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

400 North Fourth Street
Bismarck, ND 58501
(701) 222-7900

September 14, 2015

Mr. Robert Nelson
Montana Consumer Counsel
111 North Last Chance Gulch, Suite 1B
PO Box 201703
Helena, MT 59620-1703

Re: General Electric Rate Application
Docket No. D2015.6.51

Dear Mr. Nelson:

Montana-Dakota Utilities Co. electronically submits its responses to the Montana Consumer Counsel's data requests dated August 26, 2015. Responses to the following requests are attached:

MCC-001	MCC-016	MCC-033	MCC-055	MCC-068	MCC-089	MCC-105
MCC-003	MCC-017	MCC-034	MCC-056	MCC-080	MCC-091	MCC-106
MCC-005	MCC-018	MCC-035	MCC-057	MCC-081	MCC-092	MCC-109
MCC-006	MCC-019	MCC-036	MCC-059	MCC-082	MCC-093	MCC-110
MCC-009	MCC-020	MCC-037	MCC-060	MCC-083	MCC-094	MCC-111
MCC-010	MCC-021	MCC-039	MCC-062	MCC-084	MCC-095	
MCC-012	MCC-022	MCC-045	MCC-064	MCC-085	MCC-096	
MCC-013	MCC-026	MCC-046	MCC-065	MCC-086	MCC-097	
MCC-014	MCC-029	MCC-049	MCC-066	MCC-087	MCC-099	
MCC-015	MCC-032	MCC-053	MCC-067	MCC-088	MCC-100	

The attachments for response numbers MCC-001(Attachment B), MCC-083, MCC-084, MCC-086, MCC-093 and MCC-096 are being provided on a CD sent to each of the parties.

Sincerely,

Tamie A. Aberle by Caitlin Strcabe

Tamie A. Aberle
Director of Regulatory Affairs

Attachments
cc: Service List

Montana-Dakota Utilities Co.
Docket No. D2015.6.51
Service List

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MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-001

Regarding: Adjustment No. 1 – Current Rates
Witness: Jacobson/Aberle

a. **Provide all work papers, analyses, memos and any other documentation that supports the portion of this adjustment to reflect "the annualized load for a new customer taking service under the Large General Service Rate 30."**

b. **Provide all work papers, analyses, memos and any other documentation that supports the portion of this adjustment to reflect "current rates."**

c. **Provide all work papers, analyses, memos and any other documentation that supports the portion of this adjustment to reflect "updated base fuel costs."**

d. **Does this adjustment reflect the annualization of all customers at December 31, 2014? If not, why not?**

e. **Provide all work papers, analyses, memos and any other documentation to include rate revenues for annualized customers as of December 31, 2014.**

Response:

a. Please see MCC – 001 Attachment A supporting the annualized load for the new customer taking service under Large General Service Rate 30.
b. Please see the file named MCC 001 Attachment B on the enclosed CD for support of the adjustment to reflect "current rates".
c. Please see Statement Workpaper, Statement G, Page G-31 for "updated base fuel costs"
d. Adjustment No. 1 does not reflect the annualization of all customers at December 31, 2014. The purpose of Adjustment No. 1 is to restate the 2014 per books revenue to reflect revenue at currently approved rates and the proforma Fuel and Purchased Power Adjustment. Adjustment No. 1 also reflects the proforma adjustment made to the Rate 30 Secondary billing units.
e. Adjustment No. 1 does not annualize customer as of December 31, 2014.

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - MONTANA

Annualization of New Customer - Rate 30

		KWH	TOTAL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
301-1		12/31/13	-												
		12/31/14	231,300								34,800	35,100	38,400	32,700	90,300
Jan-March actuals for 2015		12/31/15	958,800	91,800	66,900	81,000.0	79,900.0	79,900.0	79,900.0	79,900.0	79,900.0	79,900.0	79,900.0	79,900.0	79,900.0
and average of Jan-Mar '15		difference	727,500	91,800	66,900	81,000	79,900	79,900	79,900	79,900	45,100	44,800	41,500	47,200	(10,400)
moving forward															

	2015	2014	Kwh ADJ
Summer KWH	319,600.0	69,900	249,700.0
Winter KWH	639,200.0	161,400	477,800.0

		KW	TOTAL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
301-1		12/31/13	-												
		12/31/14	677								91.80	93.00	116.10	129.00	247.50
Jan-March actuals for 2015		12/31/15	2,863	259.50	242.10	214.20	238.60	238.60	238.60	238.60	238.60	238.60	238.60	238.60	238.60
and average of Jan-Mar '15		difference	2,186	260	242	214	239	239	239	239	147	146	123	110	(9)
moving forward															

	2015	2014	KW ADJ
Summer KW	954.4	185	769.6
Winter KW	1,908.8	493	1,416.2

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-003

Regarding: Adjustment No. 3 – Other Revenue
Witness: Jacobson

Provide the date that Basin Electric is expected to join the Southwest Power Pool.

Response:

Basin Electric and Western Area Power Administration are joining SPP as transmission owning members on October 1, 2015 at which time their transmission facilities will be under the SPP Tariff instead of the current WAPA-IS tariff.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-005

Regarding: Adjustment No. 3 - Other Revenue
Witness: Jacobson

Are there items in "Other" (see Work Paper H-6) aside from rents? If so, list the items and the amounts for 2012, 2013, and 2014.

Response:

The items in "Other" are as follows:

	2012	2013	2014
Buildings	$ 5,126.00	$ 7,058.00	$ 11,116.00
Equipment (Incl WAPA fiber)	11,150	11,413	18,706
Parking lot	236	322	471
Property	32,810	59,202	55,147
Misc. Rent - Coyote	2,305	1,338	2,295
Misc. Rent - Heskett	806	825	845
Misc. Rent - Big Stone	1,092	1,021	989
Other:			
Heskett Easement Proceeds		14,434	
Salvage Check - Skinners			192
Total	53,525	95,613	89,761

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-006

Regarding: Adjustment No. 3 - Other Revenue
Witness: Jacobson

Provide a schedule that shows the Late Payment Revenues and the Sales Revenues in the same format as shown on Work Paper H-5 for each year from 2011 through 2014 and for 2015, by month, as available.

Response:

Please see table below.

Late Payment Calculation

	Late Payment Revenue	Sales Revenue	% Late Payment Revenue
August, 2015	$ 10,481	$4,619,140	0.23%
July, 2015	2,801	5,596,845	0.05%
June, 2015	4,539	4,740,842	0.10%
May, 2015	5,556	3,969,288	0.14%
April, 2015	4,840	4,252,981	0.11%
March, 2015	5,234	4,261,891	0.12%
February, 2015	5,983	4,660,598	0.13%
January, 2015	3,049	5,343,379	0.06%
2014	58,503	55,454,440	0.11%
2013	57,554	52,748,300	0.11%
2012	25,338	50,798,369	0.05%
2011	24,908	48,423,275	0.05%

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-009

Regarding: Adjustment No. 4 – Fuel and Purchased Power
Witness: Jacobson

a. **Provide a breakdown of Adjustment 4 into its component parts – i.e. (1) the inclusion of Thunder Spirit; (2) the inclusion of the RICE unit; (3) the inclusion of the Big Stone modifications; (3) the inclusion of the Heskett III combustion turbine; (4) the inclusion of the "supplanting" of the capacity contract that expired in 2015; (5) the "redispatch" to reflect normal outage schedules; (6) the inclusion of the current MISO market costs for energy; and (7) the inclusion of emission control (reagents) costs.**

b. **Provide all work papers, memos, analyses and any other documentation that supports each of the components noted in part a.**

Response:

a. The following explanations are based on the Total Company pro forma changes to fuel and purchased power. See Attachment A for a table reflecting Total Company along with Montana's share.
    1. The addition of Thunder Spirit generation offsets 415.6 GWH of purchased power through the MISO market at an average pro forma market price of $29.70/MWH or a reduction of $12.3 million in purchased power expense.
    2. The RICE unit is primarily a capacity resource with load serving capabilities. Based the Plexos redispatch, the unit will be started three times with a production of 3.3 GWH and a generation cost of $96,040.
    3. The Big Stone modifications result in only a slight decrease in the maximum generating capability and the change is not readily identifiable between per books and pro forma.
    4. Heskett III is also primarily a capacity resource with load serving capabilities. The generation cost will increase only slightly. The pipeline charges were in effect for a partial year in 2014 and a full year in the pro forma period resulting in an increase of $1.4 million.
    5. Inclusion of Heskett III and the RICE unit as capacity resources supplanted contracted capacity. Total pro forma demand charges decrease $4.1 million due to the expiration of the WE Energies contract.
    6. Each plant is presented individually on Statement Workpapers G-35. Both generation and current generation costs have been updated.
    7. MISO market costs are expected to increase from $28.06 to $29.70/MWH. Based on pro forma purchases, the increase is expected to be approximately $1.0 million.

8. Reagent costs have not been included in the Fuel and Purchased Power calculation in the past. Therefore, the amount of reagent in this calculation is $2.0 million.

b. See Statement Workpapers G-34 through G-42.

MONTANA-DAKOTA UTILITIES CO.
COMPARISON OF PER BOOKS TO PRO FORMA
FUEL AND PURCHASED POWER
MCC-009 DATA RESPONSE

	Per Books		Pro Forma	
	Total	Montana	Total	Montana
Acct. 502 - Reagent	$ -	$ -	$ 1,984,630	$ 526,675
Acct. 547 - Heskett III	664,115	181,110	697,300	185,047
Acct. 547 - RICE	-	-	96,040	25,487
Energy - Thunder Spirit	-	-	(12,342,281)	(3,275,354)
Energy - MISO	-	-	1,037,769	275,400
Demand (WE Energies)	4,103,500	920,361	-	-
Heskett III Pipeline Charges	1,144,236	256,637	2,520,750	570,768
	$ 5,911,851	$ 1,358,108	$ (6,005,792)	$ (1,691,977)

Pro Form Adjustment from above:	$ (3,050,085)
All Other	1,240,142
Pro Forma Adjusment No. 4	$ (1,809,943)

Factors:	2014	2015
#15 - Demand	22.428695%	22.642790%
#16 - Energy	27.270911%	26.537673%

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-010

Regarding: Adjustment No. 5 - Labor Expense
Witness: Jacobson

Provide a work paper that shows the breakdown of the labor expense adjustment into its component parts – i.e., the 4.0% increase for union employees, the 3.5% increase for non-union employees and the adjustment for incentive compensation to reflect a three year average.

Response:

Please see the Statement Workpapers, Statement G, pages G-43 and G-44.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-012

Regarding: Adjustment No. 5 - Labor Expense
Witness: Jacobson

Provide actual, if available, and budgeted bonuses for 2015 for gas and electric (see Work paper G-44).

Response:

The amount budgeted for incentive compensation for 2015 total gas and electric utility operations is $2,920,019 and $3,967,052, respectively. Actual incentive compensation for 2015 is not yet available.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-013

Regarding: Adjustment No. 5 - Labor Expense
Witness: Jacobson

Provide a schedule that shows actual 2013 labor expense for the electric utility and for Montana electric operations in the same format and detail as shown on Rule 38.5.157, Statement G, at page 6 of 35.

Response:

MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY - MONTANA
LABOR EXPENSE
TWELVE MONTHS ENDING DECEMBER 31, 2013

	Per Books	
	Electric Utility	Montana
Fuel and Purchased Power	$672,252	$190,059
Production	8,060,169	1,849,433
Transmission	3,768,771	723,507
Distribution	9,862,748	2,162,271
Customer Accounting	2,161,245	430,225
Customer Service	123,089	20,120
Sales	92,388	7,051
A&G	5,460,495	1,080,986
Total	$30,201,157	$6,463,652

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-014

Regarding: Adjustment No. 5 - Labor Expense
Witness: Jacobson

a. **Provide all work papers, analyses, memos and other documentation that support the "Electric Utility" labor amounts for each category shown on Rule 38.5.157, Statement G, page 6 of 35. Explain the nature of the allocation of each of these amounts to "Montana" as shown on the same page.**

b. **Provide all work papers, analyses, memos and other documentation that support the allocation/assignment of each of these categories of labor expense to Montana as shown on the same page.**

Response:

a. Please see Attachment A. Labor expense is allocated or assigned to Montana based on each individual employee's time ticket or payroll allocation, for example, a serviceman records and charges time based on each day's activities. Other employees have a payroll allocation assigned based either on time studies or a general allocation. The labor expense for Montana is a sum of each employee's individual allocated payroll expense.

b. Montana-Dakota allocates all rate base and income statement items to the jurisdictions as part of its accounting process. The O&M expense, including labor expense, was directly assigned or allocated to Montana electric operations. The allocation of each item to a jurisdiction is based on the FERC account, or function, and the location from which the cost originates. This process is the same methodology that Montana-Dakota has followed for many years. For example, costs originating in Montana and for the purpose of providing service to Montana customers are directly assigned to that jurisdiction, while costs associated with the General Office are applicable to all customers and allocated to all jurisdictions. Please see the Cost Allocation Manual included with the Statement Workpapers.

   Please see Attachment B for a copy of Corporate Policy 50.9, Allocation of Administrative Costs and General Overheads to Business Segments.

MONTANA-DAKOTA UTILITIES CO.
ELETRIC O&M BY FERC ACCOUNT AND RESOURCE
2014

Year	2014
Juris	(All)

Sum of Amount	Func Sort	Function									
	1	2	3	4	5	6	7	8	9	10	Grand Total
Object	Fuel & PP	Steam Prod	Other Prod	Other Pwr Supply	Transmission	Distribution	Cust Acct	Cust Svc	Sales	A&G	
5110	397,920	5,560,848	607,522	626,302	3,238,615	8,009,659	2,002,120	91,941	85,907	4,387,665	25,008,499
5120	156,578	992,648	35,188	34,564	250,331	945,666	68,735	11		21,210	2,504,930
5130	4,330	187,405	0	3,675	13,902	202,939	7,961	0	4,198	853,361	1,277,771
5131	23,295	278,938	30,892	24,564	151,737	410,793	94,678	4,418	4,367	321,281	1,344,962
5140					494	1,908	1,449			765	4,616
5150			379		580	3,366	45		59	-2	4,426
5193	4,967	73,921	8,074	8,288	42,680	104,501	26,369	1,222	1,135	58,893	330,050
Grand Total	587,090	7,093,761	682,054	697,392	3,698,339	9,678,831	2,201,357	97,591	95,664	5,643,173	30,475,254

Response No. MCC-014
Attachment B

POLICY STATEMENTS
Policy No. 50.9
Allocation of Administrative Costs and General Overheads to Business Units

Effective Date:
July 1, 2011

I. PURPOSE

A. It is the policy of the Company to allocate MDU Resources Group, Inc.'s (MDU) administrative costs and general expenses to MDU's business units.

II. SCOPE

A. The allocation procedures described herein are intended to allocate only those MDU administrative and general expenses applicable to multiple business unit operations. In those instances where administrative and general expenses incurred relate only to a specific business unit, that expense will be assigned directly to the applicable business unit with no allocation to other business units.

B. The allocation policy and procedure implemented by this Statement is intended to utilize those allocation methodologies which appropriately allocate MDU's general and administrative expenses to the applicable business units. General and administrative expenses shall also include the costs of the facilities and other property used in providing services to the business units. Ownership and operating costs for these facilities and other property shall be based on a cost of service calculation. Such cost of service methodology provides for an annual return on the value of property used and useful in providing service plus necessary and proper annual operating expenses, taxes and depreciation.

III. PROCEDURE

A. The allocation factors developed to apportion MDU's unassigned general and administrative costs, including payroll, shall be based on the corporate capitalization factor which is based on 12 month average capitalization at March 31, effective July 1 and at September 30, effective January 1. Capitalization includes total equity and current and non-current long-term debt (including capital lease obligations).

B. Business unit employees who perform services for affiliated business units on a noncompetitive basis shall determine the time devoted to those other business units and shall recover the payroll costs through an administrative fee to be charged to and recovered from such other business units.

C. As indicated in paragraph II.B., the ownership and operating costs related to providing services to the business units shall be assigned directly where so determinable or otherwise allocated using the appropriate factor. Facilities and other property utilized in providing services include the corporate office, computers, telephones and furniture and fixtures. Components included in cost of service for these facilities and other property include operation and maintenance expense, depreciation, property taxes, income taxes and a pretax return on the investment.

D. MDU allocable general and administrative costs shall be charged to the business units on a monthly basis.

IV. ADMINISTRATION

A. The President and Chief Executive Officer of MDU Resources Group, Inc. has the responsibility and authority for the overall administration of this policy and procedure. Establishment and implementation of procedures to administer the policy and procedure is the responsibility of MDU's Vice President, Controller and Chief Accounting Officer.

Prepared and
Reviewed By: /s/ Nicole A. Kivisto
Nicole A. Kivisto
Vice President, Controller and
Chief Accounting Officer

Approved By: /s/ Terry D. Hildestad
Terry D. Hildestad
President and Chief
Executive Officer

Date: July 1, 2011

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-015

Regarding: Adjustment No. 6 Benefits-Medical/Dental
Witness: Jacobson

a. **Provide all work papers, analyses, memos and other documentation that support the electric utility amount of $3,232,923 (see Rule 38.5.157, Statement G, page 7 of 35).**

b. **Provide all work papers, analyses, memos and other documentation that support the allocation/assignment of $684,456 of the electric utility amount to Montana.**

c. **Is the Pro Forma amount of $712,519 based upon the 2015budget? If not, please explain the basis of the Pro Forma amount.**

d. **Who is Jim Kaiser (see Work Paper G-48)?**

Response:

a. Please see Statement Workpapers, Statement G, page G-1.

b. Benefits are allocated the same as labor, based on each individual employee's time ticket or payroll allocation. For example, a serviceman records and charges time based on each day's activities. Other employees have a payroll allocation assigned based on either time studies or a general allocation. The benefits expense for Montana is a sum of each employee's individual allocated benefits expense. Please see the Cost Allocation Manual included with the Statement Workpapers.

c. The base year used in the derivation of the adjustment to medical/dental expense was 2014. The pro forma expense was developed using the expected 2015 average increase in premiums. These premiums are currently being used as the current basis for expense and contributions to the medical trust account by Montana-Dakota. The expected overall increase of 4.10 percent was applied to the Montana electric 2014 per books medical/dental expense to arrive at the Montana pro forma expense. Please see the Statement Workpapers, Statement G, pages G-51 to G-55 supporting the increase in medical/dental expense

d. Jim Kaiser is the Director of Human Resources for Montana-Dakota Utilities Co.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-016

Regarding: Adjustment No. 6 Benefits-Pension
Witness: Jacobson

a. **Provide all work papers, analyses, memos and other documentation that support the electric utility amount of $212,078.**

b. **Provide all work papers, analyses, memos and other documentation that support the allocation/assignment of $46,022 of the electric utility amount to Montana.**

c. **Provide a complete and unexpurgated copy of any study that supports the pro forma pension expense of $108,755 based on "Actuarial Estimate" (see Work Paper G-48).**

Response:

a. Please see Statement Workpapers, Statement G, page G-1.

b. Benefits are allocated the same as labor, based on each individual employee's time ticket or payroll allocation. For example, a serviceman records and charges time based on each day's activities. Other employees have a payroll allocation assigned based on either time studies or a general allocation. The benefits expense for Montana is a sum of each employee's individual allocated benefits expense. Please see the Cost Allocation Manual included with the Statement Workpapers.

c. Please see Attachment A.

MDU Resources Group - Forecast of ASC 715 Expense (in 000s) - Set 2

Plan/Allocation	2014	Allocation %	2014 Discount Rate	2015+ Discount Rate	2015	2016	Set 2 2017	2018	2019
Qualified Plans									
MDU Bargaining	280	100.00	4.53%	3.53%	635	660	525	460	392
Resources	54	17.25			134	133	88	65	56
Utilities	257	81.84			634	631	419	310	265
	3	0.91			7	7	5	3	3
MDU Non-Bargaining Plan Total	314	100.00	4.48%	3.49%	775	770	512	379	324
	34	74.85			159	164	102	66	42
	8	16.65			35	36	23	15	9
	2	3.81			8	8	5	3	2
	2	4.68			10	10	6	4	3
	46	100.00	4.64%	3.60%	212	219	137	89	56
	121	42.37			195	203	183	174	163
	164	57.63			265	276	249	237	222
	285	100.00	4.46%	3.49%	460	479	431	412	385
	249	100.00	4.55%	3.56%	454	437	401	343	310
	359	100.00	4.56%	3.56%	604	539	555	520	423
Qualified Plan Total	1,533				3,140	3,105	2,561	2,203	1,890
	2,373	43.04			2,593	2,582	2,340	2,217	1,996
	23	0.42			25	25	23	22	19
	1,339	24.28			1,463	1,457	1,320	1,251	1,126
	208	3.76			227	226	205	194	175
	50	0.91			55	55	50	47	42
	301	5.46			329	327	297	281	253
	0	0.00			0	0	0	0	0
	0	0.00			0	0	0	0	0
	1,220	22.13			1,334	1,328	1,203	1,140	1,027
	5,514	100.00	4.32%	3.30%	6,026	6,000	5,437	5,152	4,639
	750	100.00	4.20%	3.28%	721	700	678	655	632
	365	100.00	4.38%	3.39%	485	497	591	551	408
Non-Qualified Plan Total	6,628				7,232	7,197	6,706	6,358	5,679
Postretirement Welfare									
Resources	72				167	161	150	142	147
Utilities	(480)				317	200	23	(111)	(104)
	6				10	10	10	10	10
	(145)				50	27	(10)	(37)	(30)
	56				92	91	89	88	90
	(5)				(4)	(5)	(5)	(5)	(5)
	64				127	118	104	93	92
Subtotal MDU Group	(432)	100.00			759	603	361	180	200
	116	100.00			434	318	219	110	34
	(158)	100.00			66	62	60	60	62
Gand Total MDU Plan	(475)		4.49%	3.56%	1,259	983	640	350	296
	152	100.00	4.57%	3.66%	380	420	459	497	535
Post Retirement Welfare Total	(322)				1,639	1,403	1,099	848	831
Grand Total	7,839				12,011	11,706	10,366	9,408	8,401
Discount Rate for Expense	Various		See Above	See Above	Same as 2015	Same as 2015	Same as 2015	Same as 2015	Same as 2015
Expected Return on Assets - Pension	7.00%				7.00%	7.00%	7.00%	7.00%	7.00%
Actual Return on Assets (prior year) — Pension					5.00%	7.00%	7.00%	7.00%	7.00%
Expected Return on Assets - PRW	6.00%				6.00%	6.00%	6.00%	6.00%	6.00%
Actual Return on Assets (prior year) — PRW					4.00%	6.00%	6.00%	6.00%	6.00%

Commencing 12/31/2014, ASC 715 amounts are based on assumed mortality in accordance with the RP-2014 tables with generational improvement (MP-2014).

Forecast of amounts recognized in accumulated OCI (in 000s) - Set 2

Plan	Amounts recognized in accumulated OCI (in 000s) (pre-tax) at Fiscal Year End					
	2014	2015	2016	2017	2018	2019
Qualified Plans						
MDU Bargaining	45,423	43,793	42,170	40,682	39,261	37,846
MDU Non-Bargaining	80,627	77,925	75,033	72,383	69,857	67,331
	25,586	24,807	24,026	23,308	22,624	21,936
	22,888	22,001	21,113	20,283	19,486	18,698
	3,476	3,123	2,788	2,485	2,238	2,004
	49,625	48,061	46,567	45,038	43,527	42,037
	227,825	219,710	211,695	204,178	196,994	189,851
	27,094	25,313	23,453	22,164	20,616	19,421
	8,839	8,365	7,903	7,452	7,012	6,584
	2,485	2,241	2,012	1,765	1,516	1,408
Postretirement Welfare						
MDU Group	12,422	12,108	11,949	11,991	12,203	12,472
	5,632	4,980	4,420	3,938	3,547	3,215
	1,071	1,083	1,109	1,149	1,201	1,264
	19,125	18,171	17,477	17,078	16,950	16,951
	(2,518)	(2,308)	(2,119)	(1,949)	(1,797)	(1,660)
	16,607	15,862	15,358	15,129	15,154	15,291
Grand Total	282,850	271,493	260,422	250,689	241,291	232,555
Discount Rate	Various See 2015	Various See 2015	Various See 2015	Various See 2015	Various See 2015	Various See 2015
Non PRW Expected Return on Assets	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
PRW Expected Return on Assets	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
Non PRW Actual Return on Assets	5.00%	7.00%	7.00%	7.00%	7.00%	7.00%
PRW Actual Return on Assets (PRW)	4.00%	6.00%	6.00%	6.00%	6.00%	6.00%

Commencing 12/31/2014, ASC 715 amounts are based on assumed mortality in accordance with the RP-2014 tables with generational improvement (MP-2014).

Forecast of Funding - Set 2

Minimum Funding Requirements (in 000s) Plan	2014	2015	2016	2017	2018	2019
MDU Bargaining						
Statutory Minimum *	0	0	0	0	979	1,343
Additional Contribution	1,818	0	0	0	0	0
Total Contribution **	1,818	0	0	0	979	1,343
MDU Non-Bargaining						
Statutory Minimum *	320	0	0	0	1,352	2,024
Additional Contribution	3,978	0	0	0	0	0
Total Contribution **	4,299	0	0	0	1,352	2,024
	0	0	0	0	477	749
	1,174	0	0	0	0	0
	1,174	0	0	0	477	749
	822	0	0	37	482	623
	355	0	0	0	0	0
	1,177	0	0	37	482	623
	59	0	0	174	218	264
	252	0	0	0	0	0
	311	0	0	174	218	264
	0	0	0	0	845	1,229
	2,476	0	0	0	0	0
	2,476	0	0	0	845	1,229
Total Statutory Minimum	1,202	0	0	211	4,353	6,233
Total Additional Year-End Contributions	10,053	0	0	0	0	0
Total Contributions	11,255	0	0	211	4,353	6,233

* 2014 Statutory Minimum assumes quarterly contributions paid 4/15/14, 7/15/14, 10/15/14 and 1/15/15 with a final payment on 9/15/15 (except WBI).
* Post 2014 Statutory Minimum assumes quarterly contributions paid 4/15, 7/15, 10/15 and 1/15 with a final payment on 9/15 following the end of the plan year.
* Statutory Minimum amounts shown take into account the MAP-21 legislation, as modified by HATFA.
** Total contributions shown are based on contribution schedules ignoring impact of HATFA legislation.
All funding amounts were determined based on IRS Static Tables projected to the valuation year.

PPA Segment Rates (for Funding) 1st Segment ***	4.99%	4.72%	4.43%	4.14%	3.67%	3.28%
PPA Segment Rates (for Funding) 2nd Segment ***	6.32%	6.11%	5.91%	5.72%	5.23%	4.78%
PPA Segment Rates (for Funding) 3rd Segment ***	6.99%	6.81%	6.65%	6.49%	5.97%	5.47%
PPA Segment Rates (to avoid 4010 filing) 1st Segment	1.37%	1.15%	1.23%	1.23%	1.23%	1.23%
PPA Segment Rates (to avoid 4010 filing) 2nd Segment	4.05%	4.07%	4.14%	4.01%	4.01%	4.01%
PPA Segment Rates (to avoid 4010 filing) 3rd Segment	5.06%	5.16%	5.21%	5.09%	5.09%	5.09%

*** PPA Segment Rates (for Funding) are based on historical rates issued by the IRS and estimates of future rates. Actual rates may differ if the IRS changes its methodology or if future rates differ from the assumed rates.

The June 2014 Segment Rates published by the IRS (1.23% / 4.01% / 5.09%) are assumed to continue unchanged in the future.

NOTE: All amounts shown are estimates only. Actual amounts will be based on actual demographic and economic experience and will differ from the amounts shows.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-017

Regarding: Adjustment No. 6 Benefits-Post-retirement
Witness: Jacobson

a. **Provide all work papers, analyses, memos and other documentation that support the electric utility amount of $(179,853).**

b. **Provide all work papers, analyses, memos and other documentation that support the allocation/assignment of $(34,228) of the electric utility amount to Montana.**

c. **Provide all work papers, analyses, memos and other documentation that support the pro forma expense of $22,604 based on "Actuarial Estimate" (see Work Paper G-48).**

Response:

a. Please see Statement Workpapers, Statement G, page G-1.

b. Benefits are allocated the same as labor, based on each individual employee's time ticket or payroll allocation. For example, a serviceman records and charges time based on each day's activities. Other employees have a payroll allocation assigned based on either time studies or a general allocation. The benefits expense for Montana is a sum of each employee's individual allocated benefits expense. Please see the Cost Allocation Manual included with the Statement Workpapers.

c. Please see Statement Workpapers, Statement G, page G-49.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-018

Regarding: Adjustment No. 6 Benefits-Post-retirement
Witness: Jacobson

Provide the calculation that gets the Post-retirement costs from $(34,228) to $22,604.

Response:

The Pro Forma Montana Post-retirement cost is calculated by multiplying the $34,228 times the percentage increase (166.04%) and adding that amount to the 2014 Montana Post-retirement cost (-$34,228). As shown in the Statement Workpapers, Statement G, page G-49, the Post-retirement benefit for the total company goes from a credit of $480,000 in 2014 to a debit of $317,000 for 2015.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
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MCC-019

Regarding: Adjustment No. 6 Benefits-401-K and Other
Witness: Jacobson

a. **Provide all work papers, analyses, memos and other documentation that support the electric utility amounts of $3,021,993 and $88,783.**

b. **Provide all work papers, analyses, memos and other documentation that support the allocation/assignment of $645,802 and $20,365 of the electric utility amounts to Montana.**

c. **Provide all work papers, analyses, memos and other documentation that support the pro forma expenses of $671,440 and $21,173.**

d. **Provide any and all documentation that supports the assumption that 401-K costs and "Other" costs increase by 3.97% simply because labor expense is presumed to increase by 3.97%.**

Response:

a. Please see Statement Workpapers, Statement G, page G-1.

b. Benefits are allocated the same as labor, based on each individual employee's time ticket or payroll allocation. For example, a serviceman records and charges time based on each day's activities. Other employees have a payroll allocation assigned based on either time studies or a general allocation. The benefits expense for Montana is a sum of each employee's individual allocated benefits expense. Please see the Cost Allocation Manual included with the Statement Workpapers.

c. Please see Statement Workpapers, Statement G, page G-43 for the derivation of the overall increase of 3.97% that was applied to the Montana 401K and Other Benefits expense.

d. 401K expense and Other Benefits (mainly long term disability) is based on a percentage of direct labor, exclusive of incentives, and is therefore tied to the labor increase as noted on Statement Workpapers, Statement G, page G-43 of 3.97%.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
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MCC-020

Regarding: Adjustment No. 6 Benefits-Worker's comp
Witness: Jacobson

a. **Provide all work papers, analyses, memos and other documentation that support the electric utility amount of $179,029.**

b. **Provide all work papers, analyses, memos and other documentation that support the allocation/assignment of $48,731 of the electric utility amount to Montana.**

c. **Provide any and all documentation that supports the assumption that Workers compensation cost increases by 3.97% simply because labor costs are presumed to increase by 3.97%.**

Response:

a. Please see Statement Workpapers, Statement G, page G-1.

b. Benefits are allocated the same as labor, based on each individual employee's time ticket or payroll allocation. For example, a serviceman records and charges time based on each day's activities. Other employees have a payroll allocation assigned based on either time studies or a general allocation. The benefits expense for Montana is a sum of each employee's individual allocated benefits expense. Please see the Cost Allocation Manual included in the Statement Workpapers.

c. The workers compensation cost is calculated using a ratio of the 2014 Montana workers compensation expense to total Montana electric labor expense and applying that percentage to the pro forma labor amount as shown on Statement Workpapers, Statement G, page G-48.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
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MCC-021

Regarding: Adjustment No. 6 Benefits-all portions
Witness: Jacobson

For each of these items (medical/dental, pension expense, post-retirement, 401-K, workers compensation and other), provide the following:

a. A copy of the invoices(s) received by the electric utility or any affiliated entity for each month (or whatever basis the invoices are received) from January 2014 through the most recent month available on an actual basis;

b. A detailed explanation of how the total of each invoice is divided among the entities to which the invoice applies (especially how and what portion of the total cost is allocated/assigned to the Montana electric utility operation), and

c. All work papers, analyses, memos and other documentation that support the allocation/assignment of the total costs from each invoice to the Montana electric operations.

Response:

a. The requested invoices are voluminous. Montana-Dakota proposes to have the requested information provided for inspection during the MCC's on-site audit, and copies provided at that time, as necessary.

b. Please see the Cost Allocation Manual included with the Statement Workpapers.

c. Benefits are allocated the same as labor, based on each individual employee's time ticket or payroll allocation. For example, a serviceman records and charges time based on each day's activities. Other employees have a payroll allocation assigned based on either time studies or a general allocation. The benefits expense for Montana is a sum of each employee's individual allocated benefits expense. Please see the Cost Allocation Manual included with the Statement Workpapers.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
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MCC-022

Regarding: Adjustment No. 6 Benefits-Supplemental Insurance
Witness: Jacobson

a. **Is the SISP expense included in the "Other Benefits" category? If it is what amount(s) is included?**

b. **Is there any SISP included anywhere else in the revenue requirement in this case? If there is, where and in what amount is it included?**

Response:

a. No, SISP is recorded below the line in Acct. 426.2.

b. No.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-026

Regarding: Adjustment No. 7 – Incremental Labor and Benefits
Witness: Jacobson

Is it correct that this adjustment does not include any labor costs related to the Heskett III combustion turbine, the Lewis and Clark station RICE unit, and the Thunder Spirit Wind farm? If this is incorrect, provide a schedule that shows the labor costs included in adjustment No. 7 for each (or any) of these projects.

Response:

Yes; that is correct.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-029

Regarding: Adjustment No. 9 – Lewis & Clark Station RICE unit and MATS
Witness: Jacobson

a. **What is the most recent expected in-service date for this unit?**

b. **Provide a work paper that shows separately "the expenses related to the RICE unit" and the MATS requirements.**

c. **Provide all work papers, analyses, memos and any other documentation that support each of the Total Company amounts shown in Rule 38.5.157, Statement G, page 10 of 35.**

Response:

a. The current projection is for both the Lewis & Clark Station with the MATS modifications as well as the RICE units to be in-service in November of 2015.

b. The expenses reflected in this adjustment are meant to reflect incremental cost increases for both the RICE unit and MATS requirements. The costs were not determined or calculated by individual project; but represent incremental increases to the Lewis & Clark Station as a result of installing both projects.

   Lewis & Clark Station MATS Requirement direct increase is to reagent costs and is reflected in Fuel & Purchased Power, Adjustment No. 4, Statement G, page 5 of 35 in Account 502 – Reagent.

   Lewis & Clark Station RICE unit incremental reagent cost increase of $16,200 is also reflected in Fuel & Purchased Power, Adjustment No. 4, Statement G, page 5 of 35 in Account 502 – Reagent.

c. The pro forma costs represent the increases expected for a full-year of operations at Lewis & Clark Station as a result of installing the RICE Unit and MATS Requirement controls. These amounts are based on engineer estimates and experience gained from similar project results.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
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MCC-032

Regarding: Adjustment No. 12 – Subcontract Labor
Witness: Jacobson

How and why does Adjustment No. 12 (that appears to be related only to production and transmission) increase costs for distribution, customer accounts and administration and general?

Response:

Subcontract Labor is contract labor hired by the Company. Although the majority of the costs are related to the production and transmission functions, it is not limited to these functions. Examples of subcontract labor for distribution, customer accounts and A&G are shown below.

Distribution: $2,889 increase: primarily related to environmental related expenditures in the Power Production Department.

Customer Accounts: $4,070 increase: primarily related to the Information Systems Department. 2014 expenditures were approximately more than 50% lower than historical levels.

A&G: $14,925 increase: primarily related to Buildings and Grounds Department ongoing painting, records scanning. In addition, 2014 snow removal costs were lower than historical levels.

MONTANA-DAKOTA UTILITIES CO.
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DATA REQUEST
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MCC-033

Regarding: Adjustment No. 12 – Subcontract Labor
Witness: Jacobson

Provide all work papers, analyses, memos and any other documentation that support the Pro Forma amounts (shown separately by component as identified in the responses to MCC-031 and MCC-032) shown on Rule 38.5.157, Statement G, page 13 of 35.

Response:

Please see Workpapers Statement G-62 through G-70.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
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MCC-034

Regarding: Adjustment No. 13 – Big Stone and Coyote
Witness: Jacobson

Provide a work paper that shows separately the amount of this adjustment associated with Big Stone and the amount associated with Coyote.

Response:

Break-out between Big Stone and Coyote is presented on Adjustment No. 13, Statement G, Page 14 of 35.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
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MCC-035

Regarding: Adjustment No. 13 – Big Stone and Coyote
Witness: Jacobson

Provide a detailed explanation of what constitutes a "major overhaul" as contemplated by this adjustment.

Response:

There is no specific definition for a "major overhaul," but they generally involve infrequent inspection and maintenance of the major boiler, turbine or generator equipment and require a longer duration due to the amount and type of work to be performed.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
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MCC-036

Regarding: Adjustment No. 13 – Big Stone and Coyote
Witness: Jacobson

For each year since 2007, on an annual basis, provide a schedule that shows the unit or units (individually) that experienced a "major overhaul" per the definition provided in response to MCC-035. Also provide the detailed total cost of each "major overhaul" for each unit for each year.

Response:

The major overhaul outages occurring since 2007 are as follows. These included various combinations of major work on the boiler, turbine or generator equipment.

2007	Big Stone
2008	Heskett Unit 2
2009	Coyote
2010	Heskett Unit 1
2011	Big Stone
2012	Coyote and Lewis & Clark
2013	Heskett Unit 2
2014	None (see response to MCC-037)
2015	Big Stone (AQCS) and Lewis & Clark (MATS)

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
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DATED AUGUST 28, 2015
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MCC-037

Regarding: **Adjustment No. 13 – Big Stone and Coyote**
Witness: **Jacobson**

Provide a detailed explanation as to why there was not a "major overhaul" undertaken on any of MDU's units in 2014.

Response:

Montana-Dakota attempts to the extent possible to space out the various major overhaul outages. Many factors such as the coordinating the maintenance work to coincide with the installation of large environmental retrofit or other large capital projects can affect the timing. This was the case in 2014 where a major overhaul scheduled for Coyote Station was delayed until 2016 to coincide with the modifications required under the EPA Regional Haze rule.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
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MCC-039

Regarding: Adjustment No. 15 – Heskett Station Sand
Witness: Jacobson

Provide the source document(s) that supports the $38.50 per ton cost of sand noted in Work Paper G-84.

Response:

Please see MCC-039 Attachment A.

FISHER SAND & GRAVEL CO.
P.O. Box 1034
Dickinson, ND 58602-1034
PHONE: 701-456-9184 - FAX: 701-456-9193

Area Offices – Call for Questions and Information

Billings,MT – 406-657-9603
Spearfish,SD – 605-642-5760
Glendive,MT – 406-687-3383
Tempe, AZ – 480-730-1033
Placitas,NM – 505-867-2600

INVOICE

INVOICE NO.	91363
INVOICE DATE	09/01/2015
PAGE NO.	1

SOLD TO
M D U
ATTN: THERESA ADDISON
400 NORTH FOURTH STREET
BISMARCK ND 58501

SHIP TO
M D U
ATTN: THERESA ADDISON
400 NORTH FOURTH STREET
BISMARCK ND 58501

CUSTOMER NO.	LOC	SM	CUSTOMER P.O. NO.	TERMS	SHIP VIA	F.O.B.
1316	40	0	155256 - AUG 2015	NET 30 DAYS		

TICKET DATE	TICKET NUMBER	ORDER NUMBER	PART NUMBER	DESCRIPTION	ZONE	ITEM CLASS	QUANTITY	UNIT	PRICE	AMOUNT
09/01/15	82015	618174	112	MDU SAND		340	866.00	TON	38.500	33341.00

STATE	1,667.05
LOCAL	166.71
SALES TAX TOTAL	1,833.76

		FREIGHT	C.O.D. AMOUNT	PAY THIS AMOUNT
TERMS – NET 30 DAYS SERVICE CHARGE OF 1 ½ % PER MONTH (18% PER ANNUM) WILL BE CHARGED ON ALL PAST DUE ACCOUNTS				35,174.76

Response No. MCC-039
Attachment A
Page 1 of 1

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
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MCC-045

Regarding: Adjustment No. 19 - Company consumption
Witness: Jacobson

Provide all work papers, analyses, memos and other documentation that supports the 12.17% decrease noted in footnote 2 on Rule 38.5.157, Statement G at page 20 of 35.

Response:

Please see Statement Workpapers G-95 through G-97.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-046

Regarding: Adjustment No. 20 – Postage
Witness: Jacobson

a. **When did the postage rate increase(s) take effect?**

b. **What is the distinction between "5-digit" and "Mixed AAC" (see Work Paper G-98)?**

c. **Are all customer bills sent using "5-digit"? If not, what percentage of customer bills use "5-digit"?**

d. **Provide Montana E-billed for each month from January 2015 through the most recent available (see Work Paper G-100).**

Response:

a. The postage increase took effect on January 26, 2014 and May 31, 2015.

b. The USPS rates are based on zip code sortation. The "5-digit" rate is mail that can be sorted to the same 5-digit zip code – example 58501. The "Mixed ADC" or "AADC" rate is mail that is sorted for delivery at more than one USPS Automated Area Distribution Center.

c. No, only customer bills qualifying for the "5-digit" postage rate are metered with this rate. The average percent of Montana customer's bill sent at the 5-digit rate is 88%.

d. Please see below:

Montana E-bills
January - August 2015

January	6,150
February	6,349
March	6,319
April	6,825
May	5,563
June	6,194
July	6,473
August	7,349
Total	51,222

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
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MCC-049

Regarding: Adjustment No. 23 - Insurance expense
Witness: Jacobson

Provide a complete list of insurance policies - show insurer, the type of coverage and the expense included in the revenue requirement in this case.

Response:

Please see Statement Workpapers, Statement G, pages G-134 through G-145.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-053

Regarding: Adjustment No. 24 – Software maintenance
Witness: Jacobson

Provide the portions of all software maintenance contracts that show the costs for 2014 and for 2015.

Response:

This information will be available during the audit at the MDU Bismarck office.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-055

Regarding: Adjustment No. 24 – Software maintenance
Witness: Jacobson

There is one cost (maintenance on a mapping application) that was budgeted for 2015 but will not be spent (see Work paper G-147). Is the cost (or any portion thereof) of this software maintenance included in the Montana Pro Forma expense? If it is, in what amount is it included?

Response:

No. The only increase to the Montana Pro Forma expense from Workpaper G-147 is for maintenance costs associated with a 2013 upgrade to the fixed network. The total cost of this maintenance is $18,000. The amount of this maintenance included in Montana Pro Forma expense is $2,347 as shown on Workpaper G-146.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
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MCC-056

Regarding: Adjustment No. 24 – Software maintenance
Witness: Jacobson

There is one other software maintenance cost budgeted for 2015 that "may not be required in 2015" (see Work Paper G-147). Are the costs (or any portion thereof) for this software maintenance package included in the Montana Pro Forma expense? If it is, in what amount is it included?

Response:

No. Please see response to MCC-055.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
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MCC-057

Regarding: Adjustment No. 25 - Industry dues
Witness: Jacobson

a. **Is it MDU's position that Adjustment 25 complies fully with all prior MPSC decisions concerning the inclusion of association dues in a utility's revenue requirement? If not, explain any and all differences between the Company's proposal in this case and prior MPSC decisions.**

b. **Indicate which association dues have been allocated to Montana electric operations and explain and document that allocation.**

c. **Explain and document the portion of the Edison Electric Institute, the Lignite Energy Council, the Montana Coal Council, and the Montana Water Resources Association dues that have been excluded per footnote 2, Rule 38.5.157, Statement G, page 26 of 35.**

d. **Although not indicated in that same footnote 2, explain and document the portion of the Midwest Energy Association dues that have been excluded, if any. If none have been excluded please fully explain why not.**

Response:

a. Yes, lobbying expenses associated with American Gas Association (AGA) dues are excluded from the amount recorded in industry dues and Montana-Dakota has excluded 40 percent of dues associated with Chamber of Commerce organizations.

b. Please see the Statement Workpapers, Statement G, pages G-148 – G-168 for calculations of dues allocated to Montana Electric.

c. Please see the Statement Workpapers, Statement G, pages G-150, G-156, G-161, and G-163 which states the approximate percentage of each due that is non-deductible.

d. None of the membership dues for Midwest Energy Association are spent on lobbying or other legislative efforts per Statement Workpapers, Statement G, page G-160.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-059

Regarding: Adjustment No. 26 – Rent
Witness: Jacobson

a. **What is the effective date of the lease for the additional office space in Bismarck? What is the monthly expense?**

b. **Provide all work papers, analyses, memos and other documentation that supports the allocation of this expense to Montana Electric operations.**

Response:

a. The effective date of the lease for the additional office space is January 1, 2015. The monthly expense is $4,850.00.

b. Please see the Statement Workpapers, Statement G, pages G-169 – G-170.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-060

Regarding: Adjustment No. 28 - Regulatory Commission Expense
Witness: Jacobson

Provide the dates that the last five base rate cases were filed by MDU in Montana related to the electric utility operations.

Response:

Docket No.	Date Filed
D2010.8.82	08/12/2010
D2007.7.79	07/12/2007
D2003.8.120	08/22/2003
86.5.28	05/23/1986
83.9.68	09/30/1983

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-062

Regarding: Rule 38.5.157, Statement G, page 35 of 35, All Other O&M
Witness: Jacobson

a. Is it correct to state that the $631,962 labeled as "Total Items All Other O&M" on the referenced page is a residual - i.e. is the result of subtracting all the per books O&M expenses that have been specifically adjusted from the total per books O&M expenses? If not, explain why not.

b. Is it correct that there has been no specific or general inflation type adjustment applied to these "Other O&M" expenses? If not, what adjustment has been applied to these expenses?

c. Please explain how the Company adjusted $3,084,972 of distribution expense when the per books distribution expense was $2,914,452 (i.e. the residual unadjusted distribution expense is $(170,520)).

Response:

a. Yes, that is correct.

b. Yes, that is correct.

c. The "negative" adjustment is primarily related to Capital Installation Credits, which were ($238,521) for Montana Electric operations. The "Other O&M" distribution expenses, excluding Capital Installation Credits, was $68,001.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-064

Regarding: Adjustment No. 32 - Ad Valorem Taxes
Witness: Jacobson

a. **Provide a copy of the tax bills that support the "Per Books Ad Valorem Tax ", by function, as shown on Rule 38.5.174, Statement K, page 1 of 5.**

b. **To the extent these tax bills require allocation/assignment to the Montana electric utility, provide all work papers, analyses, memos and other documentation that support such allocation/assignment.**

Response:

a. Due to the volume of paper, the tax bills will be available during the on-site audit in September.

b. Please see the Statement Workpapers, Cost Allocation Manual.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-065

Regarding: Adjustment No. 33 - Payroll taxes
Witness: Jacobson

a. For each individual payroll tax (FICA - both components, Federal unemployment and state unemployment) provide the 2014 tax rate and the base to which the tax applied.

b. Provide the same tax rates and bases for 2015.

Response:

a. The statutory tax rates and applicable bases for FICA, federal unemployment, and state unemployment for 2014 are as follows:

	2014	
	Rate	Base
Medicare	1.45%	$ 200,000
	2.35%	>200,000
Social Security	6.20%	117,000
Federal Unemployment	0.60%	7,000
State Unemployment - Montana	1.00%	29,000
State Unemployment - North Dakota	0.16%	33,600

b. The statutory tax rates and applicable bases for FICA, federal unemployment, and state unemployment for 2015 are as follows:

	2015	
	Rate	Base
Medicare	1.45%	$ 200,000
	2.35%	>200,000
Social Security	6.20%	118,500
Federal Unemployment	0.60%	7,000
State Unemployment - Montana	0.80%	29,500
State Unemployment - North Dakota	0.19%	35,600

MONTANA-DAKOTA UTILITIES CO.
MONTANA PUBLIC SERVICE COMMISSION
DATA REQUEST
DATED SEPTEMBER 10, 2010
DOCKET NO. D2010.8.82

MCC-066

Regarding: Adjustment No. 33 - Payroll taxes
Witness: Jacobson

Provide a work paper that shows how the "per Books" Electric Utility and Montana payroll taxes were calculated. This should show tax rate applied to the base, the allocation/assignment to electric utility and the allocation/assignment to Montana.

Response:

Payroll taxes are allocated on each individual employee's time ticket or payroll allocation. For example, a serviceman records and charges times based on each day's activities. Other employees have a payroll allocation assigned based on either time studies or a general allocation. The payroll tax expense for Montana is a sum of each employee's individual allocated expense.

MONTANA-DAKOTA UTILITIES CO.
MONTANA PUBLIC SERVICE COMMISSION
DATA REQUEST
DATED SEPTEMBER 10, 2010
DOCKET NO. D2010.8.82

MCC-067

Regarding: Adjustment No. 33 - Payroll taxes
Witness: Jacobson

The 7.25% factor shown on Statement Work Papers, page K-1 is applied to pro forma payroll to calculate pro forma payroll taxes. Explain how this is a reasonable approach given the tax rates and tax bases provided in response to MCC-065.

Response:

The 7.25 percent factor that is applied to pro forma labor expense is based on the ratio of per books payroll taxes to per books labor expense and represents the overall composite payroll tax rate. This overall tax rate was determined to be reasonable to use for the pro forma payroll taxes.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-068

Regarding: Adjustment No. 34 - MPSC and MCC taxes
Witness: Jacobson

a. **Are the rates for the MCC and the MPSC shown on Rule 38.5.174, Statement K, page 4 of 5 the latest known such tax rates of which MDU is aware? If not, provide the most recent known rate(s).**

b. **Do the rates change on October 1 of each year? If yes, provide the rates effective as of October 1, 2015 when available.**

Response:

a. The rates used in the calculation of the PSC and MCC taxes were effective October 1, 2014. The Montana Department of Revenue has released new tax rates to be effective October 1, 2015. The Commission has yet to issue Final Orders setting forth the new tax rates.

b. Yes, effective October 1, 2015 the MCC tax rate is .06 percent and the PSC tax rate is .23 percent.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-080

Regarding: Responses to PSC-001 through PSC-003
Witness:

Please provide electronic copies of responses to the Montana Public Service Commission Data Requests PSC-001 to PSC-003, including all Excel files in working format with links and formulas intact.

Response:

A physical and an electronic copy of the MT PSC-001 to PSC-003 responses were sent via Fedex to the Montana Consumer Counsel and each consultant.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-081

Regarding: Cost of Debt
Witness: Garret Senger

In your testimony at page 3, lines 13 to 15, you state: "The cost of long-term debt in this filing is 0.90 percent lower than requested in the 2010 electric rate proceeding in Montana." Please provide tabulation and explain in detail the reasons, activities and other factors that have allowed MDU to lower its long-term debt cost. Also, please provide all work papers and documents that support your response.

Response:

The Company issued three long-term notes which totaled $150 million in 2014 with interest rates of 5.18%, 4.24%, and 4.34%. These lower interest notes lowered the overall cost of long-term debt from 6.845% in the Pro Forma 2010 to 5.949% in the Pro Forma 2015 or a decrease of .896%. Please refer to Statement F page 3 of 6 for detail on the notes.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-082
Regarding: Common Equity
Witness: Garret Senger

In your testimony at page 6, lines 11 to 14, you state: "In 2014, the Company obtained $82.0 million in common equity. The Company is projected to receive an additional $102.5 million in 2015 to achieve and maintain the targeted capital structure."

a. **Please state what amounts of these two additions to common equity (in 2014 and in 2015) are at the Company subsidiary level and at the Utility level.**

b. **Are these additions to common equity included in the capital structures shown for 2014 and 2015 on Statement F, Rule 38.5.176, page 1 of 2?**

c. **For each case, please explain fully and completely how the $82.0 million in 2014 was added and the $102.5 million will be added – new issue, retained earnings, etc.**

Response:

a. Both the $82.0 million and the $102.5 million mentioned in testimony are at the Montana-Dakota level.

b. Yes, both common equity additions are reflected in Statement F.

c. All of the $82.0 million added during 2014 was the proceeds from new issues of MDU Resources Group common stock.

   During 2015, $21.9 million of new issue common stock has been issued through the end of August 2015. The remaining $80.6 million is expected to be obtained primarily through internal sources from other MDU Resources Group subsidiaries.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-083

Regarding: Exhibit No.__(JSG-2)
Witness: J. Stephen Gaske

Please provide complete electronic MS Excel copies of all Schedules (1, 2, 3, 4, 5 and 6) in Exhibit No.__(JSG-2), with all supporting spreadsheets, links and formulas intact; and any additional supporting work papers.

Response:

Please see the enclosed CD for an electronic version of Mr. Gaske's Exhibit No. __(JSG-2) and Attachments A through G for additional supporting work papers.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-084

Regarding: Flotation Adjustment
Witness: J. Stephen Gaske

In Schedule 2 of Exhibit No.__(JSG-2) you show 51 new common equity offerings by electric utilities from January 2005 through November 2014. For each offering please provide the total amount of the company's equity at the time of the new offering.

Response:

Please see Attachment A on the enclosed CD which provides the total equity for each company in Schedule 2 Exhibit No. __(JSG-2) at the time of each company's issuance offering.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-085

Regarding: Flotation Adjustment
Witness: J. Stephen Gaske

In your testimony at page 17, lines 20-22 you state: "A more important purpose of a flotation adjustment is to establish a return that is sufficient to enable a company to attract capital on reasonable terms." Later on page 18, lines 3-6 you state: "Regardless of whether a company can confidently predict its need to issue new common stock several years in advance, it should be in a position to do so on reasonable terms at all times without dilution of the book value of the existing investors' common equity." Statement F, Rule 38.5.149 shows that MDU has not incurred any cost on the issuance of new stock in the last four years (mostly employee stock exercise/awards). The flotation adjustment you recommend is based on the rounded 3.5% financing cost for 51 new common stock issues by 30 electric utilities in the last 10 years (Schedule 2 of Exhibit No.__(JSG-2)), which also shows that most of those utilities have issued new common stock once or twice in these 10 years. If, as seems likely, there is a low probability that MDU will issue new stock in the next few years before a new rate case, and that any new common equity issuance that may occur would be a fraction of total common equity, do you acknowledge that your flotation cost proposal is likely to result in a return exceeding the cost of equity capital in most years? If not, please fully explain your answer and provide all calculations and work papers supporting your view.

Response:

No. By making the flotation cost adjustment, the allowed rate of return is likely to result in a rate of return that equals the cost of capital in the "primary" market for utility funds. As discussed at pages 8-9 of Dr. Gaske's testimony, the Supreme Court has established standards by which a reasonable allowed rate of return should be measured. One of the most important of these standards is that:

> "*The return should be reasonably sufficient to … <u>enable</u> it to raise the money necessary for the proper discharge of its public duties.*"[1]

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[1] *Bluefield Water Works & Improvement Company v. Public Service Commission of West Virginia* (262 U.S. 679, 693 (1923)), emphasis added.

MCC-085 Response cont.

This data request poses the question as to whether a Commission should allow a reasonable rate of return on common equity if a regulated public utility cannot demonstrate that it has plans to raise capital in the next few years. Indeed the question implies that the Commission could set a rate of return on common equity equal to zero if the company is not growing or engaged in a major capital investment program that can be shown to require the utility to issue new common equity in the next few years. However, that implication is incorrect. Instead, the standards posed by the Court apply to companies that are not growing and raising capital as well as to those who are growing rapidly.

It is important to note that the Court used the term "enable" in enunciating its standard, which suggests that the standard applies even when the utility has no immediate need to raise capital. Contrary to the suggestion in this data request, the Court assuredly did not say: When the utility can demonstrate that it will issue new stock in the next few years before a new rate case, *only then* should the return be reasonably sufficient to enable it to raise the money necessary for the proper discharge of its public duties.

The point is to apply the standards in a way that treats already-invested capital fairly, and to do so one must evaluate the return by asking the hypothetical question: If the company had to raise capital today, would the allowed rate of return be sufficient to *enable* it to do so?

The answer to that hypothetical question requires an examination of the cost of capital in the "primary" financial market wherein utilities issue common stock in order to raise cash. The "primary" market is defined as the market in which the stock is first sold in order to raise cash funds to be used by the issuer for investment in plant, or to otherwise run its operations. In this "primary" market, the company generally hires an investment banker, or a syndicate of bankers and brokers, to float its stock issue to the public. Associated with a company raising cash funds through a "primary" market sale of common stock there are significant costs of preparing and filing documents with the Securities and Exchange Commission ("SEC"), as well as other regulatory agencies, and issuing prospectuses. In addition, in the "primary" market the issuing company generally must pay a significant percentage of the proceeds from the stock issuance to the investment banker, or the syndicate of bankers and

MCC-085 Response cont.

brokers, who undertake to find investors who will provide cash to the issuing company.

Once stock has been issued to investors in the "primary market", those investors who initially provided cash to the issuing company may re-sell or "trade" the stock with other investors in the "secondary" market. Much of the trading in the "secondary" market occurs on stock exchanges and buyers and sellers are not required to file prospectuses with the SEC. The crucial difference between stock issued in the "primary" market and stock traded in the "secondary" market is that the issuing company does not receive any additional funds when its stock trades in the "secondary" market. Instead, the ownership of the stock merely changes hands between various investors. In addition, the brokerage fees associated with buying and selling stock in the "secondary" market generally are incurred by both the buyer and the seller, and are a small fraction of the level of the flotation costs incurred by a company that attempts to raise cash by issuing stock in the "primary" market.

Although our ultimate purpose in a regulatory proceeding is to estimate the cost of capital the regulated company would incur to raise money in the "primary" markets, we start with a DCF estimate of the returns required by investors in the "secondary" markets. A secondary market analysis is the starting point because it shows the prices at which investors are buying and selling stocks on a daily basis, whereas (as noted in this data request) primary market transactions and data are far less frequent. So, we start with an estimate of the returns required by investors in the "secondary" markets. But that secondary market return estimate must be adjusted for flotation costs in order to determine the allowed rate of return that the regulated company requires in order to raise capital on reasonable terms in the "primary" markets.

Professor Myron Gordon, who is credited with developing the DCF model for estimating rate of return, has stated that a regulatory agency should set the allowed rate of return greater than the secondary market investor return requirement so as to allow the firm to issue stock at a price that will yield net proceeds equal to book value. Professor Gordon advocates the following adjustment:

MCC-085 Response cont.

> *The agency need only estimate the proportion that the proceeds per share on an issue bear to the price of the stock and adjust the allowed rate of return so that the price per share is the indicated ratio of the book value per share. If the proceeds on an issue are 91 percent of market price, the agency should maintain market price at about 110 percent of book value.*[2]

In making this adjustment, the allowed rate of return will be equal to the return required in the primary market for funds and should therefore meet the standard that the return is sufficient to enable the utility to raise capital on reasonable term.

---

[2] Myron J. Gordon, *The Cost of Capital to a Public Utility*, Michigan State University, 1974, pages 165-166.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-086

Regarding: Proxy Group
Witness: J. Stephen Gaske

In answering Q18, on pages 19-20, you describe how you selected 12 companies out of 46 that Value Line classifies as Electric Utilities to include in your proxy group for your DCF Study. Please provide all data for these 46 Value Line electric utilities and all calculations and work papers used to eliminate companies, indicating each of the selection criteria that each omitted company did not meet that caused their elimination.

Response:

Please see Attachment A on the enclosed CD which shows the 46 Value Line companies and the screening criteria used by Dr. Gaske for each company.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-087

Regarding: Risk Premium Analysis
Witness: J. Stephen Gaske

Please provide copies of the references cited in footnote 22, page 27 and footnote 24, page 28 of your testimony: Ibbotson SBBI 2015 Classic Yearbook.

Response:

Please see Attachment A for the information requested.

Table 6-5 presents annual cross-correlations and serial correlations for the inflation-adjusted asset return series. It is interesting to observe how the relationship between the asset returns are substantially different when these returns are expressed in inflation-adjusted terms (as compared with nominal terms). In general, the cross-correlations between asset classes are higher when one accounts for inflation (i.e., subtracts inflation from the nominal return.)

Table 6-4: Risk Premiums and Inflation:
Serial and Cross Correlations of Historical Annual Returns

Series	Equity Risk Premium	Small-Cap Premium	Default Premium	Horizon Premium	Inflation
Equity Risk Premium	1.00				
Small-Cap Premium	0.28	1.00			
Default Premium	0.29	0.18	1.00		
Horizon Premium	0.01	-0.10	-0.51	1.00	
Inflation	-0.07	0.11	0.00	-0.27	1.00
Serial Correlation	0.03	0.36	-0.31	-0.16	0.64

Data from 1926–2014

Table 6-5: Inflation-Adjusted Series:
Serial and Cross Correlations of Historical Annual Returns

	Inflation-Adjusted						
Inflation Adjusted Series	Large-Cap Stocks	Small-Cap Stocks	LT-Corp Bonds	LT-Gov't Bonds	Inter-Gov't Bonds	T-Bills*	Inflation
Large-Cap Stocks	1.00						
Small-Cap Stocks	0.79	1.00					
LT-Corp Bonds	0.21	0.07	1.00				
LT-Govt Bonds	0.08	-0.06	0.92	1.00			
IT-Govt Bonds	0.07	-0.07	0.91	0.90	1.00		
T-Bills*	0.09	-0.06	0.53	0.50	0.70	1.00	
Inflation	-0.19	-0.07	-0.55	-0.49	-0.59	-0.71	1.00
Serial Correlation	0.01	0.03	0.16	-0.05	0.21	0.67	0.64

Data from 1926–2014
*Real Interest Rates

Is Serial Correlation in the Derived Series Random?

The risk/return relationships in the historical data are represented in the equity risk premium, the small-cap premium, the bond horizon premium, and the bond default premium. The real/nominal historical relationships are represented in the inflation rates and the real interest rates. The objective is to uncover whether each series is random or is subject to any trends, cycles, or other patterns.

The one-year serial correlation coefficients measure the degree of correlation between returns from each year and the previous year for the same series, as seen in Table 6-6. Highly positive (near 1) serial correlations indicate trends, while highly negative (near -1) serial correlations indicate cycles. There is strong evidence that both inflation rates and real riskless rates follow trends. Serial correlations near zero suggest no patterns (i.e., random behavior); equity risk premiums and bond horizon premiums are random variables. Small stock premiums and bond default premiums fall into a middle range where it cannot be determined that they either follow a trend or behave randomly.

Table 6-6: Interpretation of the Annual Serial Correlations

Series	Serial Correlation	Interpretation
Equity Risk Premium	0.03	Random
Small-Cap Premium	0.36	Likely Trend
Bond Default Premium	-0.31	Likely Trend
Bond Horizon Premium	-0.16	Random
Inflation Rates	0.64	Trend
Real Interest Rates	0.91	Trend

Data from 1926–2014

Basic and Inflation-Adjusted Series Summary Data

Table 6-7 presents summary statistics of annual total return, and where applicable, income and capital appreciation, for each asset class. The summary statistics presented here are arithmetic mean, geometric mean, standard deviation, and serial correlation. Table 6-8 presents summary statistics for the six inflation-adjusted total return series.

Table 6-7: Total Return, Income Return, and Capital Appreciation of the SBBI Asset Classes: Summary Statistics of Annual Returns

Series	Geometric Mean	Arithmetic Mean	Standard Deviation	Serial Correlation
Large-Cap Stocks				
Total Return	10.1	12.1	20.1	0.02
Income	4.0	4.0	1.6	0.91
Capital Appreciation	5.9	7.8	19.4	0.02
Small-Cap Stocks (Tot. Return)	12.2	16.7	32.1	0.06
LT-Corp Bonds (Total Return)	6.1	6.4	8.4	0.05
LT-Gov't Bonds				
Total Return	5.7	6.1	10.0	-0.14
Income	5.0	5.1	2.6	0.96
Capital Appreciation	0.4	0.8	9.0	-0.25
Intermediate-Term Gov't Bonds				
Total Return	5.3	5.4	5.6	0.13
Income	4.5	4.5	2.9	0.96
Capital Appreciation	0.6	0.7	4.5	-0.17
Treasury Bills (Total Return)	3.5	3.5	3.1	0.91
Inflation	2.9	3.0	4.1	0.64

Data from 1926–2014.

Total return is equal to the sum of three component returns; income return, capital appreciation return, and reinvestment return. Annual reinvestment returns for select asset classes are provided in Table 2-2.

ERATA Table 7-6, Graph 7-2

This phenomenon can also be viewed graphically, as depicted in the Graph 7-2. The security market line is based on the pure CAPM without adjusting for the size premium. Based on the risk (or beta) of a security, the expected return should fluctuate along the security market line. However, the expected returns for the smaller deciles of the NYSE/AMEX/NASDAQ lie above the line, indicating that these deciles have had returns in excess of those appropriate for their systematic risk.

Table 7-6: Size-Decile Portfolios of the NYSE/AMEX/NASDAQ Long-Term Returns in Excess of CAPM

Decile	Beta*	Arithmetic Mean Return (%)	Actual Return in Excess of Riskless Rate** (%)	CAPM Return in Excess of Riskless Rate† (%)	Size Premium (Return in Excess of CAPM) (%)
1	0.92	11.15	6.08	6.44	-0.36
2	1.04	12.96	7.89	7.26	0.63
3	1.11	13.71	8.64	7.73	0.91
4	1.13	14.01	8.93	7.88	1.06
5	1.17	14.84	9.76	8.16	1.60
6	1.17	15.01	9.94	8.21	1.74
7	1.25	15.53	10.46	8.75	1.71
8	1.30	16.35	11.27	9.12	2.15
9	1.34	17.13	12.06	9.36	2.69
10	1.40	20.62	15.54	9.76	5.78
Mid-Cap, 3-5	1.12	14.00	8.93	7.86	1.07
Low-Cap, 6-8	1.22	15.44	10.36	8.56	1.80
Micro-Cap, 9-10	1.35	18.26	13.18	9.45	3.74

Data from 1926–2014.

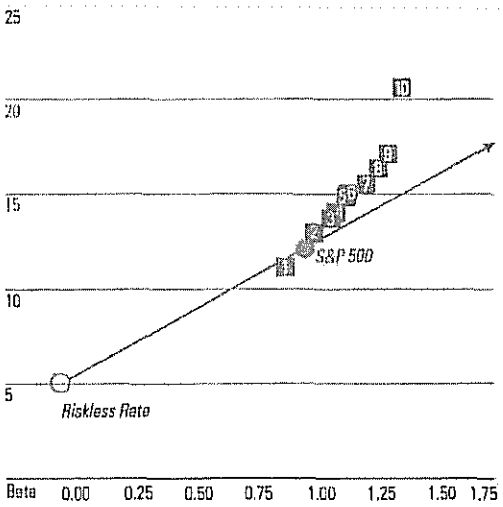
*Betas are estimated from monthly returns in excess of the 30-day U.S. Treasury bill total return, January 1926–December 2014.

**Historical riskless rate measured by the 99-year arithmetic mean income return component of 20-year government bonds (5.07%).

†Calculated in the context of the CAPM by multiplying the equity risk premium by beta. The equity risk premium is estimated by the arithmetic mean total return of the S&P 500 (12.07%) minus the arithmetic mean income return component of 20-year government bonds (5.07%) from 1926–2014.

Source: Morningstar and CRSP. Calculated (or Derived) based on data from CRSP US Stock Database and CRSP US Indices Database ©2015 Center for Research in Security Prices (CRSP®), The University of Chicago Booth School of Business. Used with permission.

Graph 7-2: Security Market Line Versus Size-Decile Portfolios of the NYSE/AMEX/NASDAQ



Data from 1926–2014

Serial Correlation in Small-Cap Stock Returns

In four of the last 10 years, large-capitalization stocks (deciles 1-2 of NYSE/AMEX/NASDAQ) have outperformed small-capitalization stocks (deciles 9-10). This has led some market observers to speculate that there is no size premium. But statistical evidence suggests that periods of underperformance should be expected. For instance, large-cap stocks have outperformed small-cap stocks in nearly half of the years since 1926. It should be noted, however, that large-cap stocks' average historical outperformance has been less than the average historical outperformance of small-cap stocks.

History tells us that small companies are riskier than large companies. Table 7-1 [see page 100] shows the standard deviation (a measure of risk) for each decile of the NYSE/AMEX/NASDAQ. As one moves from larger to smaller deciles, the standard deviation of return grows. Investors are compensated for taking on this additional risk by the higher returns provided by small companies. It is important to note, however, that the risk/return profile is over the long term. If small companies did not provide higher long-term returns, investors would be more inclined to invest in the less-risky stocks of large companies.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-088

Regarding: Regulatory Risk
Witness: J. Stephen Gaske

In reference to your testimony, page 33, lines 22-23, please provide a complete copy of the most recent Regulatory Research Associates rating for Public Service Commissions in the country.

Response:

Please see Attachment A for the RRA ratings information for the Montana Public Service Commission. The RRA ratings are a subscriber service under copyright and therefore, Dr. Gaske is providing the RRA ratings relied upon in preparation of his testimony.

Response No. MCC-088
Attachment A
Page 1 of 1

MONTANA-DAKOTA UTILITIES CO.
Docket No. D2015.6.51
MCC-088

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Tools

General Information

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No. of Commissioners	5 of 5
Method of Selection	Commissioners: Elected in statewide elections Chairperson: Elected by fellow Commissioners
Term of Office	Commissioners: 4 years Chairperson: 2 years
Chairperson	Brad Johnson
Deputy Chairperson	Travis Kavulla
Governor	Steve Bullock (D)
Services Regulated	Bus companies, Electric utilities, Gas utilities, Motor carriers, Taxicab companies, Telecommunications utilities, Water utilities
RRA Ranking	Below Average/1 (10/10/2001)
Commission Budget	$3.9 million
Commissioner Salaries	Commissioners: $98,000 Chairperson: $98,100
Size of Staff	40
Rate Cases	Montana Public Service Commission's Rate Case History
Research Notes	RRA Articles
RRA Contact	Jim Davis

Commissioners

Name	Party	Began Serving	Term Ends
Brad Johnson **Chairman**	R	01/2015	01/2019
Travis Kavulla **Vice Chairman**	R	01/2011	01/2019
Bob Lake	R	01/2013	01/2017
Roger Koopman	R	01/2013	01/2017
Kirk Bushman	R	01/2013	01/2017

Miscellaneous Issues

Services Regulated--In addition to private and investor-owned electric and gas utilities, and telecommunications and water utilities, the PSC regulates buses, taxicabs, motor carriers, and utility securities issuances.

Staff Contact:

Kate Whitney, Administrator, Utility Division (406) 444-3056

(Section updated 5/7/15)

RRA Evaluation

The Montana regulatory climate continues to be somewhat restrictive from an investor point-of-view. The PSC typically adopts returns on equity that are slightly below prevailing industry averages at the time established, and relies upon historical test periods coupled with an average rate base methodology in base rate cases. State law initially (1997) called for implementation of retail competition for electric generation, but subsequent legislation (2007) reversed this process. The state's largest electric utility had divested its generation assets, and while Montana utilities are now permitted to seek pre-approval of new generation assets, a cash return on construction work in progress is not allowed. Also, the PSC has opposed strategic merger activities in the past, and has in fact rejected one major deal outright. Regulation of the gas local distribution companies (LDCs) has been more stable, as retail choice has been in place since the late-1990s, and LDCs are now permitted to acquire upstream assets. Both the electric and gas utilities have mechanisms in place that facilitate the recovery of commodity and related costs. In addition, MDU Resources Group (MDU) operates under a fuel and purchased power clause that provides for the sharing of certain margins. However, there are no other innovative or alternative ratemaking provisions in place. Partial decoupling mechanisms are in place for MDU's gas operations, and NorthWestern Corp.'s electric operations. We accord Montana regulation a Below Average/1 rating. (Section updated 5/7/15)

RRA Ranking History

Date of Ranking Change	RRA Ranking
10/10/2001	Below Average / 1
7/16/1997	Average / 3
10/2/1992	Below Average / 1
9/6/1985	Below Average / 2
8/21/1984	Below Average / 3
7/2/1982	Below Average / 2

RRA maintains three principal rating categories for regulatory climates: Above Average, Average, and Below Average. Within the principal rating categories, the numbers 1, 2, and 3 indicate relative position. The designation 1 indicates a stronger rating; 2, a mid-range rating; and, 3, a weaker rating. The evaluations are assigned from an investor perspective and indicate the relative regulatory risk associated with the ownership of securities issued by the jurisdiction's utilities. The evaluation reflects our assessment of the probable level and quality of the earnings to be realized by the state's utilities as a result of regulatory, legislative, and court actions.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-089

Regarding: Statement L – Embedded Class Cost of Service Study
Witness: Sara J. Cardwell

Please provide an electronic working copy of Statement L, with all supporting data, spreadsheets, links, and formulas intact and any additional supporting work papers if it has not been provided in response to PSC-001. Also, please provide all work papers and supporting documentation for each of the allocation factors shown on Schedule L-3.

Response:

Please see the file named "Statement L" in the CD presented with PSC-001 data responses for a working copy of Statement L. For a description and location of all workpapers and supporting documentation for each of the allocation factors shown on Schedule L-3 please refer to Statement Workpapers, Statement L, pages L-1 through L-6.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-091

Regarding: Statement L – Factor No. 3 AED/Energy
Witness: Sara J. Cardwell

In your testimony at page 5, lines 1-9 you describe an allocator for wind facilities. Please provide all data and calculations showing how the 20/80 weighting of energy/AED is accomplished, and also, explain in detail why the resulting factor is a demand allocator not a combination of demand and energy.

Response:

To review how the 20/80 weighting of energy/AED is accomplished please see the Statement Workpapers, Statement L, Page L-18.

Factor 3 is a demand factor and is used to allocate wind production plant. Generation plants are fixed costs and are designed and installed to meet peak loads thus making wind production plant a demand related cost not an energy cost.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-092

Regarding: Statement L – Embedded Class Cost of Service Study
Witness: Sara J. Cardwell

Please provide all supporting documents for the production expense titled: F&PP and its functionalization into demand, energy and non-fuel expense as shown in Statement L.

Response:

Please see Statement Workpapers, Statement L, pages L-19 and L-20.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-093

Regarding: Statement L – Distribution Plant Investment
Witness: Sara J. Cardwell

Please provide an electronic copy, including all formulas, links, work papers and supporting documents, of the analysis of the "minimum and normal system design for a typical distribution system," as referred to in page 5 of your testimony.

Response:

Please see the file named MCC – 093 Attachment A on the enclosed CD. Also, a copy of this page is found in the Statement Workpapers, Statement L, page 9.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-094

Regarding: Statement L – Line Transformer Investment
Witness: Sara J. Cardwell

Please provide an electronic copy, including all formulas, links, work papers and supporting documents, of the zero intercept analysis used to classify line transformer investment as customer and demand related, as referred to in page 6 of your testimony. Also, please fully explain the methodology to calculate the weighted customer transformers factor used in allocating the customer component of line transformers.

Response:

To review an electronic file of the zero intercept analysis please see the Transformers-Single phase tab in Statement L on the CD that was provided with the responses to PSC 001 data requests. Also refer to Statement Workpapers, Page L-10.

Please see Statement Workpapers, Statement L, page L-3 for a description of allocation factor number 11, weighted customer transformers and Statement Workpapers, page L-14 and L-23.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-095

Regarding: Statement L – Services and Meters
Witness: Sara J. Cardwell

Please provide all work papers and supporting documents used to calculate the weights applied to the number of customers in each rate class for the allocation of services (Factor 10) and the allocation of meters (Factor 6) as described in you testimony at page 7.

Response:

Please see Statement Workpapers, Statement L, page L-22 for factor 10 and Statement L, page L-21 for factor 6.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-096

Regarding: Marginal Energy Cost
Witness: Sara J. Cardwell

Please provide working electronic copies of all work papers and PLEXOS runs used to develop the marginal energy costs for the eight time periods shown in Exhibit No.__(SJC-6), page 1 of 2.

Response:

Please see the following electronic files:

- Response No. PSC-002 Marginal Cost Study Exhibit SCC1-SJC11
- Response No. MCC-096 SJC-6 Energy Plexos Model
- Response No. MCC-096 SJC-6 Energy Plexos output winter on-off peak.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-097

Regarding: Marginal Capacity Cost
Witness: Sara J. Cardwell

Please provide all work papers and calculations used to estimate the annual generation marginal capacity costs shown on Exhibit No.__(SJC-6), page 2 of 2, and which is based on an 88 MW simple cycle combustion turbine.

Response:

Please see Response No. MCC-097 Attachment A.

Annual Cost of a Combustion Turbine

CT Cost =	**816.00**	**$/kW in**	**2016**	**dollars**
		Escalation rate =	**3.0%**	**per year**
		Levelized Fixed Charge =	**10.510%**	

Year	$/kW-Year
2016	85.76
2017	88.33
2018	90.98
2019	93.71
2020	96.53
2021	99.42
2022	102.40
2023	105.48
2024	108.64
2025	111.90
2026	115.26
2027	118.71
2028	122.28
2029	125.94
2030	129.72
2031	133.61
2032	137.62
2033	141.75
2034	146.00
2035	150.38
2036	154.89
2037	159.54
2038	164.33
2039	169.26
2040	174.34
2041	179.57
2042	184.95
2043	190.50
2044	196.22
2045	202.10
2046	208.17
2047	214.41
2048	220.84
2049	227.47
2050	234.29

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-099

Regarding: Marginal Transmission Costs
Witness: Sara J. Cardwell

Please provide copies of the annual FERC Form 1 data (and the Form 1 pages from which it was obtained) that support the historical projects and associated costs over the past nine years used in the calculation of marginal transmission cost, as described in your testimony at page 15, lines 1-12.

Response:

Please see Response No. MCC-099 Attachment A.

Response No. MCC-099
Attachment A

Name of Respondent	This Report Is:	Date of Report (Mo, Da, Yr)	Year/Period of Report
MDU Resources Group, Inc.	(1) [X] An Original (2) [ ] A Resubmission	12/31/2005	End of 2005/Q4

TRANSMISSION LINES ADDED DURING YEAR

1. Report below the information called for concerning Transmission lines added or altered during the year. It is not necessary to report minor revisions of lines.
2. Provide separate subheadings for overhead and under- ground construction and show each transmission line separately. If actual costs of competed construction are not readily available for reporting columns (l) to (o), it is permissible to report in these columns the

Line No.	LINE DESIGNATION		Line Length in Miles	SUPPORTING STRUCTURE		CIRCUITS PER STRUCTURE	
	From (a)	To (b)	(c)	Type (d)	Average Number per Miles (e)	Present (f)	Ultimate (g)
1	Heskett	Devaul	0.22	SP	27.00	1	1
2			-0.19	Retired			
3							
4							
5							
6							
7							
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43							
44	TOTAL		0.03		27.00	1	1

Name of Respondent	This Report Is:	Date of Report (Mo, Da, Yr)	Year/Period of Report
MDU Resources Group, Inc.	(1) [X] An Original (2) [ ] A Resubmission	12/31/2005	End of 2005/Q4

TRANSMISSION LINES ADDED DURING YEAR (Continued)

costs. Designate, however, if estimated amounts are reported. Include costs of Clearing Land and Rights-of-Way, and Roads and Trails, in column (l) with appropriate footnote, and costs of Underground Conduit in column (m).

3. If design voltage differs from operating voltage, indicate such fact by footnote; also where line is other than 60 cycle, 3 phase, indicate such other characteristic.

CONDUCTORS			Voltage	LINE COST					Line
Size (h)	Specification (i)	Configuration and Spacing (j)	KV (Operating) (k)	Land and Land Rights (l)	Poles, Towers and Fixtures (m)	Conductors and Devices (n)	Asset Retire. Costs (o)	Total (p)	No.
336.4	ACSR	[illegible]	69		103,124	22,850		125,974	1
					-1,556	-215		-1,771	2
									3
									4
									5
									6
									7
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					101,568	22,635		124,203	44

Name of Respondent	This Report Is:	Date of Report (Mo, Da, Yr)	Year/Period of Report
MDU Resources Group, Inc.	(1) [X] An Original (2) [ ] A Resubmission	12/31/2006	End of 2006/Q4

TRANSMISSION LINES ADDED DURING YEAR

1. Report below the information called for concerning Transmission lines added or altered during the year. It is not necessary to report minor revisions of lines.
2. Provide separate subheadings for overhead and under- ground construction and show each transmission line separately. If actual costs of competed construction are not readily available for reporting columns (l) to (o), it is permissible to report in these columns the

Line No.	LINE DESIGNATION		Line Length in Miles	SUPPORTING STRUCTURE		CIRCUITS PER STRUCTURE	
	From (a)	To (b)	(c)	Type (d)	Average Number per Miles (e)	Present (f)	Ultimate (g)
1	Midway Sub Tap Line		0.11	SP	33.00	1	1
2			-0.11	Retired			
3							
4	Turnpike Ave Sub Tap Line		0.55	SP	15.00	1	1
5							
6							
7							
8							
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44	TOTAL		0.55		48.00	2	2

Name of Respondent	This Report Is:	Date of Report (Mo, Da, Yr)	Year/Period of Report
MDU Resources Group, Inc.	(1) [X] An Original (2) [ ] A Resubmission	12/31/2006	End of 2006/Q4

TRANSMISSION LINES ADDED DURING YEAR (Continued)

costs. Designate, however, if estimated amounts are reported. Include costs of Clearing Land and Rights-of-Way, and Roads and Trails, in column (l) with appropriate footnote, and costs of Underground Conduit in column (m).

3. If design voltage differs from operating voltage, indicate such fact by footnote; also where line is other than 60 cycle, 3 phase, indicate such other characteristic.

CONDUCTORS			Voltage	LINE COST					Line
Size (h)	Specification (i)	Configuration and Spacing (j)	KV (Operating) (k)	Land and Land Rights (l)	Poles, Towers and Fixtures (m)	Conductors and Devices (n)	Asset Retire. Costs (o)	Total (p)	No.
4/0	ACSR	T-46-A(1)	42		42,296			42,296	1
					-1,357		76	-1,281	2
									3
336.4	MCMACSR	T-115-PA(2)	115		91,907	74,596		166,503	4
									5
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					132,846	74,596	76	207,518	44

Name of Respondent	This Report Is:	Date of Report (Mo, Da, Yr)	Year/Period of Report
MDU Resources Group, Inc.	(1) [X] An Original (2) [ ] A Resubmission	12/31/2007	End of 2007/Q4

TRANSMISSION LINES ADDED DURING YEAR

1. Report below the information called for concerning Transmission lines added or altered during the year. It is not necessary to report minor revisions of lines.
2. Provide separate subheadings for overhead and under- ground construction and show each transmission line separately. If actual costs of competed construction are not readily available for reporting columns (l) to (o), it is permissible to report in these columns the

Line No.	LINE DESIGNATION From (a)	To (b)	Line Length in Miles (c)	SUPPORTING STRUCTURE Type (d)	Average Number per Miles (e)	CIRCUITS PER STRUCTURE Present (f)	Ultimate (g)
1	Diamond Willow Tap Line		0.19	SP	29.00	1	1
2	Cabin Creek Jct Tap Line		0.61	SP	16.00	1	1
3	Glendive	Baker	-0.03	Retired		1	1
4	Jct TL080-1	East Bismarck	3.69	SP	19.00	1	1
5	South Bismarck	East Bismarck	0.15	SP	14.00	1	1
6			0.40	SP	20.00	1	1
7			1.08	U.B. on SP	19.00	1	1
8			1.63	U.B. on SP	19.00	1	1
9			-3.33	Retired			
10	Fullerton Tap Line		7.23	SP	20.00	1	1
11	Acme Plant	Ranchester	10.22	Trans to Dist			
12	Broadway Sub	Tomahawk	2.32	Trans to Dist			
13	Jct HL 62	W Burton St Sub	1.81	Trans to Dist			
14	Acme Plant	Broadway Sub	8.38	Trans to Dist			
15	Jct HL 62	PP&L Sub	0.67	Trans to Dist			
16	Sheridan-Banner-Big Horn		16.17	Trans to Dist			
17	Ranchester	Dayton	6.37	Trans to Dist			
18	PP&L Sub	Jct 35	2.84	Trans to Dist			
19	PP&L Sub	Sheridan	1.22	Trans to Dist			
20	PP&L Sub	Sheridan SW Sub	12.16	Trans to Dist			
21	Sheridan W	Sheridan SW Sub	8.76	Trans to Dist			
22	Big Goose Sub Tap Line		0.05	Trans to Dist			
23	Jct HL 68	Sheridan SW Sub	3.45	Trans to Dist			
24	Sheridan SW Sub	Big Horn					
25							
26							
27							
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43							
44	TOTAL		86.04		156.00	9	9

Name of Respondent	This Report Is:	Date of Report (Mo, Da, Yr)	Year/Period of Report
MDU Resources Group, Inc.	(1) [X] An Original (2) [ ] A Resubmission	12/31/2007	End of 2007/Q4

TRANSMISSION LINES ADDED DURING YEAR (Continued)

costs. Designate, however, if estimated amounts are reported. Include costs of Clearing Land and Rights-of-Way, and Roads and Trails, in column (l) with appropriate footnote, and costs of Underground Conduit in column (m).

3. If design voltage differs from operating voltage, indicate such fact by footnote; also where line is other than 60 cycle, 3 phase, indicate such other characteristic.

CONDUCTORS			Voltage	LINE COST					Line
Size (h)	Specification (i)	Configuration and Spacing (j)	KV (Operating) (k)	Land and Land Rights (l)	Poles, Towers and Fixtures (m)	Conductors and Devices (n)	Asset Retire. Costs (o)	Total (p)	No.
4/0	ACSR	T-60-A	57	2,317	12,549	11,577		26,443	1
4/0	ACSR	T-60-A	57		67,618			67,618	2
397.5	MCMACSR		115		-799	-195		-994	3
954	MCMACSR	T-115-P	115	25,035	806,371	275,677		1,107,083	4
4/0	ACSR	T-46-HA	42		186,456	67,256		253,712	5
336	MCMACSR	T-46-A							6
4/0	ACSR	T-46-HUB							7
336	MCMACSR	T-46-HUB							8
					-19,252			-19,252	9
2/0	ACSR	T-46-AS1	42		305,647			305,647	10
			42	-3,549	-126,767	-76,528		-206,844	11
			42	-831	-78,902	-70,560		-150,293	12
			42		-38,224	-7,884		-46,108	13
			42	-1,266	-131,924	-90,369		-223,559	14
			42	-860	-6,553	-3,581		-10,994	15
			42	-4,409	-151,023	-162,735		-318,167	16
			42	-930	-35,802	-23,892		-60,624	17
			42	-1,092	-48,895	-45,457		-95,444	18
			42	-10,538	-62,366	-54,358		-127,262	19
			230	-222,320	-897,040	-730,012		-1,849,372	20
			42	-67,109	-460,985	-377,272		-905,366	21
			42		-2,209	-1,628		-3,837	22
			42		-37,125	-129,325		-166,450	23
			42	-40,119	-1,211	-271		-41,601	24
									25
									26
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									42
									43
				-325,671	-720,436	-1,419,557		-2,465,664	44

Name of Respondent	This Report Is:	Date of Report (Mo, Da, Yr)	Year/Period of Report
MDU Resources Group, Inc.	(1) [X] An Original (2) [ ] A Resubmission	12/31/2008	End of 2008/Q4

TRANSMISSION LINES ADDED DURING YEAR

1. Report below the information called for concerning Transmission lines added or altered during the year. It is not necessary to report minor revisions of lines.
2. Provide separate subheadings for overhead and under- ground construction and show each transmission line separately. If actual costs of competed construction are not readily available for reporting columns (l) to (o), it is permissible to report in these columns the

Line No.	LINE DESIGNATION		Line Length in Miles	SUPPORTING STRUCTURE		CIRCUITS PER STRUCTURE	
	From (a)	To (b)	(c)	Type (d)	Average Number per Miles (e)	Present (f)	Ultimate (g)
1	Baker, MT	Glendive, MT	0.11	SP	13.00	1	1
2			-0.11	Retired			
3	Bowdle, SD	Mobridge, SD	0.18	SP	21.00	1	1
4			-0.17	Retired			
5	Tioga, ND	Kenmare, ND	2.55	H-Frame	17.00	1	1
6			-2.55	Retired			
7	Bismarck, ND	Loop Line	0.11	U.B. on SP	17.00	1	1
8			-0.18	U.B. Retired			
9	Northwest Bismarck, ND	East Bismarck, ND	0.12	SP	17.00	1	1
10			-0.13	Retired			
11	Beulah, ND	Bismarck, ND	0.15	SP	26.00	1	1
12			0.44	UG Added		1	1
13			-0.49	Retired			
14	South Mandan, ND	Bismarck, ND: Sweet Ave	0.45	SP	35.00	1	1
15			0.40	UG Added		1	1
16			-0.80	Retired			
17	Bismarck, ND: Sweet Ave	TL403 & 405	0.34	SP	32.00	1	1
18			0.20	U.B. on SP	17.00	1	1
19			0.46	UG Added		1	1
20			-0.26	Retired			
21			-0.43	U.B. Retired			
22							
23							
24							
25							
26							
27							
28							
29							
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32							
33							
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36							
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44	TOTAL		0.39		195.00	12	12

Name of Respondent	This Report Is:	Date of Report (Mo, Da, Yr)	Year/Period of Report
MDU Resources Group, Inc.	(1) [X] An Original (2) [ ] A Resubmission	12/31/2008	End of 2008/Q4

TRANSMISSION LINES ADDED DURING YEAR (Continued)

costs. Designate, however, if estimated amounts are reported. Include costs of Clearing Land and Rights-of-Way, and Roads and Trails, in column (l) with appropriate footnote, and costs of Underground Conduit in column (m).

3. If design voltage differs from operating voltage, indicate such fact by footnote; also where line is other than 60 cycle, 3 phase, indicate such other characteristic.

CONDUCTORS			Voltage	LINE COST					Line
Size (h)	Specification (i)	Configuration and Spacing (j)	KV (Operating) (k)	Land and Land Rights (l)	Poles, Towers and Fixtures (m)	Conductors and Devices (n)	Asset Retire. Costs (o)	Total (p)	No.
4/0	ACSR	T-60-A	57		103,463			103,463	1
					-545			-545	2
2/0	ACSR	T-46-AS1	42		6,091	1,523		7,614	3
					-667		795	128	4
477		T-115-A	115		42,023	279,608		321,631	5
					-532	-8,938	-3,932	-13,402	6
4/0	ACSR	T-46-HUB	42		6,079	21,274		27,353	7
						-2,306	500	-1,806	8
954	MCMACSR	T-115-PA	115		71,331	45,511		116,842	9
					-3,163	-6,351	3,328	-6,186	10
954	MCMACSR	T-115-PD	115		275,884	22,990		298,874	11
1500	MCMXLPE	N/A	115		689,709	1,310,448		2,000,157	12
					-2,165	-12,297	2,283	-12,179	13
954	MCMACSR	T-115-PA	115	18,805	551,152	225,472		795,429	14
1500	MCMXLPE	N/A	115		526,100	1,202,514		1,728,614	15
					-47,615	-46,889	9,643	-84,861	16
336	MCMACSR	T-46-HA1	42	8,724	366,412	115,158		490,294	17
336	MCMACSR	T-46-HUB	42						18
750	MCMXLPE	N/A	42		774,699	837,513		1,612,212	19
					-2,996	-2,981	12,516	6,539	20
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				27,529	3,355,260	3,982,249	25,133	7,390,171	44

Name of Respondent	This Report Is:	Date of Report (Mo, Da, Yr)	Year/Period of Report
MDU Resources Group, Inc.	(1) [X] An Original (2) [ ] A Resubmission	12/31/2009	End of 2009/Q4

TRANSMISSION LINES ADDED DURING YEAR

1. Report below the information called for concerning Transmission lines added or altered during the year. It is not necessary to report minor revisions of lines.
2. Provide separate subheadings for overhead and under- ground construction and show each transmission line separately. If actual costs of competed construction are not readily available for reporting columns (l) to (o), it is permissible to report in these columns the

Line No.	LINE DESIGNATION		Line Length in Miles	SUPPORTING STRUCTURE		CIRCUITS PER STRUCTURE	
	From (a)	To (b)	(c)	Type (d)	Average Number per Miles (e)	Present (f)	Ultimate (g)
1	Northern Border Pipeline	Tap Line	3.47	SP	19.00	1	1
2	Glen Ullin, ND	Heart Butte - Elgin, ND	0.06	SP	51.00	1	1
3	Dakota Westmoreland	Tap Line	0.31	SP	22.00	1	1
4							
5							
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43							
44	TOTAL		3.84		92.00	3	3

Name of Respondent	This Report Is:	Date of Report (Mo, Da, Yr)	Year/Period of Report
MDU Resources Group, Inc.	(1) [X] An Original (2) [ ] A Resubmission	12/31/2009	End of 2009/Q4

TRANSMISSION LINES ADDED DURING YEAR (Continued)

costs. Designate, however, if estimated amounts are reported. Include costs of Clearing Land and Rights-of-Way, and Roads and Trails, in column (l) with appropriate footnote, and costs of Underground Conduit in column (m).

3. If design voltage differs from operating voltage, indicate such fact by footnote; also where line is other than 60 cycle, 3 phase, indicate such other characteristic.

CONDUCTORS			Voltage	LINE COST					Line
Size (h)	Specification (i)	Configuration and Spacing (j)	KV (Operating) (k)	Land and Land Rights (l)	Poles, Towers and Fixtures (m)	Conductors and Devices (n)	Asset Retire. Costs (o)	Total (p)	No.
2/0	ACSR	T-46-HA	42	2,989	235,981	163,706		402,676	1
397	MCMACSR	T-46-D	42		31,381	11,222		42,603	2
4/0	ACSR	T-115-P	115	2,029	44,334	29,705		76,068	3
									4
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				5,018	311,696	204,633		521,347	44

Name of Respondent	This Report Is:	Date of Report (Mo, Da, Yr)	Year/Period of Report
MDU Resources Group, Inc.	(1) [X] An Original (2) [ ] A Resubmission	12/31/2010	End of 2010/Q4

TRANSMISSION LINES ADDED DURING YEAR

1. Report below the information called for concerning Transmission lines added or altered during the year. It is not necessary to report minor revisions of lines.
2. Provide separate subheadings for overhead and under- ground construction and show each transmission line separately. If actual costs of competed construction are not readily available for reporting columns (l) to (o), it is permissible to report in these columns the

Line No.	LINE DESIGNATION From (a)	To (b)	Line Length in Miles (c)	SUPPORTING STRUCTURE Type (d)	Average Number per Miles (e)	CIRCUITS PER STRUCTURE Present (f)	Ultimate (g)
1	Heskett Station	Amoco Refinery	0.07	SP	45.00	1	1
2			-0.08	Retired			
3	Diamond Willow	South Tap Line	0.10	SP	32.00	1	1
4	Tioga	Ray	0.58	SP	26.00	1	1
5			-0.36	Retired			
6	Marmarth	Hettinger	0.35	SP	17.00	1	1
7			-0.03	Retired			
8	Plentywood	Scobey	2.33	SP	16.00	1	1
9			-2.18	Retired			
10	Cedar Hills	Tap Line	1.47	SP	20.00	1	1
11			-0.19	Retired			
12							
13							
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17	* New						
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44	TOTAL		2.06		156.00	6	6

Name of Respondent	This Report Is:	Date of Report (Mo, Da, Yr)	Year/Period of Report
MDU Resources Group, Inc.	(1) [X] An Original (2) [ ] A Resubmission	12/31/2010	End of 2010/Q4

TRANSMISSION LINES ADDED DURING YEAR (Continued)

costs. Designate, however, if estimated amounts are reported. Include costs of Clearing Land and Rights-of-Way, and Roads and Trails, in column (l) with appropriate footnote, and costs of Underground Conduit in column (m).

3. If design voltage differs from operating voltage, indicate such fact by footnote; also where line is other than 60 cycle, 3 phase, indicate such other characteristic.

CONDUCTORS			Voltage	LINE COST					Line
Size (h)	Specification (i)	Configuration and Spacing (j)	KV (Operating) (k)	Land and Land Rights (l)	Poles, Towers and Fixtures (m)	Conductors and Devices (n)	Asset Retire. Costs (o)	Total (p)	No.
4/0	ACSR	T-46-A1	42		23,673			23,673	1
					-3,412		1,640	-1,772	2
4/0	ACSR	T-60-A	57		15,073	9,239		24,312	3
4/0	ACSR	T-60-A	57		255,733	47,750		303,483	4
					-1,807	-1,153	15,000	12,040	5
954	MCMACSR	T-230-DB	230		152,542	82,213		234,755	6
						-670	1,807	1,137	7
4/0	ACSR	T-60-A	57	7,416	130,549	50,764		188,729	8
					-6,531	-640	380	-6,791	9
4/0	ACSR	T-60-A1	57	112	117,329	77,911		195,352	10
					-854	-688	4,075	2,533	11
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				7,528	682,295	264,726	22,902	977,451	44

Name of Respondent	This Report Is:	Date of Report (Mo, Da, Yr)	Year/Period of Report
MDU Resources Group, Inc.	(1) [X] An Original (2) [ ] A Resubmission	12/31/2011	End of 2011/Q4

TRANSMISSION LINES ADDED DURING YEAR

1. Report below the information called for concerning Transmission lines added or altered during the year. It is not necessary to report minor revisions of lines.
2. Provide separate subheadings for overhead and under- ground construction and show each transmission line separately. If actual costs of competed construction are not readily available for reporting columns (l) to (o), it is permissible to report in these columns the

Line No.	LINE DESIGNATION From (a)	To (b)	Line Length in Miles (c)	SUPPORTING STRUCTURE Type (d)	Average Number per Miles (e)	CIRCUITS PER STRUCTURE Present (f)	Ultimate (g)
1	JCT TL39	KRCM 115 Tap Line	-0.30	Retired		1	1
2	Ellendale	Wishek	0.39	SP	20.00	1	1
3			-0.39	Retired			
4	Cabin Creek	Butte Pipeline	0.20	SP	28.00	1	1
5			-0.09	Retired			
6	Beulah	Hazen	0.65	SP	21.00	1	1
7			-0.64	Retired			
8	Heskett Station	WAPA 230 KV	0.18	H-Frame	15.00	1	1
9			-0.10	Retired			
10	South Mandan	Sweet Ave, Bismarck	0.01	SP	13.00	1	1
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44	TOTAL		-0.09		97.00	6	6

Name of Respondent	This Report Is:	Date of Report (Mo, Da, Yr)	Year/Period of Report
MDU Resources Group, Inc.	(1) [X] An Original (2) [ ] A Resubmission	12/31/2011	End of 2011/Q4

TRANSMISSION LINES ADDED DURING YEAR (Continued)

costs. Designate, however, if estimated amounts are reported. Include costs of Clearing Land and Rights-of-Way, and Roads and Trails, in column (l) with appropriate footnote, and costs of Underground Conduit in column (m).

3. If design voltage differs from operating voltage, indicate such fact by footnote; also where line is other than 60 cycle, 3 phase, indicate such other characteristic.

CONDUCTORS			Voltage	LINE COST					Line
Size (h)	Specification (i)	Configuration and Spacing (j)	KV (Operating) (k)	Land and Land Rights (l)	Poles, Towers and Fixtures (m)	Conductors and Devices (n)	Asset Retire. Costs (o)	Total (p)	No.
336.4	MCMACSR		115				6,228	6,228	1
2/0	ACSR	T-45-A	42	1,758	50,255	33,504		85,517	2
							61	61	3
4/0	ACSR	T-60-A	57		24,192	28,721		52,913	4
									5
4/0	ACSR	T-46-A	42	2,211	70,798	46,646		119,655	6
							6,000	6,000	7
954	MCMACSR	T-230-A	230		263,267	75,015		338,282	8
							12,960	12,960	9
336.4	MCMACSR	T-115-PA	115		66,660	129,834	-1,793	194,701	10
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				3,969	475,172	313,720	23,456	816,317	44

Name of Respondent	This Report Is:	Date of Report (Mo, Da, Yr)	Year/Period of Report
MDU Resources Group, Inc.	(1) [X] An Original (2) [ ] A Resubmission	12/31/2012	End of 2012/Q4

TRANSMISSION LINES ADDED DURING YEAR

1. Report below the information called for concerning Transmission lines added or altered during the year. It is not necessary to report minor revisions of lines.
2. Provide separate subheadings for overhead and under- ground construction and show each transmission line separately. If actual costs of competed construction are not readily available for reporting columns (l) to (o), it is permissible to report in these columns the

Line No.	LINE DESIGNATION		Line Length in Miles	SUPPORTING STRUCTURE		CIRCUITS PER STRUCTURE	
	From (a)	To (b)	(c)	Type (d)	Average Number per Miles (e)	Present (f)	Ultimate (g)
1	Wishek	Ellendale	0.22	SP	18.00	1	1
2	Merricourt Windfarm	Ellendale	29.69	H-Frame	8.00	1	1
3	Ashley	Ellendale	17.19	UB on 151-1	8.00	1	1
4			-17.19	Retired			
5	Coyote Switchyard	Center	0.20	H-Frame	15.00	1	1
6			-0.18	Retired			
7	OneOK Bakken Pipeline	Tap Line	1.34	SP	20.00	1	1
8	Alexander	Watford City	17.77	SP	19.00	1	1
9	NE Bismarck	Tap Line	1.69	SP	17.00	1	1
10			1.16	UB on 88-1	6.00	1	1
11	Jct HL 39 NW Bismarck	East Bismarck	0.17	SP	27.00	1	1
12	Ray Jct Sub	Tap Line (Dbl Ckt)	2.61	SP	21.00	2	2
13	Willlston	Tioga	0.23	H-Frame	13.00	1	1
14			-0.23	Retired			
15	Heskett Station	Amoco Refinery	0.57	SP	18.00	1	1
16			-0.72	Retired			
17	Enbridge Stanley	Tap Line	0.21	SP	24.00	1	1
18	MWEC Belden	Stanley	1.97	SP	18.00	1	1
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44	TOTAL		56.70		232.00	15	15

TRANSMISSION LINES ADDED DURING YEAR (Continued)

costs. Designate, however, if estimated amounts are reported. Include costs of Clearing Land and Rights-of-Way, and Roads and Trails, in column (l) with appropriate footnote, and costs of Underground Conduit in column (m).

3. If design voltage differs from operating voltage, indicate such fact by footnote; also where line is other than 60 cycle, 3 phase, indicate such other characteristic.

CONDUCTORS			Voltage	LINE COST					Line
Size (h)	Specification (i)	Configuration and Spacing (j)	KV (Operating) (k)	Land and Land Rights (l)	Poles, Towers and Fixtures (m)	Conductors and Devices (n)	Asset Retire. Costs (o)	Total (p)	No.
795	MCMACSR	T-230-DB	230		135,762	23,879		159,641	1
954	MCMACSR	T-230-A	230	931,373	6,637,566	1,815,156		9,384,095	2
4/0	ACSR	T-46-HSatt	42		144,858	332,145		477,003	3
							137,567	137,567	4
954	MCMACSR	T-345-A	345		1,186	790		1,976	5
									6
4/0	ACSR	T-60-A	57	5,754	117,513	71,306		194,573	7
4/0	ACSR	T-60-A	33		1,729,927	1,129,464		2,859,391	8
954	MCMACSR	T-115-P	115	325,112	628,840	420,589		1,374,541	9
954	MCMACSR	T-230/115 DA	115		1,042,534	115,622	20,809	1,178,965	10
954	MCMACSR	T-115-PE	115		121,994	149,104	-1,074	270,024	11
4/0	ACSR	T-60-HA1DBL	57	138,078	741,612	317,834		1,197,524	12
336.4	MCMACSR	T-115-J	115		74,057	38,264		112,321	13
							21,200	21,200	14
4/0	ACSR	T-46-A1	42		53,506	35,671		89,177	15
							14,961	14,961	16
4/0	ACSR	T-69-HA	69	2,004	77,385	50,907		130,296	17
397.5 T2	MCMACSR	TP-115	115	18,033	696,465	458,162		1,172,660	18
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				1,420,354	12,203,205	4,958,893	193,463	18,775,915	44

Name of Respondent	This Report Is:	Date of Report (Mo, Da, Yr)	Year/Period of Report
MDU Resources Group, Inc.	(1) [X] An Original (2) [ ] A Resubmission	12/31/2013	End of 2013/Q4

TRANSMISSION LINES ADDED DURING YEAR

1. Report below the information called for concerning Transmission lines added or altered during the year. It is not necessary to report minor revisions of lines.
2. Provide separate subheadings for overhead and under- ground construction and show each transmission line separately. If actual costs of competed construction are not readily available for reporting columns (l) to (o), it is permissible to report in these columns the

Line No.	LINE DESIGNATION From (a)	To (b)	Line Length in Miles (c)	SUPPORTING STRUCTURE Type (d)	Average Number per Miles (e)	CIRCUITS PER STRUCTURE Present (f)	Ultimate (g)
1	KRCM Gas coyne	Spur Line	-2.75	Retired			
2							
3	Midway Substation	Tap Line	-0.21	Retired			
4							
5	Matheson	Tap Line	2.63	SP	20.00	1	1
6							
7	Tioga-Spur	Spur Line	0.19	SP	24.00	1	1
8			-0.18	Retired			
9	Harvest Hills	Tap Line	1.53	SP	18.00	1	1
10							
11	Dakota Prairie Refining	Tap Line	0.44	SP	21.00	1	1
12							
13	Air Liquide	Tap Line	0.19	H-Frame	32.00	1	1
14							
15	Heskett III	Tie Line	0.09	H-Frame	34.00	1	1
16							
17	Heskett	Devaul	0.13	H-Frame	31.00	1	1
18			-0.03	Retired			
19	Heskett	Mandan Junction	0.85	H-Frame	12.00	1	1
20							
21	Beulah	Bismarck	0.14	H-Frame	22.00	1	1
22			-0.85	Retired			
23							
24	Mandan Junction Sub	Mandan Sub	-1.01	Retired			
25							
26	Mandan Junction	South Mandan	0.74	H-Frame	15.00	1	1
27			-0.24	Retired			
28							
29							
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31							
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39							
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41							
42							
43							
44	TOTAL		1.66		229.00	10	10

TRANSMISSION LINES ADDED DURING YEAR (Continued)

costs. Designate, however, if estimated amounts are reported. Include costs of Clearing Land and Rights-of-Way, and Roads and Trails, in column (l) with appropriate footnote, and costs of Underground Conduit in column (m).

3. If design voltage differs from operating voltage, indicate such fact by footnote; also where line is other than 60 cycle, 3 phase, indicate such other characteristic.

CONDUCTORS			Voltage	LINE COST					Line
Size (h)	Specification (i)	Configuration and Spacing (j)	KV (Operating) (k)	Land and Land Rights (l)	Poles, Towers and Fixtures (m)	Conductors and Devices (n)	Asset Retire. Costs (o)	Total (p)	No.
			42		4,338		51,157	55,495	1
									2
			42				8,640	8,640	3
									4
336.4	ACSR	T-115-P	115		398,684	598,027		996,711	5
									6
210	ACSR	T-60-HA	57		97,337	44,539		141,876	7
							24,307	24,307	8
4/0	ACSR	T-60-A	57		477,967	33,097		511,064	9
									10
4/0	ACSR	T-46-A1	42		97,809	97,809		195,618	11
							-7,473	-7,473	12
4/0	ACSR	T-60-H	57		50,237	33,629		83,866	13
									14
954	ACSR	T-115-A	115		45,027	11,257		56,284	15
									16
336.4	ACSR	T-69-H	69		45,430	26,565		71,995	17
							5,170	5,170	18
954	ACSR	T-230-A	115		151,100	100,734		251,834	19
									20
T2 4/0	ACSR	T-115-A	115		75,884	49,875		125,759	21
							5,146	5,146	22
									23
			230				55,927	55,927	24
									25
954	ACSR	T-115-A	115		279,565	181,271		460,836	26
							22,964	22,964	27
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					1,723,378	1,176,803	165,838	3,066,019	44

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-100

Regarding: Marginal Transmission Costs
Witness: Sara J. Cardwell

Please provide an electronic copy, including all formulas, links, workpapers and supporting documents, of the classification and allocation of marginal transmission costs to the customer classes using the average and excess demand allocator, as described in your testimony at page 15, lines 1-12.

Response:

Please see the following tabs in the Marginal Cost of Service Study file provided in Response No. PSC-2:

- Transmission-Capacity Related
- Summary of Total MC by Class
- Marginal COS Allocation Factors

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-105

Regarding: Exhibit No.__(SJC-11)
Witness: Sara J. Cardwell

Please provide all source documents by year, work papers and calculations used in developing meter reading, customer accounting , services and sales expenses adders as shown on your Exhibit No.__(SJC-11), pages 1 and 2.

Response:

The costs presented on Exhibit No.___(SJC-11) represent historic embedded costs recorded by FERC account as shown on Statement Workpapers Statement L, Page L-37. The average costs by customer were assigned to the rate classes based on weighted meters, as provided in Statement Workpapers Statement L, Pages L-14 and L-21 and weighted customer accounts determined based on a weighting determined by meter registers shown in Statement Workpapers Statement L, Pages L-14 and L-24.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-106

Regarding: Distribution Marginal Costs
Witness: Sara J. Cardwell

Please provide all source documents, work papers and calculations used in estimating each of the costs per customer class as shown in Exhibit No.__(SJC-11).

Response:

Please see Response No. MCC-105.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-109

Regarding: Statement M
Witness: Tamie A. Aberle

Please provide an electronic Excel copy of Statement M, with all supporting spreadsheets and formulas intact, including links to the embedded and marginal cost of service studies so changes made to either of the studies will flow through to the reconciliation between marginal costs and embedded costs, and rate designs.

Response:

No file exists, however an electronic copy of the rate design (Statement M), the Embedded cost study (Statement L), and the Marginal Cost Study can be found on the CD presented with PSC-001 data responses.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-110

Regarding: Base Fuel Rate
Witness: Tamie A. Aberle

Please provide sources and explain in detail how the amounts by class for the base fuel rates have been determined as shown on Statement M.

Response:

Please see Statement Workpapers, Statement G, page G-31 for the base fuel amounts per Kwh as included in Statement M, pages 6 – 21.

MONTANA-DAKOTA UTILITIES CO.
MONTANA CONSUMER COUNSEL
DATA REQUEST
DATED AUGUST 28, 2015
DOCKET NO. D2015.6.51

MCC-111

Regarding: Exhibit No.__(TAA-2)
Witness: Tamie A. Aberle

Please provide complete electronic Excel copies of Exhibit No.__(TAA-2); and any additional supporting work papers.

Response:

Please see the file Statement M, Exh. TAA-1_TAA-2 on the CD provided with data responses for PSC-001.