

MONTANA-DAKOTA UTILITIES CO.
A Division of MDU Resources Group, Inc.

Before the Public Service Commission of North Dakota

Case No. PU-13-___

Direct Testimony
of
Andrea L. Stomberg

1 **Q. Would you please state your name and business address?**

2 A. Yes. My name is Andrea L. Stomberg, and my business address is
3 400 North Fourth Street, Bismarck, North Dakota 58501.

4 **Q. What is your position with Montana-Dakota Utilities Co.?**

5 A. I am the Vice President of Electric Supply for Montana-Dakota
6 Utilities Co. (Montana-Dakota), a Division of MDU Resources Group, Inc.

7 **Q. What are your responsibilities as the Vice President of Electric**
8 **Supply?**

9 A. My responsibilities include power production and transmission,
10 system operations and planning, environmental compliance and electric
11 dispatch.

12 **Q. Would you please outline your educational and professional**
13 **background?**

14 A. I graduated from the University of Washington with a bachelor's
15 degree in Geology, from Oregon State University with a Master of Science
16 degree in Soils, and from the University of Mary, Bismarck, with a masters
17 in business management. I worked for the North American Coal

1 Corporation for ten years in surface mine permitting, reclamation planning
2 and oversight. I worked for Montana-Dakota for about 15 years in the
3 environmental field prior to my current position.

4 **Q. Have you testified in other proceedings before regulatory bodies?**

5 A. Yes, I have testified before this Commission and I have filed written
6 testimony with the Montana Public Service Commission and the
7 Minnesota and South Dakota Public Utilities Commissions.

8 **Q. What is the purpose of your testimony in this proceeding?**

9 A. The purpose of my testimony is to introduce Montana-Dakota's
10 proposal to install and operate additional filterable particulate matter
11 pollution control equipment at the Company's Lewis & Clark Generating
12 Station near Sidney, Montana (Project). I will also provide support for the
13 Company's position that the Project is a prudent and reasonable resource
14 for Montana-Dakota's North Dakota electric customers and introduce other
15 Company witnesses who will explain the project in more detail.

16 **Q. What is the Project that Montana-Dakota is proposing?**

17 A. To meet the requirements of the Environmental Protection
18 Agency's (EPA) Mercury and Air Toxics Standard (MATS), Montana-
19 Dakota determined that additional filterable particulate matter pollution
20 control equipment will be required to control particulate emissions at the
21 Lewis & Clark Station. In his testimony, Mr. Alan Welte will discuss in
22 detail the nature of the investigations undertaken to determine the best
23 method of compliance. As described by Mr. Welte, the least cost

1 compliance alternative identified at this time includes the installation of a
2 new baghouse and modifications to the existing mist eliminator vessel
3 equipment.

4 **Q. Is the MATS requirement specific to Montana?**

5 A. No. This is an EPA requirement that has blanket applicability to all
6 coal plants. The MATS requirements are the same in North Dakota as
7 they are in Montana.

8 **Q. Is the Lewis & Clark Station currently equipped with particulate
9 controls?**

10 A. Yes. The station operates a flooded disk scrubber for removal of
11 particulate matter that has the additional benefit of removing sulfur
12 dioxide. This has allowed the plant to remain compliant with the air quality
13 permit issued by the Montana Department of Environmental Quality
14 (MDEQ), however, testing indicates that the flooded disk scrubber is not
15 adequate to meet the new EPA requirements.

16 **Q. What is the total estimated cost and timeframe of the project?**

17 A. Engineering estimates included with this application and which are
18 discussed by Mr. Alan Welte are approximately \$26.142 million (2013).
19 Montana-Dakota must comply with the EPA rule by April 16, 2015. In
20 certain circumstances, a generator may apply to the state permitting
21 authority for an extension of one year, if it's unreasonable to install the
22 equipment by 2015. Montana-Dakota will be applying for this extension,
23 upon determination of exact equipment specifications and anticipates

1 being in compliance by April 16, 2016.

2 **Q. Would Montana-Dakota be forced to close the Lewis & Clark Station**
3 **without these environmental upgrades?**

4 A. Yes. The plant could not operate using coal as its fuel source after
5 April 16, 2015 without the environmental upgrades.

6 **Q. Could the plant legally operate using natural gas as its fuel source**
7 **after April 16, 2015?**

8 A. Yes, it could. However, using firm natural gas service to power the
9 plant is expensive and the costs associated with repowering the plant to
10 use natural gas exclusively as its fuel source were determined to be
11 uneconomical. Mr. Brian Giggee addresses this further in his testimony.

12 **Q. Many utilities are closing older, smaller coal fired power plants rather**
13 **than spending significant capital to upgrade them to meet the new**
14 **environmental rules. Why is Montana-Dakota proposing to spend**
15 **approximately \$26 million to upgrade a 50 MW power plant that is 55**
16 **years old?**

17 A. Montana-Dakota is well aware of the number of plant closures in
18 the region and nationwide. However, we must analyze our own unique
19 situation, and make our own assessment of the value to our customers of
20 making these upgrades and continuing to run this plant. The Lewis &
21 Clark Station is a low cost base load resource that represents
22 approximately nine percent of Montana-Dakota's current capacity
23 requirements and provides necessary voltage support for the region. Mr.

1 Brian Giggee will explain in more detail the capacity expansion modeling
2 and sensitivity analysis Montana-Dakota conducted as part of its
3 evaluation to support the value of installing the environmental upgrades
4 necessary to retain the Lewis & Clark Station as a low cost energy
5 resource for its customers. As a result of this analysis, Montana-Dakota
6 determined these expenditures are justified by the value the plant will
7 continue to deliver to its customers, versus repowering the plant to use
8 natural gas as its fuel source, constructing a new natural gas resource, or
9 purchasing energy from the market.

10 **Q. The EPA is expected to issue additional new source performance**
11 **standards (NSPS) for greenhouse gas emissions that will apply to**
12 **existing plants. Could this require Montana-Dakota to close the**
13 **Lewis & Clark Station before the value of the upgrades have been**
14 **realized?**

15 A. Montana-Dakota is closely following the progress of the NSPS for
16 new and existing sources and is aware of the possible impacts the rules
17 have on existing coal fired plants. Montana-Dakota has evaluated the
18 NSPS for new sources and is working closely with the Edison Electric
19 Institute (EEI) and other industry groups to understand what the EPA may
20 eventually propose for existing sources. Mr. Brian Giggee will discuss
21 greenhouse gas emission cost sensitivities that were considered in the
22 Company's capacity expansion modeling. As demonstrated by the
23 modeling, the optimal resource plan includes the Lewis & Clark Station

1 retrofit with the assumption the plant will be retired five years after
2 installation of the Project. This analysis demonstrates the value of
3 upgrading the Lewis & Clark Station to meet customers' electric
4 requirements as compared to a myriad of other options.

5 **Q. There will come a point when old units such as Lewis & Clark and**
6 **the Heskett units will close. What then?**

7 A. Montana-Dakota understands that there may come a point when it
8 is economically advantageous to build or partner in a large new natural
9 gas generation facility and close its older plants. However, Montana-
10 Dakota believes that time is not now. By continuing to run these plants
11 and meeting the incremental need with market purchases, Montana-
12 Dakota anticipates a time will come when it may be able to consider a
13 larger natural gas unit that will capture an economy of scale that a direct
14 unit replacement would not.

15 **Q. Has Montana-Dakota evaluated the impact of other expected**
16 **environmental rules that will apply to Lewis & Clark such as coal ash**
17 **disposal and water discharge requirements?**

18 A. It is difficult to quantify the impacts of proposed environmental
19 rules. Montana-Dakota's conservative modeling approach indicates the
20 investment required to retain the Lewis & Clark Station as a generating
21 resource is prudent for a minimum of five years. The Company does not
22 expect significant new environmental requirements within that timeframe.

1 Once new rules are finalized and costs are quantified, additional
2 investments will be part of future supply side analysis.

3 **Q. Would you please summarize Montana-Dakota's request?**

4 A. Yes. Montana-Dakota is requesting an advance determination of
5 prudence for the Project determining that the installation of additional
6 pollution control equipment necessary to comply with EPA's MATS rule is
7 a cost effective investment for Montana-Dakota's customers based on
8 evidence provided in this Application,

9 **Q. Will you please identify the witnesses who will testify on behalf of**
10 **Montana-Dakota in this proceeding?**

11 A. Yes. Following is a list of witnesses that will provide testimony
12 and/or exhibits in support of the Company's application:

- 13 • Mr. Alan Welte, Director – Generation for Montana-Dakota will testify
14 regarding the determination that additional pollution control equipment
15 is required to comply with the MATS rule and the technologies
16 reviewed for compliance.
- 17 • Mr. Brian Giggee, Electric System Engineer III with Montana-Dakota,
18 will testify regarding the resource expansion modeling assumptions
19 and results supporting the Project as part of the Company's least-cost
20 resource plan.

21 **Q. Does this complete your testimony?**

22 A. Yes, it does.