

STATE OF NORTH DAKOTA  
PUBLIC SERVICE COMMISSION

Montana-Dakota Utilities Co.  
Electric Rate Increase  
Application

Case No. PU-10-124

AFFIDAVIT OF SERVICE BY REGULAR MAIL

STATE OF NORTH DAKOTA  
COUNTY OF BURLEIGH

Cara DeSaye deposes and says that:

she is over the age of 18 years and not a party to this action, and, on the 13<sup>th</sup> day of **December, 2010**, she deposited in the United States Mail, at Bismarck, North Dakota, **three** envelopes with regular postage, fully prepaid, securely sealed and containing a photocopy of:

**Memo re: MDU Electric Annual Reports**

The envelopes were addressed as follows:

Mr. Jim Roaché  
707 First St SW  
Crosby, ND 58730

Mr. Scott Skokos  
103 ½ S. Third Street Ste. 8  
Bismarck, ND 58504

Mr. Daniel Kuntz  
MDU Resources Group, Inc.  
PO Box 5650  
Bismarck, ND 58506-5650

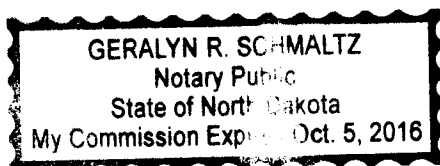
The addresses shown are the respective addressee's last reasonably ascertainable post office addresses.

Subscribed and sworn to before me  
this 13<sup>th</sup> day of **December, 2010**.

*Cara DeSaye*

*GERALYN R. SCHMALTZ*  
Notary Public

SEAL



141 PU-10-124 Filed: 12/13/2010 Pages: 9  
Affidavit of Service Reg. Mail - Memo re. MDU  
Electric Annual Reports

---

---

INTEROFFICE MEMORANDUM

---

---

TO: COMMISSIONERS  
FROM: MIKE DILLER *Mike Diller*  
SUBJECT: MDU ELECTRIC ANNUAL REPORTS (2006-2009)  
CLOSE CASE NO.S PU-07-155, PU-08-166, PU-09-167, PU-10-135  
DATE: 12/9/2010  
CC: PUD & LEGAL

---

The review of annual reports is an important tool of the commission to stay abreast of financial changes in the operations of the utilities we regulate. Our practice of reviewing annual reports has not been maintained over the past few years due to increased workload in the areas of rate cases, advance determination of prudence cases and integrated resource plans combined with a long spell of staff turnover, realignment and vacancies. Chris has helped to get this process started again and you can expect more of these memos in the near future.

Attached are staff workpapers summarizing the annual reports; including a graph of reported earnings by MDU's electric operation. You will note that MDU's rate base nearly doubles in the past 4 years. The increase is primarily related to the addition of the Diamond Willow and Cedar Hills wind farms as the commission heard about in the recent rate proceeding. As a result, the rather significant over-earnings occurring in 2007 and 2008 became a rate increase request in 2010.

The over-earnings in 2007 and 2008 occurred primarily as a result of the termination of MDU's contract with Antelope Valley Station to supply 66.4 MW's of capacity and energy. As a result, capacity charges ceased as of October 31, 2006 adding 290 basis points to the 2007 ROE or about \$4.1 million more in net profits and a gross margin impact before taxes of approximately \$6.7 million.

After the termination of the AVS contract, margins and net earnings grew despite the loss of off-system sales because of the pass-through mechanism approved by the commission in MDU's last rate case granting an 85% sharing of profits with customers. The profit sharing mechanism automatically adjusted downward for the decline in off-system sales margins. As a result, MDU ceased paying AVS demand charges after October 31, 2006, which was not flowed-through to customers, while most of the lost margins were absorbed by customers through the reduced (actually a surcharge adjustment beginning April 1, 2007) margin sharing adjustment.

- 3 PU-09-167 Filed 12/09/2010 Pages: 9  
Staff analysis memo re. MDU Electric Annual Reports  
Public Service Commission  
Mike Diller
- 4 PU-08-166 Filed 12/09/2010 Pages: 9  
Staff analysis memo re. MDU Electric Annual Reports  
Public Service Commission  
Mike Diller
- 4 PU-07-155 Filed 12/09/2010 Pages: 9  
Staff analysis memo re. MDU Electric Annual Reports  
Public Service Commission  
Mike Diller

Page 1 of 2

- 6 PU-10-135 Filed 12/09/2010 Pages: 9  
Staff analysis memo re. MDU Electric Annual Reports  
Public Service Commission  
Mike Diller

## MDU ELECTRIC ANNUAL REPORTS (2006-2009)

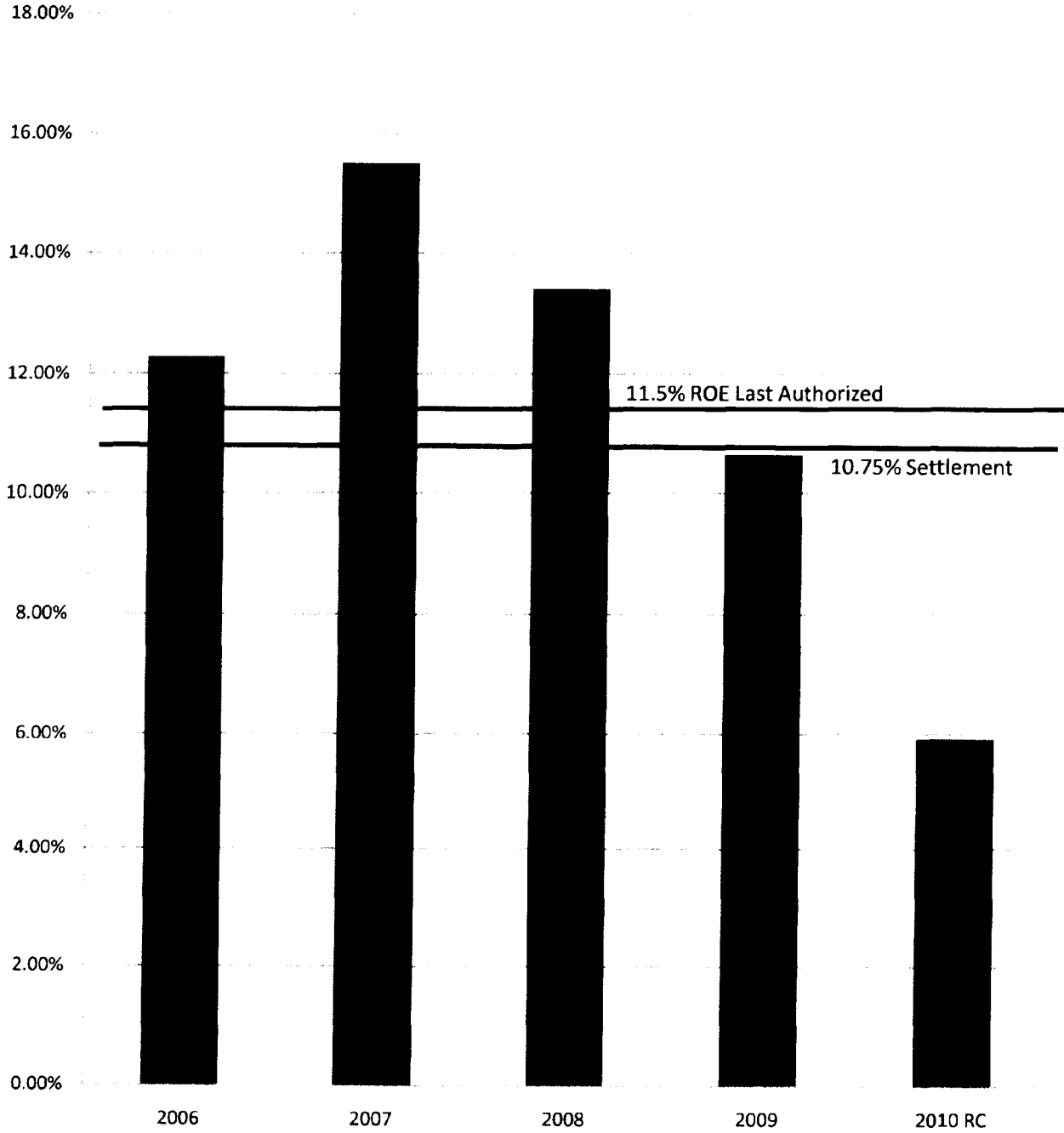
### STAFF ANALYSIS

Our five year summary uses a return on equity of 11.5% which was last authorized by the commission for MDU in its 1993 rate case. The 11.5% rate was also used by MDU for the filing of its current rate case. As the commission is aware, MDU and staff have agreed to use 10.75% for MDU's current rate case revenue requirement calculation but the commission has not rendered a decision in that case to date. The cost of capital worksheet also shows a fairly consistent capital structure and a declining cost of debt, as would be expected given the recent interest rates.

Last, staff noted a significant amount of variation in the allocated share of expense categories to North Dakota. For instance, about 57% of production expenses are allocated to North Dakota; about 68% of all transmission expenses; and about 79% of customer service and information expenses. Similarly, and in a more general fashion, about 58% of total operating expenses are allocated to North Dakota whereas about 65% of rate base is allocated to North Dakota. Staff has not investigated this as part of the annual report filing because it has reached an agreement with MDU in its pending rate case to explore this more fully once the rate case is over.

As a result of that agreement and the work staff has already done through the rate case proceeding, staff recommends that these annual reports be closed. In accordance with commission policy 5-05-97, staff will provide this to MDU so that it can respond to it as deemed necessary. After sufficient time has passed, staff will prepare a motion for the commission to close these cases.

**Montana-Dakota Utilities Co.  
North Dakota Electric Operations  
Reported Return on Equity**



Montana-Dakota Utilities Co. - Electric Operations  
**Revenue Deficiency Calculation and Rate Base**  
(000's)

<u>Line</u>	<u>Description</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	MDU Revised Rate Case Projected <u>2010</u>
1	Average Rate Base	\$146,140	\$160,084	\$186,415	\$204,796	\$276,685
2	Rate of Return Required	9.21%	9.41%	8.76%	9.20%	9.09%
3	Return Required	\$13,462	\$15,069	\$16,334	\$18,837	\$25,155
4	Return Earned	\$14,017	\$18,502	\$18,475	\$18,351	\$17,061
5	Return (Excess)	(\$555)	(\$3,433)	(\$2,141)	\$486	\$8,094
6	Tax Factor	1.656	1.656	1.656	1.656	1.643
7	Revenue Deficiency (Excess)	(\$919)	(\$5,684)	(\$3,545)	\$804	\$13,300
<i>Rate Base:</i>						
8	Plant in Service	\$430,606	\$451,958	\$486,133	\$521,380	\$615,223
9	Accum. Res. for Depr.	252,883	262,098	272,405	282,685	302,493
10	Avg. Net Plant in Service	\$177,723	\$189,860	\$213,728	\$238,695	\$312,730
11	Constr. Work in Progress	1,173	1,578	2,463	1,477	0
12	Materials & Supplies	3,855	4,455	5,076	5,087	5,077
13	Fuel Stocks	2,177	2,554	2,776	2,747	2,955
14	Prepayments	264	214	174	272	373
15	Unamortized Loss on Debt			4,733	4,796	4,556
16	Deferred Generation Cost					1,547
17	Decommission of Retired Plant					(353)
18	Accum. Def. Income Taxes	(38,391)	(38,150)	(42,231)	(47,993)	(49,973)
19	Accum. Invest. Tax Credits	(652)	(418)	(254)	(144)	0
20	Customer Advances	(9)	(9)	(50)	(141)	(227)
21	Average Rate Base	\$146,140	\$160,084	\$186,415	\$204,796	\$276,685
22	Rate of Return on Rate Base	9.59%	11.56%	9.91%	8.96%	6.166%
23	MDU Adj for 401K tax deduction not attrib. to utility			-0.45%	-0.40%	
24	Rate of Return on Equity	<u>2006</u> 12.29%	<u>2007</u> 15.50%	<u>2008</u> 13.41%	<u>2009</u> 10.64%	<u>2010 RC</u> 5.906%

Montana-Dakota Utilities Co. - Electric Operations

**Cost of Capital Statement**

(000's)

<u>Line</u>	<u>Description</u>	<u>Balance</u>	<u>Capital Ratio</u>	<u>Cost</u>	<u>Required Return</u>
<b>2006</b>					
1	Long-Term Debt	\$141,950	34.57%	7.98%	2.76%
2	Short-Term Debt	55,473	13.51%	5.44%	0.73%
3	Preferred Stock	15,000	3.65%	4.57%	0.17%
4	Common Equity	198,225	48.27%	11.50%	5.55%
5	TOTAL	<u>\$410,648</u>	<u>100.00%</u>		<u>9.21%</u>
<b>2007</b>					
6	Long-Term Debt	\$153,750	38.21%	7.31%	2.79%
7	Short-Term Debt	17,289	4.30%	6.51%	0.28%
8	Preferred Stock	15,850	3.94%	4.61%	0.18%
9	Common Equity	215,490	53.55%	11.50%	6.16%
10	TOTAL	<u>\$402,379</u>	<u>100.00%</u>		<u>9.41%</u>
<b>2008</b>					
11	Long-Term Debt	\$193,254	37.68%	7.02%	2.64%
12	Short-Term Debt	53,998	10.53%	3.56%	0.37%
13	Preferred Stock	15,750	3.07%	4.60%	0.14%
14	Common Equity	249,840	48.72%	11.50%	5.60%
15	TOTAL	<u>\$512,842</u>	<u>100.00%</u>		<u>8.76%</u>
<b>2009</b>					
16	Long-Term Debt	\$258,256	45.48%	6.86%	3.12%
17	Short-Term Debt	1,880	0.33%	11.59%	0.04%
18	Preferred Stock	15,650	2.76%	4.60%	0.13%
19	Common Equity	292,113	51.44%	11.50%	5.92%
20	TOTAL	<u>\$567,899</u>	<u>100.00%</u>		<u>9.20%</u>
<b>2010 - MDU Revised Rate Case Filing</b>					
21	Long-Term Debt	\$280,503	42.23%	6.85%	2.89%
22	Short-Term Debt	20,829	3.14%	2.54%	0.08%
23	Preferred Stock	15,500	2.33%	4.59%	0.11%
24	Common Equity	347,368	52.30%	11.50%	6.01%
25	TOTAL	<u>\$664,200</u>	<u>100.00%</u>		<u>9.09%</u>

Montana-Dakota Utilities Co. - Electric Operations

**Income Statement**

(000's)

					MDU Revised Rate Case Projected	
Line	Description	2006	2007	2008	2009	2010
1	Sales for Resale	\$9,492	\$3,719	\$5,241	\$1,457	\$0
2	All Other Revenues	103,040	116,922	121,617	113,366	116,000
3	Total Revenues	<u>\$112,532</u>	<u>\$120,641</u>	<u>\$126,858</u>	<u>\$114,823</u>	<u>\$116,000</u>
4	Production Expense	50,588	50,981	56,843	46,626	
5	Gross Margins	<u>\$61,944</u>	<u>\$69,660</u>	<u>\$70,015</u>	<u>\$68,197</u>	
	Gross Margin % of Revenue	55%	58%	55%	59%	
6	Transmission Expense	5,317	5,111	5,287	5,605	
7	Distribution Expense	6,095	6,449	6,309	6,055	
8	Customer Accounts	2,218	2,304	2,199	2,163	
9	Customer Service & Info.	130	127	177	264	
10	Sales Expense	236	189	199	195	
11	Administration & General	11,411	11,241	12,168	10,526	
	Total O&M	<u>75,995</u>	<u>76,402</u>	<u>83,182</u>	<u>71,434</u>	<u>73,752</u>
12	Depreciation	12,972	13,742	15,077	15,705	18,757
13	Taxes Other Than Income	4,253	4,204	4,574	4,338	4,636
14	Income Tax Exp (from L. 24)	5,295	7,791	5,550	4,995	1,794
15	Net Regulated Income	<u>14,017</u>	<u>18,502</u>	<u>18,475</u>	<u>18,351</u>	<u>17,061</u>
	Income Tax as % of Net Income	27%	30%	23%	21%	10%
<i>Income Tax Calculation:</i>						
16	Net Inc. B4 Taxes (L. 14+15)	\$19,312	\$26,293	\$24,025	\$23,346	\$18,855
17	Less Interest Deduction:					
18	Rate Base	\$146,140	\$160,084	\$186,415	\$204,796	\$276,685
19	Weighted Cost of Debt	3.49%	3.07%	2.27%	3.16%	2.97%
20	Calc. Int. Deduction (L. 18*19)	<u>\$5,106</u>	<u>\$4,920</u>	<u>\$4,230</u>	<u>\$6,463</u>	<u>\$8,218</u>
21	Other Tax Adjustments	(\$838)	(\$1,704)	(\$5,783)	(\$4,273)	(\$6,108)
22	Taxable Income (L. 16-20+21)	<u>\$13,368</u>	<u>\$19,669</u>	<u>\$14,012</u>	<u>\$12,610</u>	<u>\$4,529</u>
23	Combined Tax Rate	39.61%	39.61%	39.61%	39.61%	39.61%
24	Income Tax Expense (L. 22*23)	<u>\$5,295</u>	<u>\$7,791</u>	<u>\$5,550</u>	<u>\$4,995</u>	<u>\$1,794</u>

Montana-Dakota Utilities Co. - Electric Operations  
 FERC Form 1 - Total Electric Company Expenses  
 (Dollars in Thousands)

Acct.	A & G Expenses	2006	2007	2008	2009
920.0	Administrative and General Salaries	\$5,202	\$5,671	\$5,031	\$4,994
921.0	Office Supplies and Expenses	3,055	2,233	2,701	2,635
923.0	Outside Services Employed	626	590	423	397
924.0	Property Insurance	626	564	468	617
925.0	Injuries and Damages	786	918	652	769
926.0	Employee Pensions & Benefits	5,843	6,180	8,389	5,816
928.0	Regulatory Commission Expenses	337	70	244	291
930.1	General Advertising Expense	158	175	126	62
930.2	Miscellaneous General Expense	556	550	296	365
931.0	Rents	157	213	320	251
935.0	Maintenance of General Plant	591	597	500	484
	Total A & G Expenses	\$17,937	\$17,761	\$19,150	\$16,681

Production Expenses

*Steam Power Generation:*

500	Operation Supervision & Engineering	\$1,798	\$1,976	\$2,113	\$1,961
501	Fuel	33,123	35,636	40,721	37,200
502	Steam Expenses	3,231	3,742	3,874	3,769
505	Electric Expenses	1,165	1,186	1,256	1,346
506	Misc Steam Power Expenses	2,511	2,748	2,956	2,989
510	Maintenance Superv & Engineering	696	779	827	797
511	Maintenance of Structures	580	571	566	628
512	Maintenance of Boiler Plant	6,860	4,466	5,700	5,356
513	Maintenance of Electric Plant	1,599	793	1,027	979
514	Maintenance of Misc Steam Plant	1,025	977	1,096	1,077
	Total Steam Power Prod Expense	\$52,588	\$52,874	\$60,136	\$56,102

*Other Power Generation:*

546	Operation Supervision & Engineering	\$90	\$108	\$149	\$118
547	Fuel	1,069	2,029	766	426
548	Generation Expenses	1	2	191	299
549	Misc Other Power Generation Exp	560	431	270	253
550	Rents			4	52
551	Maintenance Superv & Engineering	38	84	84	60
552	Maintenance of Structures	6	5	5	7
553	Maintenance of Gen & Elec Plant	57	1,150	178	204
554	Maintenance of Other Misc Gen	54	0	0	3
	Total Other Power Generation	\$1,875	\$3,809	\$1,647	\$1,422

*Other Power Supply Expenses:*

555	Purchased Power	\$33,221	\$31,951	\$30,396	\$26,456
556	System Control and Load Dispatch	1,054	1,210	1,164	1,123
	Total Other Power Supply Exp	\$34,275	\$33,161	\$31,560	\$27,579
	Total Production Expenses	\$88,738	\$89,844	\$93,343	\$85,103

Various Statistics

Firm Pur. Power-mWh's (326, no OS, EX)	761,662	294,671	302,293	299,595
Non-firm Purchased Power - mWh's	61,291	280,542	212,542	377,276
Total mWh's Purchased (401a, L.10)	822,953	575,213	514,835	676,871
Cost per kWh Purchased	\$0.040	\$0.056	\$0.059	\$0.039

MWh's Generated (401a, L.9)	2,218,057	2,253,867	2,538,439	2,203,665
Cost per kWh Generated	\$0.025	\$0.025	\$0.024	\$0.026

Sales to Ultimate Consumers (401a, L.22)	2,483,248	2,601,649	2,663,452	2,663,560
Sales for Resale (401b, L.41)	483,944	165,639	223,778	90,789
Total Sales	2,967,192	2,767,288	2,887,230	2,754,349
Energy Losses (401a, L. 27)	132,971	119,611	230,911	196,089
Line Loss Percentage	4.5%	4.3%	8.0%	7.1%

Sales for Resale Revenues (327, Total)	\$33,221	\$31,951	\$30,396	\$26,456
Revenue per kWh Sold	\$0.069	\$0.193	\$0.136	\$0.291

Montana-Dakota Utilities Co.  
Electric Operations  
North Dakota's Share of Total Company

	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>
<b>Operating Revenues:</b>				
Residential	60.2%	61.6%	60.6%	58.7%
Comm. & Industrial - Small	36.2%	37.5%	36.1%	35.0%
Comm. & Industrial - Large	67.2%	69.0%	67.0%	64.5%
Public Street Lighting	59.5%	61.4%	60.4%	58.2%
Other Sales to Public Author.	76.7%	78.2%	75.9%	76.1%
Cogeneration	100.0%	100.0%	100.0%	100.0%
Sales for Resale	62.5%	65.2%	65.2%	65.1%
Margin Sharing Adjustment	100.0%	100.0%	96.5%	82.8%
Other Operating Revenues	59.0%	59.7%	60.8%	60.9%
Unbilled Revenues	259.5%	65.0%	33.4%	83.3%
<b>Total Operating Revenues</b>	<u>58.9%</u>	<u>62.7%</u>	<u>61.3%</u>	<u>59.8%</u>
<b>Operating Expenses:</b>				
Production Expense	57.0%	56.7%	58.7%	53.8%
Transmission Expense	67.4%	68.2%	67.9%	68.1%
Distribution Expense	56.4%	57.0%	55.9%	57.4%
Customer Accounts Expense	56.9%	57.1%	57.3%	58.5%
Customer Svc. & Info. Expense	81.6%	79.4%	78.2%	79.2%
Sales Expense	67.4%	63.2%	63.4%	71.2%
Admin. & General Expense	63.6%	63.3%	63.5%	63.1%
Depreciation Expense	60.6%	61.2%	63.0%	64.1%
Taxes Other Than Income	53.4%	53.4%	52.5%	51.8%
<b>Total Operating Expenses</b>	<u>58.6%</u>	<u>58.5%</u>	<u>59.8%</u>	<u>57.4%</u>
<b>Net Income before Income Taxes</b>	<u>74.3%</u>	<u>84.5%</u>	<u>69.0%</u>	<u>65.2%</u>
<b>Income Tax Expense</b>	<u>80.9%</u>	<u>94.8%</u>	<u>71.4%</u>	<u>65.2%</u>
<b>Net Regulated Earnings</b>	<u>72.1%</u>	<u>80.8%</u>	<u>68.3%</u>	<u>65.2%</u>
Plant in Service	63.7%	63.9%	64.2%	64.5%
Less: Accumulated Depreciation	62.7%	63.0%	63.1%	63.0%
Add: Construction Work in Progress	54.0%	57.6%	73.0%	60.9%
<b>Net Plant in Service</b>	<u>65.1%</u>	<u>65.2%</u>	<u>65.7%</u>	<u>66.3%</u>
Materials and Supplies	63.4%	61.1%	61.2%	61.9%
Fuel Stocks	64.7%	65.2%	65.2%	65.1%
Prepayments	64.6%	64.9%	65.2%	65.2%
Unamortized Loss on Debt			64.3%	65.3%
Accumulated Deferred Income Taxes	69.7%	70.8%	71.2%	70.6%
Accumulated Deferred ITC's	69.7%	68.2%	69.7%	76.1%
Customer Advances for Construction	0.9%	0.7%	2.3%	4.6%
<b>Average Rate Base</b>	<u>64.2%</u>	<u>64.2%</u>	<u>64.9%</u>	<u>65.8%</u>

**For another day:** It is odd that North Dakota is allocated about 65% of plant and rate base yet only allocated about 58% of total expenses. This 10% differential is quite high and should be investigated in the future. Makes me wonder if the direct assignment of cost to the regions and various states, rather than a jurisdictional study approach, is somehow distorting the results.