

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.

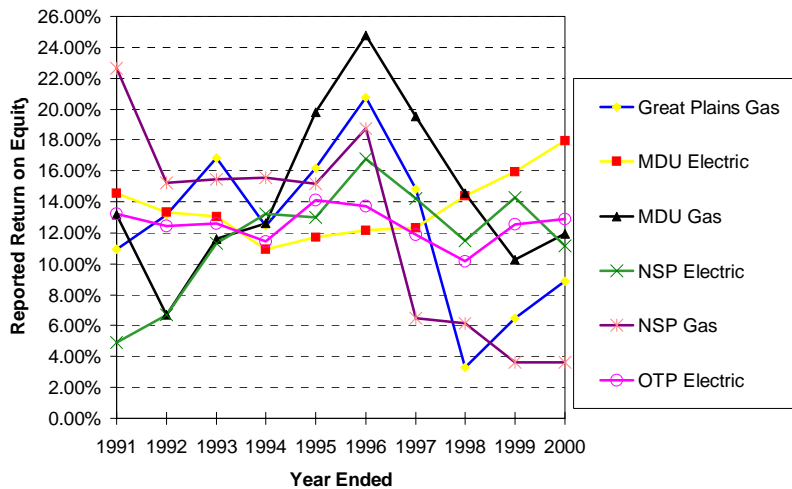
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7 **Q: HOW DO THE EARNINGS OF MDU'S ELECTRIC OPERATIONS**  
 8 **COMPARE TO THE REGULATED EARNINGS OF OTHER UTILITIES**  
 9 **REGULATED BY THE COMMISSION?**

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

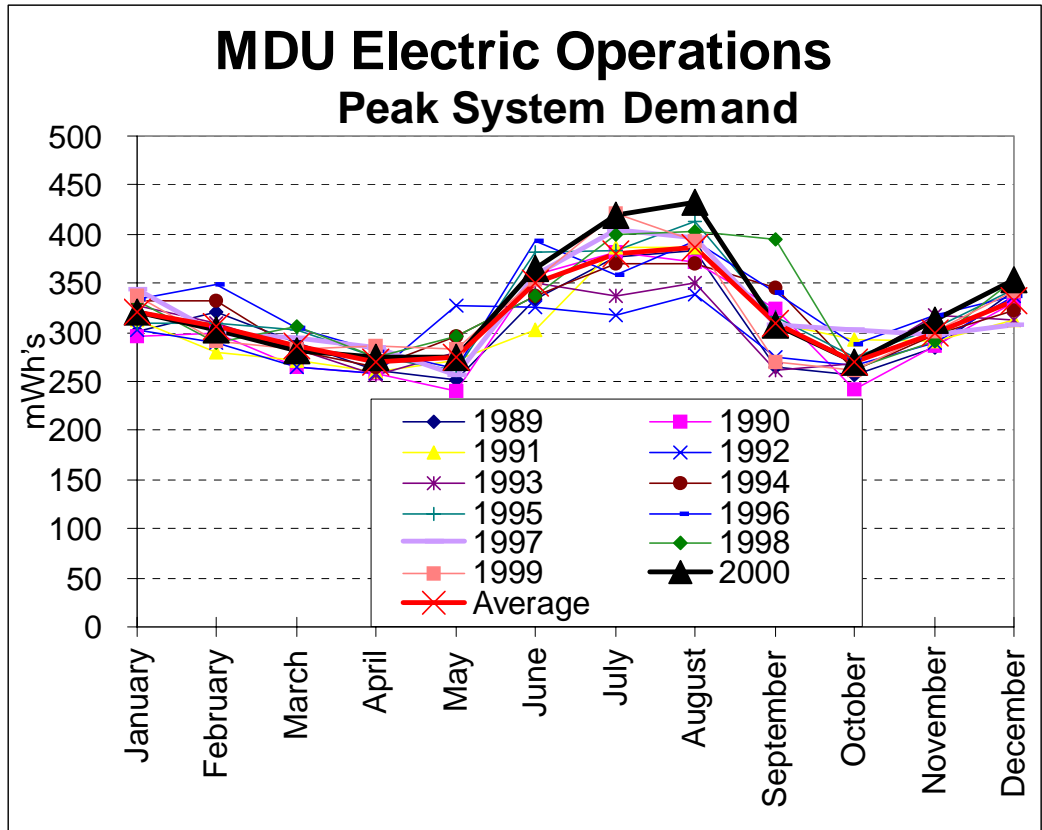
25 In the last rate case, staff argued that MDU's merchandising operations

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 In the last rate case, staff also argued for the use of a calendar year-end  
11 1985 peak demand allocation factor rather than a June 30, 1985 peak  
12 demand factor for the projected 1986 test year as requested in MDU's  
13 rate increase application. In its order, the Commission concluded "ap-  
14 parently the Company has recently used June 30 or December 31 data  
15 in each jurisdiction it operates in a manner that maximizes allocation of  
16 plant to that jurisdiction. The result has been allocation of more than  
17 100 percent of rate base."

18  
19 For the past 5 years, MDU has allocated demand costs on a monthly  
20 basis to all jurisdictions using 12 coincident peaks (12CP). As a result,  
21 the concerns expressed by the commission regarding over-allocation of  
22 demand related costs are largely dismissed. Since jurisdictional de-  
23 mand information is not available when costs are being allocated each  
24 month, MDU allocates demand costs by using the 12CP factor from the  
25 previous year.

1 Staff reviewed MDU’s peak electric system demands and questions the  
 2 decision to move away from a single peak allocation to 12CP. Following  
 3 is a chart depicting the peak system demand for MDU’s entire electric  
 4 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

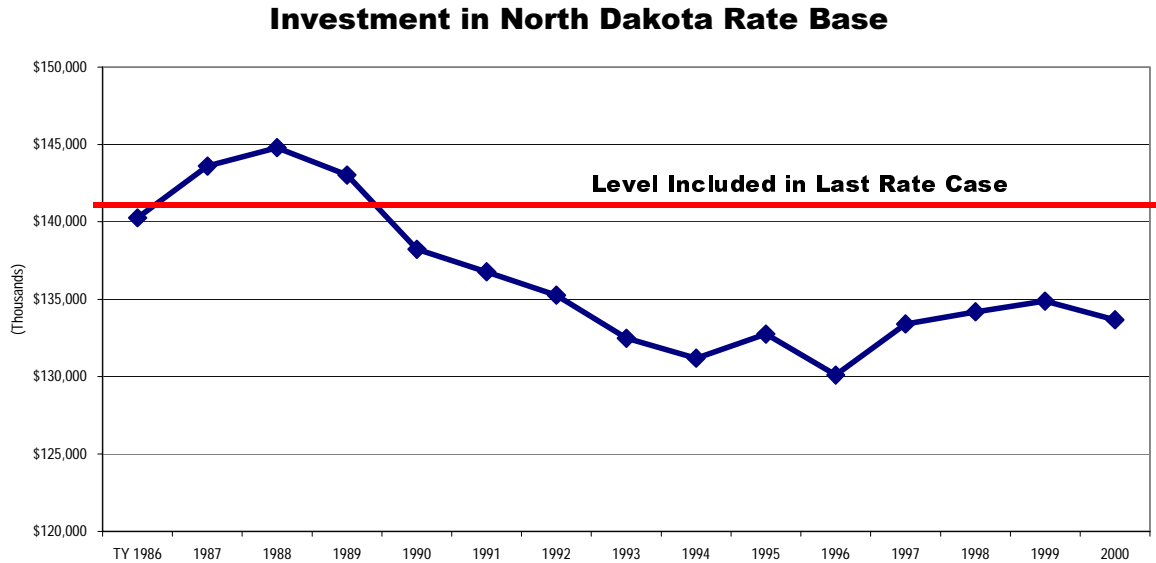
10 A: In its annual reports to the Commission, MDU includes plant in service,  
 11 accumulated reserve for depreciation, construction work in progress,  
 12 materials and supplies, fuel stocks, prepayments, accumulated deferred  
 13 income taxes, accumulated investment tax credits and customer ad-  
 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.



15

16

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***

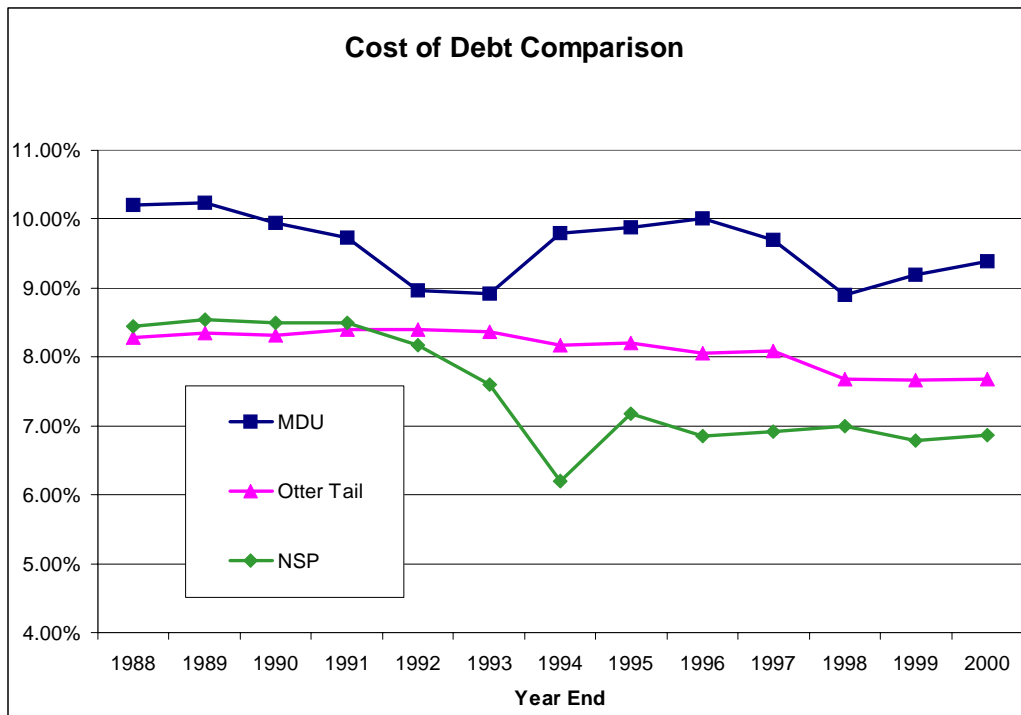
8           In the past, staff has expressed some concern about MDU's overall cost  
9           of debt. In staff's last financial investigation of its gas operations, staff  
10          witness Legler recommended that the Company consider exploring  
11          refinancing opportunities. In addition, 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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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**

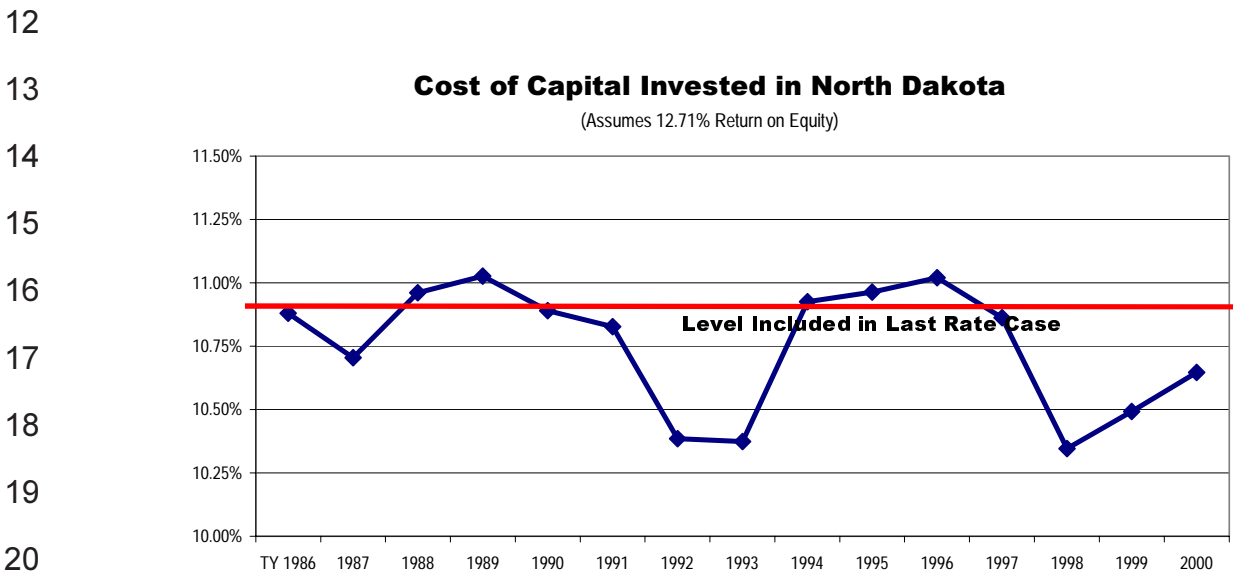
1 **OVERALL COST OF CAPITAL.**

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

4

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

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.



21

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.

3

4

5

6

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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&amp;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**

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

23 A: Because MDU does not weather normalize revenues and because staff  
 24 does not have the resources necessary to develop a weather normaliza-  
 25 tion 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.

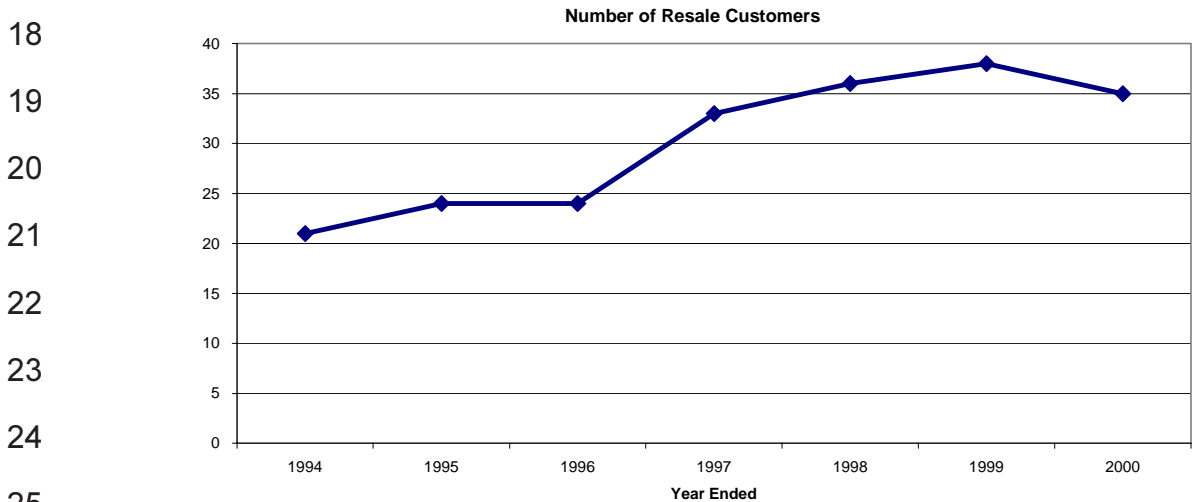
1 To get a true picture of the revenues earned each month, the company  
 2 adjusts the cycle billing revenue amounts by adding revenues that have  
 3 not been billed yet and subtracting those revenues that were actually  
 4 earned last month. As a result of this process, the year end unbilled  
 5 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.

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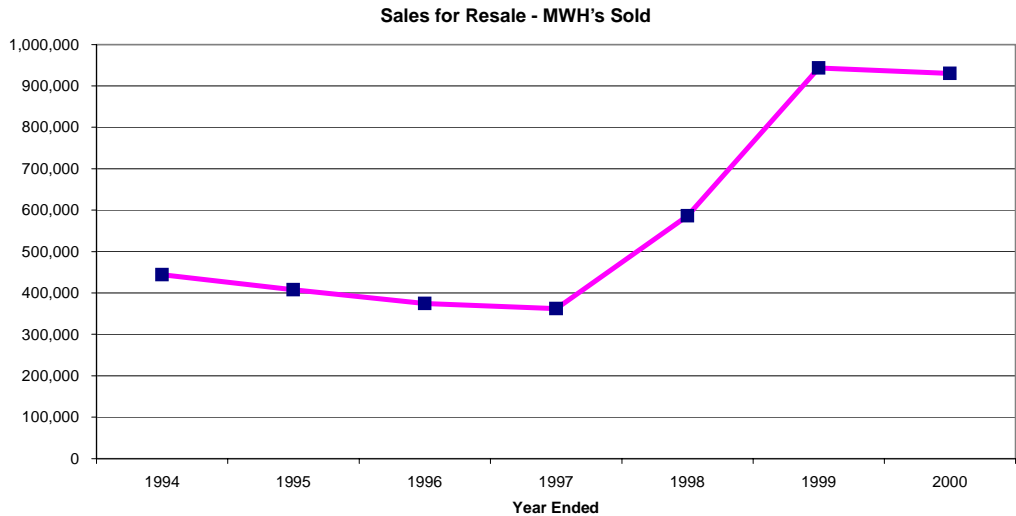
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14 The growth in volumes has nearly tripled since 1997. In addition to  
15 strong sales, MDU has experienced substantial growth in revenues per  
16 kilowatt hour, as shown in the following graph.

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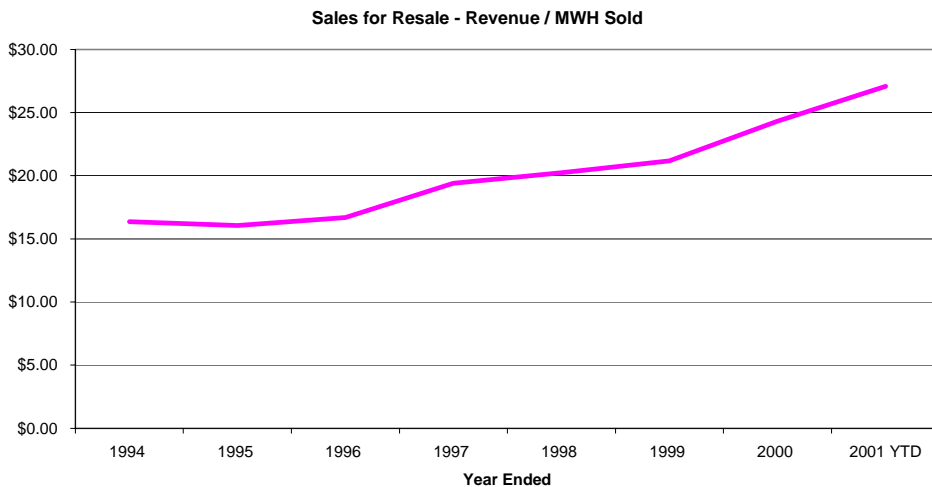
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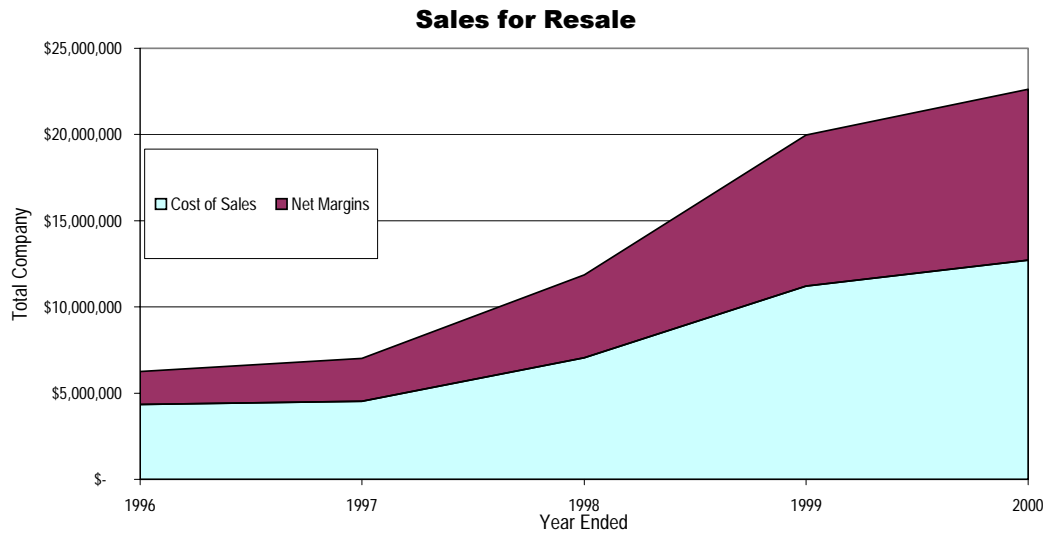
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1 With the combination of explosive growth in volumes and significant  
 2 increases in the market price of electricity, it is easily understood why  
 3 revenues from these sales has grown so much.

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?**

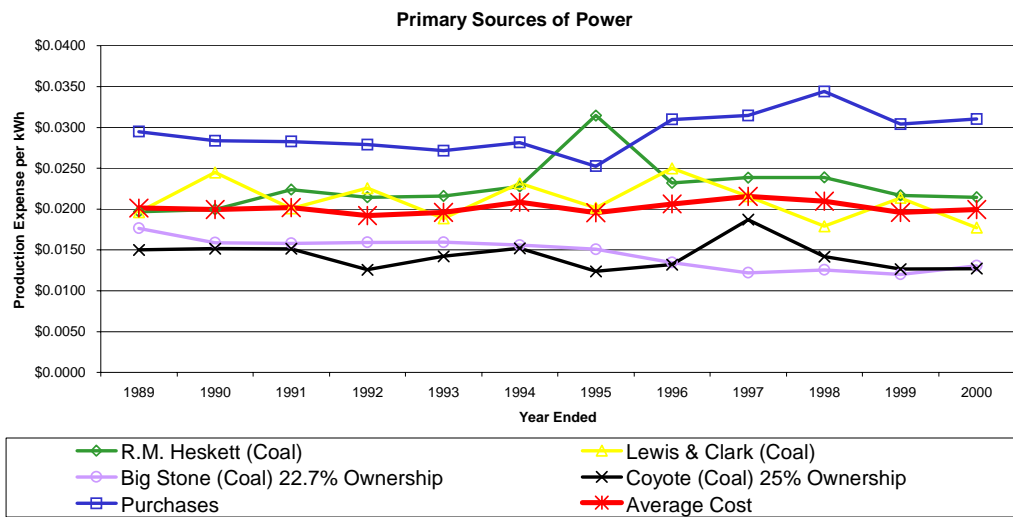
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14 **A:** Staff only made one adjustment to production expense to correspond  
15 with its sales for resale revenue adjustment. Even though production  
16 expense has seen some healthy increases in recent years, so have  
17 sales and revenues. Additional 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

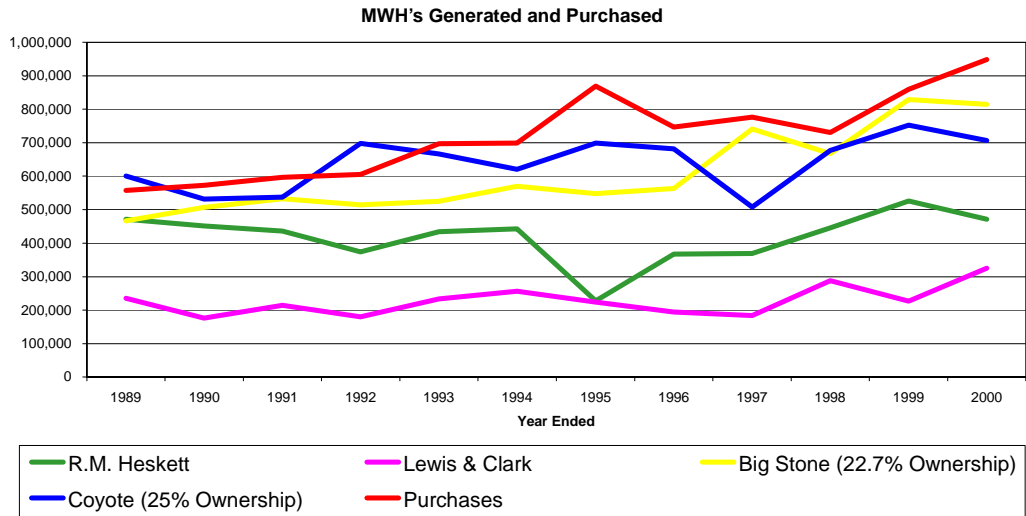
1           worth considering before agreeing to the Company’s production expense  
 2           level. For example, the Commission should look at MDU’s track record  
 3           with regard to managing its per unit production costs, use of generation  
 4           facilities and line loss. Beginning 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.



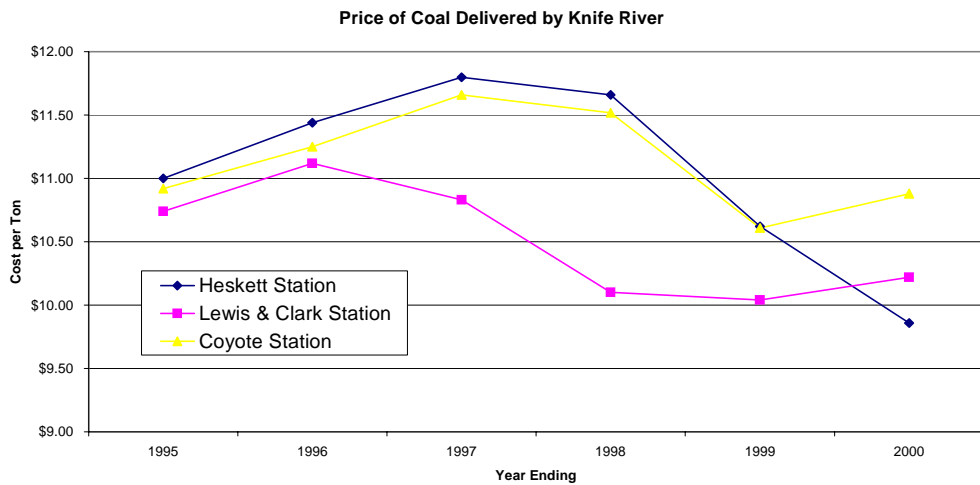
17           As you can see from the above chart, purchased power costs have  
 18           increased dramatically during the past few years. This can be expected  
 19           as available supplies become more and more restricted. Yet, MDU has  
 20           managed to keep its overall costs down 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

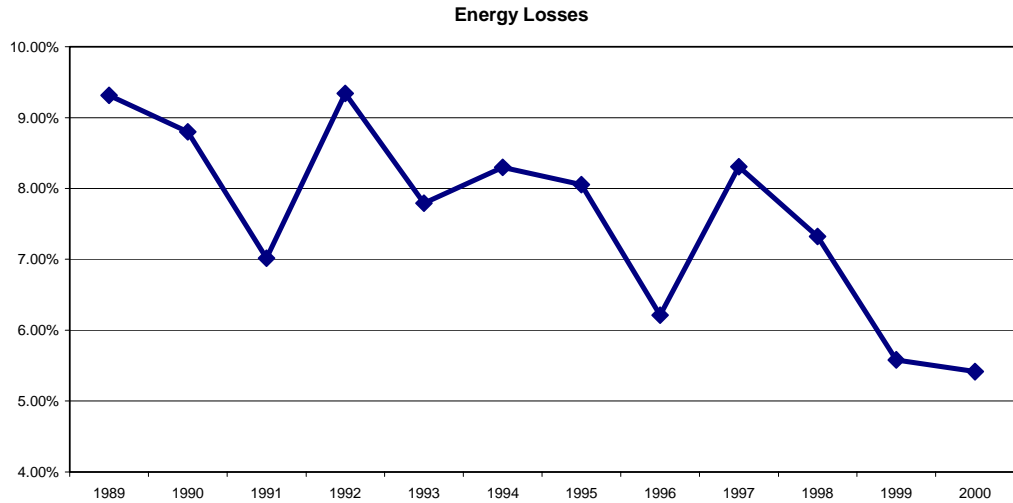
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In addition to higher utilization of existing plant, MDU's coal prices from its affiliate Knife River Corporation have been reduced substantially in recent years. On September 28, 2000 MDU Resources Group, Inc announced an agreement to sell its coal 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.

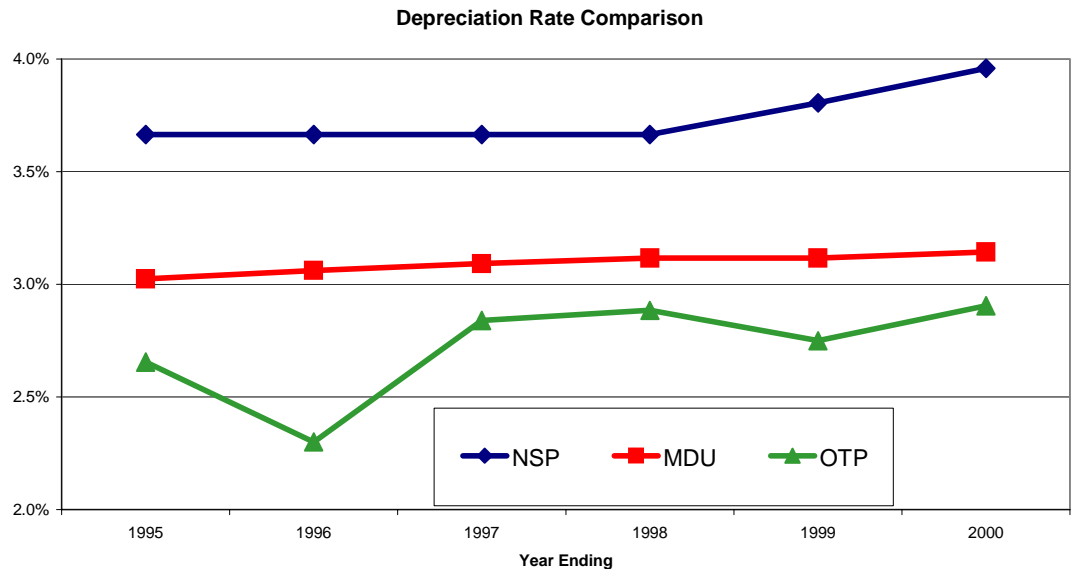
1 Staff reviewed the overall change in depreciation expense in relation to  
 2 the change in plant in service balances and noted a slight increase in  
 3 that relationship since 1994. However, the difference has not been  
 4 material to this case.

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



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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