

Direct Testimony

Mike Diller

Before the **North Dakota Public Service Commission**

Montana-Dakota Utilities Co.

North Dakota Electric Operations

Case No. PU-399-01-186

Staff Investigation of Excess Earnings

August 2001

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1 **Qualifications**

2 **Q: PROVIDE YOUR NAME AND POSITION AT THE PUBLIC SERVICE**
3 **COMMISSION.**

4

5 A: My name is Mike Diller and I am the Director of Accounting. I am re-
6 sponsible for the Commission's accounting and data processing opera-
7 tions and any assigned public utility matters.

8

9 **Q: PROVIDE A SUMMARY OF YOUR EDUCATIONAL BACKGROUND**
10 **AND PUBLIC UTILITY REGULATORY EXPERIENCE.**

11

12 A: I have more than 17 years of public utility regulatory experience includ-
13 ing service for both the Oklahoma Corporation Commission and the
14 North Dakota Public Service Commission. I received a Bachelor of
15 Science Degree in Accounting from Oklahoma Christian College in
16 Edmond, Oklahoma in 1981. I am a Certified Public Accountant li-
17 censed in the state of Oklahoma, and I am a member of the American
18 Institute of Certified Public Accountants.

19

20 **Q: HAVE YOU PROVIDED TESTIMONY IN NORTH DAKOTA BEFORE?**

21 A: Yes. I have testified before the Commission on telephone acquisition
22 proposals, rate cases, offers of settlement and other issues.

23

24 **Summary**

25 **Q: WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

1 A: The Commission requested that staff conduct a financial review of the
 2 electric operations of Montana-Dakota Utilities Co. (MDU). The request
 3 was made after MDU reported a return on equity of 15.94% and 17.95%
 4 for 1999 and 2000, respectively. My testimony presents the results of
 5 staff's review.

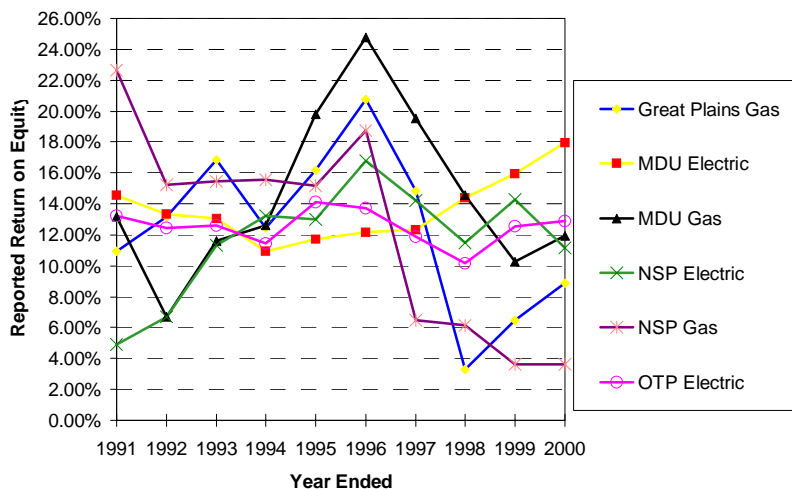
6

7 **Q: HOW DO THE EARNINGS OF MDU'S ELECTRIC OPERATIONS**
 8 **COMPARE TO THE REGULATED EARNINGS OF OTHER UTILITIES**
 9 **REGULATED BY THE COMMISSION?**

10

11 A: The earnings of MDU's electric operations do not fluctuate like those of
 12 the regulated gas operations in the state. In fact, MDU's earnings were
 13 quite stable at or around a 12% return on equity. However, earnings
 14 began to increase substantially in 1998 as sales for resale increased. A
 15 historical summary of MDU's actual electric earnings compared to the
 16 other regulated gas and electric companies in North Dakota follows:

17



25

1 **Q: PROVIDE A SUMMARY OF YOUR FINDINGS.**

2

3 A: Based on the most recent annual report to the Commission for the year
4 ended 2000 and using the last authorized return on equity of 12.71%,
5 Montana-Dakota Utilities Co. (MDU) over-collected \$5 million in North
6 Dakota during 2000. The 12.71% return on equity was established in
7 1987 as a result of MDU's last rate increase application. However, the
8 current economic times do not require such a high return on equity. Staff
9 believes an 11.2% return on equity is adequate to fairly compensate
10 today's investors. Based on an 11.2% return on equity and other staff
11 adjustments, MDU is significantly over-collecting from its ratepayers.
12 Staff recommends that MDU's retail electric rates be reduced by about
13 11% or an annual reduction in revenues of \$9.155 million.

14

15 **Q: WHAT HAS CHANGED SINCE THE LAST RATE CASE TO CAUSE**
16 **MDU TO OVER-EARN?**

17

18 A: The primary reason MDU is over-earning today is that profits from its
19 sales for resale have skyrocketed. Not only has demand for electricity
20 increased but the price others are willing to pay for it has increased as
21 well. The additional profits from sales for resale along with a lower cost
22 of capital and a lower investment base have caused MDU to over-earn.

23

24 **Rate Design**

25 **Q: HOW DOES STAFF RECOMMEND THAT THE RATE REDUCTION BE**

1 **ALLOCATED TO THE VARIOUS CUSTOMER CLASSES?**

2

3 A: Staff has not reviewed a class cost of service study and therefore recom-
4 mends an across the board rate reduction unless otherwise recom-
5 mended and successfully argued by MDU. Staff's position is one of
6 expediency and therefore staff remains open to other suggestions by the
7 commissioners or other parties to this case.

8

9 **Rate of Return Regulation**

10 **Q: DESCRIBE HOW YOU REACHED YOUR CONCLUSION THAT MDU'S**
11 **RATES SHOULD BE REDUCED.**

12

13 A: My conclusion is based on rate of return regulation using MDU's actual
14 reported results for the year ended 2000. In setting rates for MDU, the
15 Commission must consider the financial integrity of the Company as well
16 as the consumer's rights to dependable and reliable service at reason-
17 able rates. To balance the interests of both, the Commission has relied
18 on rate of return regulation. Rate of return regulation essentially in-
19 volves the regulation of profits. Profit regulation can be justified in the
20 absence of competitive markets. However, once a competitive market
21 emerges, there is no need for rate of return regulation.

22

23 Rate of return regulation is comprised of 3 primary components including
24 rate base, cost of capital and net operating income. Rate base com-
25 prises the various types of capital investments necessary to provide

1 service in North Dakota such as plant, materials and supplies. The cost
 2 of capital component captures the overall weighted cost of long-term
 3 debt and shareholder equity and is expressed in percentage form. The
 4 rate base multiplied times the weighted cost of capital equals the amount
 5 of profit needed to pay for the cost of debt and shareholder equity.
 6 Lastly, net operating income displays net profit from regulated operations
 7 including the various types of revenues and expenses generated by
 8 MDU's North Dakota electric operations.

9
 10 Given these three components, one can determine whether the rates are
 11 too high or too low and whether the rates need to be adjusted. The rate
 12 base multiplied by the cost of capital provides the necessary return on
 13 investment. The required return on investment compared to the net
 14 operating income determines to what extent rates should be changed,
 15 as follows.

16
 17 **Revenue Deficiency Calculation**

18 (Thousands)

<u>Description</u>	(CN 10799)	Reported			Test Year
	<u>TY 1986</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2000</u>
Average Rate Base	\$140,256	\$134,189	\$134,869	\$133,667	\$133,667
ROR Required	10.88%	10.35%	10.49%	10.65%	9.67%
Return Required	\$15,259	\$13,882	\$14,151	\$14,232	\$12,929
Return Earned	\$12,855	\$14,821	\$15,999	\$17,366	\$18,457
Return Deficiency (Excess)	\$2,404	(\$938)	(\$1,848)	(\$3,134)	(\$5,528)
Tax Factor	1.818	1.656	1.656	1.656	1.656
Revenue Deficiency (Excess)	\$4,378	(\$1,554)	(\$3,060)	(\$5,190)	(\$9,155)

24
 25

1 **Test Year**

2 **Q: WHAT TEST YEAR DID STAFF USE IN ITS INVESTIGATION AND**
3 **WHY?**

4
5 A: Staff used the most recent historical year ending December 31, 2000.
6 Recently, state legislation was passed that specifically allows utilities
7 companies regulated by the Commission to choose historical test years
8 or even multiple projected test years in its rate applications. Staff has
9 chosen to use a historical test year. Using a historical test year still
10 requires that an analysis be done to determine if such revenues and
11 costs are reasonably expected to continue during the time rates are in
12 effect.

13

14 **Cost Allocation**

15 **Q: DO YOU AGREE WITH MDU'S ALLOCATION OF COSTS TO NORTH**
16 **DAKOTA'S ELECTRIC OPERATIONS FOR THE TEST YEAR ENDED**
17 **2000?**

18

19 A: Staff agrees to use MDU's allocation of jurisdictional costs in this pro-
20 ceeding. In this case, staff has determined to not pursue a detailed
21 analysis of MDU's cost allocation methods and processes. However, it
22 is still necessary to address what has been done in the past and identify
23 any subsequent changes that have occurred.

24

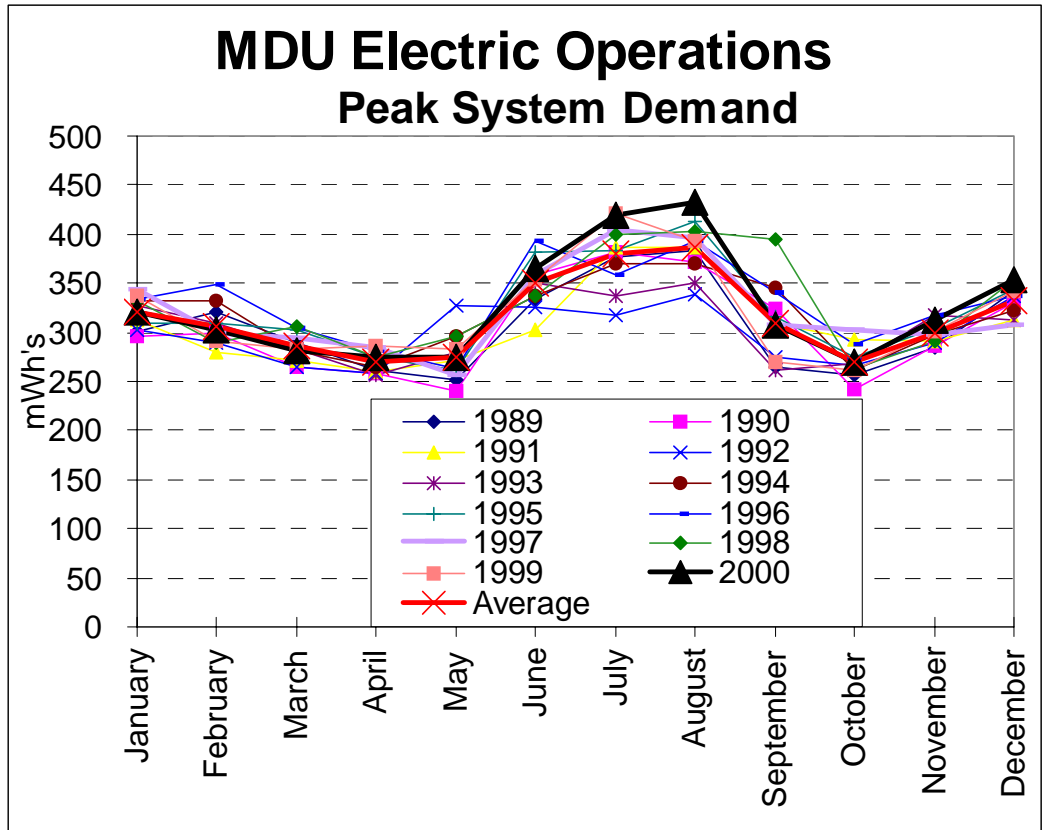
25 In the last rate case, staff argued that MDU's merchandising operations

1 are non-utility in nature and should be properly allocated its fair share of
2 costs to avoid cross-subsidization from the utilities operations. Staff
3 argued that space related costs should be allocated based on square
4 feet rather than a formula developed by the Company. The Commission
5 agreed and so ordered. For this proceeding, staff reviewed MDU's
6 accounting for service and repair operations procedures (effective Janu-
7 ary 1, 1997) noting that all space related costs are allocated based on
8 occupied floor space.

9
10 Another cost allocation issue arose over the allocation of system wide
11 demand costs. Both MDU and the Commission staff used the 12 coinci-
12 dent peaks (12CP) method for allocating demand costs. However,
13 differences arose as to which factor was best for allocating the projected
14 1986 test year costs. In its rate increase application, MDU introduced
15 evidence using a year ending June 30, 1985 demand allocation factor
16 whereas staff argued for a year ending December 31, 1985 factor. For
17 rebuttal purposes, MDU also introduced evidence for using data from the
18 year ending June 30, 1986. The Commission concluded "apparently the
19 Company has recently used June 30 or December 31 data in each
20 jurisdiction it operates in a manner that maximizes allocation of plant to
21 that jurisdiction. The result has been allocation of more than 100 per-
22 cent of rate base."

23
24 In this case, staff is not advocating the use of a different method or a
25 different data set for allocating demand costs. Staff will accept the

1 demand allocation factor used by MDU to allocate its demand costs and
 2 to report its earnings to the Commission for the year ending December
 3 31, 2000. Following is a chart depicting the peak system demand for
 4 MDU's electric system since 1989.



19
20 After reviewing the pattern of monthly peaks for both NSP and OTP, staff
21 has concluded that MDU's pattern of monthly peaks more closely re-
22 sembles those of NSP. NSP's electric demands peak in the summer
23 whereas OTP's electric demands peak in the winter. In the case of NSP,
24 the Commission approved the use of 12CP in NSP's last electric rate
25 case. It appears from the demand data that a single peak approach

1 could be argued but for purposes of this proceeding, staff is agreeable to
 2 the use of 12CP. Staff also reviewed the historical allocation of rate
 3 base and other expenses for unusual fluctuations in allocation percent-
 4 ages to North Dakota. Having completed that review, staff does not
 5 believe any adjustments are necessary for this proceeding.

6

7 **Rate Base**

8 **Q: WHAT COMPONENTS ARE INCLUDED IN RATE BASE?**

9

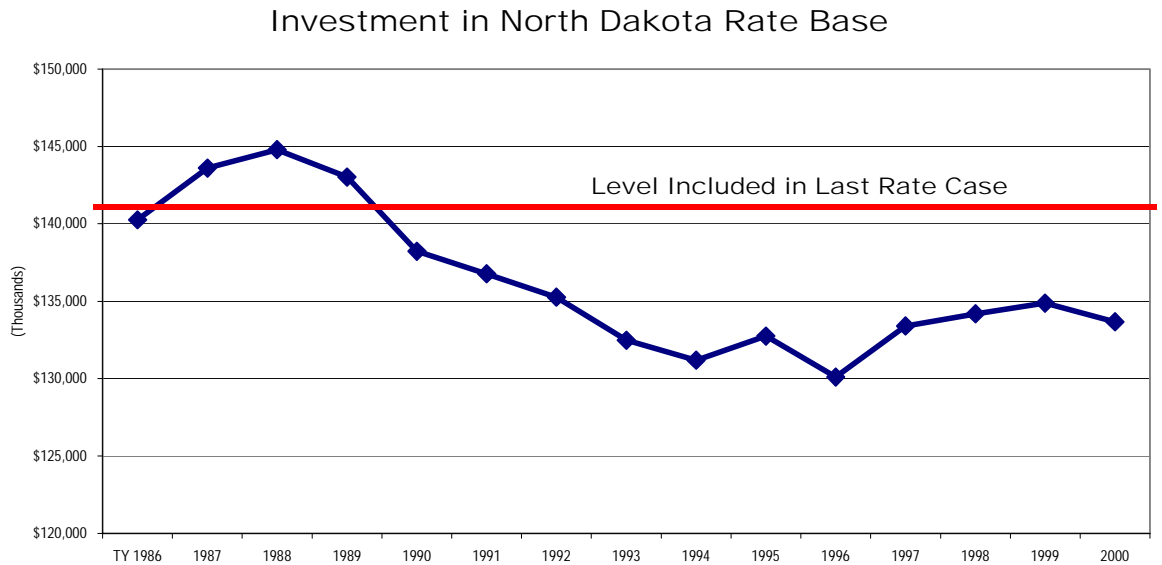
10 A: In its annual reports to the Commission, MDU includes plant in service,
 11 accumulated reserve for depreciation, construction work in progress,
 12 materials and supplies, fuel stocks, prepayments, accumulated deferred
 13 income taxes, accumulated investment tax credits and customer ad-
 14 vances. The following worksheet gives some historical perspective for
 15 each component including staff’s recommended rate base amount.

16

		(Thousands)				
		(CN 10799)	Reported			Test Year
<u>Description</u>	<u>TY 1986</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2000</u>	
Plant in Service	\$259,898	\$359,461	\$366,890	\$375,347	\$375,348	
Accum. Res. for Depreciation	87,017	184,135	193,286	202,071	202,072	
Avg. Net Plant in Service	\$172,881	\$175,326	\$173,604	\$173,276	\$173,276	
Constr. Work in Progress		517	2,572	850	850	
Materials & Supplies	2,621	3,271	3,252	3,202	3,202	
Fuel Stocks	1,457	1,305	1,192	1,277	1,277	
Prepayments	413	249	265	209	209	
Net Negative Salvage	2,247					
Accum. Def. Income Taxes	(28,253)	(42,366)	(42,124)	(41,564)	(41,564)	
Accum. Invest. Tax Credits	(11,092)	(4,105)	(3,583)	(3,074)	(3,074)	
Customer Advances	(18)	(8)	(309)	(509)	(509)	
Average Rate Base	\$140,256	\$134,189	\$134,869	\$133,667	\$133,667	

25

1 As you can see from the worksheet, the rate base has diminished since
 2 the last rate case contributing to the current over-earnings of MDU. This
 3 is illustrated in the following chart of total rate base since the last rate
 4 case.



17 **Q: DO YOU AGREE WITH THE COMPONENTS INCLUDED IN MDU'S**
 18 **REPORTED RATE BASE?**

19
 20 A: Similar components were included in the Commission's decision in the
 21 last rate case using a 1986 test year. For purposes of clarification, I do
 22 need to specifically address three areas including construction work in
 23 progress, net negative salvage and cash working capital.

24
 25 In the last rate case order (Case No. 10799), construction work in

1 progress (CWIP) was not specifically listed so the above rate base
2 schedule gives the impression that the Commission did not include
3 CWIP in rate base. However, a review of the case indicates that the
4 1985 base year plant in service balance from which the 1986 test year
5 plant in service balance was derived did include \$402,000 of CWIP.
6 Therefore, the inclusion of CWIP today does not represent a change in
7 philosophy. MDU continues to include CWIP in rate base that is finished
8 and in service but not yet reclassified as plant in service. Such expendi-
9 tures require an outlay of cash and should be included in rate base.

10

11 ***Net Negative Salvage***

12 Secondly, the description "Net Negative Salvage" as described in the
13 above rate base schedule reflects the cost in excess of book value to
14 retire and dismantle several old generating stations included in the 1986
15 rate case. The costs associated with these plants were amortized over a
16 5-year period and are no longer applicable for this proceeding.

17

18 ***Cash Working Capital***

19 Finally, cash working capital (CWC) is a component normally included by
20 other companies regulated by the Commission. However, CWC was not
21 included by the Commission in its last rate case order or by MDU in its
22 annual reports to the Commission.

23

24 In past years, the Commission's practice with MDU has been to disallow
25 cash working capital absent a lead-lag study to support its inclusion.

1 Yet, in past Commission decisions the rate bases of Otter Tail Power
2 Company and Northern States Power Company have been adjusted
3 “downward” for cash working capital. OTP includes a CWC component,
4 using a lead-lag approach, in its annual report to the Commission. Staff
5 has included CWC in its many settlements with OTP using a lead-lag
6 approach. Even though CWC is not normally included in NSP’s annual
7 report, a rate base reduction for CWC, using a lead-lag approach, was
8 included by staff and agreed to by the Commission in its last gas rate
9 investigation (PU-400-95-559) as well as NSP’s recent gas rate increase
10 application (PU-400-00-521). With respect to NSP’s last “electric” rate
11 case (PU-400-92-399), the Commission reduced NSP’s rate base for a
12 negative CWC allowance using a lead-lag approach. As you can see,
13 including CWC typically has benefited North Dakota ratepayers in other
14 cases.

15

16 Cash working capital is a calculated level of cash needed to pay ongoing
17 operating expenses. Because revenues are often collected in advance
18 of expenditures, CWC can be a source of cost free capital and therefore
19 a reduction to rate base. A lead-lag study measures the leads and lags
20 of revenues in relation to expenditures.

21

22 In the past, MDU has contended that it is unable to do a lead-lag study
23 and that hiring consultants to do the study would be costly. MDU theo-
24 rizes that the resulting study would render approximately the same
25 results (zero cash working capital required) and therefore result in an

1 unnecessary cost to ratepayers. MDU contends that none of its other
2 jurisdictions require the inclusion of CWC using a lead-lag study.

3

4 In its last review of MDU's gas operations (Case No. PU-399-96-325),
5 staff determined that a lead-lag study was necessary to ensure that
6 MDU receive the same regulatory treatment as other regulated utilities
7 operating in North Dakota. In that case, staff witness Randy Allen deter-
8 mined that the proper level of CWC was a negative \$549,000. Staff
9 reached a settlement in the case so the issue was never fully scruti-
10 nized. If the case had been fully litigated, it is quite probable that the
11 difference between including zero cash working capital, by default, and
12 the negative \$549,000 position would have been less. For purposes of
13 discussion, a rate base reduction of \$549,000 reduces the revenue
14 requirement from customers by about \$100,000. Due to the immaterial
15 impact to customers observed in the last gas rate investigation and the
16 cost to complete one in this case, staff did not pursue a cash working
17 capital adjustment in this proceeding.

18

19 After reviewing the last order and MDU's current annual report for 2000,
20 staff agrees with the components included in rate base.

21

22 **Q: PROVIDE AN OVERVIEW OF EACH RATE BASE COMPONENT.**

23

24 ***Net Plant in Service***

25 A: In recent years, the net plant in service balance (plant in service less

1 accumulated reserve for depreciation) has remained relatively stable.
2 Essentially, plant in service is being depreciated and retired at about the
3 same rate as plant additions occur.

4

5 ***Construction Work in Progress***

6 The 1999 reported balance of construction work in progress is quite high
7 in comparison to the last rate case and recent years. According to
8 MDU's Response No. 13, Attachment A, the primary reason for the high
9 balance in 1999 is due to the development of MDU's "Mobile Up Sys-
10 tem." The hardware and software for this system was placed into ser-
11 vice in June 2000 for a total cost of about \$1.6 million. Mobile Up uses
12 computers and wireless communications systems to link the service
13 dispatch and central call center to every service truck. The 2000 bal-
14 ance is more in line with prior year's balances and reflects a more nor-
15 mal level.

16

17 ***Material & Supplies***

18 The account includes material purchased for construction, operation and
19 maintenance purposes. The balance of material and supplies necessary
20 to provide service has increased 24% since the 1986 test year.

21

22 ***Fuel Stocks***

23 The fuel stock account includes the cost of fuel on hand including trans-
24 portation and other expenses directly assignable to cost of fuel. The fuel
25 stock inventory value declined in 1995 and has since remained in the

1 range of \$1.2 to \$1.3 million.

2

3 ***Prepayments***

4 Expenses such as insurance often require prepayment and are properly
5 included in rate base. Since the last rate case, prepayment balances
6 have declined.

7

8 ***Accumulated Deferred Income Taxes***

9 Accumulated deferred income taxes represent cost free capital made
10 available to MDU primarily through accelerated depreciation for tax
11 purposes. Because of accelerated depreciation for tax purposes, MDU
12 has not been required to remit all the income taxes it has collected from
13 ratepayers. Since the last rate case, MDU's accumulated deferred
14 income taxes balance has grown from \$28 million to \$42 million. How-
15 ever, in recent years, North Dakota's accumulated deferred income
16 taxes balance has remained relatively constant.

17

18 ***Accumulated Deferred Investment Tax Credits***

19 Accumulated deferred investment tax credits also represent cost free
20 capital to MDU and therefore are a reduction to rate base. The Revenue
21 Act of 1971 requires a sharing of the investment tax credits benefits
22 between ratepayers and investors. In MDU's case, ratepayers receive a
23 reduction for the un-amortized balance of investment tax credits and
24 MDU receives non-utility income for the amortized amounts. The rate
25 base offset continues to decline because the Tax Reform Act of 1986

1 repealed the investment tax credit provisions under prior law. In recent
2 years, the accumulated investment tax credits have been amortized at a
3 rate of about \$.5 million per year. These tax credits will be fully amor-
4 tized on December 31, 2012.

5

6 ***Customer Advances***

7 Customer advances for construction includes any cash advances made
8 by customers for construction projects. Again, this money represents a
9 source of cost free capital to MDU and therefore is properly deducted
10 from rate base.

11

12 ***Rate Base Summary***

13 After reviewing the individual components of rate base and comparing
14 trends since the last rate case, staff believes that MDU's 2000 rate base
15 is fairly stated for the purpose of setting fair and reasonable rates for
16 electric service provided in North Dakota. The largest rate base compo-
17 nents of net plant in service and accumulated deferred income taxes
18 have been quite stable in recent years.

19

20 **Cost of Capital**

21 **Q: WHAT IS YOUR RECOMMENDATION WITH REGARD TO THE COST**
22 **OF CAPITAL INVESTED IN NORTH DAKOTA ELECTRIC OPERA-**
23 **TIONS?**

24

25 **A: MDU should be allowed to earn a reasonable return on its investment.**

1 The appropriate cost of capital is a weighted cost giving consideration to
 2 the Company’s debt, preferred stock and common equity. Staff’s cost of
 3 capital consultant Charlie King will testify as to the appropriate cost of
 4 capital and capital structure. However, I will also address the cost of
 5 debt so as to give some background information.

6

7 ***Debt***

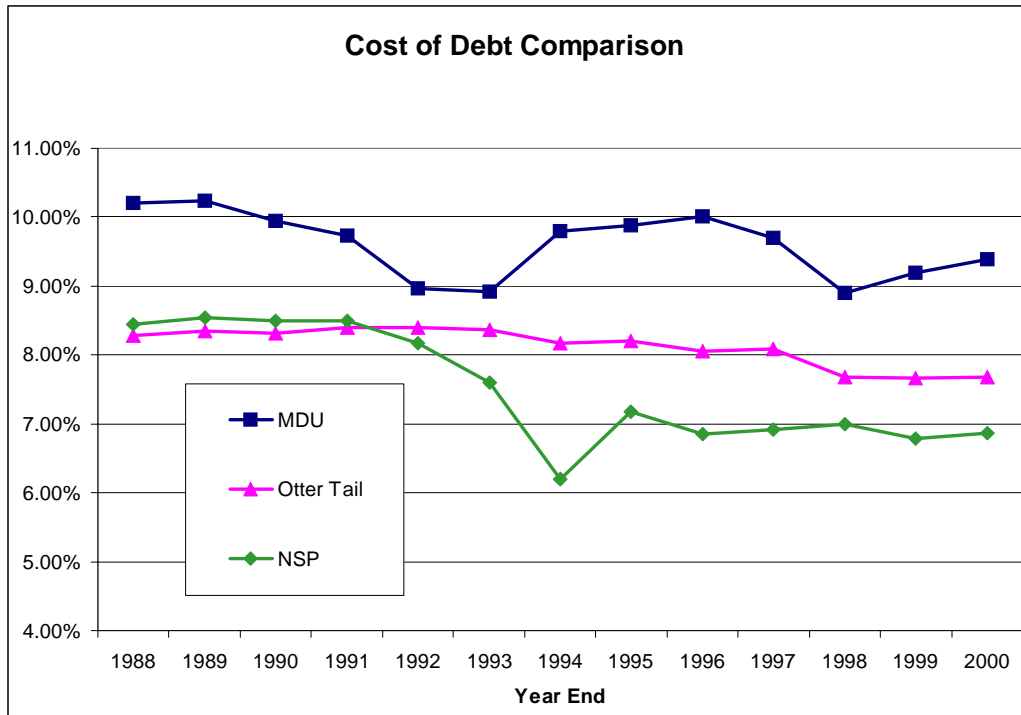
8 In the past, staff has expressed some concern about MDU’s overall cost
 9 of debt. In staff’s last financial investigation of its gas operations, staff
 10 witness Legler recommended that the Company consider exploring
 11 refinancing opportunities. In addition, I submitted staff’s Request for
 12 Information No. 20 asking why MDU’s average cost of debt was 9.9% in
 13 1995 compared to 8.2% and 7.2% for Otter Tail Power Company and
 14 Northern States Power Company, respectively. I noted in my request
 15 that a one-percentage point change in the overall cost of debt changes
 16 the annual revenue requirements for MDU’s North Dakota gas opera-
 17 tions by \$125,000. MDU responded on October 28, 1996 that it does
 18 not have any detailed knowledge of OTP’s cost of debt or NSP’s cost of
 19 debt and therefore cannot explain the differences.

20

21 Since the gas operations investigation, the Commission has received
 22 several annual reports and the difference between the cost of debt for
 23 NSP and OTP is consistently lower than MDU’s cost of debt, as can be
 24 seen in the following chart.

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Net Operating Income21

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The cost of debt becomes a bigger issue in this proceeding because MDU’s electric business is more capital intensive than its gas business. Instead of an impact of \$125,000 as mentioned above, a one-percent-age point change in the overall cost of debt changes the annual revenue requirements for MDU’s North Dakota electric operations by about \$700,000. Staff witness Charlie King addresses the cost of debt in his testimony. Based on King’s testimony, the Commission should adopt staff’s proposal to use a lower cost of debt than has been reported for the year ending 2000.

Cost of Capital Summary

Q: PLEASE SUMMARIZE YOUR TESTIMONY REGARDING MDU’S

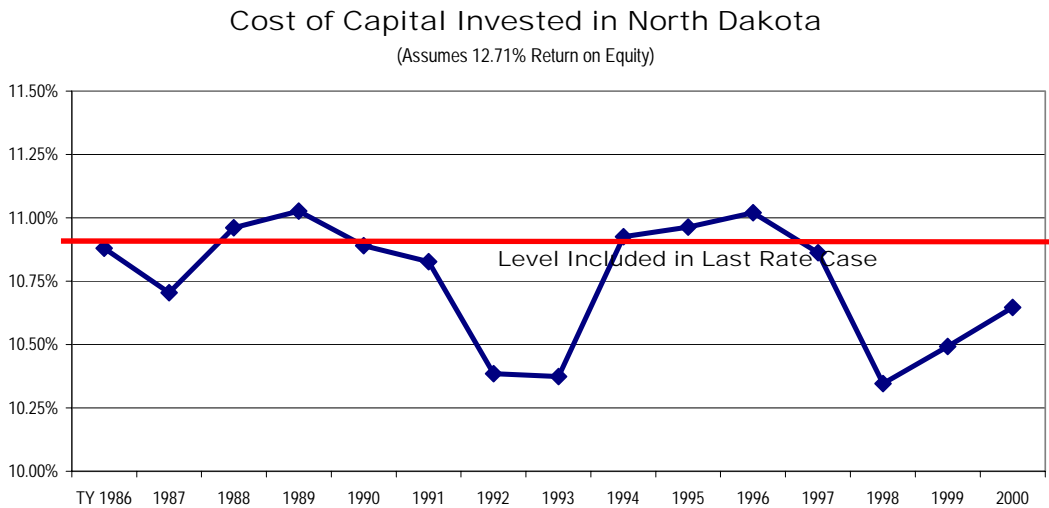
1 **OVERALL COST OF CAPITAL.**

2 A: Based on the testimony of Charlie King, staff recommends an overall
 3 weighted cost of capital of 9.67%, as follows:

	Test Year 2000			
4 Long-Term Debt	\$144,894	45.90%	8.62%	3.96%
5 Preferred Stock	16,500	5.23%	4.63%	0.24%
6 Common Equity	154,250	48.87%	11.20%	5.47%
7 TOTAL	\$315,644	100.00%		9.67%

8
 9 Like rate base, the overall cost of capital has decreased since the last
 10 rate case thereby contributing to the over-earnings of MDU. The follow-
 11 ing graph depicts the change in overall cost of capital.

12
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22 **Net Operating Income**

23 **Q: PROVIDE A LIST OF THE COMPONENTS INCLUDED IN THE DETER-**
 24 **MINATION OF REGULATED EARNINGS (NET OPERATING INCOME).**

25

1 A: The components include revenue from various customer classes, oper-
 2 ating expenses, depreciation and taxes as shown below.

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(Thousands)					
<u>Description</u>	Case No. (CN 10799)	Reported			Test Year
	<u>1986</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2000</u>
Residential	\$32,003	\$32,347	\$32,099	\$31,916	\$31,916
Small Commercial	33,926	17,329	17,170	17,275	17,275
Large Commercial		26,148	26,667	26,840	26,840
Public Street Lighting	1,458	1,456	1,451	1,420	1,420
Sales to Public Authorities	1,334	1,221	1,180	1,141	1,141
Other Operating Revenues		2,669	2,373	2,691	2,691
Unbilled Revenue	1,162	(49)	(283)	646	646
Sales for Resale		7,889	13,265	15,034	17,312
Total Revenues	<u>\$69,883</u>	<u>\$89,010</u>	<u>\$93,922</u>	<u>\$96,963</u>	<u>\$99,241</u>
Cost of Fuel & Purchased Pwr	\$21,333				
<i>Other O&M:</i>					
Production Expense		\$35,161	\$37,160	\$38,365	\$38,152
Transmission Expense		3,493	3,667	3,567	3,567
Distribution Expense		4,099	4,586	4,660	4,660
Customer Accounts		2,034	2,162	2,113	2,113
Customer Service & Info.		84	96	105	105
Sales Expense		192	258	269	269
Administration & General		8,602	8,303	8,154	8,154
Total Other O&M	\$19,321	<u>\$53,665</u>	<u>\$56,232</u>	<u>\$57,233</u>	<u>\$57,020</u>
Depreciation	\$8,751	\$11,206	\$11,436	\$11,803	\$11,803
Taxes Other Than Income	\$2,935	\$3,832	\$3,936	\$3,811	\$3,811
Income Tax Expense	\$4,688	\$5,486	\$6,319	\$6,750	\$8,149
Net Regulated Income	<u>\$12,855</u>	<u>\$14,821</u>	<u>\$15,999</u>	<u>\$17,366</u>	<u>\$18,457</u>

Revenues

Q: PLEASE EXPLAIN YOUR APPROACH TO REVIEWING AND ANALYSING REVENUES.

A: Because MDU does not weather normalize revenues and because staff does not have the resources necessary to develop a weather normalization model of its own, staff began by reviewing each revenue category

1 for unusual fluctuations. As can be seen from the worksheet above,
2 many of the revenue categories have not fluctuated much in the last 3
3 years indicating some stability in revenue collections. Staff did note a
4 moderate increase in revenue collections from large commercial custom-
5 ers but not enough to suggest an adjustment for setting rates.

6

7 Staff also noted approximately a \$300,000 dip in other operating rev-
8 enues for 1999 in comparison to both 1998 and 2000. Other operating
9 revenues are comprised of three accounts including rent from electric
10 property, miscellaneous service revenues and other electric revenue.
11 According to the FERC Form 1 most of the difference occurred in the
12 other electric revenue account. According to MDU's data response, the
13 dip in 1999 revenues occurred because FERC ordered a refund related
14 to transmission system service charges billed to non-members of MAPP
15 for deliveries off system after traveling through the MAPP transmission
16 system. The refund amount was \$352,269 and recorded against the
17 other electric revenues account. Thus it appears that 1998 and the test
18 year 2000 level of other electric revenue represents a more normal level
19 than 1999. Therefore, no adjustment is necessary to staff's test year.

20

21 You can also note from the above worksheet that unbilled revenues have
22 fluctuated from one year to the next. Unbilled revenues represent the
23 difference between calendar month deliveries and billing cycle sales.
24 The recording of unbilled revenues therefore restates revenues to recog-
25 nize sales that have occurred during the year but have not been billed.

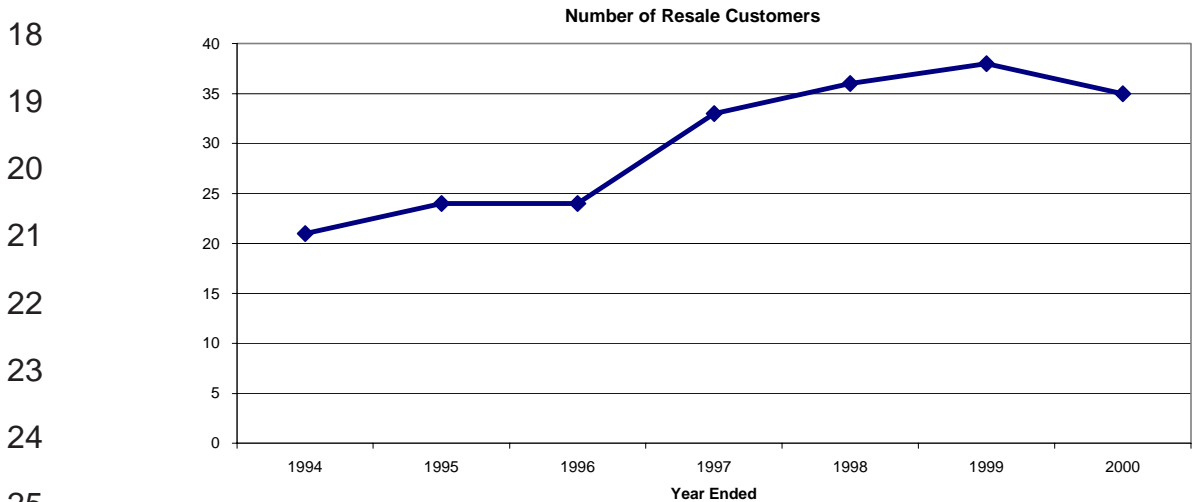
1 To get a true picture of the revenues earned each month, the company
 2 adjusts the cycle billing revenue amounts by adding revenues that have
 3 not been billed yet and subtracting those revenues that were actually
 4 earned last month. As a result of this process, the year end unbilled
 5 revenue amounts represent the change in unbilled revenues from one
 6 year to the next. For example, the unbilled revenue for December 1999
 7 was less than the unbilled revenue for December 1998 resulting in
 8 negative unbilled revenue for 1999. Conversely, December 2000
 9 unbilled revenue was greater than December 1999 unbilled revenue
 10 giving rise to a positive unbilled revenue adjustment. Staff agrees with
 11 the process of adjusting revenues to reflect actual revenues earned.

12

13 ***Sales for Resale***

14 The primary driver of revenue change in recent years has been MDU's
 15 sales for resale. The following chart depicts the recent trends in cus-
 16 tomer numbers.

17



1 As you can see, customer levels have been increasing with the excep-
2 tion of a slight decrease for the year ending 2000. That being the case,
3 volumes sold continue to be very strong, as shown in the next graph.

4

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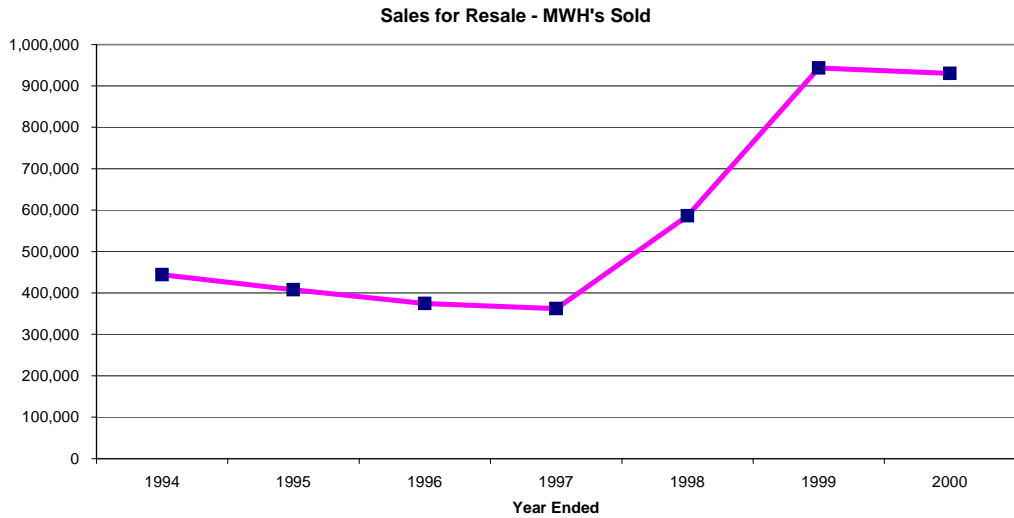
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14 The growth in volumes has nearly tripled since 1997. In addition to
15 strong sales, MDU has experienced substantial growth in revenues per
16 kilowatt hour, as shown in the following graph.

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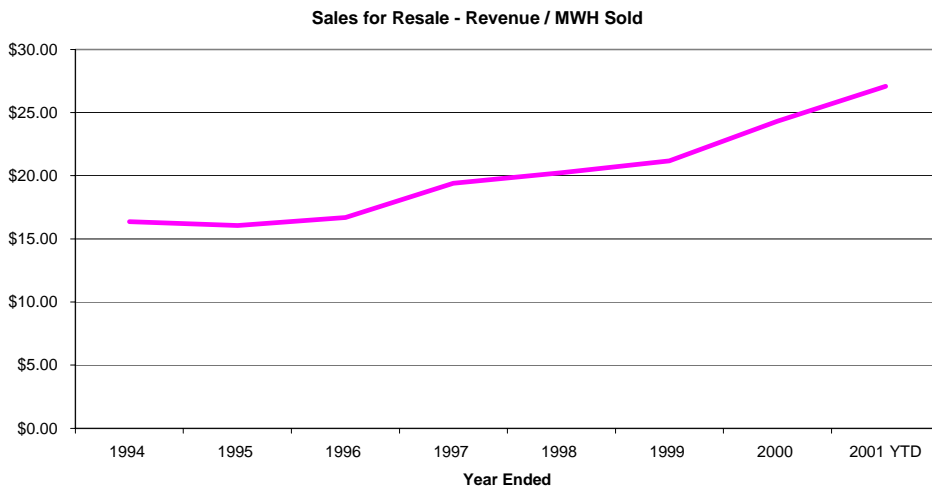
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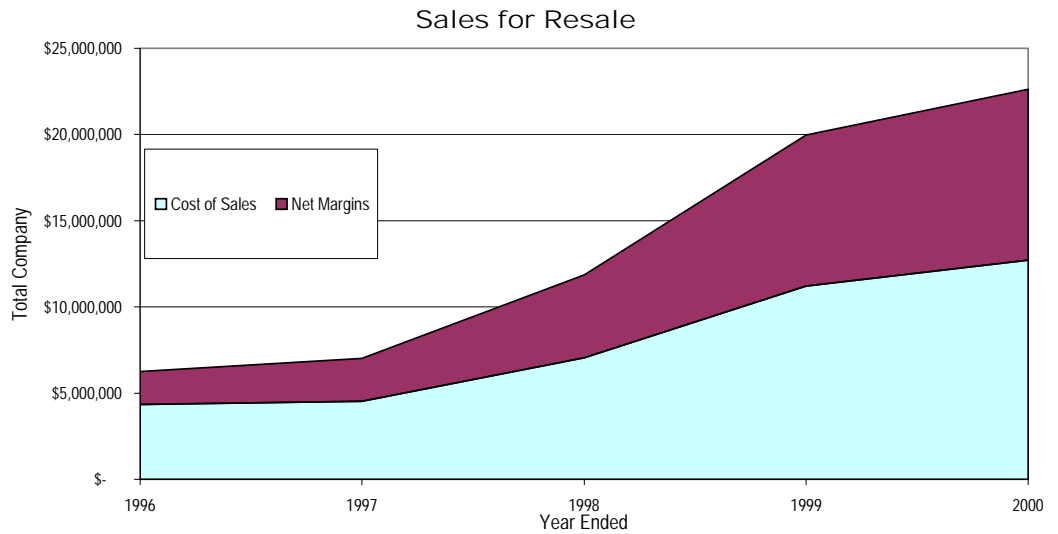
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25



1 With the combination of explosive growth in volumes and significant
 2 increases in the market price of electricity, it is easily understood why
 3 revenues from these sales has grown so much.

4
 5 While revenue growth has been substantial, it doesn't mean much by
 6 itself. Even though the ratepayers support the infrastructure necessary
 7 to make sales for resale, the company still incurs the variable costs of
 8 fuel and purchased power to generate the electricity sold. Therefore, it
 9 is critical to review the net margins (revenues less related fuel costs and
 10 purchased power) to determine what kind of impact the sales are having
 11 on MDU's earnings. The following graph depicts the growth in net mar-
 12 gins of sales for resale since 1996,



23 As you can see above, margins have been rapidly expanding. The
 24 growth in margins has caused much of the over-earnings of MDU. Be-
 25 cause of the rapid growth, staff believes an adjustment is necessary to

1 capture known and measurable changes that have occurred in 2001.
 2 Failure to recognize the continued growth will result in setting rates that
 3 are immediately too high. Therefore, staff makes the following adjust-
 4 ment to its 2000 test year.

	(A)	(B)	(A-B)		
	000's Omitted		Total Co.	N.D.	N.D.
	<u>2001</u>	<u>2000</u>	<u>Adj.</u>	<u>Share</u>	<u>Adj.</u>
5					
6	<i>Revenue Adjustment:</i>				
	First 5 Months Sales for Resale	\$ 10,847	\$ 7,419	\$ 3,428	66.45% \$2,278
7					
	<i>Production Expense Adjustment:</i>				
8	First 5 Months Sales for Resale	\$ 4,114	\$ 4,435	\$ (320)	66.45% (213)

9
 10 In making this adjustment, staff has restated its actual 2000 test year
 11 revenues and fuel costs to reflect the continued growth in profits from
 12 sales for resale through May 2001. While an argument could be made
 13 for a larger adjustment to capture continued growth throughout the entire
 14 year of 2001 since the eventual rate reduction will probably not go into
 15 effect until after 2001, staff will not propose such an adjustment. For
 16 monthly details of sales for resale, see attached Scedule MRD-1.

17
 18 **Q: WHY ISN'T STAFF MAKING AN ADJUSTMENT TO INCLUDE ADDI-**
 19 **TIONAL EXPECTED SALES FOR RESALE PROFITS FOR THE REST**
 20 **OF 2001?**

21
 22 **A:** First, it is difficult to predict to what extent sales for resale will continue to
 23 grow. The historical growth of these sales suggests further adjustments
 24 could be made but staff has chosen to take a more conservative ap-
 25 proach. Secondly, staff is aware that MDU must contend with rising

1 costs as does the commission and other business entities. For example,
2 MDU's 2001 average wage increase of 4.32% added \$574,000 in annual
3 revenue requirements to its North Dakota electric operations yet staff will
4 not make an adjustment to recognize the higher costs. Thirdly, it is
5 conceivable that MDU should be allowed to retain some level of addi-
6 tional profit related to these sales for resale. Given the past growth
7 trend, I believe limiting staff's adjustment through May 2001 will ad-
8 equately address these issues and even provide additional funds for
9 other inflationary needs.

10

11 **Q: SINCE THE RATEPAYERS ARE PAYING A RETURN ON THE INFRA-**
12 **STRUCTURE NECESSARY TO MAKE SALES FOR RESALE, WHY**
13 **WOULD YOU SUGGEST THAT MDU BE ALLOWED TO RETAIN A**
14 **PORTION OF THE PROFITS?**

15

16 A: I believe that positive reinforcement is better than negative reinforce-
17 ment. The answer may vary from analyst to analyst but depends on
18 one's belief about what causes people and corporations to act. To make
19 my point, let's assume two extreme positions. In one scenario, MDU is
20 allowed to keep all profits from all sales for resale forever. With the
21 sales for resale market like it is, MDU might divert more attention to
22 further develop its play in the market. This would be an example of very
23 aggressive and positive reinforcement to provide an incentive for MDU
24 to pursue more sales. On the other hand, what if all such profits are
25 immediately captured and returned to the ratepayers. In such a case, it

1 would not be natural for MDU to spend additional resources to increase
2 sales for resale profits. Spending more money absent a profit motive
3 would run counter to MDU's fiduciary responsibility to its stockholders.
4 This would be an example of negative reinforcement. In this scenario, it
5 doesn't matter how well or poorly MDU performs because it is still com-
6 pensated the same. Somewhere between these two examples is the
7 right answer. My recommendation is one of many that could be devel-
8 oped in this regard.

9

10 ***Production Expense***

11 **Q: Did staff make any adjustments to the production expense as re-**
12 **ported in MDU's 2000 annual report?**

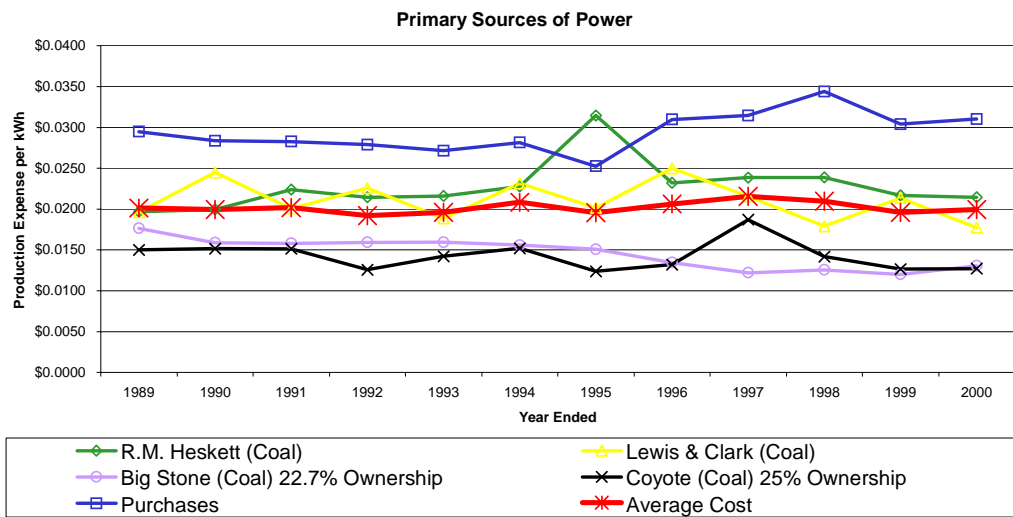
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14 A: Staff only made one adjustment to production expense to correspond
15 with its sales for resale revenue adjustment. Even though production
16 expense has seen some healthy increases in recent years, so have
17 sales and revenues. Additional sales require additional electric produc-
18 tion. During the past 3 years, production expense has been quite stable
19 in relation to revenues at about 40%. Production expense includes
20 both operation and maintenance costs of production facilities. Approxi-
21 mately 80% of these costs are comprised of fuel costs for generation
22 and purchased power—most of which is passed through the fuel clause
23 adjustment.

24

25 Beyond the revenue / expense relationship are other important factors

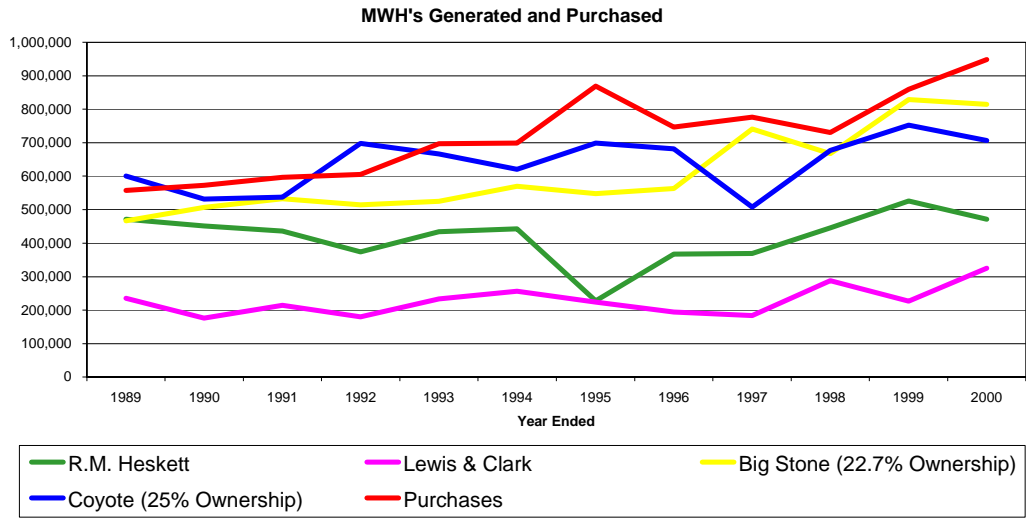
1 worth considering before agreeing to the Company’s production expense
 2 level. For example, the Commission should look at MDU’s track record
 3 with regard to managing its per unit production costs, use of generation
 4 facilities and line loss. Beginning with MDU’s per unit cost of production,
 5 the following chart depicts per unit costs for each of MDU’s primary
 6 sources of power.



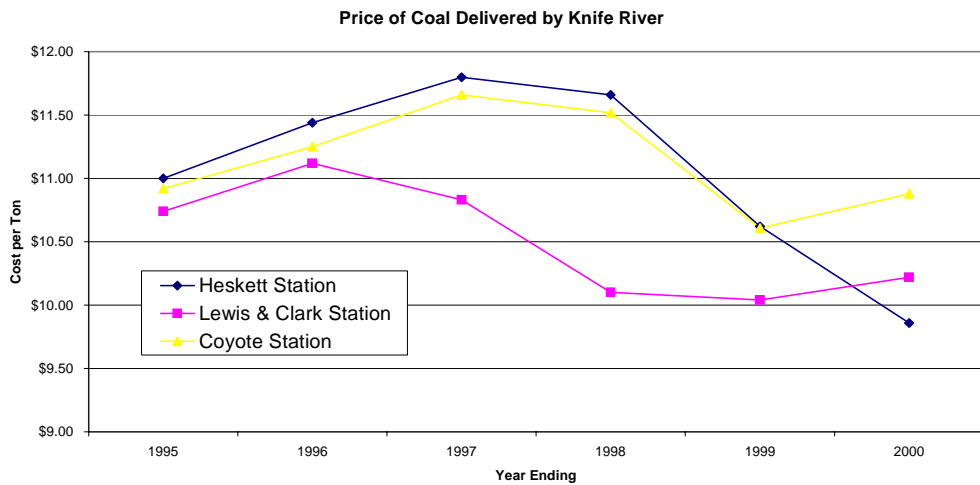
17 As you can see from the above chart, purchased power costs have
 18 increased dramatically during the past few years. This can be expected
 19 as available supplies become more and more restricted. Yet, MDU has
 20 managed to keep its overall costs down around 2¢ per kWh as shown by
 21 the red line. MDU has been able to accomplish this through reductions
 22 in per unit costs of its own generation facilities. A number of factors
 23 have contributed to this including higher utilization of existing plant as
 24 shown in the following chart.

25

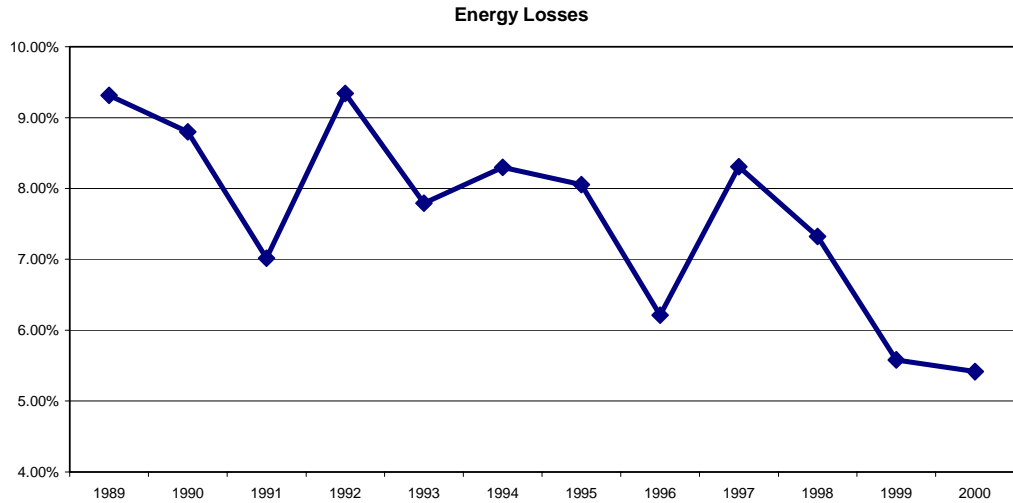
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In addition to higher utilization of existing plant, MDU's coal prices from its affiliate Knife River Corporation have been reduced substantially in recent years. On September 28, 2000 MDU Resources Group, Inc announced an agreement to sell its coal operations. According to information provided by MDU, the following chart depicts average coal prices delivered from Knife River since 1995.



1 Further, production costs have remained stable in the face of rising
 2 purchased power costs by efforts of MDU to lower its line loss. The
 3 following chart depicts the line loss percentage experienced by MDU
 4 during recent years.



14

15 ***Transmission Expense***

16 **Q: DID STAFF MAKE ANY ADJUSTMENTS TO THE TRANSMISSION**
 17 **EXPENSE AS REPORTED IN MDU'S 2000 ANNUAL REPORT?**

18

19 **A:** Transmission expense levels have been very stable in recent years and
 20 staff proposes no adjustments.

21

22 ***Distribution Expense***

23 **Q: DID STAFF MAKE ANY ADJUSTMENTS TO THE DISTRIBUTION**
 24 **EXPENSE AS REPORTED IN MDU'S 2000 ANNUAL REPORT?**

25

1 A: In 1999, Distribution Expense increased by 12% and remained near that
2 level in 2000. Per review of the FERC Form 1 for the total electric op-
3 erations of MDU, the increase is primarily a result of increases in Miscel-
4 laneous Expense (Account 588) and Maintenance of Overhead Lines
5 (Account 593). Miscellaneous Expense includes the cost of labor, mate-
6 rials used and expenses incurred in distribution system operations not
7 provided for elsewhere. According to MDU, the increased costs are
8 primarily attributable to increased labor costs. Staff does not take excep-
9 tion to MDU's increased distribution costs.

10

11 ***Customer Accounts Expense***

12 ***Customer Service and Informational Expense***

13 ***Sales Expense***

14 **Q: DID STAFF MAKE ANY ADJUSTMENTS TO THE ABOVE REFER-**
15 **ENCED ACCOUNTS AS REPORTED IN MDU'S 2000 ANNUAL RE-**
16 **PORT?**

17

18 A: Staff did not make any adjustments to customer accounts expense,
19 customer service and informational expense or sales expense. The
20 expense levels in these accounts have remained fairly constant in recent
21 years and no further review was deemed necessary.

22

23 ***Administrative and General Expenses***

24 **Q: DID STAFF MAKE ANY ADJUSTMENTS TO A & G EXPENSES AS**
25 **REPORTED IN MDU'S 2000 ANNUAL REPORT?**

1 A: Staff did not make any adjustments to these accounts. Again, the costs
2 have remained relatively stable over the past few years and no adjust-
3 ments are deemed necessary.

4

5 ***Depreciation Expense***

6 **Q: WHAT DID STAFF CONCLUDE WITH REGARD TO MDU'S RE-**
7 **PORTED DEPRECIATION EXPENSE FOR THE TEST YEAR?**

8

9 A: Staff agrees that MDU's reported depreciation expense for 2000 is fair
10 and reasonable for use in this proceeding. Such a determination was
11 not reached through technical analysis but rather by broad analytical
12 analysis to save time and money.

13

14 In MDU's last electric rate case before the Commission in 1986 (Case
15 No. 10,799), the Commission rejected MDU's proposal to increase
16 depreciation rates for steam generation facilities and ordered that the
17 current rates remain in effect. The Commission's decision was based on
18 a 1975 depreciation study. MDU later performed a depreciation study
19 for all electric and gas plant based on 1991 plant balances. Based on
20 that study, MDU began using new depreciation rates in 1994. The new
21 rates resulted in an overall increase in depreciation rates but actually
22 reduced the depreciation expense associated with steam generation
23 plant by about \$250,000 per year. In the end then, it seems the Com-
24 mission made the right decision not to accelerate depreciation in the last
25 rate case.

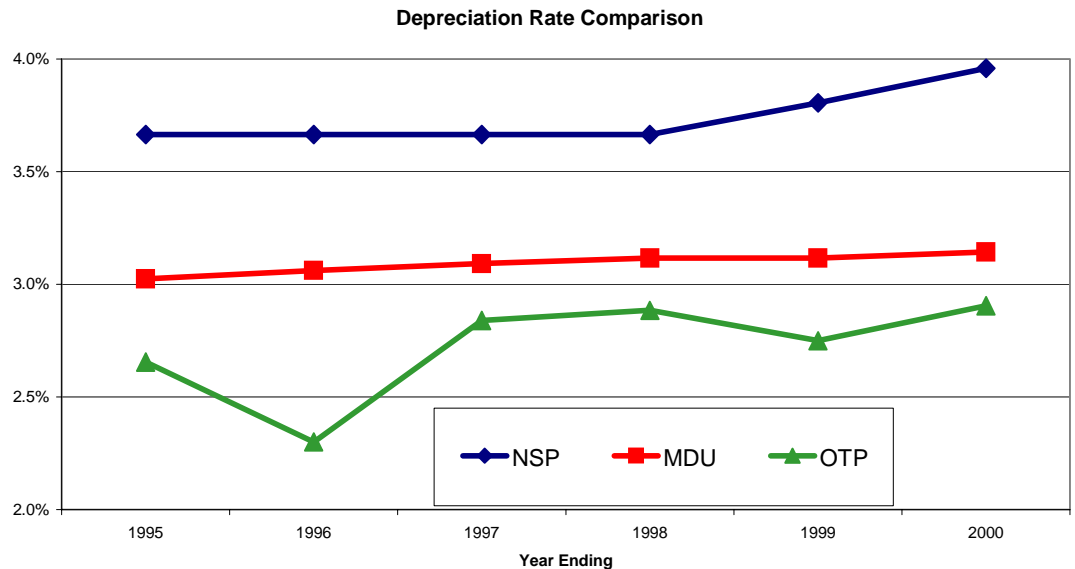
1 Staff reviewed the overall change in depreciation expense in relation to
 2 the change in plant in service balances and noted a slight increase in
 3 that relationship since 1994. However, the difference has not been
 4 material to this case.

5

6 Staff also compared MDU's overall rate of depreciation to the overall
 7 electric depreciation rates of Otter Tail Power Company and Northern
 8 States Power Company and found that MDU's rates remain in the
 9 middle. MDU's rates are higher than Otter Tail's and lower than NSP's.
 10 Given the comparable rates and the lack of fluctuations in cost, staff is
 11 not compelled to recommend any changes to the depreciation rates at
 12 this time. Following is a comparison of the overall depreciation rates for
 13 each of the electric utilities regulated by the Commission.

14

15



19

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23

24

25

1 ***Taxes Other Than Income Tax Expense***

2 **Q: DID STAFF MAKE ANY ADJUSTMENTS TO TAXES OTHER THAN**
3 **INCOME TAX EXPENSE AS REPORTED IN MDU'S 2000 ANNUAL**
4 **REPORT?**

5

6 A: No. This account primarily includes property taxes and the Company's
7 share of social security taxes but includes other taxes like North Dakota
8 coal conversion tax, franchise and gross revenue taxes etc. Again,
9 expenses have remained relatively stable over recent years and no
10 adjustment is necessary.

11

12 ***Income Tax Expense***

13 **Q: DID STAFF MAKE ANY ADJUSTMENTS TO INCOME TAX EXPENSE**
14 **AS REORTED IN MDU'S 2000 ANNUAL REPORT?**

15

16 A: Staff made no adjustments to income tax expense other than to reflect
17 the impact of other adjustments supported by staff.

18

19 **Q: DOES THIS CONCLUDE YOUR TESTIMONY?**

20

21 A: Yes, it does.

22

23

24

25

