Dakota Utilities Co.  
Electric Utility  
Meter Test Report – Year 2014  
Results of Sample Tests  
on Residential, Commercial and Industrial Watthour Meters  
North Dakota, South Dakota, Montana and Wyoming**

Meter Group & Vintage Class	Minimum Number Sampled	Number of Meters Represented	Percent Fast	Percent Slow	Total Percent Defective 1/
D (1980-1989)	25	126	<0.001	<0.001	<0.002
E (1990-1999)	35	304	<0.001	<0.001	<0.002
F (2000-2009)	150	83,273	<0.003	<0.003	<0.006
G (2010-2013)	150	41,351	<0.003	<0.003	<0.006
S <sup>2/</sup> (1990-1999)	5	11	<0.001	<0.001	<0.002
T <sup>2/</sup> (2000-2009)	50	1,317	<0.001	<0.001	<0.002
H <sup>2/</sup> (2010-2013)	40	835	<0.001	<0.001	<0.002
Y <sup>2/</sup> (1990-1999)	7	19	<0.001	<0.001	<0.002
Z <sup>2/</sup> (2000-2009)	75	3,528	<0.002	<0.002	<0.004
J <sup>2/</sup> (2010-2013)	50	2,043	<0.001	<0.001	<0.002

1/ The maximum total percent defective limits as described in Rate 131 for North Dakota, Montana and Chapter II of the Rules of the Wyoming Public Service Commission are:

- 4% for Residential vintage groups D, E, F, G
- 2% for Commercial vintage groups S, T, H
- 1% for Industrial vintage groups Y, Z, J

2/ The S, T, H, Y, Z and J are groups of solid state electric watthour meters.

**Montana-Dakota Utilities Co.  
Electric Utility  
Meter Test Report – Year 2013  
Results of Sample Tests  
on Residential, Commercial and Industrial Watthour Meters  
North Dakota, South Dakota, Montana and Wyoming**

Meter Group & Vintage Class	Level V Minimum Sample 1/	Number of Meters Represented	Percent Fast	Percent Slow	Total Percent Defective 2/
B (1960-1969)	<i>This group of meters was removed from service during year 2013.</i>				
C (1970-1979)	<i>This group of meters was removed from service during year 2013.</i>				
D (1980-1989)	25	148	<0.001	<0.001	<0.002
E (1990-1999)	40	727	<0.001	<0.001	<0.002
F (2000-2009)	150(131)	86,216	<0.003	<0.003	<0.006
G (2010-2012)	150(119)	31,240	<0.003	<0.003	<0.006
Q (1980-1989)	<i>This group of meters was removed from service during year 2013.</i>				
R (1990-1999)	<i>This group of meters was removed from service during year 2013.</i>				
S <sup>3/</sup> (1990-1999)	7	21	<0.001	<0.001	<0.002
T <sup>3/</sup> (2000-2009)	75	3,247	<0.002	<0.002	<0.004
H <sup>3/</sup> (2010-2012)	40	1,047	<0.001	<0.001	<0.002
V (1970-1979)	<i>This group of meters was removed from service during year 2013.</i>				
W (1980-1989)	<i>This group of meters was removed from service during year 2013.</i>				
Y <sup>3/</sup> (1990-1999)	5	13	<0.001	<0.001	<0.002
Z <sup>3/</sup> (2000-2009)	75	4,171	<0.002	<0.002	<0.004
J <sup>3/</sup> (2010-2012)	50(41)	2,235	<0.001	<0.001	<0.002

1/ The number in parentheses is the lower quantity of meters that were actually sampled to meet the Level IV inspection criteria.

2/ The maximum total percent defective limits as described in Rate 131 for North Dakota, Montana and Chapter II of the Rules of the Wyoming Public Service Commission are:

- 4% for Residential vintage groups D, E, F, G
- 2% for Commercial vintage groups S, T, H
- 1% for Industrial vintage groups Y, Z, J

3/ The S, T, H, Y, Z and J are groups of solid state electric watthour meters.