

MONTANA-DAKOTA UTILITIES CO.

A Division of MDU Resources Group, Inc.

Before the Public Service Commission of North Dakota

Case No. PU-10-\_\_\_\_

Direct Testimony  
of  
David L. Goodin

1 Q. **Please state your name and business address.**

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

4 Q. **By whom are you employed and in what capacity?**

5 A. I am the President and Chief Executive Officer (CEO) of Montana-  
6 Dakota Utilities Co. (Montana-Dakota), a Division of MDU Resources  
7 Group, Inc. and Great Plains Natural Gas Co. (Great Plains), also a  
8 Division of MDU Resources Group, Inc. I am also the President and CEO  
9 of Cascade Natural Gas Corporation and Intermountain Gas Company;  
10 subsidiaries of MDU Resources Group, Inc..

11 Q. **Please describe your duties and responsibilities with Montana-  
12 Dakota.**

13 A. I have executive responsibility for the development, coordination,  
14 and implementation of strategies and policies relative to operations of the  
15 above mentioned Companies.

1 **Q. Please outline your educational and professional background.**

2 A. I hold a Bachelor's Degree in Electrical and Electronics Engineering  
3 from North Dakota State University and a Masters of Business  
4 Administration Degree from the University of North Dakota. I also  
5 completed the Advanced Management Program at Harvard University in  
6 2006. My work experience includes five years as a field Electrical  
7 Engineer; five years as division Electric Superintendent overseeing crews,  
8 servicepersons, and office personnel in constructing and maintaining  
9 Montana-Dakota's electric system; six years overseeing its Electric  
10 System Operations Dispatch Center, and in 2000 I became the Vice  
11 President – Operations for Montana-Dakota. In January 2007 I was  
12 promoted to Executive Vice President of Operations and Acquisitions and  
13 in July 2007 became President of Cascade Natural Gas Company, a  
14 subsidiary of MDU Resources Group. I was additionally named President  
15 of Montana-Dakota and Great Plains in March 2008 and President of  
16 Intermountain Gas Company in October 2008. I am a Professional  
17 Engineer registered in North Dakota.

18 **Q. Have you testified before this Commission and other state regulatory**  
19 **bodies?**

20 A. Yes. I have previously testified before the Public Service  
21 Commissions of Montana and Wyoming and the Washington Utilities and  
22 Transportation Commission and submitted written testimony in  
23 proceedings before the Oregon Public Utilities Commission.

1 **Q. What is the purpose of your testimony?**

2 A. The purpose of my testimony is to provide an overview of our North  
3 Dakota electric operations, explain our request for an electric rate increase  
4 and discuss the policies and reasons underlying the major aspects of the  
5 request. I will also address the request for an interim increase and identify  
6 the Company witnesses in this proceeding.

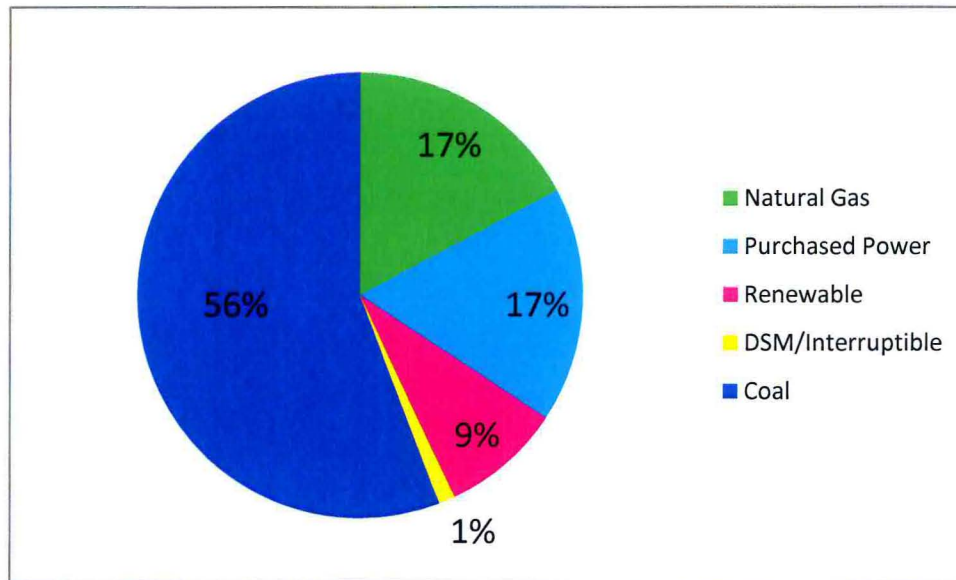
7 **Q. Would you provide a summary of Montana-Dakota's electric  
8 operations in North Dakota?**

9 A. Montana-Dakota's electric system consists of generation,  
10 transmission, distribution and general plant facilities serving approximately  
11 75,350 customers in 114 communities in North Dakota. The Company's  
12 North Dakota electric service area is divided into two operating regions  
13 with regional offices located in Bismarck and Dickinson. In addition, there  
14 are a number of district offices located in communities throughout the  
15 state. As of December 31, 2009, the Company had 498 full and part time  
16 employees who live and work throughout our North Dakota electric and  
17 gas service area.

18 **Q. Would you describe Montana-Dakota's interconnected electric  
19 system.**

20 A. Through its interconnected electric system, Montana-Dakota serves  
21 approximately 108,000 retail customers in portions of North Dakota,  
22 Montana, and South Dakota. The Company's current capacity mix is as  
23 shown below including the addition of the 19.5 MW Cedar Hill wind

1 resource located in North Dakota and the 10.5 MW addition at the  
2 Diamond Willow site located in Montana as described in the Integrated  
3 Resource Plan filed with the Commission on July 1, 2009.



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5 **Q. Mr. Goodin, did you authorize the filing of the rate application in this**  
6 **proceeding?**

7 A. Yes, I did.

8 **Q. Why has Montana-Dakota filed this application for an electric rate**  
9 **increase?**

10 A. Montana-Dakota is requesting an increase in its general electric  
11 rates at this time because our current rates do not reflect the cost of  
12 providing electric service to our North Dakota customers.

13 **Q. What is the amount of the increase requested?**

14 A. As will be fully explained by other Company witnesses, the  
15 Company is requesting a net electric rate increase of \$15,396,303 (a 14.0  
16 percent increase over current rates) based on a projected 2010 test year

1 including the reductions associated with the Company's proposed change  
2 in the mechanism for sharing wholesale sales margins with its customers.  
3 The sharing mechanism, which will be discussed in greater detail by the  
4 Company's witnesses, would share the actual net margins earned by the  
5 Company from all actual wholesale sales transactions with its customers.

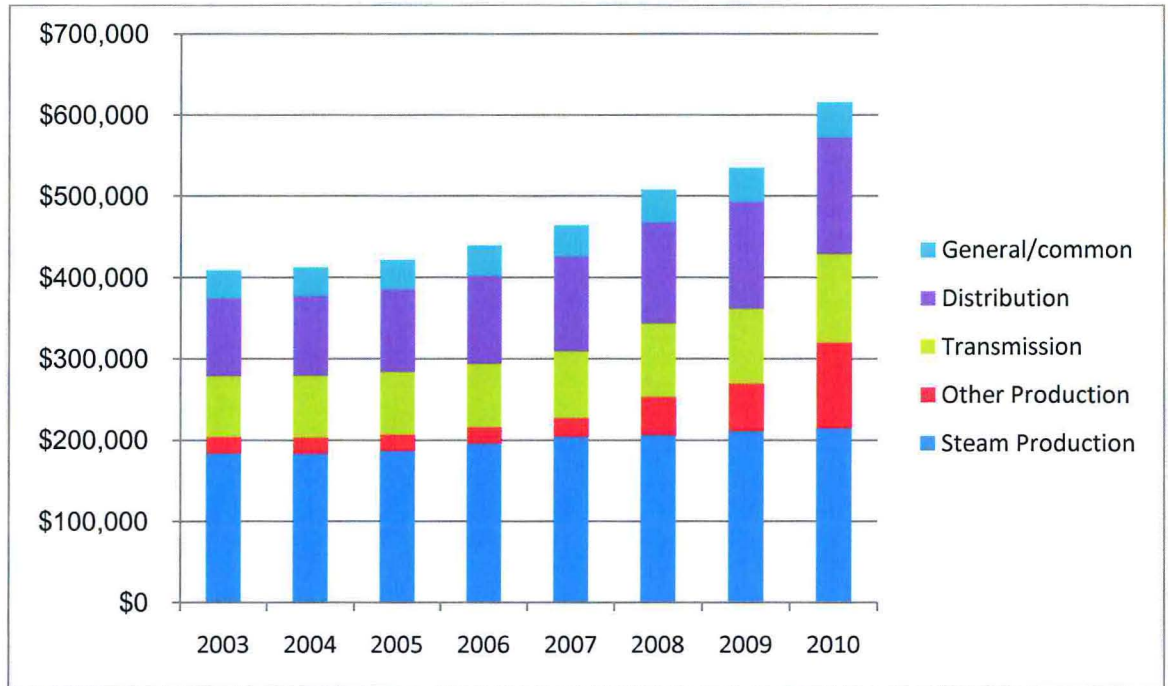
6 **Q. How will the requested increase affect the various classes of**  
7 **customers?**

8 A. The Company is proposing to allocate the overall increase of 14%  
9 to each class of customers with changes in the rate components for each  
10 schedule that move prices closer to the cost of providing service as  
11 explained more fully by Ms. Aberle.

12 **Q. What are the primary reasons that Montana-Dakota needs an**  
13 **increase at this time?**

14 A. The primary reasons for the increase in rates are:

- 15 • The increased investment in facilities, including the expansion of wind  
16 generation in the Cedar Hills and Diamond Willow projects and the  
17 associated depreciation, operation and maintenance expenses and  
18 taxes associated with the increase in investment. The table below  
19 shows the investment in electric plant assigned and allocated to North  
20 Dakota electric operations. The gross investment in North Dakota  
21 electric operations has increased by over \$200 million, or  
22 approximately 50 percent, from the end of 2003 to the projected 2010  
23 levels included in this case.



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- The significant loss of wholesale sales margin in Montana-Dakota's service area. The total Company wholesale margin has decreased from \$11.8 million in 2003 to just over \$600,000 in 2009.

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- Recovery of the deferred generation costs incurred to acquire needed generation. The amounts in this case include the costs associated with the Big Stone II plant, the Lignite Vision 21 and Milton Young III plants. If resolution of a proposed alternate recovery mechanism is approved for the Big Stone II plant costs, those costs will be withdrawn from this case.

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11 **Q. When was the last electric general rate increase for Montana-**  
 12 **Dakota?**

13 A Montana-Dakota's electric rates were last increased in January  
 14 2004 and reflected an increase in rates of 1.2 percent overall.

1 **Q. Would you please explain how Montana-Dakota has been able to**  
2 **maintain its electric rates over the last six years?**

3 A. Montana-Dakota has worked hard to control costs. We have been  
4 able to hold the line on our expenses by finding ways of operating our  
5 business more efficiently and taking advantage of new technologies where  
6 it makes economic sense to do so.

7 **Q. What is the Company doing to control costs?**

8 A. The Company continually looks for opportunities to improve  
9 efficiencies and control costs. Montana-Dakota is currently participating in  
10 a utility integration effort, along with the three other utilities within the MDU  
11 Resources Group, Inc.'s utility group (Great Plains Natural Gas Co.,  
12 Cascade Natural Gas Corporation and Intermountain Gas Company).  
13 Through this effort, the four utilities will come together to pursue best  
14 practices and employ technological advances in an effort to streamline  
15 similar processes across all four utilities, while also addressing the current  
16 economic uncertainties being experienced today.

17 **Q. What are some of the changes that have been identified to date from**  
18 **this integration effort?**

19 A. A number of changes have already occurred or are in the process  
20 of being implemented. Some of the major changes are:

- 21 • *Service center consolidation.* Today, we are in the process of  
22 combining five separate call centers operated by Montana-  
23 Dakota, Cascade and Intermountain into one service center,

1 located in Boise, Idaho. This combined center will be  
2 responsible for all incoming customer calls for the four utilities  
3 and expected to be fully operational by the fourth quarter of  
4 2010. Montana-Dakota's experience proves that the service  
5 quality attributed to well trained customer service  
6 representatives (CSRs) is a higher priority than the location of  
7 a CSR. Montana-Dakota's customer calls have been handled  
8 by a centralized call center since 1999 after approximately 45  
9 offices were closed.

10 • *Implementation of a central credit center.* The Bismarck call  
11 center is transitioning to a centralized credit center for all four  
12 utilities where credit representatives will be available to work  
13 with customers to resolve credit problems and collection  
14 issues in addition to working with Social Services, the Low  
15 Income Energy Assistance Program and other energy  
16 assistance agencies. The Bismarck Credit Center will also  
17 operate as a back-up call center to the Boise Call Center  
18 during high call times. The Bismarck Credit Center started  
19 handling all credit and collection related calls for Montana-  
20 Dakota customers in June 2009 and the transition is expected  
21 to be completed by the fourth quarter of 2010.

22 • *Establishment of pay stations.* Pay stations were also  
23 established throughout Montana-Dakota's service territory in

1 an effort to provide convenient bill payment options and  
2 extended hours by using established Western Union vendors.  
3 Through this arrangement, payments will be electronically  
4 transmitted to Montana-Dakota, available for viewing by  
5 Montana-Dakota personnel within an hour of when the  
6 payment is made and posted to customer accounts by the  
7 next business day. The Company continues to work with  
8 established businesses throughout the Company's service  
9 territory in order to expand the number of locations at which a  
10 customer can pay her or his bill.

- 11 • *Work force reductions.* In addition to assessing the work  
12 force requirements associated with the three changes  
13 mentioned above, the Company continues to review all  
14 aspects of the utility business to ensure Montana-Dakota is  
15 operating as efficiently as possible. Work force reductions  
16 are included in the revenue requirement.
- 17 • *Comparable benefits.* The integration of processes brings  
18 with it the necessity to have comparable benefits among the  
19 utility companies. Primary changes to the benefits structure  
20 at Montana-Dakota included
  - 21 ▪ Freezing the pension plan to significantly reduce  
22 future liability. The pension plan is applicable to

1 employees who commenced employment prior to  
2 January 1, 2006.

- 3           ▪ Add a retirement contribution to the 401(k) for  
4 employees in the frozen pension plan based on age  
5 and ranging from 5 percent to 11.5 percent of base  
6 pay
- 7           ▪ Changed the medical retiree plan to decrease future  
8 liability for current employees. Retiree medical is no  
9 longer offered to employees hired beginning January  
10 1, 2010.
- 11          ▪ Added two holidays for Montana-Dakota employees  
12 to bring consistency within the utility group and be in  
13 line with other utilities.
- 14          ▪ Eliminated the employee discount for current  
15 employees effective February 1, 2010.

16           All of these measures will provide comparable benefits across the  
17 utility group and enable the Company to control its costs.

18           The Company has also refinanced essentially all of its long term  
19 debt since 2006 and has lowered its embedded weighted average debt  
20 cost from 8.766% at December 31, 2005 to a projected 6.845% at  
21 December 31, 2010.

22 **Q. Why is Montana-Dakota investing in wind generation and other**  
23 **facilities and requesting an increase for those facilities?**

1 A. The wind generation provides Montana-Dakota with diversity in its  
2 generation portfolio and the timing allowing the Company to take  
3 advantage of tax benefits and transmission availability for its customers  
4 that may not be available in the future. Mr. Neigum discusses the wind  
5 generation in more detail. The other investments in transmission facilities  
6 are required in order to maintain reliability, accommodate customer growth  
7 or to comply with environmental standards. Ms. Stomberg addresses  
8 these investments in her testimony.

9 Montana-Dakota has also continued to invest in its distribution  
10 facilities, including the implementation of the Automated Meter Reading  
11 (AMR) system as well as distribution substations and transformers.

12 **Q. What return is Montana-Dakota requesting in this case?**

13 Montana-Dakota is requesting an overall return of 9.091 percent,  
14 inclusive of a return on equity (ROE) of 11.5 percent. Dr. Gaske's  
15 analysis indicates that a 12.0 percent ROE is fully justified and supported;  
16 however, Montana-Dakota recognizes that the economic downturn has  
17 affected its service area and accordingly is seeking the same return on  
18 equity that was approved in its last rate proceeding, although less than  
19 that recommended by Dr. Gaske.

20 **Q. Is Montana-Dakota seeking interim rate relief in this proceeding?**

21 A. Yes. Interim rate relief is being sought in this case consistent with  
22 North Dakota Century Code 49-05-06. The amount of interim relief sought  
23 is \$7,584,309 and consists of the projected 2010 revenue requirement

1 with certain adjustments based on Commission guidelines as described by  
2 Ms. Mulkern.

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

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

- 7 • Ms. Andrea L. Stomberg, Vice President – Electric Supply will  
8 testify on the investments in facilities and the deferred generation.
- 9 • Dr. J. Stephen Gaske, Senior Vice President of Concentric Energy  
10 Advisors, Inc., will testify regarding the appropriate cost of common  
11 equity for Montana-Dakota's North Dakota electric operations.
- 12 • Mr. Garret Senger, Vice President - Controller and Chief  
13 Accounting Officer for Montana-Dakota, will testify regarding the  
14 overall cost of capital, capital structure and overall debt and  
15 preferred equity costs.
- 16 • Mr. Darcy J. Neigum, System Operations and Planning Manager for  
17 Montana-Dakota, will testify regarding the wind generation  
18 expansion and the wholesale market changes.
- 19 • Ms. Stephanie L. Bosch, Regulatory Analyst Supervisor for  
20 Montana-Dakota will present the projected sales volumes and  
21 revenues,

1           • Ms. Rita A. Mulkern, Regulatory Analysis Manager for Montana-  
2           Dakota, will testify regarding the total revenue requirement and the  
3           interim revenue requirement necessary for North Dakota electric  
4           operations.

5           • Ms. Tamie A. Aberle, Pricing and Tariff Manager for Montana-  
6           Dakota, will testify on the rate design, the embedded class cost of  
7           service study and proposed tariff changes.

8   **Q.    Mr. Goodin, are the rates requested in this proceeding just and**  
9   **reasonable?**

10  A.        Yes. In my opinion, the proposed rates are just and reasonable as  
11           they are reflective of the total costs being incurred by Montana-Dakota in  
12           providing electric service to its customers. The proposed rates will provide  
13           Montana-Dakota the opportunity to earn a fair and reasonable return on its  
14           North Dakota electric operations.

15  **Q.    Does this complete your direct testimony?**

16  A.        Yes, it does.

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

Before the Public Service Commission of North Dakota

Case No. PU-10-\_\_\_

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, and electric dispatch.

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

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

1 and oversight. I worked for Montana-Dakota for about 15 years in the  
2 environmental field prior to my current position.

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

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

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

8 A. The purpose of my testimony is to provide information regarding  
9 Montana-Dakota's electric power supply and related activities that have  
10 contributed to the increase in investment that is the primary driver of the  
11 need for rate relief at this time. I will also provide support for the portion  
12 the Company's request relating to the deferred generation costs.

13 **Q Please describe Montana-Dakota's current power supply and status.**

14 A. Montana-Dakota serves the Company's electric customers in the  
15 states of Montana, North Dakota and South Dakota through an integrated  
16 electric system which has generation and transmission facilities in each of  
17 those states. Montana-Dakota's electric system has a summer peaking  
18 profile with the 2010 summer peak forecasted at 525 MW as published in  
19 the Company's Integrated Resource Plan filed with this Commission on  
20 July 1, 2009. Montana-Dakota plans to meet that demand requirement  
21 with its resource portfolio consisting of demand side management  
22 programs, company owned generation comprised of coal fired resources,

1 natural gas peaking capacity, renewable resources and purchased power  
2 contracts.

3 Power is delivered over Company-owned transmission lines, as  
4 well as lines owned by the Western Area Power Administration (Western)  
5 and Basin Electric Power Cooperative (Basin) under long-term  
6 agreements. Montana-Dakota is a member of the Midwest Independent  
7 Transmission System Operator (MISO). These transmission arrangements  
8 have allowed Montana-Dakota to efficiently serve customers throughout  
9 its service territory with minimal duplication of facilities.

10 **Q. Would you please describe the significant capital investment made**  
11 **by Montana-Dakota in transmission required to reliably meet**  
12 **customer needs and that are included in this request?**

13 A. Since its last filing Montana-Dakota has continued to maintain and  
14 expand its transmission system to meet the demands of its customers for  
15 reliable power. However, load growth, environmental requirements, risk  
16 mitigation and the quest for efficiency at existing facilities have driven the  
17 need for capital expenditures at a higher level than previously  
18 experienced. These investments include facilities serving both the  
19 integrated electric system as well as those required to provide service to  
20 North Dakota customers only.

21 Montana-Dakota shares transmission facilities with the  
22 cooperatives and Western and growth in their service areas also drives  
23 capital costs for the Company. In addition, changes in non-utility facilities

1 can also drive investments; the replacement of the old Memorial Bridge  
2 between Bismarck and Mandan with a new bridge is a recent example of  
3 such a cost. Montana-Dakota's transmission lines hung on the outside of  
4 the Memorial Bridge. This was not possible with the new bridge design,  
5 and Montana-Dakota elected to place the lines underneath the new  
6 bridge. The cost of this project, which was completed in 2007, was  
7 approximately \$6.6 million.

8 Work was recently completed in the Tioga, North Dakota area, in  
9 conjunction with Basin and Western, to make modifications to a Montana-  
10 Dakota substation including a new \$2.7 million transformer, ensuring  
11 continued reliable service in that area.

12 Continued growth in population and power demand in cities served  
13 by Montana-Dakota, especially Bismarck, Mandan, Williston and  
14 Dickinson, as well as power demand requirements in smaller cities and  
15 towns, has resulted in facilities that served reliably for years becoming  
16 fully utilized and unable to accommodate more demand. Some parts of  
17 Montana-Dakota's system are over 50 years old and are simply wearing  
18 out. This has resulted in the need to rebuild or upgrade substations and  
19 lines to ensure continued reliable service. Montana-Dakota has replaced  
20 transformers in numerous small towns throughout North Dakota to  
21 continue to reliably serve growing electric load in those areas. Montana-  
22 Dakota is building a new 230/115 substation north of the Heskett Station  
23 to support growing loads. Portions of this \$10.6 million substation used to

1 serve the integrated system will be operational in 2010. Also in Mandan,  
2 Montana-Dakota is constructing a \$1.7 million distribution substation to  
3 support growth in this area. Other substation and transmission projects  
4 undertaken from 2002 to 2006 include:

- 5 • Bismarck- 26<sup>th</sup> and Expressway conversion to higher voltage
- 6 • New Turnpike Avenue substation in Bismarck for the Pinehurst  
7 retail load
- 8 • New Cabin Creek substation located in Montana to support the  
9 western portion of the integrated system.
- 10 • Beulah-Heskett 115 kV line rebuild
- 11 • Southeast Bismarck 115 kV line rebuild/upgrade.

12 Investment associated with these projects was approximately \$5.8 million.

13 **Q. Describe some of the significant capital projects associated with**  
14 **Montana-Dakota's generation facilities.**

15 A. At Montana-Dakota's power plants, in addition to routine  
16 maintenance and replacements, numerous other projects have been  
17 undertaken since the last electric rate filing. These projects are  
18 substantial in size and have been required by environmental regulations,  
19 recommended by the insurance carrier to minimize risk, made to improve  
20 operating efficiencies, or needed to sustain generation facility operation.

21 Montana-Dakota's need to meet its customer's load requirements  
22 as efficiently as possible and participation in the MISO markets drive the  
23 company to seek any available efficiency from existing generation.

1 Montana-Dakota has a long history of making incremental efficiency  
2 improvements to reduce fuel costs and emissions. Between 2003 and  
3 2009, these improvement projects include:

- 4 • Replacement of process control systems
- 5 • Installation of variable frequency motor drives
- 6 • Turbine component modifications and retrofits
- 7 • Generator excitation system replacement.

8 These efficiency projects represent \$14.2 million of investment during the  
9 period.

10 To ensure the most cost effective compliance with environmental  
11 regulations, Montana-Dakota has conducted numerous studies and tests,  
12 and has installed emissions control equipment where needed. The  
13 environmental projects completed between 2003 and 2009 include:

- 14 • Mercury monitoring system installations
- 15 • Mercury emissions control testing
- 16 • Lewis & Clark Station mercury emissions control system installation
- 17 • Big Stone Plant particulate emissions control system installation
- 18 • Combustion turbine fuel oil spill prevention and containment.

19 These environmental projects account for \$12.7 million of investment  
20 during the period noted.

21 Montana-Dakota has installed additional fire detection and  
22 suppression systems to mitigate the fire risk to the generation facilities.  
23 Redundant equipment has been purchased to provide a back up for the

1 loss of critical, long-lead time equipment such as transformers. Improved  
2 over-speed protection equipment has been installed to better protect the  
3 turbine and generator equipment. From 2003-2009, these risk reduction  
4 projects accounted for \$3.1 million of investment.

5 To ensure sustained operation of the generation facilities a number  
6 of other large projects were undertaken from 2005-2009. These projects  
7 include.

- 8 • Generator rewind
- 9 • Switch gear replacements
- 10 • Replace Heskett #2 FD fan motor
- 11 • Glendive Unit 2 natural gas compression equipment additions
- 12 • Glendive Unit 2 fuel oil heating equipment installation

13 These other operation sustaining projects account for \$6.9 million of  
14 investment during the period.

15 Additionally, necessary work on the turbine and generator, and  
16 boiler element and header replacement at Heskett Station Unit 1 will be  
17 completed in 2010, after being deferred and rescheduled to allow the work  
18 to be completed at a time when labor is expected to cost less, and to  
19 extend the schedule in an effort to avoid overtime charges. The cost of  
20 this project is estimated at \$3.56 million, and should allow that plant to  
21 continue to achieve exceptional capacity factors and reliability.

22 Montana-Dakota also installed and commissioned a 2 Mw diesel  
23 engine driven portable generator in 2004, accounting for an investment of

1 approximately \$335,000. Other significant new generation investment  
2 includes Montana-Dakota's two wind generation facilities and the Glen  
3 Ullin waste heat recovery unit, which will be discussed in detail by Mr.  
4 Neigum.

5 **Q. Describe Montana-Dakota's request for rate recovery of amortized**  
6 **costs associated with securing new electric generation resources.**

7 A. The costs related to Montana-Dakota's efforts in securing new  
8 electric generation fall generally into the following cost categories:  
9 engineering, project development, permitting, legal, other expenditures,  
10 and Allowance for Funds Used During Construction ("AFUDC"). The total  
11 costs include \$2.1 million associated with the Lignite Vision 21 (LV21)  
12 Project, \$13.9 million associated with the Big Stone II project, and  
13 \$332,000 associated with the Milton R. Young III Project.

14 **Q. Why should Montana-Dakota's rates include costs for the Lignite**  
15 **Vision 21 and the Milton R. Young III projects?**

16 A. Montana-Dakota had a long-term power purchase contract for 66  
17 MW that expired in October, 2006. This power purchase contract  
18 accounted for nearly 20 percent of Montana-Dakota's base load capacity.  
19 Given the magnitude of this resource, Montana-Dakota sought new  
20 resources to replace the contract and to meet Montana-Dakota's retail  
21 customers' projected requirements. This included pursuing extension of  
22 the contract, preliminary discussions with OTP regarding the possibility of  
23 participating in a second unit at the Big Stone generation station site, and

1 evaluation of construction of gas turbines and wind resources. At about  
2 the same time, the State of North Dakota proposed its LV21 program, and  
3 Montana-Dakota began to evaluate the development of a 500 MW coal  
4 fired unit in North Dakota under that program. A possible North Dakota  
5 resource was an attractive option to include in evaluations seeking the  
6 best new resource to meet the long term needs of Montana-Dakota's  
7 customers.

8 Having a partner to utilize much of the output of the proposed 500  
9 MW LV21 plant was essential, as Montana-Dakota's projected power and  
10 energy requirements, even including anticipated load growth, were not this  
11 large. When the Company's efforts to locate such a partner were  
12 unsuccessful, the plant design was downsized, ultimately to 175 MW. As  
13 this size plant was under evaluation, Montana-Dakota was approached  
14 again about participating in Big Stone II. Preliminary engineering and  
15 pricing estimates from the LV 21 projects made it clear that the economies  
16 of scale achieved by the larger proposed Big Stone II plant were  
17 significant compared to a smaller plant. There were additional economies  
18 available from the location of Big Stone II next to the existing Big Stone  
19 plant, as well as cost savings to be recognized at the existing plant.  
20 Because of the overwhelmingly favorable economics of the Big Stone II  
21 project relative to the LV21 plant, Montana-Dakota discontinued further  
22 work on this plant design.

1 Montana-Dakota knew from projected load growth analysis that  
2 even with ownership of 116 MW of the Big Stone II plant, additional  
3 capacity would be required almost as soon as that plant became  
4 commercial. Montana-Dakota approached Minnkota Power Cooperative  
5 about ownership in a possible new 250-500 MW multi-owner unit located  
6 at the Milton R. Young plant near Center. This unit was expected to  
7 become commercial in the 2010-2015 time frame, which fit well for a  
8 resource to succeed the Big Stone II, expected to be on-line in 2011.  
9 Montana-Dakota participated in discussions and preliminary engineering  
10 studies including technology, fuel availability and transmission, for about  
11 three years- 2005 to 2007. At that time other participants determined to  
12 indefinitely suspend further effort on this project for a variety of reasons.  
13 Because of current conditions make it is doubtful that further effort will be  
14 given to the project in the near future, Montana-Dakota believes it is  
15 appropriate to amortize the costs incurred in the preliminary studies of the  
16 project.

17 Both LV21 and Milton R. Young III, along with the Big Stone II  
18 plant, were potential regional base load power resources Montana-Dakota  
19 evaluated to provide power to its customers, faced with the expiration of a  
20 significant contract and steady customer demand growth.

21 **Q. Would you describe why Montana-Dakota discontinued its**  
22 **development efforts for Big Stone II and now seeks recovery of**  
23 **development costs associated with the Big Stone II plant?**

1 A. Yes. The Big Stone II project was a proposed multi-owner coal-  
2 fired generating plant to be located at the site of the existing Big Stone  
3 Generating Plant near Big Stone City, South Dakota. At the time that  
4 Otter Tail Power Company (OTP) withdrew from the project in September  
5 2009, Montana-Dakota had a 26.54 percent share of the project and a  
6 corresponding responsibility for shared project costs.

7 In June of 2005, Montana-Dakota entered into project agreements  
8 with six other utilities for purposes of pursuing the project. At that time,  
9 the participants applied for the necessary permits, and began preliminary  
10 engineering and other development work for the project. The Commission  
11 issued an Advance Determination of Prudence for Montana-Dakota's  
12 participation in the project in August 2008, in Case No. PU-06-482, for a  
13 minimum of 121.8 MW up to a maximum of 133 MW and proportionate  
14 ownership share of the associated transmission additions. The  
15 Commission's order was based on an updated analysis by the Big Stone II  
16 participants for the cost of a 500 MW to 580 MW facility with an on-line  
17 date of mid-2013. Other permits were received from the South Dakota  
18 Public Utilities Commission ("SDPUC"), who approved the project Site  
19 Permit in July 2006, and the Minnesota Public Utilities Commission  
20 ("MPUC"), who issued a Certificate of Need ("CON") for the Big Stone II  
21 transmission lines in March 2009. The project also obtained a water  
22 allocation permit, the air quality permit, other necessary permits, and  
23 completed a Federal Environmental Impact Statement for the project. The

1 plant was initially permitted as a nominal 600 MW plant, and was expected  
2 to be commercial in 2011. Montana-Dakota has incurred approximately  
3 \$14.3 million for the permitting, engineering and other development  
4 activities for the project to date. The North Dakota jurisdictional share of  
5 the total costs is 69.351586 percent or approximately \$9.9 million.

6 On September 11, 2009, OTP withdrew from further participation in  
7 the project. Montana-Dakota was one of four participants remaining after  
8 OTP withdrew from the project. The remaining participants actively  
9 sought, but were unable to obtain commitments from new project  
10 participants. Lacking new participants to replace OTP, on November 2,  
11 2009, the project participants determined it was no longer feasible to  
12 continue the development of the Big Stone II project at a size and cost that  
13 was permitted and would be economically efficient.

14 **Q. Why should Montana-Dakota's customers pay for plant development**  
15 **costs that did not ultimately result in a resource providing service to**  
16 **customers?**

17 A. The plant development costs were a necessary cost associated  
18 with Montana-Dakota's continuing effort to secure needed new electric  
19 generating resources to serve its customers. Because the efforts were in  
20 furtherance of potential long term capital projects, the costs associated  
21 with those efforts were properly capitalized. In each instance, Montana-  
22 Dakota efforts as well as the associated costs were prudently incurred.  
23 Montana-Dakota pursued the Big Stone II project after determining that it

1 was a prudent long-term source of reliable electricity for its customers. It  
2 made that determination after it studied an alternative generation source  
3 located in North Dakota that was supported by the State of North Dakota.  
4 The Commission agreed with Montana-Dakota's determination as  
5 evidenced in its Order issued on August 27, 2009 in Docket No. PU-06-  
6 482 finding that Montana-Dakota's investment in Big Stone II was  
7 reasonable and prudent to ensure reliable electric service to their  
8 customers. In that proceeding, the Commission questioned whether  
9 Montana-Dakota had prudently and thoroughly studied potential  
10 generation resources located in North Dakota. When due to changing  
11 circumstances it became clear that the Big Stone II project was not likely  
12 to be constructed, the plant participants discontinued development of the  
13 project.

14 Montana-Dakota seeks recovery of the amortization of the costs  
15 that were prudently incurred toward its efforts in securing generating  
16 resources for its customers, although unfortunately, the plants will not be  
17 built.

18 **Q. Would you please explain future supply plans given the demise of**  
19 **the plant development you just described?**

20 A. Yes. Montana-Dakota has secured a purchased power agreement  
21 that along with existing resources will serve to meet customer needs  
22 through May 31, 2015. The Company is currently analyzing other supply  
23 options that are reliable and cost-beneficial to meet the electric

1 customers into the future.

2 **Q. Does that complete your direct testimony?**

3 **A.** Yes, it does.

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

BEFORE THE NORTH DAKOTA PUBLIC SERVICE COMMISSION

CASE NO. PU-10-\_\_\_\_\_

PREPARED DIRECT TESTIMONY OF

J. STEPHEN GASKE

1 **Q1. Please state your name, position and business address.**

2 A. My name is J. Stephen Gaske and I am a Senior Vice President of Concentric  
3 Energy Advisors, Inc., 1717 Rhode Island Avenue, Suite 630, Washington, DC  
4 20036.

5 **Q2. Would you please describe your educational and professional background?**

6 A. I hold a B.A. degree from the University of Virginia and an M.B.A. degree with a  
7 major in finance and investments from George Washington University. I also  
8 earned a Ph.D. degree from Indiana University where my major field of study was  
9 public utilities and my supporting fields were in finance and economics.

10 From 1977 to 1980, I worked for H. Zinder & Associates as a research assistant  
11 and later as supervisor of regulatory research. Subsequently, I spent a year  
12 assisting in the preparation of cost of capital studies for presentation in regulatory  
13 proceedings.

14 From 1982 to 1986 I undertook graduate studies in economics and finance at Indiana  
15 University where I also taught courses in public utilities, transportation, and physical  
16 distribution. During this time I also was employed as an independent consultant on

1 a number of projects involving public utility regulation, rate design, and cost of  
2 capital. From 1983-1986 I was coordinator for the Edison Electric Institute Electric  
3 Rate Fundamentals course. In 1986 I accepted an appointment as assistant professor  
4 at Trinity University in San Antonio, Texas, where I taught courses in financial  
5 management, investments, corporate finance, and corporate financial theory.

6 In 1988 I returned to H. Zinder & Associates (“HZA”) and was President of the  
7 company from 2000 to 2008. In May 2008, HZA merged with Concentric Energy  
8 Advisors (“CEA”) and I became a Senior Vice President of CEA.

9 **Q3. Have you presented expert testimony in other proceedings?**

10 A. Yes. I have filed testimony on the cost of capital and capital structure issues for  
11 electric, gas distribution and oil and gas pipeline operations before ten state and  
12 provincial regulatory bodies, including the North Dakota Public Service  
13 Commission, and the Comisión Reguladora de Energia de México (“CRE”). I also  
14 have testified or filed testimony or affidavits before the Federal Energy Regulatory  
15 Commission on more than thirty occasions. Topics covered in these submissions  
16 have included rate of return, capital structure, cost allocation, rate design, revenue  
17 requirements and market power. In addition, I have testified or submitted testimony  
18 on issues such as cost allocation, rate design, pricing and generating plant economics  
19 before the U.S. Postal Rate Commission, the Alberta Energy and Utilities Board, the  
20 Ontario Energy Board, the New Brunswick Energy and Utilities Board and five state  
21 public utility Commissions. During the course of my consulting career, I have  
22 conducted many studies on issues related to regulated industries and have served as

1 an advisor to numerous clients on economic, competitive and financial matters. I  
2 also have spoken and lectured before many professional groups including the  
3 American Gas Association and the Edison Electric Institute Rate Fundamentals  
4 courses. Finally, I am a member of the American Economic Association, the  
5 Financial Management Association, and the American Finance Association.

## 6 I. INTRODUCTION

### 7 A. Scope and Overview

#### 8 **Q4. What is the scope of your testimony in this proceeding?**

9 A. I have been asked by Montana-Dakota Utilities Co. ("Montana-Dakota") to estimate  
10 the cost of common equity capital for the Company's electric utility operations in the  
11 state of North Dakota. In this testimony, I calculate the cost of common equity  
12 capital for Montana-Dakota's electric utility operations based on a Discounted Cash  
13 Flow ("DCF") analysis of a group of proxy companies that have risks similar to  
14 those of Montana-Dakota's North Dakota electric utility operations. The results of  
15 this DCF study are supported by various benchmark criteria that I have used to test  
16 the reasonableness of the DCF study results.

### 17 B. Company Background

#### 18 **Q5. Would you please describe Montana-Dakota's operations and those of its 19 parent company, MDU Resources Group, Inc.?**

20 A. Montana-Dakota is a wholly-owned division of MDU Resources Group, Inc.  
21 ("MDU Resources") that is engaged in the generation, transmission and

1 distribution of electricity, and the distribution of natural gas, in the states of North  
2 Dakota, Montana, South Dakota, and Wyoming. MDU Resources also owns  
3 Cascade Natural Gas Co., which distributes natural gas in the states of  
4 Washington and Oregon; Intermountain Gas Company, which distributes gas in  
5 the state of Idaho; and it owns Great Plains Natural Gas Company, which  
6 distributes natural gas in southeastern North Dakota and western Minnesota. In  
7 all, the utility companies within MDU Resources serve 829,000 residential,  
8 commercial and industrial natural gas customers in 333 communities and adjacent  
9 rural areas across eight states. Through other divisions and subsidiaries, MDU  
10 Resources is engaged in utility infrastructure construction, natural gas  
11 exploration, production and transmission and also produces and markets  
12 aggregates and other construction materials.

13 In 2009, Montana-Dakota served a total of over 122,000 residential, commercial  
14 and industrial electric customers. As shown on Exhibit No. \_\_\_\_ (JSG-2),  
15 Schedule 2, page 1, Montana-Dakota's electric assets comprised 9.5 percent of  
16 MDU Resources' total assets in 2009 and the electric utility revenues comprised  
17 4.7 percent of the total. In addition, Montana-Dakota's operating income  
18 accounted for 7.9 percent of MDU Resources' total, excluding a non-cash write-  
19 down of the value of MDU Resources' oil and gas production assets. North  
20 Dakota accounted for 58 percent of the electric utility operating revenues, while  
21 Wyoming (11 percent), Montana (24 percent) and South Dakota (7 percent)  
22 accounted for the other 42 percent of electric utility revenues.

1 Montana-Dakota' North Dakota operations are primarily served by the company's  
2 own generating plants with approximately 463 MW of capacity owned by the  
3 interconnected system. Approximately 99 percent of the energy it generated came  
4 from coal-fired plants in 2009. When purchased power is included in the mix,  
5 approximately 75 percent of Montana-Dakota's electric generating needs came  
6 from its own coal-fired plants. In December 2008, Montana-Dakota announced  
7 that it intended to develop the Cedar Hills Wind Facility, a 19.5-MW generation  
8 project in southwest North Dakota and expand the Diamond Willow Wind  
9 Facility in southeast Montana from 19.5 MW to 30 MW. These projects, which  
10 are scheduled to achieve commercial operation in mid 2010, will serve to further  
11 diversify Montana-Dakota's generation portfolio to meet customer needs.

12 **Q6. Would you please describe Montana-Dakota's service territory?**

13 A. Montana-Dakota North Dakota's electric operations serve central and western North  
14 Dakota, with the largest communities being the Bismarck, Dickinson, Mandan and  
15 Williston areas. Although its operations tend to be concentrated in cities and towns,  
16 a large portion of the local economies are based on agricultural and minerals  
17 production. Petroleum is now North Dakota's leading mineral product, just ahead of  
18 sand and gravel, lime and salt. North Dakota also has some manufacturing,  
19 particularly in food processing and farm equipment. However, Montana-Dakota  
20 recently lost a large manufacturing customer – Bobcat, with approximately 27,000  
21 MWh, which closed its Bismarck facility at the end of 2009.

22

1 **II. FINANCIAL MARKET STUDIES**

2 A. Criteria for a Fair Rate of Return

3 **Q7. Please describe the criteria which should be applied in determining a fair**  
4 **rate of return for a regulated company?**

5 A. The United States Supreme Court has provided general guidance regarding the level  
6 of allowed rate of return that will meet constitutional requirements. In *Bluefield*  
7 *Water Works & Improvement Company v. Public Service Commission of West*  
8 *Virginia* (262 U.S. 679, 693 (1923)), the Court indicated that:

9 "The return should be reasonably sufficient to assure confidence  
10 in the financial soundness of the utility and should be adequate,  
11 under efficient and economical management, to maintain and  
12 support its credit and enable it to raise the money necessary for  
13 the proper discharge of its public duties. A rate of return may be  
14 reasonable at one time and become too high or too low by  
15 changes affecting opportunities for investment, the money market  
16 and business conditions generally."

17 The Court has further elaborated on this requirement in its decision in *Federal*  
18 *Power Commission v. Hope Electric Company* (320 U.S. 591, 603 (1944)). There  
19 the Court described the relevant criteria as follows:

20 "From the investor or company point of view it is important that  
21 there be enough revenue not only for operating expenses but also  
22 for the capital costs of the business. These include service on the  
23 debt and dividends on the stock.... By that standard the return to  
24 the equity owner should be commensurate with returns on  
25 investments in other enterprises having corresponding risks. That  
26 return, moreover, should be sufficient to assure confidence in the  
27 financial integrity of the enterprise, so as to maintain its credit and  
28 to attract capital."

1 Thus, the standards established by the Court in *Hope* and *Bluefield* consist of three  
2 requirements. These are that the allowed rate of return should be:

- 3 1. commensurate with returns on enterprises with  
4 corresponding risks;
- 5 2. sufficient to maintain the financial integrity of the  
6 regulated company; and,
- 7 3. adequate to allow the company to attract capital on  
8 reasonable terms.

9 These legal criteria will be satisfied best by employing the economic concept of the  
10 "cost of capital" or "opportunity cost" in establishing the allowed rate of return on  
11 common equity. For every investment alternative, investors consider the risks  
12 attached to the investment and attempt to evaluate whether the return they expect to  
13 earn is adequate for the risks undertaken. Investors also consider whether there  
14 might be other investment opportunities that would provide a better return relative to  
15 the risk involved. This weighing of alternatives and the highly competitive nature of  
16 capital markets causes the prices of stocks and bonds to adjust in such a way that  
17 investors can expect to earn a return that is just adequate for the risks involved.  
18 Thus, for any given level of risk there is a return that investors must expect in order  
19 to induce them to voluntarily undertake that risk and not invest their money  
20 elsewhere. That return is referred to as the "opportunity cost" of capital or "investor  
21 required" return.

1 **Q8. How should a fair rate of return be evaluated from the standpoint of**  
2 **consumers and the public?**

3 A. The same standards should apply. When a regulated entity faces competition,  
4 consumers will implicitly determine the fair rate of return by their consumption  
5 decisions. When regulation is appropriate, consumers and the public have a long-  
6 term interest in seeing that the regulated company has an opportunity to earn returns  
7 that are not so high as to be excessive, but that also are sufficient to encourage  
8 continued replacement and maintenance, as well as needed expansions, extensions,  
9 and new services. Thus, the consumer and public interest also lies in establishing a  
10 return that will readily attract capital without being excessive.

11 **Q9. How are the costs of preferred stock and long-term debt determined?**

12 A. For purposes of setting regulated rates, the current, embedded costs of preferred  
13 stock and long-term debt are used in order to ensure that the company receives a  
14 return that is sufficient to pay the fixed dividend and interest obligations that are  
15 attached to these sources of capital.

16 **Q10. How is the cost of common equity determined?**

17 A. The practice in setting a fair rate of return on common equity is to use the current  
18 market cost of common equity in order to ensure that the return is adequate to attract  
19 capital and is commensurate with returns available on other investments with similar  
20 levels of risk. However, determining the market cost of common equity is a  
21 relatively complicated task that requires analysis of many factors and some degree of  
22 judgment by an analyst. The current market cost of capital for securities that pay a

1 fixed level of interest or dividends is relatively easy to determine. For example, the  
2 current market cost of debt for publicly-traded bonds can be calculated as the yield-  
3 to-maturity, adjusted for flotation costs, based on the current market price at which  
4 the bonds are selling. In contrast, because common stockholders receive only the  
5 residual earnings of the company, there are no fixed contractual payments which can  
6 be observed. This high degree of uncertainty associated with the dividends that  
7 eventually will be paid greatly complicates the task of estimating the cost of  
8 common equity capital. For purposes of this testimony, I have relied on several  
9 analytical approaches for estimating the cost of common equity. My primary  
10 approach relies on several DCF analyses. In addition, I have conducted Risk  
11 Premium and Alternative Equity Investment analyses in order to establish  
12 benchmarks for a reasonable rate of return. Each of these approaches is described  
13 later in this testimony.

14 B. Interest Rates and the Economy

15 **Q11. What are the general economic factors that affect the cost of capital?**

16 A. Companies attempting to attract common equity must compete with a variety of  
17 alternative investments. Prevailing interest rates and other measures of economic  
18 trends influence investors' perceptions of the economic outlook and its  
19 implications on both short- and long-term capital markets. Page 1 of Schedule 1  
20 of Exhibit No.\_\_(JSG-2) shows various general economic statistics. Real  
21 growth in the Gross Domestic Product ("GDP") has averaged 2.7 percent annually  
22 during the past 30 years, 2.6 percent for the past 20 years and 1.9 percent for the

1 past 10 years. However, real GDP growth increased at an annual rate of 5.6  
2 percent in the fourth quarter of 2009, supporting the projections that the economy  
3 will continue to emerge from recession in 2010, with an expected growth in GDP  
4 of 2.5 percent. The Federal Reserve has increased its discount rate to 0.75 percent  
5 for loans to banks, further signaling that the immediate financial crisis has passed,  
6 but unemployment rates remain at unusually high levels. As Page 2 of Schedule 1  
7 of Exhibit No. \_\_\_\_ (JSG-2) shows, interest rates on longer-term, intermediate  
8 quality corporate bonds have declined since the first half of 2009, and they are  
9 now at close to the same level as they were in early 2007.

10 In addition, credit spreads decreased significantly in the second half of 2009 and  
11 have remained relatively stable during the first quarter of 2010. In the last half of  
12 2008, credit spreads rose to unusually high levels, a condition that many market  
13 experts attribute to the “flight to safety” in the aftermath of the global economic  
14 crisis, which commenced in the 3<sup>rd</sup> quarter of 2008 with the failure of many  
15 borrowers to make payments on sub-prime mortgages that banks were  
16 encouraged, and sometimes required, to make under Federal financial regulatory  
17 policies. The concept of the “flight to safety” is that risk-averse investors flock to  
18 the least risky government-backed securities, lowering the yield on those  
19 securities, but significantly increasing the capital costs associated with the more  
20 risky corporate debt. The credit spread for A-rated and Baa-rated corporate utility  
21 bonds more than doubled in the period from January 2008 to December 2008,

1 while long-term treasury yields were largely declining. By the end of 2009, bond  
2 yields returned to early 2008 levels, while credit spreads also have declined.

3 The net impact is a return to pre-crisis borrowing costs, with recent yields on A-  
4 rated public utility bonds at approximately 5.84 percent and the yields on Baa-  
5 rated public utility bonds at approximately 6.22 percent.

6 Investors also are influenced by the level of inflation, which has been persistent in  
7 the past. During the past decade, the Consumer Price Index has increased at an  
8 average annual rate of 2.6 percent and the GDP Implicit Price Deflator, a measure  
9 of price changes for all goods produced in the United States, has increased at an  
10 average rate of 2.4 percent. According to Blue Chip, the Consumer Price Index is  
11 forecasted to increase by 2.2 percent and 1.9 percent for 2010 and 2011,  
12 respectively.<sup>1</sup>

13 **Q12. How are current economic conditions reflected in the equity markets?**

14 A. Although bond yields have returned to pre-crisis levels, the equity markets  
15 generally have not fully recovered from the large stock market decline in 2008-  
16 2009. This suggests that the cost of common equity generally is higher than it  
17 was before the significant risks of equity investment were emphasized during the  
18 recent market downturn.

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<sup>1</sup> Blue Chip Economic Indicators, *Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead*, Vol. 35, No. 3 March 10, 2010, at 1.

1 C. Discounted Cash Flow (“DCF”) Method

2 **Q13. Please describe the DCF method of estimating the cost of common equity**  
3 **capital.**

4 A. The DCF method reflects the assumption that the market price of a share of stock  
5 represents the discounted present value of the stream of all future dividends that  
6 investors expect the firm to pay. The DCF method suggests that investors in  
7 common stocks expect to realize returns from two sources: a current dividend yield,  
8 plus expected growth in the value of their shares as a result of future dividend  
9 increases. Estimating the cost of capital with the DCF method therefore is a matter  
10 of calculating the current dividend yield and estimating the long-term future growth  
11 rate in dividends that investors reasonably expect from a company.

12 The dividend yield portion of the DCF method utilizes readily-available information  
13 regarding stock prices and dividends. The market price of a firm's stock reflects  
14 investors' assessments of risks and potential earnings as well as their assessments of  
15 alternative opportunities in the competitive financial markets. By using the market  
16 price to calculate the dividend yield, the DCF method implicitly recognizes  
17 investors' market assessments and alternatives. However, the other component of  
18 the DCF formula, investors' expectations regarding the future long-run growth rate  
19 of dividends, is not readily apparent from stock market data and must be estimated  
20 using informed judgment.

1 **Q14. What is the appropriate DCF formula to use in this proceeding?**

2 A. There can be many different versions of the basic DCF formula, depending on the  
 3 assumptions that are most reasonable regarding the timing of future dividend  
 4 payments. In my opinion, it is most appropriate to use a model that is based on  
 5 the assumptions that dividends are paid quarterly and that the next annual  
 6 dividend increase is a half year away. One version of this quarterly model  
 7 assumes that the next dividend payment will be received in three months, or one  
 8 quarter. This model multiplies the dividend yield by  $(1 + .75 g)$ . Another version  
 9 assumes that the next dividend payment will be received today. This model  
 10 multiplies the dividend yield by  $(1 + .5 g)$ . Since, on average, the next dividend  
 11 payment is a half quarter away, the average of the results of these two models is a  
 12 reasonable approximation of the average timing of dividends and dividend  
 13 increases that investors can expect from companies that pay dividends quarterly.  
 14 The average of these two quarterly dividend models is:

$$15 \quad K = \frac{D_0(1 + .625g)}{P} + g \quad (1)$$

16 where:  $K =$  the cost of capital, or total return that investors expect to  
 17 receive;  
 18  $P =$  the current market price of the stock;  
 19  $D_0 =$  the current annual dividend rate; and  
 20  $g =$  the future annual growth rate that investors expect.  
 21  
 22  
 23  
 24  
 25

26 In my opinion, this is the DCF model that is most appropriate for estimating the  
 27 cost of common equity capital for companies that pay dividends quarterly, such as  
 28 those used in my analysis.

1 D. Flotation Cost Adjustment

2 **Q15. Does the investor return requirement that is estimated by a DCF analysis**  
3 **need to be adjusted for flotation costs in order to estimate the cost of capital?**

4 A. Yes. There are significant costs associated with issuing new common equity capital  
5 and these costs must be considered in determining the cost of capital. Schedule 3 of  
6 Exhibit No. \_\_(JSG-2) shows a representative sample of flotation costs incurred  
7 with 93 new common stock issues by electric companies from 2000 to 2009.  
8 Flotation costs associated with these new issues averaged 3.63 percent.

9 This indicates that in order to be able to issue new common stock on reasonable  
10 terms, without diluting the value of the existing stockholders' investment, Montana-  
11 Dakota must have an expected return that places a value on its equity that is  
12 approximately 3.6 percent above book value. The cost of common equity capital is  
13 therefore the investor return requirement multiplied by 1.036.

14 One purpose of a flotation cost adjustment is to compensate common equity  
15 investors for past flotation costs by recognizing that their real investment in the  
16 company exceeds the equity portion of the rate base by the amount of past flotation  
17 costs. For example, the proxy companies generally have incurred flotation costs in  
18 the past and, thus, the cost of capital invested in these companies is the investor  
19 return requirement plus an adjustment for flotation costs. A more important purpose  
20 of a flotation cost adjustment is to establish a return that is sufficient to enable a  
21 company to attract capital on reasonable terms. This fundamental requirement of a

1 fair rate of return is analogous to the well-understood basic principle that a firm, or  
2 an individual, should maintain a good credit rating even when they do not expect to  
3 be borrowing money in the near future. Regardless of whether a company can  
4 confidently predict its need to issue new common stock several years in advance, it  
5 should be in a position to do so on reasonable terms at all times without dilution of  
6 the book value of the existing investors' common equity. This requires that the  
7 flotation cost adjustment be applied to the entire common equity investment and not  
8 just a portion of it.

9 E. DCF Study of Electric Utility Companies

10 **Q16. Would you please describe the overall approach used in your DCF analysis of**  
11 **Montana-Dakota's cost of common equity?**

12 A. Because Montana-Dakota must compete for capital with many other potential  
13 projects and investments, it is essential that it have an allowed return that matches  
14 returns potentially available from other similarly risky investments. The DCF  
15 method provides a good measure of the returns required by investors in the financial  
16 markets. However, the DCF method requires a market price of common stock to  
17 compute the dividend yield component of the DCF analysis. Since Montana-Dakota  
18 is a division of MDU Resources and does not have publicly-traded common stock, a  
19 direct, market-based DCF analysis of Montana-Dakota's electric utility operation as  
20 a stand-alone company is not possible. As an alternative, I have used a group of  
21 electric utilities that have publicly-traded common stock as a proxy group for

1 purposes of estimating the cost of common equity for Montana-Dakota's North  
2 Dakota electric utility operations.

3 **Q17. How did you select a group of electric utility proxy companies?**

4 A. I started with a list of 54 electric utility and combination companies covered by  
5 Value Line and selected those that owned regulated generation capacity with at least  
6 25 percent of net generation produced from coal-fired facilities, and whose total  
7 electric utility assets comprised at least 85 percent of their total consolidated assets.  
8 From that group, I eliminated any companies that did not have investment-grade  
9 bond ratings with either Standard & Poor's or Moody's (now called Mergent). In  
10 addition, I excluded any companies that did not pay dividends or that did not have  
11 future growth rate estimates provided by both Value Line and Zack's. When there  
12 was no published Zacks growth rate for a potential proxy group company, I  
13 substituted a consensus growth estimate from Yahoo! First Call in place of the Zacks  
14 growth estimate. As shown on Exhibit No. \_\_(JSG-2), page 1 of Schedule 2,  
15 thirteen electric utility proxy companies met these criteria.

16 **Q18. How did you calculate the dividend yields for the companies in your  
17 comparison group?**

18 A. These calculations are shown on page 3 of Schedule 2 of Exhibit No. \_\_(JSG-2).  
19 For the price component of the calculation I used the average of the high and low  
20 stock prices experienced by each company during the six month period from  
21 October 2009 to March 2010. The dividend yields were calculated for each  
22 company by using the average indicated annual dividend for the period divided by

1 the average of the stock prices for each company. These dividend yields can be  
2 multiplied by the quarterly DCF model factor  $(1 + .625 g)$  to arrive at the dividend  
3 yield component of the DCF model.

4 **Q19. Please describe the method you used in estimating the future growth rate that**  
5 **investors expect from this group of companies?**

6 A. I developed two different DCF analyses of the proxy companies based on two  
7 different growth rate estimation methods. There are many methods that reasonably  
8 can be employed in formulating a growth rate estimate, but an analyst must attempt  
9 to ensure that the end result is an estimate that fairly reflects the forward-looking  
10 growth rate that investors expect.

11 In the first approach I calculated a DCF rate of return using a combination of  
12 securities analysts' growth projections and the Value Line retention growth forecasts  
13 to produce a Second-Stage Retention Growth analysis. As a second approach, I  
14 conducted a Basic DCF analysis that relied solely on the analysts' forecasts for the  
15 growth rate component of the model.

16 F. Second-Stage Retention Growth Analysis

17 **Q20. How did you use your Second-Stage Retention Growth analysis to estimate**  
18 **investors' long-term growth rate expectations for the proxy companies?**

19 A. The Second-Stage Retention Growth rate approach combines: (i) estimates of long-  
20 term growth for each company that are published by various investment analysts and  
21 (ii) Value Line retention growth forecasts.

1 **Q21. How did you estimate the first stage of expected future growth?**

2 A. Among the best sources of information regarding investors' growth rate expectations  
3 are the long-term earnings growth rate forecasts of investment analysts. Zack's is a  
4 service that collects estimates by professional investment analysts and publishes a  
5 summary of the consensus forecasts. I have used the Zack's consensus forecasts as  
6 the source for analysts' forecasts in my calculations. When Zacks data were  
7 missing, I substituted growth rates from Yahoo! First Call. As shown on Exhibit  
8 No. \_\_\_\_ (JSG-2), Schedule 2, page 5, the average of the analysts' long-term  
9 growth rate estimates for the electric utility proxy companies is 5.85 percent.

10 **Q22. Would you please describe the second stage, retention growth rate component**  
11 **of your analysis?**

12 A. In addition to analysts' growth rate forecasts, I have relied upon Value Line  
13 projections of the retention growth rates that the proxy companies are expected to  
14 begin maintaining three to five years in the future. Although companies may  
15 experience extended periods of growth for other reasons, in the long-run, growth in  
16 earnings and dividends per share depends in part on the amount of earnings that are  
17 being retained and reinvested in a company. Thus, the primary determinants of  
18 growth for the proxy companies will be (i) their ability to find and develop profitable  
19 opportunities; (ii) their ability to generate profits that can be reinvested in order to  
20 sustain growth; and, (iii) their willingness and inclination to reinvest available  
21 profits. Expected future retention rates provide a general measure of these  
22 determinants of expected growth, particularly items (ii) and (iii).

1 **Q23. How can a company's earnings retention rate affect its future growth?**

2 A. Retention of earnings causes an increase in the book value per share and, other  
3 factors being equal, increases the amount of earnings that are generated per share of  
4 common stock. The retention growth rate can be estimated by multiplying the  
5 expected retention rate (b) times the rate of return on common equity (r) that a  
6 company is expected to earn in the future. For example, a company that is expected  
7 to earn a return of 15 percent and retain 80 percent of its earnings might be expected  
8 to have a growth rate of 12 percent, computed as follows:

9 
$$.80 \times 15\% = 12\%$$

10 On the other hand, another company that is also expected to earn 15 percent but only  
11 retains 20 percent of its earnings might be expected to have a growth rate of 3  
12 percent, computed as follows:

13 
$$.20 \times 15\% = 3\%$$

14 Thus, the rate of growth in a firm's book value per share is primarily determined by  
15 the level of earnings and the proportion of earnings retained in the company.

16 **Q24. How did you calculate the expected future retention rates of the proxy**  
17 **companies?**

18 A. For most companies, Value Line publishes forecasts of data that can be used to  
19 estimate the retention rates that its analysts expect individual companies to have 3-5  
20 years in the future. Since these retention rates are projected to occur several years in  
21 the future they should be indicative of a normal expectation for a primary underlying  
22 determinant of growth that would be sustainable indefinitely beyond the period

1 covered by analysts' forecasts. While companies may have either accelerating or  
2 decelerating growth rates for extended periods of time, the retention growth rates  
3 expected to be in effect 3-5 years in the future generally represent a minimum  
4 "cruising speed" that companies can be expected to maintain indefinitely. The  
5 derivation of Value Line's retention growth rate forecasts for each of the proxy  
6 companies is shown on page 4 of Schedule 2 of Exhibit No.\_\_(JSG-2). The  
7 projected earnings per share and projected dividends per share can be used to  
8 calculate the percentage of earnings per share that are being retained and reinvested  
9 in the company. This earnings retention rate is multiplied times the projected return  
10 on common equity to arrive at the projected retention growth rate. The average  
11 retention growth rate for the proxy companies is 4.31 percent.

12 **Q25. How did you utilize the projected earnings retention rates in estimating**  
13 **expected growth for the proxy companies?**

14 A. As shown on page 5 of Schedule 2 of Exhibit No.\_\_(JSG -2), I calculated a  
15 weighted average of the analysts' projected growth rates and the projected retention  
16 growth rates to derive long-term growth rate estimates for each of the proxy  
17 companies. In these calculations, I gave a two-thirds weighting to the analysts'  
18 growth rate projections to reflect the fact that analysts are attempting to evaluate all  
19 sources of growth and not just growth that is expected to result from retained  
20 earnings. This weighting also reflects the fact that the analysts' long-term growth  
21 forecasts can be expected to prevail for a relatively long period of time in the future.

1 The average of the weighted average growth rates for the proxy companies is 5.34  
2 percent and the median is 5.00 percent.

3 **Q26. How did you utilize these Second-Stage Retention Growth rate estimates in**  
4 **estimating the return on common equity capital that investors require from**  
5 **the proxy companies?**

6 A. The dividend yield for each company shown on page 3 of Schedule 2 of Exhibit  
7 No.\_\_(JSG-2) is multiplied times the quarterly dividend adjustment factor (1 +  
8 .625g) and this product is added to the growth rate estimate to arrive at the investor-  
9 required return. Finally, the investor return requirement is multiplied times the  
10 flotation cost adjustment factor, 1.036 to arrive at the cost of common equity capital  
11 for the proxy companies. These calculations are shown on page 6 of Schedule 2 of  
12 Exhibit No.\_\_(JSG-2). This Second-Stage Retention Growth DCF analysis  
13 indicates that the cost of common equity capital for the electric utility proxy  
14 companies is in a range between 8.8 percent and 12.8 percent. The median for the  
15 group is 10.8 percent and the average for the group is 10.9 percent. In addition, the  
16 bottom of the fourth quartile of these results is 12.1 percent, which means that one-  
17 fourth of the companies had DCF results above 12.1 percent when the Second-Stage  
18 Growth rate is used in the analysis.

1 G. Basic DCF Analysis

2 **Q27. What approach did you use in conducting a Basic DCF analysis?**

3 A. This analysis is conducted in substantially the same manner as the Second-Stage  
4 Retention Growth Rate analysis. However, the growth rate component of the  
5 analysis is based solely on the analysts' forecasts for each company and the retention  
6 growth rate component is omitted from the analysis. This Basic DCF analysis  
7 recognizes that the consensus of analysts' forecasts reflects the most important  
8 component of investors' growth rate expectations and it assumes that the analysts'  
9 forecasts incorporate all information required to estimate a long-term expected  
10 growth rate for a company.

11 **Q28. How did you calculate the cost of capital using the Basic DCF analysis?**

12 A. These calculations are shown on page 7 of Schedule 2 of Exhibit No.\_\_\_\_(JSG-2).  
13 Again, the annual dividend yield is multiplied times the quarterly dividend  
14 adjustment factor  $(1 + .625g)$  and this product is added to the growth rate estimate to  
15 arrive at the investor-required return. Then, the investor return requirement is  
16 multiplied times the flotation cost adjustment factor, 1.036, to arrive at the Basic  
17 DCF estimate of the cost of common equity capital for the proxy companies. The  
18 Basic DCF analysis indicates a median cost of common equity for the proxy  
19 companies of 11.3 percent and an average cost of 11.5 percent. In this analysis, the  
20 bottom of the fourth quartile is 13.1 percent, which means that one-fourth of the  
21 companies had DCF results greater than 13.1 percent.

1 H. Risk Premium Analyses

2 **Q29. Have you conducted additional analyses in determining the cost of capital to**  
3 **Montana-Dakota?**

4 A. Yes. The risk premium approach provides a general guideline for determining the  
5 level of returns that investors expect from an investment in common stocks.  
6 Investments in the common stocks of companies carry considerably greater risk than  
7 investments in bonds of those companies since common stockholders receive only  
8 the residual income that is left after the bondholders have been paid. In addition, in  
9 the event of bankruptcy or liquidation of the company, the stockholders' claims on  
10 the assets of a company are subordinated to the claims of bondholders. This  
11 superior standing provides bondholders with greater assurances that they will receive  
12 the return on investment that they expect and that they will receive a return of their  
13 investment when the bonds mature. Accompanying the greater risk associated with  
14 common stocks is a requirement by investors that they can expect to earn, on  
15 average, a return that is greater than the return they could earn by investing in less  
16 risky bonds. Thus, the risk premium approach estimates the return investors require  
17 from common stocks by utilizing current market information that is readily available  
18 in bond yields and adding to those yields a premium for the added risk of investing  
19 in common stocks.

20 Investors' expectations for the future are influenced to a large extent by their  
21 knowledge of past experience. Ibbotson Associates annually publishes extensive  
22 data regarding the returns that have been earned on stocks, bonds and U.S. Treasury

1 bills since 1926. Historically, the annual returns on large company common stocks  
2 have exceeded the returns on long-term corporate bonds by a premium of 560 basis  
3 points (5.6 percent) annually over a long period of time in the past.<sup>2</sup> When this  
4 premium is added to the 5.8 percent yield on Moody's corporate bonds that has  
5 prevailed in recent months, the result is an investor return requirement for large  
6 company stocks of 11.4 percent. However, over the long term companies in  
7 Montana-Dakota's size range have had a premium of 1,080 basis points (10.8  
8 percent) over the average returns on long-term corporate bonds. When added to the  
9 recent average corporate bond yields, this size-related premium suggests an expected  
10 return of 16.6 percent.<sup>3</sup>

11 I. Alternative Equity Investment Analysis

12 **Q30. Have you analyzed the returns available on common equity investments in**  
13 **other industries?**

14 A. Yes. When investors consider whether to invest their funds in a particular company  
15 or line of business, they evaluate the returns potentially available from other  
16 companies. This process, whereby projects and companies compete for scarce  
17 equity capital, ensures that capital resources are deployed efficiently. As a result,  
18 regulated electric utility operations must bid against other companies and other  
19 possible projects within the same company for equity capital by offering potential  
20 returns that investors find attractive relative to the risks involved.

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2 2009 Ibbotson SBBi Valuation Yearbook, pg 23

3 2009 Ibbotson SBBi Valuation Yearbook, pgs 90 and 93.

1 **Q31. What level of returns is potentially available to unregulated companies?**

2 A. The potential returns are often considerably above 20 percent and the average  
 3 returns for broad-based, diversified portfolios have averaged 20.0 percent or more in  
 4 recent years. For purposes of comparison with allowed returns for regulated electric  
 5 operations, a good indicator of earnings on alternative equity investments is  
 6 provided by data on 566 industrial, retail and transportation companies published by  
 7 *The Value Line Investment Survey*. Excluding extraordinary and non-recurring  
 8 items, the average returns on the original cost book value of common equity for  
 9 these companies in recent years have been:

|                       |               |
|-----------------------|---------------|
| 2004                  | 31.47%        |
| 2005                  | 34.64         |
| 2006                  | 38.69         |
| 2007                  | 39.08         |
| 2008                  | 37.25         |
| <b>5-year Average</b> | <b>36.22%</b> |

10  
 11 **Q32. Is it appropriate to set the allowed rate of return for an electric utility  
 12 company equal to the average return available to industrial companies?**

13 A. The average return for industrials serves as a useful indicator of the cost of capital  
 14 because electric utility companies must offer potential returns that are competitive  
 15 with other investments in order to attract capital. It is important to remember that an  
 16 industrial company has an opportunity to earn returns far in excess of 20 percent. In  
 17 fact, the average company has earned normal returns on the book value of equity  
 18 well in excess of 20 percent in recent years. This average reflects many companies  
 19 that experienced enormous losses as well as those with large returns.

1 Similarly, when a regulator sets an allowed return it is providing only an *opportunity*  
2 to earn that return. During times when its services are most highly valued and it  
3 sells greater quantities of service or reduces costs, a regulated company might earn  
4 more than this amount, but it might also earn substantially less than the allowed  
5 return. Electric utility companies generally have risks that are less than those of the  
6 average large industrial company. Consequently, it would be appropriate to view  
7 average returns earned by a broad cross-section of industry as being only a general  
8 indicator for reasonable allowed returns.

9 As a benchmark, allowed returns for electric utility companies can be compared to  
10 returns on original cost book value for large companies. Normal returns have  
11 averaged 36.2 percent during the past five years. As this comparison indicates, an  
12 allowed return of 12.0 percent for Montana-Dakota would be quite low in  
13 comparison with the returns earned by other large companies.

14 J. Relative Risk Analysis

15 **Q33. Have you compared the risks faced by Montana-Dakota's North Dakota**  
16 **electric utility operations with the risks faced by the proxy group of companies?**

17 A. Yes. There are four broad categories of risk that concern investors. These include:

- 18 i. Business Risk;  
19 ii. Regulatory Risk;  
20 iii. Financial Risk; and,  
21 iv. Market Risk.

1 **Q34. Would you please describe the business risks inherent in the electric industry?**

2 A. Business risk refers to the ability of the firm to generate revenues that exceed its  
3 cost of operations. Business risk exists because forecasts of both demand and  
4 costs are inherently uncertain. Markets change and the level of demand for the  
5 firm's output may be sufficient to cover its costs at one time and later become  
6 insufficient. Sunk investments in long-lived electric utility assets, for which cost  
7 recovery occurs over a period of thirty years or more, are subject to enormous  
8 uncertainties and risks that demand, costs, supply and competition may change in  
9 ways that adversely affect the value of the investment.

10 The business model of Montana-Dakota and other major utilities is based on the  
11 fact that traditionally electricity has been provided most efficiently by large,  
12 centralized generating plants connected to the market with extensive networks of  
13 transmission and distribution lines. However, in the future, demand for Montana-  
14 Dakota's electric services could be affected by the adoption of distributed  
15 generation technologies that allow customers to generate their own power instead  
16 of relying on utility generation, transmission or distribution. The overall  
17 efficiency of these technologies has improved significantly in recent years and  
18 some electricity consumers have begun installing and using distributed generation  
19 equipment. Shifts in the overall cost of distributed generation relative to the fuel  
20 and network costs of centralized utility generation could imperil the ability of  
21 some utilities to recover the investments they have made under the traditional  
22 "public utility model" of electricity supply.

1 In addition, the constantly-changing mandates of environmental laws  
2 disproportionately impact electric utilities, especially coal-burning utilities.  
3 Litigation expenses and exposure to tort claims also is an increasingly important  
4 consideration for electric utility investors.

5 **Q35. What are some of the business risks faced by Montana-Dakota's North Dakota**  
6 **electric operations?**

7 A. These operations face many of the same risks that are associated with other  
8 electric utilities. As shown on Exhibit No. \_\_\_\_ (JSG-2), Schedule 2, page 1,  
9 Montana-Dakota's electric utility operations are considerably smaller than the  
10 operations of any of the proxy companies and a small fraction of the size of the  
11 typical proxy company. For example, Montana-Dakota's electric utility assets are  
12 equal to only 6.7 percent of the assets of the median proxy company. Similarly,  
13 Montana-Dakota's electric operating revenues and operating income are only 10.0  
14 percent and 10.4 percent of the level for the median proxy company, respectively.  
15 Thus, depending upon the measure of size, the typical proxy company is  
16 somewhere between 10 and 15 times the size of Montana-Dakota's electric utility  
17 operations.

18 This smaller size has significant implications for business risks. As noted earlier,  
19 Ibbotson Associates has documented the significantly higher returns that  
20 generally have been associated with small companies. In addition, demographic  
21 trends cause Montana-Dakota's North Dakota electric utility operations to be  
22 riskier than the operations of the utilities in the proxy group. Though the

1 population in North Dakota has experienced modest increases in recent years, the  
2 population in rural areas served by Montana-Dakota's electric utility operations is  
3 shrinking as people migrate to more urban areas. As shown on Exhibit No.  
4 \_\_\_\_ (JSG-2), page 3 of Schedule 1, there has been a 0.48 percent decline in  
5 population since 2000 for counties in which Montana-Dakota provides electric  
6 service. Because these larger urban areas are also served by rural electric  
7 cooperatives, the growth of Montana-Dakota's electric utility operations in these  
8 urban areas is significantly limited since these rural electric cooperatives tend to  
9 serve the new areas of these cities. Consequently, a long-term problem and  
10 source of risk for Montana-Dakota derives from the fact that its investments in  
11 facilities to serve its customers are sunk and have a long life. These facilities  
12 cannot be easily moved or devoted to another purpose, even if the population  
13 declines significantly. The population shifts that are occurring in Montana-  
14 Dakota's service territory pose a significant risk that it may at some point be  
15 unable to recover the cost of its investments.

16 In addition, Montana-Dakota's generation portfolio is heavily reliant on coal.  
17 Utilities with generation that is heavily weighted toward one fuel source face  
18 greater risks that adverse circumstances will arise that render much of their  
19 generating capacity uneconomic. Montana-Dakota's customers have benefited  
20 greatly from the company's use of low-cost coal, but there is an element of risk  
21 associated with this undiversified generating mix. For example, federal  
22 legislation that will significantly limit carbon dioxide emissions remains a very

1 real possibility. If restrictions on carbon dioxide were to be enacted, coal-fired  
2 generation would be disproportionately impacted. Similarly, as natural gas prices  
3 continue to decline, coal-fired generation faces increased risk of becoming  
4 uneconomic. In fact, most new generation constructed in recent years has been  
5 fueled with natural gas as a result of low gas prices and new, efficient generating  
6 technologies.

7 **Q36. What are the regulatory risks faced by Montana-Dakota's North Dakota utility**  
8 **operations?**

9 A. Regulatory risk is closely related to business risk and might be considered just  
10 another aspect of business risk. To the extent that the market demand for an  
11 electric utility company's services is sufficiently strong that the company could  
12 conceivably recover all of its costs, regulators may nevertheless set the rates at a  
13 level that will not allow full cost recovery. In effect, the binding constraint on  
14 electric utilities is often posed by regulation rather than by the working of market  
15 forces. One purpose of regulation is to provide a substitute for competition where  
16 markets are not workably competitive. As such, regulation often attempts to  
17 replicate the type of cost discipline and risks that might typically be found in  
18 highly competitive industries.

19 Moreover, there is the perceived risk that regulators may set allowed returns so  
20 low as to effectively undermine investor confidence and jeopardize the ability of  
21 electric utilities to finance their operations. Thus, in some instances regulation  
22 may substitute for competition and in other instances it may limit the potential

1 returns available to successful competitors. In either case, regulatory risk is an  
2 important consideration for investors and has a significant effect on the cost of  
3 capital for all firms in the electric utility industry. Regulatory Research  
4 Associates ranks the regulatory climate in North Dakota as being “Average”.  
5 Consequently, the regulatory risk faced by Montana-Dakota in North Dakota  
6 generally would be considered to be average also.

7 **Q37. Would you please describe Montana-Dakota’s relative financial risks?**

8 A. Financial risk exists to the extent a company incurs fixed obligations in financing  
9 its operations. These fixed obligations increase the level of income which must  
10 be generated before common stockholders receive any return and serve to magnify  
11 the effects of business and regulatory risks. Fixed financial obligations also  
12 increase the probability of bankruptcy by reducing the company’s financial  
13 flexibility and ability to respond to adverse circumstances. One possible indicator  
14 of investors’ perceptions of relative financial risk in this case might be obtained  
15 from bond ratings. Because Montana-Dakota, as a division of MDU Resources,  
16 does not have its own bonds outstanding, it is difficult to make direct comparisons  
17 between the ratings of Montana-Dakota and the proxy group. However, page 2 of  
18 Schedule 2 of Exhibit No. \_\_\_\_ (JSG-2) shows the bond ratings assigned by  
19 Moody’s and Standard & Poor’s to each of the companies in the comparison  
20 group and MDU Resources bonds.

21 The median bond ratings for companies in the proxy group are BBB for Standard  
22 & Poor’s and Baa2 for Moody’s. In comparison, MDU Resources long term debt

1 carries a BBB+ rating with Standard & Poor's and a Baa1 rating with Moody's.  
2 This suggests that the perceived risk of MDU Resources' bonds is reasonably  
3 aligned with that of the typical company in the comparison group. The capital  
4 structure data shown on Schedule 2, page 8, in Exhibit No. \_\_ (JSG-2) show that  
5 Montana-Dakota's filed common equity ratio, 52.3 percent, is several percentage  
6 points greater than the 44.7 percent median for the proxy companies. This  
7 common equity ratio, combined with its bond rating, suggests below-average  
8 financial risk for Montana-Dakota's North Dakota electric utility operations.

9 **Q38. Would you please describe Montana-Dakota's market risks?**

10 A. Market risk is associated with the changing value of all investments because of  
11 business cycles, inflation and fluctuations in the general cost of capital throughout  
12 the economy. Different companies are subject to different degrees of market risk  
13 largely as a result of differences in their business and financial risks. Overall,  
14 Montana-Dakota's market risk is comparable to that of the companies in the  
15 electric utility comparison group.

16 **Q39. How do the overall risks of the proxy companies compare with the risks faced**  
17 **by Montana-Dakota's electric utility operations?**

18 A. Montana-Dakota's North Dakota electric operation faces overall risks that are  
19 slightly higher than those of the typical proxy company primarily because  
20 Montana-Dakota is smaller and operates in a relatively undiversified local  
21 economy. The "average" rating for the regulatory climate in North Dakota is  
22 neutral in its effect on investors' perception of the overall risks of Montana-

Dakota’s North Dakota electric utility operations relative to the proxy companies. Consequently, Montana-Dakota requires an allowed rate of return that is in the range of the median returns and the 3<sup>rd</sup> quartile returns, for the companies in the proxy group indicated by my Basic DCF analysis and my Second-Stage Retention Growth DCF analysis.

**III. SUMMARY AND CONCLUSIONS**

**Q40. Would you please summarize the results of your cost of capital study?**

A. Yes. I conducted two DCF analyses on a group of electric utility companies that have a range of risks that includes risks roughly comparable to those of Montana-Dakota. These results can be summarized as follows:

| Results of DCF Analyses     |                       |
|-----------------------------|-----------------------|
| <u>2<sup>nd</sup> Stage</u> |                       |
| <u>Retention Growth</u>     | <u>Basic Analysis</u> |

|                             |               |               |
|-----------------------------|---------------|---------------|
| High                        | 12.79%        | 13.68%        |
| <b>3rd Quartile</b>         | <b>12.06%</b> | <b>13.13%</b> |
| <b>Median: 2nd Quartile</b> | <b>10.77%</b> | <b>11.29%</b> |
| 1st Quartile                | 10.33%        | 10.04%        |
| Low                         | 8.81%         | 8.94%         |

**Benchmark Analyses**

|                    |       |
|--------------------|-------|
| - Corporate Bonds  |       |
| v. Large Companies | 11.4% |
| v. Small Companies | 16.6% |

**Alternative Investments**

|                          |        |
|--------------------------|--------|
| - Value Line Industrials | 36.22% |
|--------------------------|--------|

My second-stage retention growth analysis indicates a median cost of common equity capital of 10.8 percent and a 3<sup>rd</sup> Quartile return of 12.1 percent. Because

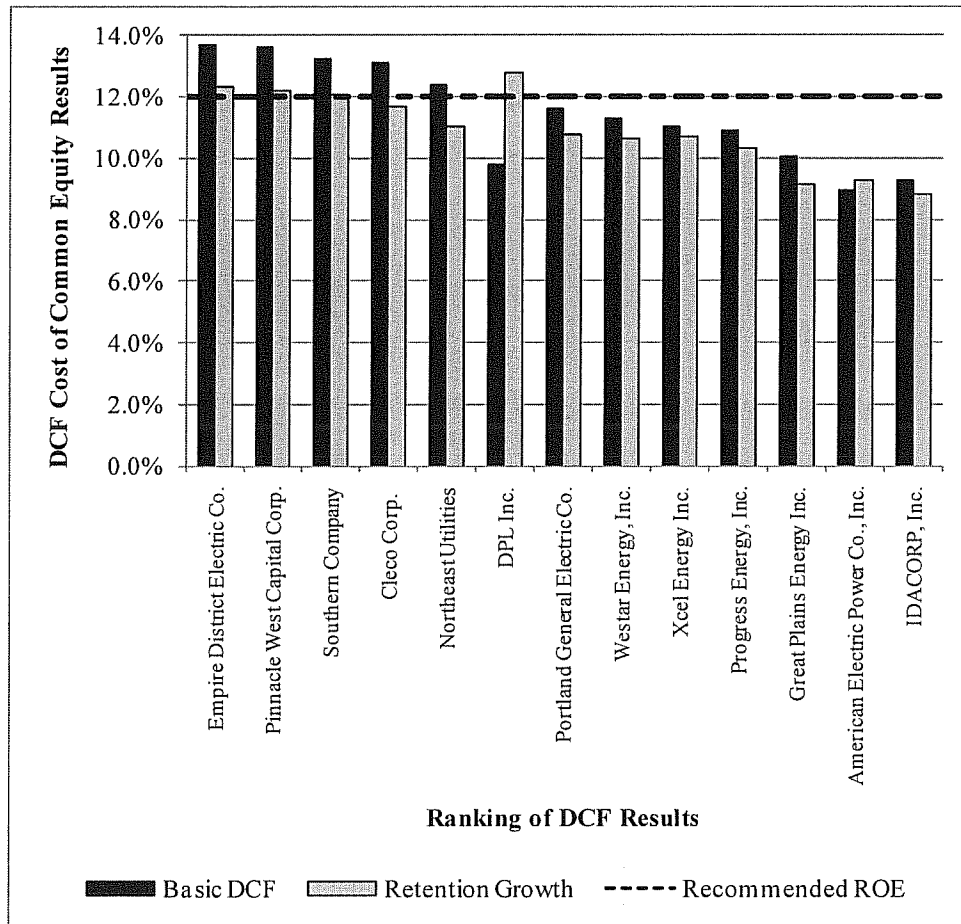
1 projected retention growth is sustainable indefinitely and it is directly related to  
2 the growth rate expectations for an individual company, it is a good indicator of  
3 the minimum growth rate that a company can maintain in the very long run.  
4 However, companies can achieve growth through means in addition to retained  
5 earnings. Consequently, analysts' forecasts provide the best measure of expected  
6 growth for the foreseeable future. Combining these two measures provides a good  
7 estimate of the long-term growth that investors can reasonably expect from these  
8 proxy companies.

9 The Basic DCF analysis, which relies solely on the analysts' forecasts, also provides  
10 a good estimate of investors' growth rate expectations and required return for the  
11 proxy companies. This DCF analysis indicates a median required rate of return of  
12 11.3 percent and a 3<sup>rd</sup> Quartile return of approximately 13.1 percent. Figure 1 shows  
13 the results of my DCF analyses of the cost of common equity.

14 My risk premium analyses indicate that my DCF estimates produce a premium  
15 over the corporate bond yield that is below the average long-run risk premium  
16 available from common stocks. The DCF return estimates provide a premium  
17 over the return on corporate bonds that is considerably below the average  
18 premium experienced by companies in Montana-Dakota's relative size range. In  
19 addition, my examination of returns available on alternative equity investments  
20 suggests that my DCF estimates generally are far below the 36.22 percent average  
21 normal returns earned by the Value Line Industrials in recent years.

1

**Figure 1: DCF Results and Cost of Equity for Montana-Dakota**



2

3 **Q41. What rate of return on common equity do you recommend for Montana-**  
 4 **Dakota in this proceeding?**

5 A. My analyses indicate that an appropriate rate of return on common equity for  
 6 Montana-Dakota’s North Dakota electric utility operations at this time is 12.0  
 7 percent. This recommended return reflects my assessment that Montana-Dakota’s  
 8 overall risks are substantially similar to, but slightly higher than, those of the proxy  
 9 group.

1 A return of 12.0 percent is within the range of third quartile values of 10.8 – 12.1  
2 percent and 11.3 – 13.1 percent, for both the Second-Stage Retention Growth Rate  
3 analysis and the Basic DCF analysis, respectively. Thus, my recommended return is  
4 appropriately positioned to reflect the risks faced by Montana-Dakota’s North  
5 Dakota electric operations in comparison with the range of risks faced by the proxy  
6 companies.

7 **Q42. Does this conclude your Prepared Direct Testimony?**

8 A. Yes.

## Montana-Dakota Utilities Co.

### General Economic Statistics

1980-2009

| Year                        | Percentage Price Changes   |                                   | Real<br>GDP<br>Growth | Nominal<br>GDP<br>(\$Billions) | Nominal<br>GDP<br>Growth |
|-----------------------------|----------------------------|-----------------------------------|-----------------------|--------------------------------|--------------------------|
|                             | Consumer<br>Price<br>Index | GDP<br>Implicit Price<br>Deflator |                       |                                |                          |
| 1980                        | 13.5%                      | 9.1%                              | -0.3%                 | 2,788.1                        | 8.8%                     |
| 1981                        | 10.3%                      | 9.4%                              | 2.5%                  | 3,126.8                        | 12.1%                    |
| 1982                        | 6.2%                       | 6.1%                              | -1.9%                 | 3,253.2                        | 4.0%                     |
| 1983                        | 3.2%                       | 4.0%                              | 4.5%                  | 3,534.6                        | 8.6%                     |
| 1984                        | 4.3%                       | 3.8%                              | 7.2%                  | 3,930.9                        | 11.2%                    |
| 1985                        | 3.6%                       | 3.0%                              | 4.1%                  | 4,217.5                        | 7.3%                     |
| 1986                        | 1.9%                       | 2.2%                              | 3.5%                  | 4,460.1                        | 5.8%                     |
| 1987                        | 3.6%                       | 2.9%                              | 3.2%                  | 4,736.4                        | 6.2%                     |
| 1988                        | 4.1%                       | 3.4%                              | 4.1%                  | 5,100.4                        | 7.7%                     |
| 1989                        | 4.8%                       | 3.8%                              | 3.6%                  | 5,482.1                        | 7.5%                     |
| 1990                        | 5.4%                       | 3.9%                              | 1.9%                  | 5,800.5                        | 5.8%                     |
| 1991                        | 4.2%                       | 3.5%                              | -0.2%                 | 5,992.1                        | 3.3%                     |
| 1992                        | 3.0%                       | 2.4%                              | 3.4%                  | 6,342.3                        | 5.8%                     |
| 1993                        | 3.0%                       | 2.2%                              | 2.9%                  | 6,667.4                        | 5.1%                     |
| 1994                        | 2.6%                       | 2.1%                              | 4.1%                  | 7,085.2                        | 6.3%                     |
| 1995                        | 2.8%                       | 2.1%                              | 2.5%                  | 7,414.7                        | 4.7%                     |
| 1996                        | 3.0%                       | 1.9%                              | 3.7%                  | 7,838.5                        | 5.7%                     |
| 1997                        | 2.3%                       | 1.8%                              | 4.5%                  | 8,332.4                        | 6.3%                     |
| 1998                        | 1.6%                       | 1.1%                              | 4.4%                  | 8,793.5                        | 5.5%                     |
| 1999                        | 2.2%                       | 1.5%                              | 4.8%                  | 9,353.5                        | 6.4%                     |
| 2000                        | 3.4%                       | 2.2%                              | 4.1%                  | 9,951.5                        | 6.4%                     |
| 2001                        | 2.8%                       | 2.3%                              | 1.1%                  | 10,286.2                       | 3.4%                     |
| 2002                        | 1.6%                       | 1.6%                              | 1.8%                  | 10,642.3                       | 3.5%                     |
| 2003                        | 2.3%                       | 2.2%                              | 2.5%                  | 11,142.1                       | 4.7%                     |
| 2004                        | 2.7%                       | 2.8%                              | 3.6%                  | 11,867.8                       | 6.5%                     |
| 2005                        | 3.4%                       | 3.3%                              | 3.1%                  | 12,638.4                       | 6.5%                     |
| 2006                        | 3.2%                       | 3.3%                              | 2.7%                  | 13,398.9                       | 6.0%                     |
| 2007                        | 2.8%                       | 2.9%                              | 2.1%                  | 14,077.6                       | 5.1%                     |
| 2008                        | 3.8%                       | 2.1%                              | 0.4%                  | 14,441.4                       | 2.6%                     |
| 2009                        | -0.4%                      | 1.2%                              | -2.4%                 | 14,258.7                       | -1.3%                    |
| Average Rate of Change: [1] |                            |                                   |                       |                                |                          |
| 1980-2009                   | 3.7%                       | 3.1%                              | 2.7%                  | 5.8%                           | 5.9%                     |
| 1990-2009                   | 2.8%                       | 2.3%                              | 2.6%                  | 4.8%                           | 4.9%                     |
| 2000-2009                   | 2.6%                       | 2.4%                              | 1.9%                  | 4.1%                           | 4.3%                     |

[1] Nominal GDP growth rates are based on the geometric average rate of change in nominal GDP.

Sources: Department of Labor, Bureau of Labor Statistics, Databases & Tables, website (<http://www.bls.gov/data>) and Department of Commerce, Bureau of Economic Analysis, National Economic Accounts, website (<http://www.bea.gov/national/nipaweb/index.asp>)

## Montana-Dakota Utilities Co.

### Bond Yield Averages January 2007 - March 2010

|      |     | [1]                | [2]                  | [3]                  | [4]       | [5]            | [6]       |
|------|-----|--------------------|----------------------|----------------------|-----------|----------------|-----------|
|      |     | 30-Year<br>T-Bonds | Average<br>Corporate | Public Utility Bonds |           | Credit Spreads |           |
|      |     |                    |                      | A-Rated              | Baa-Rated | A-Rated        | Baa-Rated |
| 2007 | JAN | 4.85               | 5.92                 | 5.96                 | 6.16      | 1.11           | 1.31      |
|      | FEB | 4.82               | 5.88                 | 5.90                 | 6.10      | 1.08           | 1.28      |
|      | MAR | 4.72               | 5.84                 | 5.85                 | 6.10      | 1.13           | 1.38      |
|      | APR | 4.86               | 5.99                 | 5.97                 | 6.24      | 1.10           | 1.37      |
|      | MAY | 4.90               | 6.00                 | 5.99                 | 6.23      | 1.08           | 1.33      |
|      | JUN | 5.21               | 6.32                 | 6.30                 | 6.54      | 1.10           | 1.34      |
|      | JUL | 5.10               | 6.26                 | 6.25                 | 6.49      | 1.15           | 1.39      |
|      | AUG | 4.94               | 6.26                 | 6.24                 | 6.51      | 1.30           | 1.57      |
|      | SEP | 4.79               | 6.21                 | 6.18                 | 6.45      | 1.39           | 1.66      |
|      | OCT | 4.78               | 6.12                 | 6.11                 | 6.36      | 1.33           | 1.58      |
|      | NOV | 4.52               | 5.97                 | 5.97                 | 6.27      | 1.45           | 1.75      |
|      | DEC | 4.53               | 6.15                 | 6.16                 | 6.51      | 1.63           | 1.98      |
| 2008 | JAN | 4.33               | 6.02                 | 6.02                 | 6.35      | 1.68           | 2.01      |
|      | FEB | 4.51               | 6.24                 | 6.21                 | 6.60      | 1.70           | 2.08      |
|      | MAR | 4.38               | 6.23                 | 6.21                 | 6.68      | 1.83           | 2.30      |
|      | APR | 4.44               | 6.29                 | 6.29                 | 6.81      | 1.85           | 2.37      |
|      | MAY | 4.60               | 6.31                 | 6.28                 | 6.79      | 1.68           | 2.20      |
|      | JUN | 4.68               | 6.43                 | 6.38                 | 6.93      | 1.70           | 2.24      |
|      | JUL | 4.56               | 6.44                 | 6.40                 | 6.97      | 1.84           | 2.41      |
|      | AUG | 4.50               | 6.42                 | 6.37                 | 6.98      | 1.87           | 2.48      |
|      | SEP | 4.27               | 6.50                 | 6.49                 | 7.15      | 2.22           | 2.88      |
|      | OCT | 4.16               | 7.56                 | 7.56                 | 8.58      | 3.40           | 4.42      |
|      | NOV | 3.98               | 7.65                 | 7.60                 | 8.98      | 3.62           | 5.00      |
|      | DEC | 2.85               | 6.71                 | 6.52                 | 8.11      | 3.68           | 5.27      |
| 2009 | JAN | 3.10               | 6.59                 | 6.39                 | 7.90      | 3.29           | 4.80      |
|      | FEB | 3.59               | 6.64                 | 6.30                 | 7.74      | 2.71           | 4.15      |
|      | MAR | 3.64               | 6.84                 | 6.42                 | 8.00      | 2.79           | 4.36      |
|      | APR | 3.76               | 6.85                 | 6.48                 | 8.03      | 2.73           | 4.27      |
|      | MAY | 4.24               | 6.79                 | 6.49                 | 7.76      | 2.25           | 3.52      |
|      | JUN | 4.51               | 6.52                 | 6.20                 | 7.30      | 1.69           | 2.79      |
|      | JUL | 4.40               | 6.17                 | 5.97                 | 6.87      | 1.56           | 2.47      |
|      | AUG | 4.37               | 5.83                 | 5.71                 | 6.36      | 1.34           | 1.99      |
|      | SEP | 4.19               | 5.61                 | 5.53                 | 6.12      | 1.34           | 1.93      |
|      | OCT | 4.19               | 5.63                 | 5.55                 | 6.14      | 1.36           | 1.95      |
|      | NOV | 4.31               | 5.68                 | 5.63                 | 6.17      | 1.32           | 1.86      |
|      | DEC | 4.50               | 5.78                 | 5.79                 | 6.26      | 1.29           | 1.76      |
| 2010 | JAN | 4.60               | 5.76                 | 5.77                 | 6.16      | 1.17           | 1.55      |
|      | FEB | 4.62               | 5.86                 | 5.87                 | 6.25      | 1.25           | 1.63      |
|      | MAR | 4.65               | 5.81                 | 5.84                 | 6.22      | 1.20           | 1.58      |

Sources:

- [1] Bloomberg, U.S. Government Generic 30-Year Treasury Bond
- [2] Bloomberg, Moody's Corporate Average Bond Index
- [3] Bloomberg, Moody's A-Rated Utility Bond Index
- [4] Bloomberg, Moody's Baa-Rated Utility Bond Index
- [5] Equals [3] - [1]
- [6] Equals [4] - [1]

## Montana-Dakota Utilities Co.

### POPULATION IN NORTH DAKOTA COUNTIES WHERE MONTANA-DAKOTA PROVIDES ELECTRIC SERVICE 1990 TO 2009

|   | 1990           | 2000           | 2009           | Population Change |               |
|---|----------------|----------------|----------------|-------------------|---------------|
|   |                |                |                | 2000-2009         | 1990-2009     |
|   |                |                | Estimate       |                   |               |
| <b>North Dakota</b>                             | <b>638,800</b> | <b>642,200</b> | <b>646,844</b> | <b>0.72%</b>      | <b>1.26%</b>  |
| <b><u>Counties Served by Montana-Dakota</u></b> |                |                |                |                   |               |
| Adams   | 3,174          | 2,593          | 2,236          | -13.77%           | -29.55%       |
| Bowman  | 3,596          | 3,242          | 3,028          | -6.60%            | -15.80%       |
| Burke   | 3,002          | 2,242          | 1,839          | -17.98%           | -38.74%       |
| Burleigh  | 60,131         | 69,416         | 79,822         | 14.99%            | 32.75%        |
| Dickey  | 6,107          | 5,757          | 5,217          | -9.38%            | -14.57%       |
| Divide  | 2,899          | 2,283          | 1,961          | -14.10%           | -32.36%       |
| Dunn  | 4,005          | 3,600          | 3,365          | -6.53%            | -15.98%       |
| Emmons  | 4,830          | 4,331          | 3,398          | -21.54%           | -29.65%       |
| Golden Valley                                   | 2,108          | 1,924          | 1,621          | -15.75%           | -23.10%       |
| Grant   | 3,549          | 2,841          | 2,337          | -17.74%           | -34.15%       |
| Hettinger                                       | 3,445          | 2,715          | 2,343          | -13.70%           | -31.99%       |
| Kidder  | 3,332          | 2,753          | 2,201          | -20.05%           | -33.94%       |
| LaMoure   | 5,383          | 4,701          | 3,908          | -16.87%           | -27.40%       |
| Logan   | 2,847          | 2,308          | 1,886          | -18.28%           | -33.75%       |
| McIntosh  | 4,021          | 3,390          | 2,582          | -23.83%           | -35.79%       |
| McKenzie  | 6,383          | 5,737          | 5,799          | 1.08%             | -9.15%        |
| Mercer  | 9,808          | 8,644          | 5,799          | -32.91%           | -40.87%       |
| Morton  | 23,700         | 25,303         | 26,464         | 4.59%             | 11.66%        |
| Mountrail                                       | 7,021          | 6,631          | 6,791          | 2.41%             | -3.28%        |
| Oliver  | 2,381          | 2,065          | 1,643          | -20.44%           | -31.00%       |
| Renville  | 3,160          | 2,610          | 2,227          | -14.67%           | -29.53%       |
| Richland  | 18,148         | 17,998         | 16,067         | -10.73%           | -11.47%       |
| Sioux   | 3,761          | 4,044          | 4,203          | 3.93%             | 11.75%        |
| Slope   | 907            | 767            | 649            | -15.38%           | -28.45%       |
| Stark   | 22,832         | 22,636         | 22,847         | 0.93%             | 0.07%         |
| Ward  | 57,921         | 58,795         | 57,012         | -3.03%            | -1.57%        |
| Williams - includes Williston                   | 21,129         | 19,761         | 20,451         | 3.49%             | -3.21%        |
| <b>Total MDU</b>                                | <b>289,580</b> | <b>289,087</b> | <b>287,696</b> | <b>-0.48%</b>     | <b>-0.65%</b> |

|   | 1990           | 2000           | 2009           | Population Change |              |
|---|----------------|----------------|----------------|-------------------|--------------|
|   |                |                |                | 2000-2009         | 1990-2009    |
|   |                |                | Estimate       |                   |              |
| <b><u>Counties Not Served by Montana-Dakota</u></b> |                |                |                |                   |              |
| Barnes  | 12,545         | 11,775         | 10,753         | -8.68%            | -14.28%      |
| Benson  | 7,198          | 6,964          | 10,753         | 54.41%            | 49.39%       |
| Billings  | 1,108          | 888            | 827            | -6.87%            | -25.36%      |
| Bottineau   | 8,011          | 7,149          | 6,352          | -11.15%           | -20.71%      |
| Cass  | 102,874        | 123,138        | 143,339        | 16.41%            | 39.33%       |
| Cavalier  | 6,064          | 4,831          | 3,699          | -23.43%           | -39.00%      |
| Eddy  | 2,951          | 2,757          | 2,288          | -17.01%           | -22.47%      |
| Foster  | 3,983          | 3,759          | 3,259          | -13.30%           | -18.18%      |
| Grand Forks   | 70,683         | 66,109         | 66,414         | 0.46%             | -6.04%       |
| Griggs  | 3,303          | 2,754          | 2,346          | -14.81%           | -28.97%      |
| Hettinger   | 3,445          | 2,715          | 2,343          | -13.70%           | -31.99%      |
| McHenry   | 6,528          | 5,987          | 5,173          | -13.60%           | -20.76%      |
| McLean  | 10,457         | 9,311          | 8,310          | -10.75%           | -20.53%      |
| Nelson  | 4,410          | 3,715          | 3,129          | -15.77%           | -29.05%      |
| Pembina   | 9,238          | 8,585          | 7,392          | -13.90%           | -19.98%      |
| Pierce  | 5,052          | 4,675          | 3,990          | -14.65%           | -21.02%      |
| Ramsey  | 12,681         | 12,066         | 11,240         | -6.85%            | -11.36%      |
| Ransom  | 5,921          | 5,890          | 5,500          | -6.62%            | -7.11%       |
| Rolette   | 12,772         | 13,674         | 13,797         | 0.90%             | 8.03%        |
| Sargent   | 4,549          | 4,366          | 3,951          | -9.51%            | -13.15%      |
| Sheridan  | 2,148          | 1,710          | 1,228          | -28.19%           | -42.83%      |
| Steele  | 2,420          | 2,258          | 1,747          | -22.63%           | -27.81%      |
| Stutsman  | 22,241         | 21,908         | 20,463         | -6.60%            | -7.99%       |
| Towner  | 3,627          | 2,876          | 2,209          | -23.19%           | -39.10%      |
| Traill  | 8,752          | 8,477          | 7,868          | -7.18%            | -10.10%      |
| Walsh   | 13,840         | 12,389         | 10,798         | -12.84%           | -21.98%      |
| Wells   | 5,864          | 5,102          | 4,092          | -19.80%           | -30.22%      |
| <b>Total Other Counties</b>                         | <b>352,665</b> | <b>355,828</b> | <b>363,260</b> | <b>2.09%</b>      | <b>3.00%</b> |

SOURCE: U.S. BUREAU OF THE CENSUS. DECENNIAL CENSUSES OF POPULATION

## Montana-Dakota Utilities Co.

### Selected Electric Utility Proxy Companies Fiscal Year 2009 Operating Data

|  |     | Assets<br>(\$000,000) | Operating<br>Revenues<br>(\$000,000) | Operating<br>Income<br>(\$000,000) |
|--|-----|-----------------------|--------------------------------------|------------------------------------|
| American Electric Power Co., Inc.            | AEP | \$48,348              | \$13,489                             | \$2,771                            |
| Cleco Corp.                                  | CNL | \$3,695               | \$854                                | \$107                              |
| DPL Inc.                                     | DPL | \$3,642               | \$1,589                              | \$428                              |
| Empire District Electric Co.                 | EDE | \$1,840               | \$497                                | \$74                               |
| Great Plains Energy Inc.                     | GXP | \$8,483               | \$1,965                              | \$320                              |
| IDACORP, Inc.                                | IDA | \$4,239               | \$1,050                              | \$204                              |
| Northeast Utilities                          | NU  | \$14,058              | \$5,439                              | \$751                              |
| Pinnacle West Capital Corp.                  | PNW | \$11,808              | \$3,297                              | \$322                              |
| Portland General Electric Co.                | POR | \$5,172               | \$1,804                              | \$208                              |
| Progress Energy, Inc.                        | PGN | \$31,236              | \$9,885                              | \$1,772                            |
| Southern Company                             | SO  | \$52,046              | \$15,743                             | \$3,268                            |
| Westar Energy, Inc.                          | WR  | \$7,525               | \$1,858                              | \$355                              |
| Xcel Energy Inc.                             | XEL | \$25,488              | \$9,644                              | \$1,469                            |
| High   |     | \$52,046              | \$15,743                             | \$3,268                            |
| Median                                       |     | <b>\$8,483</b>        | <b>\$1,965</b>                       | <b>\$355</b>                       |
| Low  |     | \$1,840               | \$497                                | \$74                               |
| Montana-Dakota Electric Utility              |     | <b>\$570</b>          | <b>\$196</b>                         | <b>\$37</b>                        |
| MDU Resources Group, Inc.                    | MDU | \$5,991               | \$4,177                              | \$467 *                            |
| <u>Montana-Dakota Electric Utility % of:</u> |     |                       |                                      |                                    |
| - Proxy Company Median                       |     | <b>6.7%</b>           | <b>10.0%</b>                         | <b>10.4%</b>                       |
| - MDU Resources Group, Inc.                  |     | 9.5%                  | 4.7%                                 | 7.9%                               |

Sources: 2009 10-Ks

\* 2009 Operating Income excluding a \$620 million write-down of the value of oil and gas assets.

## Montana-Dakota Utilities Co.

### Bond Ratings of Selected Electric Utility Proxy Companies

|                                   |     | Standard<br>& Poor's | <u>Moody's</u> |
|-----------------------------------|-----|----------------------|----------------|
| American Electric Power Co., Inc. | AEP | BBB                  | --             |
| Cleco Corp.                       | CNL | BBB                  | Baa2           |
| DPL Inc.                          | DPL | A-                   | A2             |
| Empire District Electric Co.      | EDE | BBB-                 | Baa2           |
| Great Plains Energy Inc.          | GXP | BBB                  | Baa2           |
| IDACORP, Inc.                     | IDA | BBB                  | Baa2           |
| Northeast Utilities               | NU  | BBB                  | Baa2           |
| Pinnacle West Capital Corp.       | PNW | BBB-                 | Baa3           |
| Portland General Electric Co.     | POR | BBB                  | Baa2           |
| Progress Energy, Inc.             | PGN | BBB+                 | A3             |
| Southern Company                  | SO  | A                    | --             |
| Westar Energy, Inc.               | WR  | BBB-                 | Baa3           |
| Xcel Energy Inc.                  | XEL | BBB+                 | Baa1           |
| Median                            |     | BBB                  | Baa2           |
| MDU Resources Group, Inc.         |     | BBB+                 | Baa1           |

Source: Bloomberg & SNL

**Montana-Dakota Utilities Co.**

**Selected Electric Utility Proxy Companies  
 Dividend Yields  
 October 2009 – March 2010**

|                                   |     | <u>Stock Price October 2009 – March 2010</u> |            |                | <u>Dividend</u> | <u>Yield</u> |
|-----------------------------------|-----|--|------------|----------------|-----------------|--------------|
|                                   |     | <u>High</u>                                  | <u>Low</u> | <u>Average</u> |                 |              |
| American Electric Power Co., Inc. | AEP | \$ 34.32                                     | \$ 32.39   | \$ 33.35       | \$ 1.64         | 4.92%        |
| Cleco Corp.                       | CNL | \$ 26.73                                     | \$ 25.08   | \$ 25.91       | \$ 0.90         | 3.47%        |
| DPL Inc.                          | DPL | \$ 27.73                                     | \$ 26.43   | \$ 27.08       | \$ 1.16         | 4.30%        |
| Empire District Electric Co.      | EDE | \$ 18.81                                     | \$ 18.10   | \$ 18.45       | \$ 1.28         | 6.94%        |
| Great Plains Energy Inc.          | GXP | \$ 18.97                                     | \$ 17.54   | \$ 18.26       | \$ 0.83         | 4.55%        |
| IDACORP, Inc.                     | IDA | \$ 32.45                                     | \$ 30.22   | \$ 31.34       | \$ 1.20         | 3.83%        |
| Northeast Utilities               | NU  | \$ 25.95                                     | \$ 24.32   | \$ 25.13       | \$ 0.98         | 3.88%        |
| Pinnacle West Capital Corp.       | PNW | \$ 36.86                                     | \$ 34.25   | \$ 35.55       | \$ 2.10         | 5.91%        |
| Portland General Electric Co.     | POR | \$ 20.19                                     | \$ 18.79   | \$ 19.49       | \$ 1.02         | 5.23%        |
| Progress Energy, Inc.             | PGN | \$ 40.11                                     | \$ 38.05   | \$ 39.08       | \$ 2.48         | 6.35%        |
| Southern Company                  | SO  | \$ 33.22                                     | \$ 31.62   | \$ 32.42       | \$ 1.75         | 5.40%        |
| Westar Energy, Inc.               | WR  | \$ 21.77                                     | \$ 20.44   | \$ 21.10       | \$ 1.21         | 5.72%        |
| Xcel Energy Inc.                  | XEL | \$ 21.08                                     | \$ 19.99   | \$ 20.53       | \$ 0.98         | 4.77%        |
| Average                           |     |  |            |                |                 | 5.02%        |

Source: Bloomberg

## Montana-Dakota Utilities Co.

### Projected Earnings Retention Growth Rates for Selected Electric Utility Proxy Companies

|                                   |     | <u>Value Line Forecast 2013-2015</u> |            |            | <u>Retention</u> | <u>Retention</u> |
|-----------------------------------|-----|--------------------------------------|------------|------------|------------------|------------------|
|                                   |     | <u>EPS</u>                           | <u>DPS</u> | <u>ROE</u> | <u>Rate</u>      | <u>Growth</u>    |
| American Electric Power Co., Inc. | AEP | \$ 3.50                              | \$ 1.90    | 10.00%     | 45.71%           | 4.57%            |
| Cleco Corp.                       | CNL | \$ 2.50                              | \$ 1.40    | 11.00%     | 44.00%           | 4.84%            |
| DPL Inc.                          | DPL | \$ 2.90                              | \$ 1.50    | 28.00%     | 48.28%           | 13.52%           |
| Empire District Electric Co.      | EDE | \$ 1.75                              | \$ 1.35    | 10.00%     | 22.86%           | 2.29%            |
| Great Plains Energy Inc.          | GXP | \$ 1.75                              | \$ 1.20    | 8.00%      | 31.43%           | 2.51%            |
| IDACORP, Inc.                     | IDA | \$ 2.75                              | \$ 1.40    | 7.50%      | 49.09%           | 3.68%            |
| Northeast Utilities               | NU  | \$ 2.25                              | \$ 1.25    | 9.00%      | 44.44%           | 4.00%            |
| Pinnacle West Capital Corp.       | PNW | \$ 3.25                              | \$ 2.20    | 9.00%      | 32.31%           | 2.91%            |
| Portland General Electric Co.     | POR | \$ 2.00                              | \$ 1.20    | 8.50%      | 40.00%           | 3.40%            |
| Progress Energy, Inc.             | PGN | \$ 3.55                              | \$ 2.58    | 9.00%      | 27.32%           | 2.46%            |
| Southern Company                  | SO  | \$ 3.00                              | \$ 2.10    | 13.00%     | 30.00%           | 3.90%            |
| Westar Energy, Inc.               | WR  | \$ 2.25                              | \$ 1.40    | 8.50%      | 37.78%           | 3.21%            |
| Xcel Energy Inc.                  | XEL | \$ 2.00                              | \$ 1.10    | 10.50%     | 45.00%           | 4.73%            |
| Average                           |     |                                      |            |            |                  | 4.31%            |

## Montana-Dakota Utilities Co.

### Second-Stage Retention Growth Rate Estimates for Selected Electric Utility Proxy Companies

|                                   |     | 2/3<br>Zacks<br>5-Yr<br>Earnings<br>Growth Est. | 1/3<br>Retention<br>Growth | Weighted<br>Average |
|-----------------------------------|-----|---|----------------------------|---------------------|
| American Electric Power Co., Inc. | AEP | 3.60%   | 4.57%                      | 3.92%               |
| Cleco Corp.                       | CNL | 9.00%   | 4.84%                      | 7.61%               |
| DPL Inc.                          | DPL | 5.00%   | 13.52%                     | 7.84%               |
| Empire District Electric Co. (1)  | EDE | 6.00%   | 2.29%                      | 4.76%               |
| Great Plains Energy Inc.          | GXP | 5.00%   | 2.51%                      | 4.17%               |
| IDACORP, Inc.                     | IDA | 5.00%   | 3.68%                      | 4.56%               |
| Northeast Utilities               | NU  | 7.90%   | 4.00%                      | 6.60%               |
| Pinnacle West Capital Corp.       | PNW | 7.00%   | 2.91%                      | 5.64%               |
| Portland General Electric Co.     | POR | 5.80%   | 3.40%                      | 5.00%               |
| Progress Energy, Inc.             | PGN | 4.00%   | 2.46%                      | 3.49%               |
| Southern Company                  | SO  | 7.10%   | 3.90%                      | 6.03%               |
| Westar Energy, Inc.               | WR  | 5.00%   | 3.21%                      | 4.40%               |
| Xcel Energy Inc.                  | XEL | 5.70%   | 4.73%                      | 5.38%               |
| Average                           |     | 5.85%   | 4.31%                      | 5.34%               |
| Median                            |     | 5.70%   | 3.68%                      | 5.00%               |

Source: Zacks.com and page 4.

(1) Because there was no published Zacks growth rate for this company, a Yahoo! First Call growth rate was substituted in its place.

**Montana-Dakota Utilities Co.**

**Second-Stage Retention Growth DCF Calculation  
for Selected Electric Utility Proxy Companies**

|                                   |                     | <b>Dividend<br/>Yield</b> | <b>Dividend<br/>Yield Times<br/>(1 + .625g)</b> | <b>Expected<br/>Growth<br/>Rate<br/>(g)</b> | <b>Secondary<br/>Market:<br/>Investor<br/>Required<br/>Return</b> | <b>Flotation<br/>Cost<br/>Adjustment</b> | <b>Primary<br/>Market:<br/>Cost of<br/>Capital</b> |
|-----------------------------------|---------------------|---------------------------|---|---|---|--|--|
| American Electric Power Co., Inc. | AEP                 | 4.92%                     | 5.04%   | 3.92%                                       | 8.96%   | 1.036                                    | 9.29%  |
| Cleco Corp.                       | CNL                 | 3.47%                     | 3.64%   | 7.61%                                       | 11.25%  | 1.036                                    | 11.66%   |
| DPL Inc.                          | DPL                 | 4.30%                     | 4.51%   | 7.84%                                       | 12.35%  | 1.036                                    | 12.79%   |
| Empire District Electric Co.      | EDE                 | 6.94%                     | 7.14%   | 4.76%                                       | 11.90%  | 1.036                                    | 12.34%   |
| Great Plains Energy Inc.          | GXP                 | 4.55%                     | 4.66%   | 4.17%                                       | 8.84%   | 1.036                                    | 9.16%  |
| IDACORP, Inc.                     | IDA                 | 3.83%                     | 3.94%   | 4.56%                                       | 8.50%   | 1.036                                    | 8.81%  |
| Northeast Utilities               | NU                  | 3.88%                     | 4.04%   | 6.60%                                       | 10.64%  | 1.036                                    | 11.03%   |
| Pinnacle West Capital Corp.       | PNW                 | 5.91%                     | 6.11%   | 5.64%                                       | 11.75%  | 1.036                                    | 12.18%   |
| Portland General Electric Co.     | POR                 | 5.23%                     | 5.40%   | 5.00%                                       | 10.40%  | 1.036                                    | 10.77%   |
| Progress Energy, Inc.             | PGN                 | 6.35%                     | 6.48%   | 3.49%                                       | 9.97%   | 1.036                                    | 10.33%   |
| Southern Company                  | SO                  | 5.40%                     | 5.60%   | 6.03%                                       | 11.63%  | 1.036                                    | 12.06%   |
| Westar Energy, Inc.               | WR                  | 5.72%                     | 5.88%   | 4.40%                                       | 10.28%  | 1.036                                    | 10.65%   |
| Xcel Energy Inc.                  | XEL                 | 4.77%                     | 4.93%   | 5.38%                                       | 10.31%  | 1.036                                    | 10.68%   |
| <b>High</b>                       |                     |                           |   |   | 12.35%  |  | <b>12.79%</b>                                      |
|                                   | <b>3rd Quartile</b> |                           |   |   | 11.63%  |  | <b>12.06%</b>                                      |
| <b>Median</b>                     | <b>2nd Quartile</b> |                           |   |   | 10.40%  |  | <b>10.77%</b>                                      |
|                                   | <b>1st Quartile</b> |                           |   |   | 9.97%   |  | <b>10.33%</b>                                      |
| <b>Low</b>                        |                     |                           |   |   | 8.50%   |  | <b>8.81%</b>                                       |
| <b>Average</b>                    |                     |                           |   |   | 10.52%  |  | <b>10.90%</b>                                      |

## Montana-Dakota Utilities Co.

### Basic DCF Calculation for Selected Electric Utility Proxy Companies

|                                   |                     | Dividend<br>Yield | Dividend<br>Yield Times<br>(1 + .625g) | Expected<br>Growth<br>Rate<br>(g) | Secondary<br>Market:<br><br>Investor<br>Required<br>Return | Flotation<br>Cost<br>Adjustment | Primary<br>Market:<br><br>Cost of<br>Capital |
|-----------------------------------|---------------------|-------------------|--|-----------------------------------|--|---------------------------------|--|
| American Electric Power Co., Inc. | AEP                 | 4.92%             | 5.03%                                  | 3.60%                             | 8.63%  | 1.036                           | 8.94%  |
| Cleco Corp.                       | CNL                 | 3.47%             | 3.67%                                  | 9.00%                             | 12.67%   | 1.036                           | 13.13%                                       |
| DPL Inc.                          | DPL                 | 4.30%             | 4.43%                                  | 5.00%                             | 9.43%  | 1.036                           | 9.77%  |
| Empire District Electric Co.      | EDE                 | 6.94%             | 7.20%                                  | 6.00%                             | 13.20%   | 1.036                           | 13.68%                                       |
| Great Plains Energy Inc.          | GXP                 | 4.55%             | 4.69%                                  | 5.00%                             | 9.69%  | 1.036                           | 10.04%                                       |
| IDACORP, Inc.                     | IDA                 | 3.83%             | 3.95%                                  | 5.00%                             | 8.95%  | 1.036                           | 9.27%  |
| Northeast Utilities               | NU                  | 3.88%             | 4.07%                                  | 7.90%                             | 11.97%   | 1.036                           | 12.41%                                       |
| Pinnacle West Capital Corp.       | PNW                 | 5.91%             | 6.16%                                  | 7.00%                             | 13.16%   | 1.036                           | 13.64%                                       |
| Portland General Electric Co.     | POR                 | 5.23%             | 5.42%                                  | 5.80%                             | 11.22%   | 1.036                           | 11.63%                                       |
| Progress Energy, Inc.             | PGN                 | 6.35%             | 6.51%                                  | 4.00%                             | 10.51%   | 1.036                           | 10.89%                                       |
| Southern Company                  | SO                  | 5.40%             | 5.64%                                  | 7.10%                             | 12.74%   | 1.036                           | 13.20%                                       |
| Westar Energy, Inc.               | WR                  | 5.72%             | 5.90%                                  | 5.00%                             | 10.90%   | 1.036                           | 11.29%                                       |
| Xcel Energy Inc.                  | XEL                 | 4.77%             | 4.94%                                  | 5.70%                             | 10.64%   | 1.036                           | 11.03%                                       |
| <b>High</b>                       |                     |                   |  |                                   | 13.20%   |                                 | <b>13.68%</b>                                |
|                                   | <b>3rd Quartile</b> |                   |  |                                   | 12.67%   |                                 | <b>13.13%</b>                                |
| <b>Median</b>                     | <b>2nd Quartile</b> |                   |  |                                   | 10.90%   |                                 | <b>11.29%</b>                                |
|                                   | <b>1st Quartile</b> |                   |  |                                   | 9.69%  |                                 | <b>10.04%</b>                                |
| <b>Low</b>                        |                     |                   |  |                                   | 8.63%  |                                 | <b>8.94%</b>                                 |
| <b>Average</b>                    |                     |                   |  |                                   | 11.05%   |                                 | <b>11.46%</b>                                |

**Montana-Dakota Utilities Co.**

**Selected Electric Utility Proxy Companies  
Capital Structures as of December 31, 2009**

|                                   |     | Short-Term<br>Debt<br>(Millions) | %            | Long-Term<br>Debt<br>(Millions) | %             | Preferred<br>Stock<br>(Millions) | %            | Common<br>Equity<br>(Millions) | %             | Total<br>Capital |
|-----------------------------------|-----|----------------------------------|--------------|---------------------------------|---------------|----------------------------------|--------------|--------------------------------|---------------|------------------|
| American Electric Power Co., Inc. | AEP | \$ 126.0                         | 0.41%        | \$ 17,498.0                     | 56.77%        | \$ 61.0                          | 0.20%        | \$ 13,140.0                    | 42.63%        | \$ 30,825.0      |
| Cleco Corp.                       | CNL | \$ -                             | 0.00%        | \$ 1,331.8                      | 54.41%        | \$ 1.0                           | 0.04%        | \$ 1,115.0                     | 45.55%        | \$ 2,447.8       |
| DPL Inc.                          | DPL | \$ -                             | 0.00%        | \$ 1,324.1                      | 54.11%        | \$ 22.9                          | 0.94%        | \$ 1,099.9                     | 44.95%        | \$ 2,446.9       |
| Empire District Electric Co.      | EDE | \$ 50.5                          | 3.76%        | \$ 691.2                        | 51.51%        | \$ -                             | 0.00%        | \$ 600.2                       | 44.73%        | \$ 1,341.8       |
| Great Plains Energy Inc.          | GXP | \$ 438.6                         | 6.76%        | \$ 3,214.3                      | 49.56%        | \$ 39.0                          | 0.60%        | \$ 2,793.7                     | 43.08%        | \$ 6,485.6       |
| IDACORP, Inc.                     | IDA | \$ 53.8                          | 1.87%        | \$ 1,419.1                      | 49.37%        | \$ -                             | 0.00%        | \$ 1,401.5                     | 48.76%        | \$ 2,874.4       |
| Northeast Utilities               | NU  | \$ 100.3                         | 1.14%        | \$ 5,001.7                      | 56.86%        | \$ 116.2                         | 1.32%        | \$ 3,577.9                     | 40.68%        | \$ 8,796.1       |
| Pinnacle West Capital Corp.       | PNW | \$ 153.7                         | 2.15%        | \$ 3,648.2                      | 51.04%        | \$ -                             | 0.00%        | \$ 3,345.7                     | 46.81%        | \$ 7,147.6       |
| Portland General Electric Co.     | POR | \$ -                             | 0.00%        | \$ 1,744.0                      | 53.06%        | \$ -                             | 0.00%        | \$ 1,543.0                     | 46.94%        | \$ 3,287.0       |
| Progress Energy, Inc.             | PGN | \$ 140.0                         | 0.63%        | \$ 12,678.0                     | 56.68%        | \$ 93.0                          | 0.42%        | \$ 9,455.0                     | 42.27%        | \$ 22,366.0      |
| Southern Company                  | SO  | \$ 639.0                         | 1.78%        | \$ 19,244.0                     | 53.69%        | \$ 1,082.0                       | 3.02%        | \$ 14,878.0                    | 41.51%        | \$ 35,843.0      |
| Westar Energy, Inc.               | WR  | \$ 242.8                         | 4.75%        | \$ 2,601.4                      | 50.86%        | \$ 21.4                          | 0.42%        | \$ 2,248.8                     | 43.97%        | \$ 5,114.4       |
| Xcel Energy Inc.                  | XEL | \$ 459.0                         | 2.82%        | \$ 8,432.4                      | 51.80%        | \$ 105.0                         | 0.64%        | \$ 7,283.2                     | 44.74%        | \$ 16,279.7      |
| <b>Median</b>                     |     |                                  | <b>1.78%</b> |                                 | <b>53.06%</b> |                                  | <b>0.42%</b> |                                | <b>44.73%</b> |                  |

Source: 2009 10-Ks

**Montana-Dakota Utilities Co.**

**Flotation Costs Associated With  
Electric Company Common Stock Issues  
2000 - 2009**

| Company                             | Ticker | Year | Month | Day | Number of<br>Shares<br>(000's) | Price to<br>Public | Net<br>Proceeds | Issue Cost as<br>a Percent of<br>Net Proceeds |
|-------------------------------------|--------|------|-------|-----|--------------------------------|--------------------|-----------------|---|
| Consolidated Edison, Inc.           | ED     | 2009 | NOV   | 30  | 5,000                          | \$42.630           | \$42.250        | 0.90%   |
| Ameren Corp.                        | AEE    | 2009 | SEP   | 9   | 19,000                         | \$25.250           | \$24.469        | 3.19%   |
| CenterPoint Energy, Inc.            | CNP    | 2009 | SEP   | 9   | 21,000                         | \$12.000           | \$11.564        | 3.77%   |
| UIL Holdings Corp                   | UIL    | 2009 | MAY   | 20  | 4,000                          | \$21.000           | \$19.869        | 5.69%   |
| Unitil Corp                         | UTL    | 2009 | MAY   | 20  | 2,400                          | \$20.000           | \$18.742        | 6.71%   |
| Great Plains Energy Inc             | GXP    | 2009 | MAY   | 12  | 10,000                         | \$14.000           | \$13.460        | 4.01%   |
| American Electric Power Co Inc      | AEP    | 2009 | APR   | 1   | 60,000                         | \$24.500           | \$23.758        | 3.12%   |
| Northeast Utilities                 | NU     | 2009 | MAR   | 16  | 16,500                         | \$20.200           | \$19.523        | 3.47%   |
| Portland General Electric Co        | POR    | 2009 | MAR   | 5   | 10,850                         | \$14.100           | \$13.571        | 3.89%   |
| Progress Energy Inc                 | PGN    | 2009 | JAN   | 7   | 12,500                         | \$37.500           | \$36.351        | 3.16%   |
| SCANA Corp                          | SCG    | 2008 | DEC   | 31  | 2,500                          | \$35.500           | \$34.827        | 1.93%   |
| Unitil Corp                         | UTL    | 2008 | DEC   | 11  | 2,000                          | \$20.000           | \$18.950        | 5.54%   |
| Hawaiian Electric Industries Inc    | HE     | 2008 | DEC   | 3   | 5,000                          | \$23.000           | \$22.077        | 4.18%   |
| Central Vermont Public Service Corp | CV     | 2008 | NOV   | 18  | 1,190                          | \$19.000           | \$17.677        | 7.48%   |
| Pepco Holdings Inc                  | POM    | 2008 | NOV   | 5   | 14,000                         | \$16.500           | \$15.867        | 3.99%   |
| Otter Tail Corp                     | OTTR   | 2008 | OCT   | 18  | 4,500                          | \$30.000           | \$28.823        | 4.08%   |
| Xcel Energy Inc                     | XEL    | 2008 | OCT   | 9   | 15,000                         | \$20.200           | \$20.060        | 0.70%   |
| Westar Energy Inc                   | WR     | 2008 | MAY   | 29  | 6,000                          | \$24.280           | \$23.376        | 3.87%   |
| ITC Holdings Corp                   | ITC    | 2008 | JAN   | 17  | 5,583                          | \$50.150           | \$47.858        | 4.79%   |
| Energy East                         | EAS    | 2007 | MAR   | 21  | 9,000                          | \$24.250           | \$23.504        | 3.18%   |
| Empire Distric Electric Co.         | EDE    | 2007 | DEC   | 6   | 3,000                          | \$23.000           | \$21.920        | 4.93%   |
| Empire District Electric Co.        | EDE    | 2006 | JUN   | 15  | 3,200                          | \$20.250           | \$19.312        | 4.86%   |
| CLECO Corp.                         | CNL    | 2006 | AUG   | 14  | 6,000                          | \$23.750           | \$22.860        | 3.89%   |
| Avista Corp.                        | AVA    | 2006 | DEC   | 12  | 2,750                          | \$25.050           | \$24.461        | 2.41%   |
| Cinergy                             | CIN    | 2005 | JAN   | 28  | 3,399                          | \$50.000           | \$48.279        | 3.56%   |
| Cinergy                             | CIN    | 2005 | FEB   | 11  | 849                            | \$50.000           | \$47.617        | 5.01%   |
| CMS                                 | CMS    | 2005 | MAR   | 30  | 20,000                         | \$12.250           | \$11.809        | 3.73%   |
| Pinnacle West                       | PNW    | 2005 | APR   | 27  | 5,300                          | \$42.000           | \$40.588        | 3.48%   |
| Puget Energy                        | PSD    | 2005 | NOV   | 1   | 15,000                         | \$20.800           | \$20.650        | 0.73%   |
| WPS Resources Corp                  | TEG    | 2005 | NOV   | 27  | 1,900                          | \$53.700           | \$51.955        | 3.36%   |
| Northeast Utilities                 | NU     | 2005 | DEC   | 12  | 20,000                         | \$19.090           | \$18.453        | 3.45%   |
| Hawaiian Electric Industries        | HE     | 2004 | MAR   | 10  | 2,000                          | \$51.860           | \$49.711        | 4.32%   |
| Consolidated Edison, Inc.           | ED     | 2004 | APR   | 11  | 14,000                         | \$37.750           | \$36.589        | 3.17%   |
| Great Plains Energy Corp            | GXP    | 2004 | JUN   | 8   | 5,000                          | \$30.000           | \$28.880        | 3.88%   |
| Great Plains Energy Corp            | GXP    | 2004 | JUN   | 8   | 6,000                          | \$25.000           | \$24.167        | 3.45%   |
| Constellation Energy                | CEG    | 2004 | JUN   | 28  | 6,000                          | \$37.950           | \$37.768        | 0.48%   |
| CMS Energy                          | CMS    | 2004 | OCT   | 7   | 28,500                         | \$9.100            | \$8.770         | 3.76%   |
| Ottertail Corporation               | OTTR   | 2004 | DEC   | 7   | 2,900                          | \$25.450           | \$24.397        | 4.32%   |
| IDACORP                             | IDA    | 2004 | DEC   | 9   | 83,500                         | \$30.000           | \$28.796        | 4.18%   |
| Ameren Corp.                        | AEE    | 2003 | JAN   | 14  | 5,500                          | \$40.500           | \$39.107        | 3.56%   |
| Cinergy                             | CIN    | 2003 | JAN   | 31  | 5,700                          | \$31.100           | \$30.815        | 0.93%   |
| American Electric Power Co.         | AEP    | 2003 | FEB   | 27  | 50,000                         | \$20.950           | \$20.311        | 3.15%   |
| PPL Corp                            | PPL    | 2003 | MAY   | 15  | 65,000                         | \$38.250           | \$37.001        | 3.38%   |
| Consolidated Edison Inc             | ED     | 2003 | MAY   | 19  | 87,000                         | \$39.800           | \$39.451        | 0.88%   |
| OGE Energy Corp                     | OGE    | 2003 | AUG   | 21  | 4,650                          | \$21.600           | \$20.810        | 3.80%   |
| FirstEnergy Corp                    | FE     | 2003 | SEP   | 12  | 28,000                         | \$30.000           | \$29.010        | 3.41%   |
| PSEG                                | PEG    | 2003 | OCT   | 1   | 8,250                          | \$41.750           | \$40.455        | 3.20%   |
| UNITIL                              | UTL    | 2003 | OCT   | 23  | 6,524                          | \$25.400           | \$24.130        | 5.26%   |

| Company                      | Ticker | Year | Month | Day | Number of<br>Shares<br>(000's) | Price to<br>Public | Net<br>Proceeds | a Percent of<br>Net Proceeds |
|------------------------------|--------|------|-------|-----|--------------------------------|--------------------|-----------------|------------------------------|
| Puget Energy                 | PSD    | 2003 | OCT   | 31  | 4,550                          | \$22.750           | \$22.000        | 3.41%                        |
| WPS Resources Corp           | TEG    | 2003 | NOV   | 19  | 3,500                          | \$43.000           | \$42.202        | 1.89%                        |
| Empire District Electric Co. | EDE    | 2003 | DEC   | 11  | 2,000                          | \$21.150           | \$20.138        | 5.03%                        |
| TXU Corp                     | TXU    | 2002 | NOV   | 25  | 30,500                         | \$14.770           | \$14.278        | 3.45%                        |
| Great Plains Energy Inc      | GXP    | 2002 | NOV   | 21  | 6,000                          | \$22.000           | \$21.175        | 3.90%                        |
| PSE&G                        | PEG    | 2002 | NOV   | 12  | 15,000                         | \$26.550           | \$25.664        | 3.45%                        |
| Progress Energy, Inc         | PGN    | 2002 | NOV   | 6   | 14,670                         | \$41.900           | \$40.857        | 2.55%                        |
| Puget Energy                 | PSD    | 2002 | NOV   | 5   | 5,000                          | \$20.700           | \$19.975        | 3.63%                        |
| Puget Energy                 | PSD    | 2002 | OCT   | 31  | 5,000                          | \$20.700           | \$19.975        | 3.63%                        |
| TECO Energy, Inc             | TE     | 2002 | OCT   | 10  | 17,000                         | \$11.000           | \$10.659        | 3.20%                        |
| Duke Energy                  | DUK    | 2002 | SEP   | 25  | 54,500                         | \$18.350           | \$17.873        | 2.67%                        |
| PPL Corp                     | PPL    | 2002 | SEP   | 12  | 14,500                         | \$30.500           | \$29.505        | 3.37%                        |
| Ameren Corp.                 | AEE    | 2002 | SEP   | 10  | 7,000                          | \$42.000           | \$40.573        | 3.52%                        |
| DQE                          | DQE    | 2002 | JUN   | 20  | 15,000                         | \$13.500           | \$12.961        | 4.16%                        |
| DTE Energy                   | DTE    | 2002 | JUN   | 19  | 5,500                          | \$43.250           | \$41.799        | 3.47%                        |
| FPL Group                    | FPL    | 2002 | JUN   | 6   | 5,000                          | \$56.600           | \$54.850        | 3.19%                        |
| FPL Group (F)                | FPL    | 2002 | JUN   | 6   | 8,800                          | \$50.000           | \$48.415        | 3.27%                        |
| American Electric Power Co.  | AEP    | 2002 | JUN   | 5   | 16,000                         | \$40.900           | \$39.650        | 3.15%                        |
| TECO Energy, Inc             | TE     | 2002 | JUN   | 4   | 13,500                         | \$23.000           | \$22.310        | 3.09%                        |
| TXU Corp                     | TXU    | 2002 | MAY   | 31  | 11,000                         | \$51.150           | \$49.595        | 3.14%                        |
| Empire District Electric Co. | EDE    | 2002 | MAY   | 16  | 2,500                          | \$20.750           | \$19.868        | 4.44%                        |
| Cleco Corp                   | CNL    | 2002 | MAY   | 2   | 1,750                          | \$33.000           | \$32.036        | 3.01%                        |
| Xcel Energy Co.              | XEL    | 2002 | FEB   | 28  | 20,000                         | \$22.500           | \$21.755        | 3.42%                        |
| FPL Group                    | FPL    | 2002 | JAN   | 29  | 10,000                         | \$50.000           | \$48.425        | 3.25%                        |
| Empire District Electric     | EDE    | 2001 | DEC   | 4   | 1,750                          | \$20.370           | \$19.500        | 4.46%                        |
| Hawaiian Electric Industries | HE     | 2001 | NOV   | 19  | 1,500                          | \$37.700           | \$36.190        | 4.17%                        |
| Alliant Energy Corp          | LNT    | 2001 | NOV   | 15  | 8,500                          | \$28.000           | \$26.900        | 4.09%                        |
| Sierra Pacific               | NVE    | 2001 | AUG   | 15  | 20,500                         | \$15.000           | \$14.418        | 4.04%                        |
| Progressive Energy           | PGN    | 2001 | AUG   | 14  | 11,000                         | \$40.000           | \$38.600        | 3.63%                        |
| WPS Resource Corp            | TEG    | 2001 | MAY   | 2   | 2,000                          | \$34.360           | \$33.160        | 3.62%                        |
| Reliant Resources, Inc       | RRI    | 2001 | APR   | 30  | 52,000                         | \$30.000           | \$28.500        | 5.26%                        |
| Aquila, Inc                  |        | 2001 | APR   | 27  | 12,250                         | \$24.000           | \$22.620        | 6.10%                        |
| Utilicorp United Inc         |        | 2001 | APR   | 27  | 5,250                          | \$24.000           | \$22.620        | 6.10%                        |
| Allegheny Energy Inc         | AYE    | 2001 | APR   | 26  | 12,400                         | \$48.250           | \$46.800        | 3.10%                        |
| Black Hills Corporation      | BKH    | 2001 | APR   | 18  | 3,000                          | \$52.000           | \$49.140        | 5.82%                        |
| Constellation Energy         | CEG    | 2001 | MAR   | 21  | 12,000                         | \$39.900           | \$39.280        | 1.58%                        |
| Duke Energy                  | DUK    | 2001 | MAR   | 13  | 25,000                         | \$38.980           | \$37.947        | 2.72%                        |
| Utilicorp United Inc         |        | 2001 | MAR   | 9   | 10,000                         | \$29.760           | \$28.940        | 2.83%                        |
| TECO Energy, Inc             | TE     | 2001 | MAR   | 6   | 7,500                          | \$27.750           | \$26.883        | 3.22%                        |
| CMS Energy                   | CMS    | 2001 | FEB   | 23  | 10,000                         | \$29.750           | \$29.560        | 0.64%                        |
| Allete                       | ALE    | 2001 | JAN   | 24  | 6,500                          | \$23.680           | \$22.679        | 4.41%                        |
| CMS Energy                   | CMS    | 2000 | OCT   | 16  | 11,000                         | \$18.250           | \$17.770        | 2.70%                        |
| TNPC                         |        | 2000 | OCT   | 4   | 24,000                         | \$21.000           | \$19.790        | 6.11%                        |
| NRG Energy Inc.              | NRG    | 2000 | MAY   | 30  | 28,170                         | \$15.000           | \$14.100        | 6.38%                        |
| Southern Company             | SO     | 2000 | DEC   | 7   | 25,000                         | \$28.500           | \$27.560        | 3.41%                        |
| <b>AVERAGE</b>               |        |      |       |     |                                |                    |                 | <b>3.63%</b>                 |

Source: Public Utility Finance Tracker through 2007; Bloomberg data from 2008 to present.

|                     |  |      |     |    |       |           |        |       |
|---------------------|--|------|-----|----|-------|-----------|--------|-------|
| MDU Resources Group |  | 2002 | NOV | 29 | 2,100 | \$ 24.000 | 23.188 | 3.50% |
| MDU Resources Group |  | 2002 | NOV | 19 | 2,100 | \$ 24.000 | 23.280 | 3.09% |

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

Before the North Dakota Public Service Commission

Case No. PU-10-\_\_\_\_

Direct Testimony  
of  
Garret Senger

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

2 A. Yes. My name is Garret Senger and my business address is 400

3 North Fourth Street, Bismarck, North Dakota 58501. I am the Vice

4 President, Controller and Chief Accounting Officer (CAO) for Montana-

5 Dakota Utilities Co. (Montana-Dakota), a Division of MDU Resources

6 Group, Inc. and Great Plains Natural Gas Co., also a Division of MDU

7 Resources Group, Inc.

8 **Q. Would you please describe your duties?**

9 A. As Controller and CAO, I am responsible for providing the direction

10 and management of the accounting and the financial forecasting/planning

11 functions, including the analysis and reporting of all financial transactions for

12 Montana-Dakota and Great Plains.

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

15 A. I graduated from the University of Mary with a Bachelor of Science

16 degree in Accounting and a Masters in Business Administration. I started

17 my career with Montana-Dakota in 1985 as a financial analyst in the

18 Financial Reporting area and during my tenure with the Company have

1 held positions of increasing responsibility, including Supervisor of  
2 Financial Reporting, Manager of Financial Forecasting, Manager of  
3 Financial Reporting & Planning, Director of Accounting and Controller.

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

5 A. Yes, I have testified before the Wyoming Public Service  
6 Commission and submitted written testimony in proceedings before the  
7 South Dakota Public Utilities Commission and the Montana Public Service  
8 Commission.

9 **Q. Are you familiar with the territory served by Montana-Dakota  
10 and the facilities of the Company utilized in providing electric  
11 service?**

12 A. Yes, I am.

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

14 A. I am responsible for presenting Statement A, Statement B, and  
15 Statement F.

16 **Q. Were these statements and the data contained therein prepared by  
17 you or under your supervision?**

18 A. Yes, they were.

19 **Q. Are they true to the best of your knowledge and belief?**

20 A. Yes, they are.

21 **Q. Would you describe Statement A and Statement B?**

22 A. Statement A, pages 1 and 2 show Montana-Dakota's balance sheet  
23 as of December 31, 2008 and December 31, 2009, with notes to the

1 balance sheet following. Statement B consists of Montana-Dakota's  
2 income statement for the twelve months ended December 31, 2009.  
3 These statements have been prepared from the Company's books and  
4 records that are maintained in accordance with the Federal Energy  
5 Regulatory Commission (FERC) Uniform System of Accounts.

6 **Q. Would you please explain Statement F?**

7 A. Statement F shows the utility capital structure of Montana-Dakota  
8 for the twelve months ended December 31, 2009 and the projected capital  
9 structure for 2010. Statement F includes the associated costs of debt,  
10 preferred stock and common equity. This capital structure and the  
11 associated costs serve as the basis for the overall rate of return requested  
12 by Montana-Dakota in this rate filing of 9.091%. As explained later, as a  
13 result of the Company's efforts to reduce its long term debt costs, this  
14 overall rate of return is a reduction from the overall rate of return adopted  
15 for use in the Company's most recent electric rate proceeding in 2003,  
16 Case No. PU-399-03-296. The basis for the requested 11.50% return on  
17 common equity contained within the overall requested rate of return is  
18 supported by the testimony of Dr. J. Stephen Gaske but also recognizes  
19 the current economic environment. I note that this is the same return on  
20 equity adopted for use in Case No. PU-399-03-296.

21 Page 1 of Statement F summarizes the actual electric utility capital  
22 structure at December 31, 2009 and the projected capital structure and  
23 the related utility costs of capital for 2010. As shown on page 1, the

1 components of the 2010 projected overall annual rate of return, which are  
2 used by Ms. Mulkern to calculate the revenue requirement, are:

|                         | Weighted Cost<br>of Capital |
|-------------------------|-----------------------------|
| Long Term Debt          | 2.891%                      |
| Short Term Debt         | 0.079%                      |
| Preferred Stock         | 0.107%                      |
| Common Equity           | 6.014%                      |
| Required Rate of Return | 9.091%                      |

3 The debt costs reflected on Statement F, page 1 represent the  
4 actual weighted embedded costs of the long-term debt at December 31,  
5 2009 and that projected to be outstanding at December 31, 2010 and is  
6 supported by Statement F, Schedule F-1. In calculating the debt costs the  
7 "Yield-to-Maturity" method (also referred to as the Internal Rate of Return  
8 ("IRR") method) is used to determine the total cost for each respective  
9 debt issue as presented on Schedule F-1, page 2 of 5 and page 3 of 5.  
10 The yield-to-maturity calculation of each debt issue outstanding gives  
11 consideration to the stated rates of interest being paid on such debt, the  
12 timing of the interest payments, related issuance expenses, underwriters'  
13 commissions, the discount or premium realized upon issuance and the  
14 amortization of losses on bond redemption transactions.

15 Statement F, Schedule F-2, supports the cost of Montana-Dakota's  
16 preferred stock capital, representing the weighted cost of the issues at  
17 December 31, 2009 and projected to be outstanding at December 31,  
18 2010.

19 Statement F, Schedule F-3, supports the Company's utility common

1 equity balance at December 31, 2009, and the projected balance as of  
2 December 31, 2010.

3 **Q. How does the Company finance its electric utility operations and**  
4 **determine the amount of common equity, debt and preferred stock to**  
5 **be included in its capital structure?**

6 A. As a regulated public utility, the Company has a duty and obligation  
7 to provide safe, adequate and reliable service to its customers across its  
8 service territory while prudently balancing cost and risk. In order to fulfill  
9 its service obligations the Company is making significant capital  
10 expenditures for new plant investment, including new renewable  
11 resources as mentioned in the testimony of Mr. Goodin. These new  
12 investments also have associated operating and maintenance costs.  
13 Through its financial planning process the Company determines the  
14 amounts of necessary financing required to support these activities.  
15 Montana-Dakota finances its operations targeting a 50/50 debt to equity  
16 ratio capital structure. Capital expenditure investments are financed  
17 through a mix of internally generated funds, the utilization of its short term  
18 credit line and the issuance of additional debt and equity financing as  
19 required to maintain its targeted capital ratios and finance its combined  
20 utility operations. In 2009, the Company obtained \$29 million of common  
21 equity through new stock issuances between July and October. Also In  
22 2009 the Company issued \$50 million of unsecured senior notes in two  
23 \$25 million private placements with a seven year maturity, at interest rates

1 of 6.66% and 6.61% respectively. In 2008 through a private placement  
2 the Company issued \$100 million of 10 year unsecured senior notes at an  
3 interest rate of 6.04%.

4 Since 2006 the Company has refinanced essentially all of its long  
5 term debt and has lowered its embedded weighted average debt cost from  
6 8.766% at December 31, 2005 to a projected 6.845% at December 31,  
7 2010. The mix of securities employ various maturity dates in order to  
8 provide flexibility and mitigate refinancing risks. The Company does not  
9 plan to issue additional long term debt prior to December 31, 2010 but  
10 anticipates adding \$15 million of equity in late 2010, again to achieve and  
11 maintain the targeted 50/50 capital structure.

12 **Q. What does Statement F, Schedule F-1 show?**

13 A. Page 1 is a summary showing the Company's long-term debt at  
14 December 31, 2009 and cost of debt, and it shows the projected long-term  
15 debt and associated costs for 2010. Page 2 shows the cost and the debt  
16 balance by issue at December 31, 2009, and page 3 shows the projected  
17 cost and the debt balance by issue at December 31, 2010.

18 **Q. How did you derive the projected cost of debt as for 2010?**

19 A. The projected cost of debt for 2010 is based upon the yield to  
20 maturity of each debt issue outstanding.

21 **Q. Would you please describe Statement F, Schedule F-1, page 4 and  
22 explain the amortization method utilized?**

23 A. Page 4 reflects the detail by issue of the annual amortization of net

1 discounts (losses) and unamortized issuance expenses on the redemption  
2 of long term debt. For this proceeding, the amortization has been  
3 computed on a straight-line basis over the remaining life of the issues, the  
4 same calculation as is used by the Company for accounting purposes.

5 **Q. Would you please describe Statement F, Schedule F-1, page 5?**

6 A. Page 5 presents the projected average short term debt balance for  
7 2010 as well as the average cost of short term debt. A twelve month  
8 average of short term debt is used in the cost of capital calculation to  
9 reflect the seasonality in the short term debt balance. Short term debt is  
10 historically at or near its peak in December and the twelve month average  
11 calculation is more reflective of the borrowing level than a year end  
12 balance.

13 **Q. What does Statement F, Schedule F-2 show?**

14 A. Page 1 presents the preferred stock balances at December 31,  
15 2009 and the projected balances for December 31, 2010. The anticipated  
16 weighted cost of preferred stock is also shown. Page 2 sets forth the  
17 various preferred stock issues outstanding at December 31, 2009 and  
18 page 3 sets forth the projected issues outstanding at December 31, 2010.

19 **Q. What does Statement F, Schedule F-3 show?**

20 A. Page 1 presents the common equity balance at December 31, 2009  
21 and the projected balance for 2010 reflecting the projected activity in the  
22 balance.

23 **Q. Why did the Company defer the costs related to the study of future**

1           **generation for Lignite Vision 21 (LV21) and Milton R Young III when**  
2           **these projects did not continue and not charge them to expense in**  
3           **the year the projects ceased?**

4    A.           As discussed by Ms. Stomberg, both LV21 and Milton R. Young III  
5           were potential regional base load power sources Montana-Dakota  
6           evaluated to provide power to its customers. The plant development costs  
7           for future generation were a necessary cost associated with the  
8           development of Montana-Dakota's next generating facility and should be  
9           recovered from customers. The total costs incurred to date including  
10          AFUDC include \$2.1 million for Lignite Vision 21 and \$332,000 for Milton  
11          R. Young III. These costs were incurred to study the development of  
12          future generation. While both of projects did not move forward these costs  
13          were deferred and included with the BS II costs into a construction work  
14          order designated as future generation costs. All these costs were viewed  
15          by the Company as prudently incurred costs necessary to provide future  
16          generation. Many events unfolded outside of the Company's control that  
17          drew these projects to a close as stated in Ms. Stomberg's testimony.

18          Upon the determination not to proceed with Big Stone II these costs were  
19          subsequently transferred to a regulatory asset and a filing was made in  
20          Montana, North Dakota and South Dakota requesting an accounting order  
21          to defer these costs until the next general rate case. Accounting orders  
22          were approved in Montana and South Dakota.

23    **Q. Does this conclude your direct testimony?**

1 A. Yes, it does.

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

Before the Public Service Commission of North Dakota

Case No. PU-10-\_\_\_

Direct Testimony  
of  
Darcy J. Neigum

1 **Q. Please state your name and business address.**

2 A. My name is Darcy J. Neigum and my business address is 400  
3 North Fourth Street, Bismarck, North Dakota 58501.

4 **Q. By whom are you employed and in what capacity?**

5 A. I am the System Operations and Planning Manager of Montana-  
6 Dakota Utilities Co. (Montana-Dakota), a Division of MDU Resources  
7 Group, Inc.

8 **Q. Please describe your duties and responsibilities with Montana-**  
9 **Dakota.**

10 A. I have manager responsibility for the evaluation and development  
11 of new generation resources as well as overseeing the day-to-day  
12 operations of the electric control center and system operations planning  
13 department. The system operations planning department is responsible  
14 for electric resource planning and expansion studies for the Company.

15 **Q. Please outline your educational and professional background.**

16 A. I hold a Bachelor's Degree in Electrical and Electronics  
17 Engineering from North Dakota State University as well as a Masters of

1 Business Administration from the University of Mary. My work experience  
2 includes four years as a nuclear plant operator for Westinghouse Electric,  
3 three years of experience as a plant engineer for a coal-fired plant in North  
4 Dakota, and eleven years of generation development and operational  
5 responsibilities which included coal-fired, gas-fired, and renewable  
6 generation sources. Over the last ten years, I have been responsible for  
7 project management and construction of a 220 MW gas-fired generator in  
8 Brazil, a 43 MW gas-fired generator in Montana, a 120 MW coal-fired  
9 generator in Montana, 30 MW of wind generation in Montana, 20 MW of  
10 wind generation in North Dakota, and a 5 MW heat-recovery generation  
11 project in North Dakota. I was also responsible for executive oversight of  
12 the operation and technical support for MDU Resources Group's  
13 independent power generation business unit prior to its sale in 2007.

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

15 A. The purpose of my testimony is to document the changes in  
16 wholesale sales that Montana-Dakota has experienced as a result of its  
17 participation in the Midwest ISO Energy Market and to describe the new  
18 resource additions that Montana-Dakota has made with respect to supply  
19 side generating stations over the past five years.

20 **Q. Please describe the changes in wholesale sales that Montana-Dakota  
21 has experienced since 2003?**

22 A. The expiration of a long term purchase contract with Basin Electric  
23 occurring in October 2006 coupled with the startup of the Midwest ISO  
24 Energy Market on April 1, 2005, significantly changed Montana-Dakota's

1 opportunities for wholesale sales of excess electric energy. Montana-  
 2 Dakota's historical ability to enter into traditional bilateral arrangements  
 3 was replaced with day ahead and real-time offering of available energy  
 4 into the Midwest ISO Energy Market. The Midwest ISO Energy Market  
 5 dispatches all available generation resources to meet system reliability  
 6 requirements and minimize the purchased price of energy to load serving  
 7 entities on a day ahead and real time basis.

8 Since the startup of the Midwest ISO Energy Market, Montana-  
 9 Dakota has seen a drop in wholesale sales as compared to the pre-energy  
 10 market days. The majority of Montana-Dakota's wholesale sales occurs  
 11 during off-peak system hours and come from the sale of coal-based  
 12 generation not utilized to serve Montana-Dakota customer load.

13 The table below is a summary of Montana-Dakota's historical  
 14 wholesale sales showing the MWh volumes, revenue, margin and margin  
 15 per MWh from 2003 through 2009 and the decline discussed above.

| Wholesale Sales | 2003         | 2004         | 2005         | 2006        | 2007        | 2008        | 2009        |
|-----------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|
| MWh             | 841,637      | 821,516      | 615,220      | 483,943     | 165,638     | 223,777     | 90,788      |
| Revenue         | \$24,438,532 | \$26,469,193 | \$24,136,379 | \$6,138,964 | \$5,700,088 | \$8,043,463 | \$2,239,005 |
| Margin          | \$11,752,321 | \$13,548,491 | \$15,747,791 | \$9,847,352 | \$3,286,769 | \$4,593,278 | \$604,256   |
| Margin per MWh  | \$13.96      | \$16.49      | \$25.60      | \$20.35     | \$19.84     | \$ 20.53    | \$6.65      |

1           During the same period of 2003 to 2009, Montana-Dakota's retail  
2 sales have increased by an average of 61,140 MWh per year or 2.6  
3 percent per year. This increase in customer load and the loss of the AVS-  
4 II contract has decreased the amount of energy that Montana-Dakota has  
5 available for wholesale sales.

6           With the financial market collapse and corresponding demand  
7 destruction in parts of the Upper Midwest and Midwest ISO footprint,  
8 Montana-Dakota's wholesale sales dropped significantly in 2009 as the  
9 average Midwest ISO load dropped five percent or more. The installation  
10 of intermittent, primarily wind, generation resources in the Midwest ISO  
11 footprint has also reduced Montana-Dakota's ability to make off-peak  
12 wholesale sales. This additional off-peak generation has pushed typically  
13 base load coal-fired generation down to minimum generation levels during  
14 off-peak periods when Montana-Dakota historically saw its greatest  
15 opportunity for wholesale sales. In 2009, Montana-Dakota saw frequent  
16 minimum generation events and negative system pricing during off-peak  
17 periods during the shoulder months and weekends. As of October 2009,  
18 the Midwest ISO had a total installed wind capacity of 7,472 MW. This  
19 number will continue to increase until the renewable portfolio standard  
20 targets for the Midwest ISO load are met.

21           The Midwest ISO's Energy Market was replaced by the Midwest  
22 ISO's Ancillary Service Market (ASM) on January 6, 2009. The startup of  
23 the ASM reduced the amount of generation resources held in reserve for  
24 regulation, spin, and supplemental requirements by over 1,000 MW

1 according to the Midwest ISO. This allowed additional generation to  
2 access the energy market and further reduced Montana-Dakota's  
3 opportunities for wholesale sales.

4 Montana-Dakota has offered its generation units capable of  
5 supplying regulation, spin, and supplemental into the ASM market but has  
6 seen minimal revenue from offering these services. Going forward,  
7 Montana-Dakota expects to see continued decreased wholesale sales and  
8 margins as compared to historical levels. For 2010, based on forecasted  
9 plant outages and unit availabilities, Montana-Dakota is forecasting  
10 wholesale sales of 122,768 MWh, an annual margin of \$667,752, and an  
11 average margin per sale of \$5.37 per MWh.

12 **Q. What generating resource additions has Montana-Dakota made since**  
13 **2003?**

14 Since 2003, Montana-Dakota has made several new generating  
15 resource additions including: a 19.5 MW Wind Project named Diamond  
16 Willow which commenced commercial operation in February of 2008, a  
17 5.3 MW heat recovery generating station named Glen Ullin Station #6  
18 which commenced commercial operation in July of 2009, a 19.5 MW Wind  
19 Project named Cedar Hills which is scheduled to begin commercial  
20 operation in June of 2010, and a 10.5 MW expansion to the Diamond  
21 Willow Wind Project which is scheduled to begin commercial operation in  
22 June of 2010.

23 All resource additions were included in Montana-Dakota's most  
24 recent filed Integrated Resource Plan dated July 1, 2009.

1    **Q     Please describe the Diamond Willow Wind Project?**

2    A.           The 19.5 MW Diamond Willow Wind Project, located southeast of  
3           Baker, Montana began construction in 2007 and consists of 13 General  
4           Electric (GE) wind turbines each rated at 1.5 MW. The Diamond Willow  
5           Wind Project began commercial operation in February of 2008 and has  
6           been serving the integrated system customers since that time.

7           Montana-Dakota issued a Request for Proposal (RFP) during the  
8           spring of 2007 seeking renewable resources that would qualify for the  
9           State of Montana Renewable Portfolio Standard (Montana RPS).

10          As part of the RFP, a developer offered the rights to the Diamond Willow  
11          Wind Project to Montana-Dakota which was ultimately selected as the  
12          winning proposal from the RFP. Montana-Dakota purchased the wind  
13          turbines and substation equipment for the project and hired a general  
14          contractor to construct the project roads, foundations and erect the wind  
15          turbines.

16          The Diamond Willow Wind Project connects to Montana-Dakota's  
17          57 kV transmission system which runs through the project site. Diamond  
18          Willow achieved an annual capacity factor of 39.6 percent in 2009 and a  
19          capacity factor of 39.1 percent for the last ten months of 2008.

20          Montana-Dakota employs two wind technicians who perform all the  
21          operation and maintenance for the Diamond Willow project.

22          The Diamond Willow project was build for \$39.4 million which  
23          included the cost of the turbines, associated substation, and transmission  
24          interconnection facilities.

1           The 10.5 MW Diamond Willow expansion project began  
2 construction in 2009 and consists of 7 GE wind turbines each rated at 1.5  
3 MW. The Diamond Willow expansion project is scheduled to begin  
4 commercial operation in June of 2010. The estimated cost of the  
5 expansion is \$25.4 million which includes turbine equipment, substation  
6 facilities, and transmission interconnection costs.

7           The interconnection substation for Diamond Willow was expanded  
8 with a third 10 MVA transformer to accommodate the expansion project.

9 **Q. Please describe the Glen Ullin heat recovery project?**

10 A.           The Glen Ullin heat recovery project, named Glen Ullin Station #6,  
11 is a 5.3 MW heat recovery generating facility located near Glen Ullin,  
12 North Dakota. The Glen Ullin generating station is interconnected with the  
13 exhaust stack of the Northern Border Compressor Station #6.

14           Glen Ullin generating station takes the exhaust of the Northern  
15 Border Compressor Station and passes it through a newly installed heat  
16 exchanger located in the exhaust path of the turbine for the compressor  
17 station. This heat exchanger heats a closed loop oil system which in turn  
18 vaporizes and superheats a volatile pentane liquid which in turn drives a  
19 turbine and generator. The exhaust of the turbine is sent to an air-cooled  
20 condenser where the pentane gas is cooled and condensed back into a  
21 liquid.

22           The Glen Ullin generating station is expected to generate an  
23 average of 5.3 MW without the combustion of any additional fuel. The only  
24 fuel combusted on-site is used to drive the Northern Border gas

1 compressor which does not require any additional fuel to support the  
2 Montana-Dakota generating equipment. The Glen Ullin Station #6 is  
3 considered an intermittent resource because it is only capable of  
4 generating if the Northern Border compressor station is operating.

5 Montana-Dakota has a waste heat purchase and lease agreement  
6 with Northern Border. The initial term of the Northern Border agreements  
7 is for a 20 year period, with five year extension options available.

8 Ormat Technologies (Ormat) supplied the equipment and  
9 constructed the generating facilities for the Glen Ullin project under an  
10 Engineering, Procurement, and Construction Agreement. Ormat is  
11 contracted to be the operator for the Glen Ullin generating station for a five  
12 year period.

13 The total cost of Glen Ullin Station #6 was \$16.7 million which  
14 included the cost of the generating equipment, associated substation, and  
15 transmission interconnection facilities. Glen Ullin Station #6 is expected to  
16 have an annual capacity factor of 67 percent.

17 Glen Ullin Station #6 connects to Montana-Dakota's 41.6kV  
18 transmission system at the newly constructed Glen Ullin Rodeo  
19 Substation.

20 **Q. Please describe the Cedar Hills Wind Project?**

21 A. Cedar Hills Wind is a 19.5 MW wind project, located west of  
22 Rhame, North Dakota that Montana-Dakota developed based on  
23 experience received during the development and construction of the  
24 original Diamond Willow project.

1 Montana-Dakota looked to develop a new wind project in the  
2 vicinity of Diamond Willow for several reasons.

3 The Diamond Willow project has exhibited that an excellent wind  
4 resource exists around the Baker, Montana area. As noted earlier,  
5 Diamond Willow's 2009 annual capacity factor was 39.6 percent, and its  
6 ten month 2008 capacity factor was 39.1 percent. Also impressive is a  
7 wind profile at the Diamond Willow that matches Montana-Dakota's  
8 customer load pattern. Most Midwest ISO wind projects generate the  
9 majority of their wind output during off-peak hours when customer demand  
10 is low.

11 Siting another wind project near Diamond Willow allows for  
12 synergies between the two projects including the sharing of personnel,  
13 facilities, tools, and parts.

14 The Diamond Willow project is located on a Montana-Dakota 57kV  
15 transmission circuit which has limited interconnection capability compared  
16 to higher voltage transmission facilities. The benefit to utilizing 57kV  
17 transmission facilities is the lower cost of interconnection compared to  
18 higher voltage facilities. Cedar Hills provides diversity from Diamond  
19 Willow by being located on a separate 57kV transmission facility than  
20 Diamond Willow.

21 The Federal Production Tax Credit (PTC) for wind was set to expire  
22 in 2009 when Montana-Dakota started looking to develop a new wind  
23 project. The PTC provides a tax credit of \$21 per MWh of production for a  
24 ten year period for qualifying wind generating facilities. Cedar Hills and the

1 Diamond Willow expansion will both qualify and be eligible for the current  
2 PTC. The PTC's will provide a significant savings to Montana-Dakota's  
3 customers. The PTC eligibility is currently set to end on December 31,  
4 2012.

5 Under the Midwest ISO transmission siting and planning practices,  
6 available transmission capacity to support new interconnects is allocated  
7 on a first come first serve basis. Utilizing the existing capabilities of the  
8 transmission system in the Baker and Rhame area, Montana-Dakota is  
9 able to efficiently and economically interconnect renewable generation  
10 sources onto the existing transmission system before the 2,700 MW of  
11 wind projects in the Midwest ISO queue planned to interconnect onto  
12 Montana-Dakota's system take up all the available transmission  
13 interconnection capability.

14 The Cedar Hills Project, consisting of 13 GE wind turbines each  
15 rated at 1.5 MW, began construction in 2009 and is scheduled to begin  
16 commercial operation in June of 2010. The estimated cost of Cedar Hills is  
17 \$47.4 million which includes turbine equipment, substation facilities, and  
18 transmission interconnection costs.

19 **Q. Would you explain how the generation resources you just described**  
20 **will be used to meet the various renewable objectives and**  
21 **requirements applicable in Montana-Dakota service territories?**

22 Yes. The Cedar Hills Wind Project, the Diamond Willow and  
23 Diamond Willow expansion projects, along with the Glen Ullin project, will  
24 be utilized to help meet the North Dakota and South Dakota Renewable

1 Objectives and Montana RPS requirements. The North Dakota and South  
2 Dakota Renewable Objectives both target that ten percent of customer's  
3 energy requirements should come from renewable sources of generation  
4 by 2015. The Montana RPS requires five percent of the electricity to serve  
5 Montana customers to come from renewable sources beginning in 2008.  
6 The Montana RPS requirement increases to ten percent in 2010 and 15  
7 percent in 2015.

8 **Q. What percentage of Montana-Dakota's energy will come from**  
9 **renewable sources of generation when Cedar Hills and Diamond**  
10 **Willow expansion come online?**

11 A. 7.3 percent of Montana-Dakota's 2011 integrated system customer  
12 energy requirements are forecasted to come from the renewable  
13 generating sources of Diamond Willow, Cedar Hills, and Glen Ullin Station  
14 #6.

15 **Q. Does this conclude your direct testimony?**

16 A. Yes, it does.

MONTANA-DAKOTA UTILITIES CO.

A Division of MDU Resources Group, Inc.

Before the Public Service Commission of North Dakota

Case No. PU-10-\_\_\_\_

Direct Testimony

of

Stephanie L. Bosch

1 **Q. Please state your name and business address?**

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

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

5 A. I am a Regulatory Analyst Supervisor for Montana-Dakota Utilities  
6 Co. (Montana-Dakota), a Division of MDU Resources Group, Inc.

7 **Q. Please describe your duties as Regulatory Analyst Supervisor?**

8 A. My primary responsibilities include maintenance of the Company's  
9 Customer Information System's rate file and the analysis of revenues for  
10 use in rate cases.

11 **Q. Would you please describe your education and professional  
12 background?**

13 A. I graduated from the University of North Dakota in 1995 with a  
14 Bachelor of Business and Public Administration degree in Banking and  
15 Financial Economics. I joined Montana-Dakota in June 1997 and have  
16 held the positions of Rate Clerk and Regulatory Analyst before assuming  
17 my current position in 2007.

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

2 A. The purpose of my testimony is to discuss the development of the  
3 projected sales volumes and revenues as shown in Statement M.

4 **Q. Would you describe the development of the projected sales volumes  
5 and revenues?**

6 A. Customers and sales volumes were projected by applying a four  
7 year historical average annual increase to the per books customer and  
8 volume levels. The revenues were then derived using current rates and  
9 substituting the base fuel of \$0.01303 per Kwh with the projected fuel and  
10 purchased power rate from Statement N.

11 **Q. Would you please explain the derivation of the projected customers?**

12 A. Montana-Dakota derived the projected customers by calculating the  
13 average annual increase based on a four year historical period by  
14 customer class and applying that increase to the 2009 per books level of  
15 customers. The increase was then allocated to the rate schedules within  
16 the customer class based on the rate schedule's ratio of customers within  
17 the customer class.

18 Certain customers or rate schedules were reviewed individually and  
19 reflect no increase in their customer level for 2010.

20 **Q. Why was a select group of customers reviewed individually?**

21 A. Customers or rate schedules reviewed individually included those  
22 currently taking service under a contract as well as customers taking  
23 service under Interruptible Large Power Demand Response Rate 38,

1 Interruptible Large Power Service Rate 39 and General Service Rate 30  
2 where the customer's service has been classified as primary service.

3 Customers within these rate groups are small enough in class size  
4 to allow the customers to be individually reviewed for a change in  
5 operations that would necessitate a change in the number of customers  
6 for 2010.

7 **Q. Would you please describe the methodology used in developing**  
8 **projected sales volumes?**

9 A. Consistent with the derivation of projected customers, Montana-  
10 Dakota calculated a four year average annual increase by customer class  
11 to be used in the development of projected Kwh sales. However, prior to  
12 increasing the 2009 per books level by the class average, adjustments  
13 were necessary to reflect corrections or changes to customers' accounts  
14 for certain rate schedules.

15 **Q. Would you explain these adjustments in more detail?**

16 A. Yes, within the General Service Rate 30 class, two customers  
17 upgraded their facilities in 2009 resulting in a change in the customers'  
18 service to primary service from secondary service. This change in rate  
19 classification required the Company to reflect an entire year of sales under  
20 the primary service provision of the General Service Rate 30 tariff.

21 In addition, three customers' accounts were adjusted in late 2009  
22 and early 2010 to reflect the correct rate classification. These corrections

1 required the Company to reflect an entire year of sales under the  
2 customers' current rate classifications.

3 Montana-Dakota then increased the Kwh sales by the four year  
4 class annual average to derive the 2010 projected Kwh using the adjusted  
5 2009 data. The increase in sales volumes was then allocated to the rate  
6 schedules within the customer class based on each rate schedule's ratio  
7 of sales within the customer class.

8 The Company then calculated the level of billed KW using the  
9 projected Kwh and assumed the same load factor as experienced in 2009.

10 **Q. Were any customers reviewed individually when determining**  
11 **projected sales?**

12 A. Yes. The Company reviewed the historic sales of customers taking  
13 service under the primary service provision of General Service Rate 30,  
14 Rate 30 contract customers, Interruptible Large Power Demand Response  
15 Rate 38 and Interruptible Large Power Service Rate 39. In addition,  
16 Company personnel, who have a working relationship with these  
17 customers, were also consulted to identify any changes in operations that  
18 may occur in 2010. Montana-Dakota then established the projected 2010  
19 sales volumes within this group based on the level of adjusted sales for  
20 2009 with the exception noted below.

21 The sales volumes for a contract customer were adjusted to reflect  
22 the loss of its manufacturing load and its remaining operations in  
23 Bismarck. The current contract will cease in July 2010 and its remaining

1 service will move under the primary service provision of General Service  
2 Rate 30.

3 **Q. Did the Company include any adjustment for conservation in its**  
4 **projections?**

5 A. Yes. Montana-Dakota reduced its projected Kwh sales for the  
6 General Service Rate 30 Secondary Service rate by the Company's  
7 estimated savings for the Commercial Lighting program included in the  
8 Company's conservation portfolio in correlation with the American  
9 Recovery and Reinvestment Act (ARRA).

10 **Q. How do the projected Kwh sales for 2010 included in this rate case**  
11 **compare to the 2010 sales presented in the Company's Electric Load**  
12 **Forecast included in its Integrated Resource Plan (IRP)?**

13 A. The Company's Electric Load Forecast included in its IRP for North  
14 Dakota for 2010 is 1,574,563,000 Kwh. The projected sales included in  
15 this rate case as described above are 1,577,853,225 Kwh.

16 **Q. Does that complete your direct testimony?**

17 A. Yes, it does.

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

Before the Public Service Commission of North Dakota

Case No. PU-10-

Direct Testimony  
of  
Rita A. Mulkern

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

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

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

5 A. I am the Regulatory Analysis Manager of Montana-Dakota Utilities  
6 Co. (Montana-Dakota), a Division of MDU Resources Group, Inc.

7 **Q. Would you please describe your duties as Regulatory Analysis  
8 Manager?**

9 A. I am responsible for the preparation of cost of service studies, fuel  
10 cost adjustments, purchased gas cost adjustments and gas tracking  
11 adjustments in each of the jurisdictions in which Montana-Dakota  
12 operates.

13 **Q. Would you please describe your education and professional  
14 background?**

15 A. I graduated from North Dakota State University with a Bachelor of  
16 Arts degree with majors in Economics and Business Administration and a  
17 minor in Statistics. I joined Montana-Dakota in July 1981 as a Regulatory

1            Statistician, became Cost of Service Supervisor in 1986 and assumed my  
2            current position in 1999.

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

4    A.            Yes, I have presented testimony before the Public Service  
5            Commissions of Montana, North Dakota, and Wyoming and the Minnesota  
6            and South Dakota Public Utilities Commissions.

7    **Q.    Are you familiar with the books and records of Montana-Dakota and  
8            the manner in which they are kept?**

9    A.            Yes. Montana-Dakota's books and records are kept in accordance  
10           with the Federal Energy Regulatory Commission (FERC) Uniform System  
11           of Accounts.

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

13   A.            The purpose of my testimony is to present the Company's per  
14           books cost of service for the twelve months ended December 31, 2009,  
15           the projected cost of service for 2010, the calculation of the revenue  
16           deficiency and the calculation of the interim request.

17   **Q.    What statements, schedules and exhibits are you sponsoring?**

18   A.            I am sponsoring Statements C through E, Statements G through N,  
19           the proposed Rate 58 Fuel and Purchased Power adjustment tariff and  
20           Exhibit No. \_\_\_\_ (RAM-1).

21   **Q.    Were these statements and exhibits prepared by you or under your  
22           direct supervision?**

23   A.            Yes, they were.

1 **Q. What were the results of North Dakota electric operations for 2009?**

2 A. Statement L, pages 1 and 2 show the per books income statement  
3 and rate base for the total Company and for the North Dakota service  
4 area. As shown on page 1, North Dakota electric operations had a return  
5 on rate base of 8.701 percent for the twelve months ended December 31,  
6 2009. The details for each line item, i.e. sales revenue, other revenue,  
7 etc., are included in the applicable Statement.

8 **Q. How was the per books cost of service allocated to North Dakota?**

9 A. The Company utilizes a jurisdictional accounting system that  
10 directly assigns and/or allocates every item of revenue, expense and rate  
11 base to the jurisdictions as part of the regular accounting process on a  
12 monthly basis. The allocation methods and procedures are the same as  
13 have previously been used in Commission proceedings and are based on  
14 the principle of assigning and/or allocating costs to the cost causer.

15 **Q. What test period are you using to determine the revenue  
16 requirement?**

17 A. The revenue requirement is based on a projected 2010 year end  
18 test period. As stated by Mr. Goodin, the primary reason for the increase  
19 is investment in facilities, including those that will be completed in 2010,  
20 and the wind generation expansion projects expected to be completed in  
21 the second quarter of 2010. A year end 2010 cost of service will best  
22 match the cost and customer levels at the time that the rates will go into

1 effect. Montana-Dakota is using a future test year in accordance with  
2 North Dakota Century Code §49-05-04.1.

3 **Q. Would you describe the development of the projected cost of service**  
4 **for 2010?**

5 **A.** The projected 2010 cost of service is presented in Statement M,  
6 which contains all of the schedules supporting the income statement on  
7 page 1, and Statement N, which contains all of the schedules supporting  
8 the rate base on page 1. The revenues and expenses reflect the annual  
9 level that will be experienced when the new rates become effective.

10 Likewise, the rate base reflects 2010 plant and related balances.

11 **Q. Would you describe the projected 2010 revenues?**

12 **A.** The projected revenues for 2010 are summarized on Statement M,  
13 page 2. Ms. Bosch discusses the development of sales revenues in her  
14 testimony. Other operating revenues are at the 2009 level, with the  
15 exception of miscellaneous service revenues, which were adjusted to  
16 include the three year average of KVAR penalty revenue. Penalty  
17 revenues were included in the per books sales revenue and were  
18 eliminated when sales revenues at current rates were calculated. The  
19 adjustment to miscellaneous revenue reflects the movement of penalty  
20 revenue from sales revenue to miscellaneous revenue on page 6.

21 **Q. Would you explain the projected wholesales margin and Margin**  
22 **Sharing Adjustment (MSA)?**

1 A. Montana-Dakota is proposing to eliminate the Margin Sharing  
2 Adjustment and reflect no wholesale margin revenues in the revenue  
3 requirement, as shown on Statement M, page 6. Instead, the Company is  
4 proposing to credit 85 percent of all wholesale margins through the Fuel  
5 and Purchased Power (FPPA) adjustment. Therefore the projected  
6 amount for these items embedded within the calculation of the revenue  
7 requirement is zero.

8 **Q. Would you describe the development of the operation and**  
9 **maintenance expenses?**

10 A. Yes. The projected operation and maintenance (O&M) expenses  
11 are shown in Statement M. Pages 7 through 9 of Statement M summarize  
12 the projected O&M expenses, with the details provided on pages 10  
13 through 31.

14 Fuel and purchased power costs have been restated to the  
15 projected fuel and purchased power costs to reflect the inclusion of the  
16 Cedar Hills and Diamond Willow wind facilities along with a redispatch to  
17 reflect normal outage schedules for the other plants and current market  
18 costs for energy. In addition, Montana-Dakota is proposing to add two  
19 components to the fuel and purchased power adjustment; demand  
20 charges and regional market administrative charges. It is now appropriate  
21 to include a component for demand charges because the level of demand  
22 charges is subject to change more often, both increasing and decreasing.  
23 The market administration costs are those costs associated with the MISO

1 energy market but recorded in Account 575. These are the Schedule 16  
2 and 17 costs that were previously included in the purchased power  
3 Account 555 until FERC required that these cost be recorded in Account  
4 575. Fuel costs associated with the sales for resale are excluded from the  
5 projected fuel and purchased power costs as Montana-Dakota is  
6 proposing to include sales for resale margin in the FPPA.

7 **Q. Would you describe the development of the projected other O&M?**

8 A. Yes. Labor expense is shown on page 11, with actual labor  
9 expense for the twelve months ended December 31, 2009 as the starting  
10 point. The labor expense for 2010 was developed by applying the  
11 projected percentage increase in total Company labor costs to the 2009  
12 per books North Dakota labor expense. Projected total Company labor  
13 costs were based on the labor amounts budgeted for 2010, with bonuses  
14 adjusted to reflect a three year average and severance amounts paid in  
15 2009 amortized over three years, and results in a 0.32 percent increase  
16 for 2010. The projected labor expense incorporates the savings  
17 associated with the integration efforts described by Mr. Goodin.

18 Benefits expense consists of medical/dental insurance, pension  
19 expense, 401K, post-retirement, workers compensation and other  
20 benefits. Each of these items, excluding the other benefits, was projected  
21 individually for 2010 using the 2010 budgeted amounts and applying the  
22 projected change from 2009 to each type of benefit. The Supplemental  
23 Income Security Plan (SISP) was eliminated in accordance with past

1 Commission decisions. The changes in benefits discussed by Mr. Goodin  
2 effective in 2010 are incorporated in the projected benefit expense.

3 Page 13 shows the expenses associated with the 30 MW wind  
4 generation expansion at Diamond Willow and Cedar Hills. The expenses  
5 include the incremental operation and maintenance expenses for these  
6 projects. Likewise, the expenses associated with the Glen Ullin waste  
7 heat recovery unit, which commenced commercial operation in July 2009  
8 were annualized to reflect a full year's expense on page 14.

9 Expenses at the Coyote and Big Stone plants were adjusted to  
10 reflect normal operating conditions for 2010. The Coyote plant was out of  
11 service for an extended outage from the end of March through early May  
12 in 2009.

13 Material expense reflects an increase to reflect changes at the  
14 Lewis & Clark and Diamond Willow generation facilities. Mercury  
15 emission control equipment was added to the Lewis & Clark Station in  
16 2009 and the increase annualizes the additional materials required for the  
17 equipment. Materials at Diamond Willow increased as the initial warranty  
18 on the facilities expired in early 2010 and there was also an increase in  
19 the transmission function due to the increased level of activity.

20 Vehicles and work equipment expense, on page 17 reflects all  
21 costs associated with the Company's vehicles and equipment, such as  
22 line trucks, including the costs of fuel, insurance, maintenance and  
23 depreciation. The projected expenses reflect a decrease due to the

1 change in the depreciation component. Depreciation is calculated based  
2 on the projected plant and the proposed depreciation rates from  
3 Statement I. The depreciation expense on these items is not charged to  
4 the depreciation account but rather is charged to a clearing account where  
5 it is then recorded in O&M expense as the vehicles or work equipment is  
6 used.

7 Company consumption is the expense for electric and natural gas  
8 consumption in Company buildings. The slight increase reflects an  
9 increase in the electric component to reflect the current rates while the  
10 natural gas component is expected to remain the same based on  
11 normalized sales levels at the current retail rate, inclusive of a 2010  
12 average cost of gas.

13 Postage expense is projected to decrease due to the elimination of  
14 a prepaid postage purchase in late in 2009 that is applicable to 2010.

15 Demand side management (DSM) expenses reflect a three year  
16 amortization of demand side expenses. These expenses relate primarily  
17 to the commercial lighting program and will form the base of the DSM  
18 expense level to be used in conjunction with the DSM tracker discussed  
19 by Ms. Aberle.

20 Uncollectible accounts, shown on page 21, are projected based on  
21 the five year average of write-offs to revenues, multiplied by the projected  
22 sales revenue.

1           Advertising expense is shown on page 22. Promotional advertising  
2           expense has been eliminated and institutional advertising is adjusted to  
3           eliminate the expenses not applicable to North Dakota electric operations.

4           Insurance expense reflects the current insurance expense level for  
5           2010, and is an increase from the 2009 insurance expense level.

6           Utility discounts are projected to decrease on page 24. Montana-  
7           Dakota eliminated the employee discount for active employees effective  
8           February 1, 2010 as part of its integration efforts. Expenses will not be  
9           eliminated entirely as the discount will continue to be provided as a retiree  
10          benefit to employees that retired prior to January 1, 2010.

11          Industry dues reflect the projected level of industry dues and  
12          eliminates those dues not specifically applicable to North Dakota electric  
13          operations.

14          Regulatory commission expense reflects the expenses expected to  
15          be incurred in this case, amortized over a three-year period, and an  
16          ongoing level of regulatory commission expense.

17          The projected O&M expense on page 28 is for the O&M expenses  
18          not specifically identifiable or calculated as described above, adjusted for  
19          the effects of inflation. A 2.11 percent inflation factor, based on the  
20          increase in the consumer price index for 2007-2009, was applied to the  
21          expenses not specifically adjusted. Montana-Dakota adjusted  
22          approximately 90 percent of expenses individually and the adjustment for  
23          inflation is applicable to approximately 10 percent of O&M.

1 **Q. Would you describe the calculation of depreciation expense?**

2 A. Yes. Projected depreciation expense is shown in Statement M,  
3 pages 32 through 35. The calculation of depreciation expense and the  
4 associated accumulated reserve for depreciation is shown on page 33 and  
5 34 and is the annualized depreciation expense on projected plant,  
6 calculated using the projected plant in service, excluding the Diamond  
7 Willow and Cedar Hills additions, and the proposed depreciation rates.  
8 The proposed depreciation rates are from a depreciation study by AUS  
9 Consultants, Inc., using plant as of December 31, 2008, with the  
10 depreciation rate summary shown on Statement I, pages 2 through 8. The  
11 steam production depreciation rates include interim net negative sales  
12 amounts, which the Company has not previously requested. The  
13 depreciation expense on the Diamond Willow and Cedars Hills additions is  
14 on page 35.

15 **Q. Would you describe the calculation of taxes other than income?**

16 A. Yes. Taxes other than income are shown on pages 36 through 41  
17 of Statement M. Ad valorem taxes were restated using projected plant in  
18 service and applying the effective tax rates based on the 2009 ratio of ad  
19 valorem taxes to plant. The ad valorem taxes on Cedar Hills and the new  
20 increment of Diamond Willow were calculated separately on page 39.

21 Projected payroll taxes were based on the ratio of payroll taxes to  
22 labor expense for 2009 and applied to projected labor expense to  
23 determine the projected payroll taxes.

1            Generation taxes are made up of the North Dakota coal conversion  
2 tax and the Montana energy taxes. These taxes were restated to reflect  
3 the projected generation of energy.

4            All other taxes other than income taxes remained at the 2009 level.

5 **Q.    Would you describe the calculation of federal and state income**  
6 **taxes?**

7 A.            The projected income tax calculation for North Dakota electric  
8 operations is shown on pages 42 through 44. Interest is deductible for tax  
9 purposes. Interest expense is calculated on the projected rate base using  
10 the debt ratio and weighted cost of debt from Statement F on page 1.

11            North Dakota federal and state income taxes are fully normalized,  
12 so the calculation of income taxes is made on the taxable income after  
13 interest, since any tax deductions would be fully offset by deferred income  
14 taxes.

15            The production tax credit, shown on page 44, is applicable to  
16 generation from wind facilities and the projected amount for 2010 reflects  
17 the additional wind generation from the Diamond Willow and Cedar Hills  
18 generation.

19 **Q.    Would you please describe the development of projected rate base?**

20 A.            Yes. The rate base is summarized on Statement N, page 1 and  
21 shows the 2009 actual and projected 2010 rate base for North Dakota  
22 electric operations. Pages 2 through 23 are the supporting components of  
23 the projected rate base.

1                   Pages 2 through 12 show the projected plant in service for 2010.  
2                   The projected plant was developed by adding the capital budget items for  
3                   2010 to the 2009 plant in service balances. Retirements, based on a  
4                   three-year average of retirements by function, were deducted. The  
5                   complete list of plant additions are included in pages 4 through 10. The  
6                   addition of 10.5 MW of wind at the Diamond Willow wind facility and 19.5  
7                   MW Cedar Hills facility are shown on page 11. The reallocation of the  
8                   19.5 MW Diamond Willow generation that commenced operation in 2008  
9                   is shown on page 12. Montana-Dakota has historically allocated all  
10                  generation facilities to the jurisdictions on the twelve month integrated  
11                  system peak demand. The wind, while providing capacity, is more  
12                  reflective of an energy facility than meeting peak demand and Montana-  
13                  Dakota is now allocating wind generation to the jurisdictions on a  
14                  combined demand and energy factor made up of 20 percent of the twelve  
15                  month system peak demand factor and 80 percent of the interconnected  
16                  system kwh sales factor. Both the plant and accumulated reserve were  
17                  reallocated to North Dakota electric operations.

18                  The accumulated reserve for depreciation is summarized on page  
19                  13 and was calculated using the reserve balances at December 31, 2009,  
20                  adding the calculated depreciation expense and deducting retirements  
21                  based on a three-year average of retirements. The 2010 balances were  
22                  then calculated and are shown on Statement M, pages 33 and 34.

23

1 **Q. How were the working capital items derived?**

2 A. The projected working capital items are shown on pages 14  
3 through 21 of Statement N. Materials and supplies were restated to a  
4 thirteen month average balance on page 15.

5 Fuel stores are restated to current cost levels and a thirteen month  
6 average balance on page 16.

7 Prepayments, made up of prepaid insurance, as shown on page  
8 17, are also restated to a thirteen-month average balance. Projected  
9 2010 balances are based on the actual balances as of December 31,  
10 2009 and projected monthly levels based on the current insurance  
11 expense levels for 2010.

12 The unamortized loss on reacquired debt is shown on page 18.  
13 When Montana-Dakota reacquires debt in order to reduce its debt costs,  
14 the unamortized loss is then amortized over the remaining life of the new  
15 issuance. Customers benefit through the net lower cost of debt and it is  
16 proper to include the cost of achieving the savings through the inclusion of  
17 the unamortized balance of the loss on debt in rate base.

18 The deferred generation costs are shown on page 19. The  
19 deferred generation costs are made up of the costs incurred by Montana-  
20 Dakota in its efforts to acquire generation resources in the Lignite Vision  
21 21 project, the Milton R. Young III project and the Big Stone II project.  
22 The recovery of the Big Stone II project is also currently the subject of  
23 Case No. PU-09-733 and, if resolved separately will be removed from this

1 case. The total deferred generation costs are amortized over ten years,  
2 with the unamortized amount in rate base.

3 Page 20 is the amortization of the costs of decommissioning retired  
4 power plants. Montana-Dakota recovered the costs of decommissioning  
5 the retired plants in a previous rate case based on an estimate of costs.  
6 Upon completion of the decommissioning, the actual costs were less than  
7 the estimate and Montana-Dakota is returning that amount to customers  
8 over a ten year period, with the unamortized amount a credit to the rate  
9 base.

10 Customer Advances for construction are restated to a thirteen  
11 month balance using actual amounts as of January 31, 2010.

12 The accumulated deferred income tax balances on page 22 were  
13 derived based on the projected activity for 2010.

14 The accumulated investment tax credit balances are projected to  
15 be fully amortized in 2010.

16 **Q. What does Statement L, page 3 show?**

17 A. Statement L, page 3, shows the calculation of the revenue  
18 deficiency of \$15,394,000 based on the projected 2010 operating income  
19 and rate base and using the overall rate of return of 9.051% from  
20 Statement F, page 1 and supported by Dr. Gaske and Mr. Senger.

21 **Q. What changes are you proposing to the Rate 58 Fuel Cost**  
22 **Adjustment (FCA)?**

1 A. Montana-Dakota is proposing to incorporate several changes in the  
2 fuel cost adjustment and to rename the tariff the Fuel and Purchased  
3 Power (FPPA) adjustment. The first, as discussed earlier, is to eliminate  
4 the margin sharing adjustment and instead, credit 85 percent of all  
5 wholesale margins as a credit in the FPPA. The benefits to this method  
6 are that all margin is subject to the sharing, the margin will be passed  
7 back to customers through the monthly adjustment and therefore reflected  
8 more timely, eliminates the need for the MSA while still providing an  
9 incentive to the Company to run its plants efficiently in order to make sales  
10 into the market. As discussed by Mr. Neigum, the market for sales for  
11 resale has changed significantly since the MSA was adopted in Docket  
12 No. PU-399-03-296 and the proposed method is a more efficient means of  
13 providing the credits to customers. However, the outstanding balance in  
14 the MSA will still require recovery and the Company is proposing to place  
15 the unamortized balance at the time final rates become effective into the  
16 FPPA deferred account.

17 The Company is also proposing to implement separate primary  
18 service and secondary service classes in the FPPA. There are  
19 differences in the customer classes that warrant separating the FPPA into  
20 customer classes. Montana-Dakota is proposing to establish a separate  
21 base cost of fuel and purchased power under two classifications: (1)  
22 customers taking service at the primary level, defined as customers  
23 metered at primary voltages of 2,400 volts or greater that own their own

1 transformers, related equipment, and distribution facilities downstream of  
2 the meter (available under Rates 30, 31, 32, 38, 41, 48 and 52), and (2)  
3 secondary customers taking service at the secondary level, which  
4 represents all other customers. This differentiation into the two  
5 classifications described above provides the means to track changes in  
6 the cost of fuel and power supply consistent with the base fuel established  
7 through the allocation process in the class cost of service study and  
8 accounts for differences in losses and demand allocations. The allocation  
9 to the proposed FPPA classes is based on the allocations contained in the  
10 embedded cost of service study and is supported by Ms. Aberle.

11 Finally, Montana-Dakota is proposing to include two new items in  
12 the FPPA, Market Administration charges and demand charges. The  
13 Market Administration charges are the MISO Schedule 16 and 17 charges  
14 associated with the MISO energy market and were previously recorded in  
15 Account 555 purchased power and therefore included in the FCA. FERC  
16 issued an Order requiring that those costs be recorded in Account 575,  
17 which was not included in the FCA. These costs relate to the energy  
18 market and should be recovered in the same manner as other energy  
19 costs. Correspondingly, the Market Administration costs have been  
20 eliminated from O&M expense on Statement M, page 31.

21 Demand charges have previously not been included in the fuel cost  
22 adjustment as they were traditionally long term agreements, such as the  
23 20 year AVS II contract that expired in 2006. Today, demand, or capacity

1 agreements are short term in nature and it is more appropriate to include  
2 these in the FPPA instead of the cost of service so that changes, both  
3 increases and decreases, can be passed on to customers in a timely  
4 manner without filing a general rate case.

5 Exhibit No. \_\_\_(RAM-1), page 1 illustrates the calculation of the  
6 base cost of fuel and purchased power while page 2 is a sample  
7 calculation of the proposed FPPA including the credit for wholesale sales  
8 margin at 85 percent.

9 **Q. Is Montana-Dakota seeking an interim increase in this case?**

10 A. Yes, it is. As stated by Mr. Goodin, Montana-Dakota is seeking  
11 interim rate relief in this case pursuant to North Dakota §49-09-06.

12 **Q. How was the interim revenue requirement increase derived?**

13 A. The Interim Revenue Requirement, page 1, shows the calculation  
14 of the revenue deficiency of \$7,617,000 based on the 2010 projected cost  
15 of service and adjusted for items previously not allowed or not reviewed by  
16 the Commission.

17 The interim revenue requirement excludes the proposed changes  
18 to wholesale margins and the MSA, a major transmission plant investment  
19 that will not be complete until the end of 2010, the interim net negative  
20 salvage on steam production plant and the deferred generation balances  
21 and amortization. The revenue requirement calculation uses the  
22 projected 2010 capital structure and capital costs including the authorized  
23 return on equity, which is the return on equity last authorized by this

1 Commission in Case No. PU-399-03-296, and is the same as the  
2 proposed return on equity.

3 **Q. Does that complete your direct testimony?**

4 **A.** Yes, it does.

**MONTANA-DAKOTA UTILITIES CO.**  
**FUEL AND PURCHASED POWER ADJUSTMENT - NORTH DAKOTA**  
**PROJECTED 2010**  
**BASE COST OF FUEL AND PURCHASED POWER**  
**(000s)**

|   | Total 1/        | Allocation to 2/<br>North Dakota | Allocation to 3/ |                  |
|---|-----------------|----------------------------------|------------------|------------------|
|   |                 |                                  | Primary          | Secondary        |
| Fuel & Purchased Power Costs            |                 |                                  |                  |                  |
| Account 501 and 547                     | \$46,122        | \$29,928                         | \$3,404          | \$26,524         |
| Account 555 Energy                      | 5,816           | 3,774                            | 429              | 3,345            |
| Account 555 Demand                      | 2,075           | 1,438                            | 100              | 1,338            |
| Account 575 Market Admin.               | 508             | 330                              | 38               | 292              |
| <b>Total Fuel &amp; Purchased Power</b> | <b>\$54,521</b> | <b>\$35,470</b>                  | <b>\$3,971</b>   | <b>\$31,499</b>  |
| Fuel Costs - Wholesale sales            | 4,095           | 2,657                            | 302              | 2,355            |
| <b>Net System Costs</b>                 | <b>\$50,426</b> | <b>\$32,813</b>                  | <b>\$3,669</b>   | <b>\$29,144</b>  |
| Mwh Retail Sales                        |                 | 1,577,853                        | 181,271          | 1,396,582        |
| Base Cost of Fuel - per Kwh             |                 | <u>\$0.02080</u>                 | <u>\$0.02024</u> | <u>\$0.02087</u> |

1/ Statement M, page 10.

2/ Energy allocated on Allocation Factor No. 16, Interconnected Kwh sales and demand is allocated on Allocation Factor No. 15, Integrated System peak demand.

3/ Energy is allocated on Kwh sales at generation and demand is allocated on class Allocation Factor No. 2, Average and Excess Demand.

**MONTANA-DAKOTA UTILITIES CO.**  
**FUEL AND PURCHASED POWER ADJUSTMENT - NORTH DAKOTA**  
**PROJECTED 2010**  
**PROPOSED ADJUSTMENT**  
**(000s)**

|   | Total 1/        | Allocation to 2/<br>North Dakota | Allocation to 3/ |                 |
|---|-----------------|----------------------------------|------------------|-----------------|
|   |                 |                                  | Primary          | Secondary       |
| Fuel & Purchased Power Costs            |                 |                                  |                  |                 |
| Account 501 and 547                     | \$46,122        | \$29,928                         | \$3,404          | \$26,524        |
| Account 555 Energy                      | 5,816           | 3,774                            | 429              | 3,345           |
| Account 555 Demand                      | 2,075           | 1,438                            | 100              | 1,338           |
| Account 575 Market Admin.               | 508             | 330                              | 38               | 292             |
| <b>Total Fuel &amp; Purchased Power</b> | <b>\$54,521</b> | <b>\$35,470</b>                  | <b>\$3,971</b>   | <b>\$31,499</b> |
| Fuel Costs - Wholesale sales            | 4,095           | 2,657                            | 302              | 2,355           |
| Net System Costs                        | \$50,426        | \$32,813                         | \$3,669          | \$29,144        |
| Wholesale sales Margin 4/               | (513)           | (392)                            | (45)             | (347)           |
| Total Costs - net of margin             | \$49,913        | \$32,421                         | \$3,624          | \$28,797        |
| Mwh Retail Sales                        |                 | 1,577,853                        | 181,271          | 1,396,582       |
| Cost Per Kwh                            |                 | \$0.02055                        | \$0.01999        | \$0.02062       |
| Base Cost of Fuel 5/                    |                 |                                  | 0.02024          | 0.02087         |
| FPPA                                    |                 |                                  | (\$0.00025)      | (\$0.00025)     |

1/ Statement M, page 10.

2/ Energy allocated on Allocation Factor No. 16, Interconnected Kwh sales and demand is allocated on Allocation Factor No. 15, Integrated System peak demand.

3/ Energy is allocated on Kwh sales at generation and demand is allocated on class Allocation Factor No. 2, Average and Excess Demand.

4/ 85 percent of 2009 wholesale margin .

5/ Page 1.

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

Before the Public Service Commission of North Dakota

Case No. PU-10 \_\_\_\_\_

Direct Testimony  
of  
Tamie A. Aberle

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

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

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

5 A. I am the Pricing & Tariff Manager in the Regulatory Affairs  
6 Department of Montana-Dakota Utilities Co. (Montana-Dakota), a Division  
7 of MDU Resources Group, Inc.

8 **Q. What are your responsibilities as the Pricing & Tariff Manager?**

9 A. My responsibilities include the preparation of rate design and  
10 miscellaneous tariff revision filings to ensure that the applicable revenue  
11 requirements are properly recovered from various customer classes via  
12 applicable rate forms. I also administer utility tariffs and rules and  
13 regulations effective in each of the jurisdictions in which Montana-Dakota  
14 provides utility service.

15 **Q. Would you please outline your educational and professional  
16 background?**

17 A. I graduated from Moorhead State University, Moorhead, Minnesota  
18 in 1982 with a Bachelor of Science degree in Accounting. I began my  
19 career with Montana-Dakota in 1983 in the Regulatory Affairs Department,  
20 I was promoted to Rate Administration Supervisor in 1990 and achieved

1 my present position in May 1999.

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

3 A. Yes. I have previously presented testimony before this  
4 Commission, the Public Service Commissions of Montana and Wyoming,  
5 and the Public Utilities Commissions of Minnesota and South Dakota.

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

7 A. The purpose of my testimony is to present the results of the class  
8 cost of service study and to address the effect of the proposed revenue  
9 requirement, as identified by Ms. Mulkern in her direct testimony, on each  
10 of the Company's electric rates, including how the distribution of the  
11 revenue requirement was made among the various customer classes  
12 served. In addition, my testimony will discuss the extent to which  
13 Montana-Dakota is proposing changes in rate design and proposed tariff  
14 changes.

15 **Q. What statements and exhibits are you sponsoring in this  
16 proceeding?**

17 A. I am sponsoring Statement O, Statement P and Exhibit No. \_\_\_\_  
18 (TAA-1) through Exhibit No.\_\_\_\_(TAA-2). I also sponsor the proposed rate  
19 schedules provided in Appendix B to the Application, other than the Fuel  
20 and Purchased Power Adjustment Rate 58 schedule sponsored by Ms.  
21 Mulkern.

22 **Q. What is the total revenue effect of the proposed electric rate  
23 changes?**

24 A. The proposed rates will produce additional revenues of  
25 \$15,396,303 or an increase of 13.9% annually based on projected 2010  
26 electric consumption. Exhibit No. \_\_\_\_ (TAA-1) represents summaries by

1 rate classification of the proposed final revenue increase. The exhibit  
2 shows the rate class and the revenues calculated under the present and  
3 proposed rates. The amount and percentage increase is also shown for  
4 the proposed revenue increase.

5 **Q. Would you please explain the embedded class cost of service study**  
6 **contained in Statement O?**

7 A. Yes. Statement O provides a report entitled "Cost of Service by  
8 Component." This report shows the total dollars and unit cost required  
9 under each rate if the overall requested rate of return of 9.091% is to be  
10 earned for the demand, energy and customer cost components of each  
11 rate schedule. The rate of return before allocation of the requested  
12 increase is also shown on Statement O. As an example, the resulting rate  
13 of return on the rate base allocated to residential customers under  
14 Residential Service Rate 10 is 3.386% and a revenue increase of  
15 approximately \$12,693,000 would be necessary to bring the residential  
16 rate of return to the overall average return. Statement O, page 1 also  
17 indicates that the customer related component associated with providing  
18 service to the residential class is \$16.40 per month with the demand and  
19 energy components comprising the remaining requirement at \$0.075 per  
20 Kwh. This same information is shown for each rate schedule on pages 2  
21 through 15 of Statement O.

22 A summary of the rate base and income statement items reflecting  
23 the allocation of the projected 2010 cost of service supported by Ms.  
24 Mulkern in her testimony is provided on page 16 of Statement O.

25 Statement O, Schedule O-1 provides a detailed report of the  
26 projected rate base and income statement as allocated to each rate

1 schedule. The allocation factor applied to the total North Dakota electric  
2 amount is shown on each line item.

3 Statement O, Schedule O-2 provides a list of the allocation factors  
4 used to allocate the total North Dakota electric amount to each class and  
5 cost component as referenced in Schedule O-1.

6 **Q. What were the results of the embedded cost of service study?**

7 A. The overall North Dakota electric rate of return based on the  
8 projected 2010 test period presented by Ms. Mulkern of 5.809%. The  
9 returns by customer class are as shown below:

| <b>Customer Class</b>                  | <b>ROR</b> |
|--|------------|
| Residential Service                    | 3.386%     |
| Small General Service                  | 7.380%     |
| Irrigation Service                     | -6.061%    |
| General Service - Primary              | 5.656%     |
| General Service – Secondary            | 8.602%     |
| Time of Day Large General Service      | 7.621%     |
| Space Heating Service                  | 7.983%     |
| Small Municipal Service                | 2.293%     |
| Municipal Lighting Service – Primary   | 13.023%    |
| Municipal Lighting Service – Secondary | 12.394%    |
| Municipal Pumping Service - Primary    | 1.276%     |
| Municipal Pumping Service - Secondary  | 2.982%     |
| Outdoor Lighting                       | 13.744%    |
| Interruptible Power Service            | 5.647%     |
| Interruptible Demand Response Service  | 9.662%     |

10 **Q. How did you determine what costs should be assigned to each class**  
11 **of customers?**

12 A. The starting point was classifying the functionalized costs by  
13 FERC account for all rate base and income statement items as demand,  
14 energy or customer related based on the component of service being  
15 provided. Demand-related costs are costs that vary with the Kw demand

1 imposed by the customer, energy-related costs vary with the energy or  
2 Kwh the customer uses and customer-related costs are fixed costs driven  
3 by the number of customers served.

4 Next the plant, expense and revenue items that were identified as  
5 directly related to a specific class of customers were directly assigned to  
6 the appropriate class. Finally, the remaining costs were allocated using  
7 the various allocation factors shown on Statement O, Schedule O-2.

8 **Q. Would you please provide an overview of the allocation process**  
9 **including the rationale underlying the choice of allocation factors?**

10 A. Yes. I will start with the plant in service items on the rate base  
11 schedule starting on Statement O, Schedule O-1, page 1. The plant  
12 allocation serves as the basis for allocating many of the other rate base  
13 items. The investment in production related plant items was allocated on  
14 an average and excess demand (AED) allocator to account for the  
15 contribution of each class based on a combination of the classes' average  
16 demand and non-coincident peak demands. The AED factor is comprised  
17 of the sum of the average demand of each class and the difference  
18 between the total system peak demand and the average demand as  
19 allocated to each class based on the non-coincident demand in excess of  
20 the average demand. The production investment related to the  
21 Company's wind facilities was allocated on a factor based 80% on the  
22 energy allocation factor (Factor No.1) and 20% on the AED allocator to  
23 reflect the fact the wind facilities are primarily an energy resource. The

1 investment in transmission plant related items was allocated on the AED  
2 factor.

3 Turning now to the distribution plant investment; each distribution  
4 plant account is analyzed and allocated based on the cause for the  
5 investment. Station equipment and the associated land and land rights  
6 are allocated on the non-coincident peak demand of each class,  
7 representing the maximum demand on the system. The next set of plant  
8 items - Poles, Towers & Fixtures; Overhead Conductors & Devices; and  
9 Underground Conduit & Devices were classified as customer and demand  
10 related based on an analysis of the minimum and normal system design  
11 for a typical distribution system, with the minimum system representing the  
12 percentage of the plant accounts assigned to the customer component,  
13 and the remainder classified as demand related. Based on this analysis,  
14 the minimum investment necessary to connect a customer was  
15 determined to be 83% of the total required investment. The amounts  
16 classified as customer related were then allocated to each rate class  
17 based on the number of customers served in each rate class, or Factor  
18 No. 7. The dollar value of the Poles, Towers & Fixtures; Overhead  
19 Conductors & Devices; and Underground Conduit & Devices classified as  
20 demand related (17% of the total) was allocated to each rate class based  
21 on the maximum demand of each rate class (non-coincident peak Factor  
22 No. 4). The investment in Line Transformers was also classified as  
23 customer and demand related. The percentage assigned to the customer

1 component was determined based on the minimum intercept method  
2 which seeks to identify the portion of the transformer investment  
3 associated with a hypothetical no-load condition. Based on an analysis of  
4 the type and size of transformers, representing the minimum equipment  
5 necessary to provide service to secondary system customers, the zero  
6 intercept was determined to be \$1,446. Applying this amount to the  
7 number of transformers resulted in a customer component of 76% with the  
8 remaining 24% classified as demand related. The classified costs were  
9 allocated on weighted customer transformers (Factor 11) and the non-  
10 coincident secondary demand factor (Factor 5) accordingly.

11 The four remaining distribution accounts; Services, Meters,  
12 Installation on Customer Premises and Street Light & Signal System are  
13 all related solely to a customer connection and were classified as  
14 customer related. Services were allocated to the rate classes based on a  
15 factor representing services weighted by customer class derived by  
16 comparing the installed cost per service for each rate class to the cost  
17 necessary to serve Residential service customers. The weights were then  
18 applied to the number of customers in each rate class. The same process  
19 was used to fashion an allocation based on weighted meter costs (Factor  
20 No. 8) for allocating the embedded investment in meters. The investment  
21 in Installation on Customer Premises was directly assigned to Outdoor  
22 Lighting and the investment in Street Light & Signal Systems was directly  
23 assigned to Municipal Lighting. The allocation of the remainder of the rate

1 base items is self explanatory with the allocation factor noted for each line  
2 item.

3 **Q. Would you please continue with an explanation of the income**  
4 **statement items in the class cost of service study?**

5 A. Yes. The allocation of the income statement items starts on  
6 Statement O, Schedule O-1, page 3 with the allocation of revenues. As  
7 shown, revenues are primarily directly assigned based on the revenues  
8 produced under each rate schedule. The revenues identified as Contracts  
9 represent the revenues produced under two specific electric service  
10 contracts. The contract revenues were allocated to each class based on  
11 demand, energy and customer allocators to offset costs associated with  
12 providing service to the two contract customers that were allocated to all  
13 other classes. The revenues to be collected under the contracts are  
14 established pursuant to the terms of the service agreements so costs were  
15 not allocated to a separate class for contracts and the billing units for  
16 customers under the contracts were not included as part of the allocation  
17 factors. The Other Revenues that cannot be directly assigned to a  
18 particular rate class are allocated based on the source of the revenue  
19 item. Each item is shown along with the allocation factor applied.

20 Operation and maintenance expenses consisting of fuel, purchased  
21 power costs, transmission, distribution and administrative and general  
22 expenses are shown starting at Schedule O-1, page 5. The production  
23 expenses are classified as demand and energy related with the fuel,

1 purchased power and variable production expenses classified as energy  
2 and allocated based on the energy requirements of each class. The other  
3 production expenses and purchased capacity costs are classified as  
4 demand costs and allocated on the same demand allocator used to  
5 allocate production plant costs. Transmission operation and maintenance  
6 costs are also classified as demand related and allocated on the AED  
7 demand allocator (Factor No. 2). Customer Accounts Expense and  
8 Customer Service and Information Expenses were allocated on a  
9 weighted customer factor (Factor No. 12) based on the estimated cost of  
10 meter reading and customer billing for each class relative to the residential  
11 weighting set equal to 1.0. The remaining operation and maintenance  
12 expenses are allocated based on cost causation and typically follow the  
13 plant investment previously described in the rate base section. The  
14 remainder of the income statement reflects the allocation of depreciation  
15 expense, taxes other than income and income taxes as denoted by each  
16 line item.

17 **Q. For what purpose has the embedded class cost of service study**  
18 **been used?**

19 A. The study results have been used for the purpose of analyzing the  
20 various components comprising the total rate applicable to each customer  
21 class. In addition to providing the rate of return provided by each  
22 customer class, the class study provides the basis for the customer  
23 related costs to be collected under the Basic Service Charge component

1 of each rate schedule and the demand related costs to be collected under  
2 the Demand Charge component of those rate schedules where demand is  
3 metered and measured for billing purposes.

4 **Q. Would you please explain how the proposed rate increase was**  
5 **apportioned among the customer classes?**

6 A. Yes. In designing the proposed rates to reflect the additional  
7 revenue requirement I first considered the results of the embedded cost  
8 study, which provided the increase required from each class to produce  
9 the overall rate of return of 9.091% as shown on the Cost by Component  
10 report provided in Statement O, pages 1 through 15 and as summarized  
11 on Statement P, page 2. While moving each rate class to the overall rate  
12 of return is a desired outcome in meeting the widely held objective of the  
13 fair return standard, the magnitude of the increases required for the  
14 residential service, irrigation service, small municipal service and  
15 municipal pumping service customers was too severe when considering  
16 the increases would be two or more times greater than the overall  
17 increase of 13.9%. It was determined that mitigation was necessary in  
18 order to balance the fair return standard with the recognition of customer  
19 impacts. The result was an equal allocation of the non-fuel related costs  
20 to each rate schedule. As Ms. Mulkern described, the Company is  
21 proposing to separate the base fuel and purchased power component  
22 between primary and secondary service which resulted in a reallocation of  
23 fuel related costs among the various primary and secondary service

1 schedules. The allocation of the revenue increase is shown on Statement  
2 P, page 3.

3 **Q. What is the proposed increase by class of customer?**

4 A. As shown on Exhibit No. \_\_\_\_ (TAA-1) and the table below, the  
5 resulting proposed percentage increase to each of the classes is as  
6 follows:

| <b>Customer Class</b>       | <b>Revenue Increase</b> |              |
|-----------------------------|-------------------------|--------------|
|                             | <b>\$</b>               | <b>%</b>     |
| Residential Service         | \$6,469,473             | 14.1%        |
| Small General Service       | 1,275,437               | 14.8%        |
| General Service             | 7,172,206               | 13.6%        |
| Municipal Lighting          | 195,437                 | 13.8%        |
| Municipal Pumping           | 211,142                 | 12.4%        |
| Outdoor Lighting Service    | 72,608                  | 14.7%        |
| Total North Dakota Electric | <u>\$15,396,303</u>     | <u>13.9%</u> |

7 **Q. Once you allocated the increase in revenue to each of the customer**  
8 **classes, how did you then determine each of the components of the**  
9 **proposed rates?**

10 A. The embedded cost study was used as a guide in determining the  
11 level of the cost components for each rate schedule. Changes in the Base  
12 Rate and Demand Charge components have been proposed for each  
13 applicable rate schedule in order to continue to move these charges closer  
14 to cost.

1 **Q. Would you please describe the changes you are proposing for each**  
2 **rate schedule?**

3 A. Yes. Starting with Residential Service Rate 10, the base rate  
4 component (which has been renamed Basic Service Charge) was  
5 increased to \$0.35 per day or \$10.64 per month, an increase of \$5.14 per  
6 month from the present rate. This proposed charge is well below the  
7 customer component supported in the embedded class study of \$16.40 as  
8 shown on Statement O, page 1. The proposed charge provides a balance  
9 between reflecting true cost and recognizing customer impacts. The Basic  
10 Service Charge is proposed to be collected on a daily basis in order to  
11 avoid prorating the monthly charge when customers are in service less  
12 than 30 days, on average, or when a billing period extends beyond a 30  
13 day average. The Company's natural gas service Basic Service Charge  
14 has been assessed on a daily basis since 2002 and has been well  
15 accepted by customers. The energy charges for the residential schedule  
16 were determined by reducing the total revenue responsibility for the class  
17 by the revenues to be collected under the proposed Basic Service Charge  
18 and the projected Base Fuel and Purchased Power component for  
19 secondary service. The revenues remaining to be collected were divided  
20 by the projected Rate 10 sales to determine the cost per Kwh required to  
21 be collected through the energy component. The calculations just  
22 described are provided for each rate schedule on pages 4-21 of Statement  
23 P.

1           The process described above for the calculation of the proposed  
2 Residential Rate 10 schedule was used to determine the rate components  
3 for each of the other rate schedules, that is, the first step was to establish  
4 the Basic Service Charge by considering the customer costs identified in  
5 the embedded cost of service study and the Demand Charge based on  
6 the demand costs identified in the embedded class cost of service study  
7 for those rate schedules where demand metering is warranted. The  
8 second step was to deduct the revenues to be recovered under the Basic  
9 Service Charge, Demand Charge and Base Fuel and Purchased Power  
10 components for each rate schedule. The Energy Charge component was  
11 then determined by dividing the revenues remaining to be collected by the  
12 projected sales under the applicable rate schedule.

13           A summary of the rate charges for each schedule provided on page  
14 3 of Statement P. Exhibit No.\_\_\_\_(TAA-2) provides the distribution of  
15 customers falling into the various annual bill impact ranges by dollar and  
16 percentage change from current bills for the residential and small general  
17 service classes.

18 **Q.    Would you please describe the new rate offering entitled Optional**  
19 **Residential Electric Thermal Energy Storage Rate 13?**

20 A.       Yes. As noted in the title this is an optional rate available to  
21 residential service customers with electric space heating requirements  
22 choosing to utilize a thermal storage system that uses electricity during the  
23 off-peak hours of 11:00 p.m. to 7:00 a.m. and stores that energy for use

1 during the remaining hours of the day. This technology provides for an  
2 overall decrease in energy use of approximately 40% and the use of that  
3 energy during the time when the electric system is at its lowest use and  
4 lowest cost to serve. The rate has been established with a reduction of  
5 \$.005 per Kwh from the rate applicable under Residential Service Rate 10  
6 for use over 750 Kwh per month during the months of October through  
7 May. This rate, along with potential funds for rebates to offset upfront  
8 equipment costs, through the North Dakota Utility Rebate Program funded  
9 by The American Recovery and Reinvestment Act, will provide a cost  
10 effective conservation alternative available to residential customers.

11 **Q. Ms. Aberle, would you please explain the Adjustment Clauses**  
12 **referenced on each of the proposed rate schedules?**

13 A. Yes. The electric service rate schedules each call for the  
14 application of four separate adjustment mechanisms. The Adjustment  
15 Clauses include:

- 16 • **Load Management Tracking Adjustment (LMTA)** defined as  
17 Rate Schedule 54 is proposed in order to establish the framework  
18 for cost recovery of demand-side management and conservation  
19 program as approved by the Commission. This adjustment  
20 mechanism was originally submitted on July 1, 2009 in compliance  
21 with the Commission's Order issued in the Big Stone II prudency  
22 matter (Case No. PU-06-482) in which a Commission decision has  
23 not yet been rendered. A cost adjustment to be applicable under

- 1 the mechanism is not being proposed at this time.
- 2 • **Renewable Resource Cost Recovery Rider (RRC)** defined as  
3 Rate Schedule 55, is proposed to recover the costs associated  
4 with the Company's investment in renewable resources as  
5 authorized by the Commission. This tariff was first submitted on  
6 May 29, 2009 in a filing docketed by the Commission as Case No.  
7 PU-09-225. The Company subsequently withdrew its request in  
8 Case No. PU-09-225 on November 9, 2009, noting the tariff would  
9 be filed as part of the next general rate case. The renewable  
10 resources included as part of the projected cost of service in this  
11 rate case would not be part of the RRC. The tariff is proposed  
12 herein to provide for the recovery of any future investments that  
13 are subsequently approved by the Commission outside of a  
14 general rate case.
  - 15 • **Transmission Cost Recovery Rider (TCRR)** defined as Rate  
16 Schedule 56 is proposed to recover transmission investments and  
17 federally regulated transmission related costs charged to the  
18 Company that are not part of rates established in this rate case as  
19 provided for by the North Dakota Century Code at Section 49-05-  
20 04.3. As with the LMTA and the RRC, the request here is to  
21 establish the mechanisms for future use in recovering applicable  
22 expenditures and an adjustment is not proposed to be charged at  
23 this time.

- 1           •     **Fuel and Purchased Power Adjustment (FPPA)** defined as Rate  
2           58 is the mechanism currently established to recover the cost of  
3           fuel and purchased power. The adjustment mechanism has been  
4           revised as described by Ms. Mulkern to include the recovery of  
5           purchased power demand costs and to provide a means of sharing  
6           wholesale sales margins with customers which allows the  
7           Company to delete the current Margin Sharing Adjustment Rate  
8           Schedule Rate 57.

9   **Q.    Would you please briefly describe other changes made to the**  
10 **Company's electric tariff?**

11  A.        Yes. Following is a description of other changes the Company is  
12 proposing to make to its electric tariff as clearly identified in the legislative  
13 copy of the tariffs provided in Appendix B of the Application:

- 14           •     As noted above, the Base Rate has been renamed Basic  
15           Service Charge and is stated as a daily charge for service  
16           under Rate Schedules 10, 13, 16, 20, 25, 26 and 40.
- 17           •     The determination of the rate applicable to general service  
18           customers has been revised to remove the criteria  
19           associated with service entrances as this has been found to  
20           be unnecessary given the usage limits established in the last  
21           rate case.
- 22           •     A new schedule entitled General Provisions Rate 100 is

1 proposed to provide a single point of reference for customer  
2 service related conditions and charges currently stated  
3 separated on the following schedules:

- 4           ▪ Rule Governing Discontinuance of Service for  
5                    Nonpayment of Bill -- Rate 101,
- 6           ▪ Residential Electric Service for Permanent Employees  
7                    Rate -- Rate 102,
- 8           ▪ Consumer Deposits – Rate 106,
- 9           ▪ Notice to Discontinue Electric Service – Rate 107,
- 10          ▪ Reconnection Fee for Seasonal Customers – Rate  
11                    108,
- 12          ▪ Late Payment Charge/Returned Check Charge –  
13                    Rate 109,
- 14          ▪ Method for Computing Initial or Final Bills for Electric  
15                    Service for Less Than a Full Monthly Billing Period –  
16                    Rate 113,
- 17          ▪ Rules for Application of Service – Rate 114,
- 18          ▪ Tax Clause – Rate 130,
- 19          ▪ Selective Plan for Watthour Meters – Rate 131 and  
20          ▪ Rules and Policies for Implementing Master Metering  
21                    Restriction – Rae 133.

1                   • Minor changes which are self explanatory have been made  
2                   to several rate schedules. These changes are clearly  
3                   denoted on the tariff sheets reflecting the legislative format.

4 **Q. Have changes been made to the provisions that you just described**  
5 **as moving to the new General Provisions Rate 100 schedule?**

6 A. I am proposing to increase the returned check charge to \$15.00 per  
7 occurrence to more closely track the cost of processing a return check  
8 charge. The other changes proposed were made to provide consistency  
9 with the Company's Natural Gas General Provisions Rate 100 where  
10 applicable and to provide a tariff reference to Commission Rules where  
11 appropriate, such as describing the Commission requirements relating to  
12 billing adjustments. The new Rate 100 will provide customers and  
13 employees with a ready reference to the customer service rules.

14 **Q. Does this conclude your direct testimony?**

15 A. Yes, it does.

**MONTANA-DAKOTA UTILITIES CO.  
ELECTRIC UTILITY - NORTH DAKOTA**

**Allocation of Revenues  
Projected 2010**

**Projected 2010 Billing Determinants and Revenues**

| Customer Class                     | Customers     | Kwh                  | KW                 | Base Rate          | Energy              | Demand              | Fuel Rev            | Total                | Revenue Increase    |              |
|------------------------------------|---------------|----------------------|--------------------|--------------------|---------------------|---------------------|---------------------|----------------------|---------------------|--------------|
|                                    |               |                      |                    |                    |                     |                     |                     |                      | \$                  | %            |
| Residential Service                | 62,489        | 621,493,423          |                    | \$4,154,798        | \$28,719,034        | \$0                 | \$12,927,064        | \$45,800,896         | \$6,469,473         | 14.1%        |
| Small General Service              | 8,942         | 102,645,326          | 16,689.6           | 2,201,261          | 4,223,313           | 54,143              | 2,135,023           | 8,613,740            | 1,275,437           | 14.8%        |
| General Service                    | 3,053         | 797,132,225          | 2,378,794.5        | 1,382,808          | 15,885,892          | 19,080,562          | 16,554,501          | 52,903,763           | 7,172,206           | 13.6%        |
| Municipal Lighting                 | 480           | 20,178,381           |                    |                    | 993,511             |                     | 419,710             | 1,413,221            | 195,437             | 13.8%        |
| Municipal Pumping                  | 306           | 30,362,442           | 114,276.6          | 38,153             | 646,642             | 382,794             | 631,539             | 1,699,128            | 211,142             | 12.4%        |
| Outdoor Lighting Service           | 488           | 6,041,428            |                    |                    | 368,824             |                     | 125,662             | 494,486              | 72,608              | 14.7%        |
| <b>Total North Dakota Electric</b> | <b>75,758</b> | <b>1,577,853,225</b> | <b>\$2,509,761</b> | <b>\$7,777,020</b> | <b>\$50,837,216</b> | <b>\$19,517,499</b> | <b>\$32,793,499</b> | <b>\$110,925,234</b> | <b>\$15,396,303</b> | <b>13.9%</b> |

**MONTANA-DAKOTA UTILITIES CO.  
 ELECTRIC UTILITY - NORTH DAKOTA  
 Bill Comparison Annual Effects  
 Residential Rate 10**

| Overall Annual Effect in Dollars |           |                 |             | Overall Annual Effect by Percent |           |                 |             |
|----------------------------------|-----------|-----------------|-------------|----------------------------------|-----------|-----------------|-------------|
| Range                            | Customers | Total Customers | Average Use | Range                            | Customers | Total Customers | Average Use |
| < than -\$100                    | 0         | 0               | 0           | < than -25%                      | 0         | 0               | 0           |
| -\$100 to -\$51                  | 0         | 0               | 0           | -25% to 0%                       | 0         | 0               | 0           |
| -\$50 to \$0                     | 0         | 0               | 0           | 1% to 5%                         | 0         | 0               | 0           |
| \$1 to \$25                      | 11,488    | 11,488          | 618         | 6% to 10%                        | 5,885     | 5,885           | 14,130      |
| \$26 to \$50                     | 8,526     | 20,014          | 2,460       | 11% to 25%                       | 56,997    | 62,882          | 7,408       |
| \$51 to \$75                     | 22,195    | 42,209          | 4,051       | 26% to 50%                       | 9,943     | 72,825          | 1,040       |
| \$76 to \$100                    | 21,879    | 64,088          | 9,509       | 51% to 75%                       | 3,287     | 76,112          | 182         |
| \$101 to \$200                   | 12,386    | 76,474          | 18,007      | 76% to 100%                      | 1,912     | 78,024          | 29          |
| \$201 to \$300                   | 1,310     | 77,784          | 36,157      | > than 100%                      | 0         | 78,024          | 0           |
| \$301 to \$400                   | 175       | 77,959          | 53,281      |                                  |           |                 |             |
| \$401 to \$500                   | 23        | 77,982          | 74,856      |                                  |           |                 |             |
| \$501 to \$600                   | 20        | 78,002          | 97,962      |                                  |           |                 |             |
| \$601 to \$700                   | 8         | 78,010          | 107,473     |                                  |           |                 |             |
| \$701 to \$800                   | 4         | 78,014          | 136,699     |                                  |           |                 |             |
| \$801 to \$900                   | 1         | 78,015          | 150,280     |                                  |           |                 |             |
| > than \$900                     | 9         | 78,024          | 211,418     |                                  |           |                 |             |

**Current Rate 10**

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|               |                   |
|---------------|-------------------|
| Base Rate     | \$5.50 per month  |
| Energy Charge |                   |
| Summer        | \$0.05527 per Kwh |
| Winter        |                   |
| First 750     | 0.05527           |
| Over 750      | 0.02128           |
| Fuel Charge   | 0.02179           |

**Proposed Rate 10**

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|               |                   |
|---------------|-------------------|
| Base Rate     | \$0.35 per day    |
| Energy Charge |                   |
| Summer        | \$0.05830 per Kwh |
| Winter        |                   |
| First 750     | 0.05830           |
| Over 750      | 0.02830           |
| Fuel Charge   | 0.02087           |

**MONTANA-DAKOTA UTILITIES CO.  
 ELECTRIC UTILITY - NORTH DAKOTA  
 Bill Comparison Annual Effects  
 Small General Rate 20**

| Overall Annual Effect in Dollars |           |                 |             | Overall Annual Effect by Percent |           |                 |             |
|----------------------------------|-----------|-----------------|-------------|----------------------------------|-----------|-----------------|-------------|
| Range                            | Customers | Total Customers | Average Use | Range                            | Customers | Total Customers | Average Use |
| < than -\$100                    | 0         | 0               | 0           | < than -25%                      | 0         | 0               | 0           |
| -\$100 to -\$51                  | 0         | 0               | 0           | -25% to 0%                       | 0         | 0               | 0           |
| -\$50 to \$0                     | 0         | 0               | 0           | 1% to 5%                         | 0         | 0               | 0           |
| \$1 to \$25                      | 2,041     | 2,041           | 357         | 6% to 10%                        | 2,369     | 2,369           | 844         |
| \$26 to \$50                     | 1,532     | 3,573           | 1,966       | 11% to 25%                       | 7,244     | 9,613           | 13,984      |
| \$51 to \$75                     | 1,184     | 4,757           | 3,955       | 26% to 50%                       | 0         | 9,613           | 0           |
| \$76 to \$100                    | 919       | 5,676           | 6,142       | 51% to 75%                       | 0         | 9,613           | 0           |
| \$101 to \$200                   | 2,230     | 7,906           | 11,814      | 76% to 100%                      | 0         | 9,613           | 0           |
| \$201 to \$300                   | 1,000     | 8,906           | 23,648      | > than 100%                      | 0         | 9,613           | 0           |
| \$301 to \$400                   | 455       | 9,361           | 35,290      |                                  |           |                 |             |
| \$401 to \$500                   | 150       | 9,511           | 47,195      |                                  |           |                 |             |
| \$501 to \$600                   | 48        | 9,559           | 59,204      |                                  |           |                 |             |
| \$601 to \$700                   | 23        | 9,582           | 70,017      |                                  |           |                 |             |
| \$701 to \$800                   | 12        | 9,594           | 84,854      |                                  |           |                 |             |
| \$801 to \$900                   | 7         | 9,601           | 94,034      |                                  |           |                 |             |
| > than \$900                     | 12        | 9,613           | 148,708     |                                  |           |                 |             |

**Current Rate 20**

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|               |                   |
|---------------|-------------------|
| Base Rate     | \$20.00 per month |
| Energy Charge |                   |
| Summer        | \$0.05486 per Kwh |
| Winter        |                   |
| First 750     | 0.05486           |
| Over 750      | 0.02128           |
| Fuel Charge   | 0.02179           |

**Proposed Rate 20**

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|               |                   |
|---------------|-------------------|
| Base Rate     | \$0.70 per day    |
| Energy Charge |                   |
| Summer        | \$0.06849 per Kwh |
| Winter        |                   |
| First 750     | 0.06849           |
| Over 750      | 0.02830           |
| Fuel Charge   | 0.02087           |