DEPARTMENT OF PUBLIC SERVICE REGULATION
BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MONTANA

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IN THE MATTER OF the Application of the Application of Montana-Dakota Utilities Co. for Authority to Establish Increased Rates for Electric Service in the State of Montana	))))	REGULATORY DIVISION DOCKET NO. D2015.6.51

Direct Testimony

of

Albert E. Clark

on behalf of

The Montana Consumer Counsel

November 20, 2015

Q. PLEASE STATE YOUR NAME, OCCUPATION, AND ADDRESS.

A. My name is Albert E. Clark. I am an independent consultant in the field of utility rates and regulation. My business address is 142 Buccaneer Drive, Leesburg, FL 34788.

Q. PLEASE OUTLINE YOUR EDUCATIONAL BACKGROUND.

A. I received a Bachelor of Science degree in mathematics and secondary education in 1966 from Towson State University, Baltimore Maryland. In 1975 I received a Certificate in Data Processing, Summa Cum Laude, from Anne Arundel Community College, Arnold, Maryland, where I also completed selected courses in accounting. I have studied at Rollins College, Winter Park, Florida, where I took graduate level courses in management with a concentration in accounting. I also hold a Master of Accounting degree from The George Washington University, Washington, D.C.

Q. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE IN THE FIELD OF PUBLIC UTILITY REGULATION.

A. From 1972 to 1986 I worked for several consulting firms in the Washington, D.C. area and in Orlando, Florida. During those engagements I participated in numerous rate proceedings before Federal and state regulatory agencies. I proceeded from assisting senior consultants in the

preparation of analyses related to fully allocated cost of service and rate design studies to providing expert testimony and analyses to clients in contested wholesale and retail rate cases. These cases involved cost allocation, rate design and revenue requirements analyses.

In 1986 I participated in the formation of another consulting firm where I was a Principal and Vice President until I resigned in mid-1997. At that firm my primary efforts were in the areas of cost of service and revenue requirement studies in wholesale and retail rate proceedings before Federal and state regulatory agencies. I also assisted various clients – principally wholesale municipalities and cooperatives – with negotiations for power supply and transmission services. In 1997 I formed Clark Utility Consulting, Inc. and performed similar types of services for clients as I had done previously. In January 2000 I joined the firm of Fred Saffer & Associates in Orlando, Florida. Since 2008 I have worked as an independent consultant.

Q. WHAT TYPES OF CLIENTS HAVE YOU SERVED DURING YOUR REGULATORY CONSULTING CAREER?

A. During the course of my regulatory consulting career, I have been retained by state regulatory agencies, state consumer protection agencies, Federal agencies, municipalities, industrial corporations, trade associations, electric

cooperatives and municipally owned electric distribution systems.

Q. HAVE YOU TESTIFIED PREVIOUSLY IN PUBLIC UTILITY RATE PROCEEDINGS?

A. Yes, I have provided expert testimony on over 120 occasions in sixteen jurisdictions in more than 90 separate proceedings. I have testified before this Commission in most of the proceedings involving Montana-Dakota's electric and natural gas utilities since 1984.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A. I am testifying on behalf of the Montana Consumer Counsel ("MCC").

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?

A. Montana-Dakota Utilities, Co. ("MDU" or the "Company') has proposed to increase rates for electric service to the customers that it serves within the state of Montana. The requested increase amounts to $11,755,544. The Transmittal Letter indicates that the request is a 21.1% increase, but I dispute that characterization. While the 21.1% is correct if the denominator includes revenues that are directly related to the cost of fuel and purchased power, we are only concerned in this case with revenues exclusive of both fuel and purchased power. I believe the proper

characterization of the requested increase is as an approximate 35.5% increase in base rates – i.e. non-fuel and purchased power costs. The MCC has requested that I review the Company's filing and supporting documentation to determine if the Company's requested revenue increase is appropriate.

The purpose of my testimony in this case is to present my conclusions and recommendations to the Commission regarding MDU's test year revenue requirement. I will address all revenue requirement issues except the appropriate capital structure and cost of capital which are being addressed by MCC witness Dr. John Wilson and the appropriate depreciation rates which are being addressed by MCC witness Mr. Jacob Pous.

Q. HAVE YOU PREPARED EXHIBITS TO SUPPORT YOUR CONCLUSIONS AND RECOMMENDATIONS IN THIS CASE?

A. Yes, in addition to my Direct Testimony, I have prepared Exhibit No.___(AEC-1) through Exhibit No.___(AEC-5) and one work paper attached to Exhibit No.___(AEC-2). Exhibit No.___(AEC-1) shows the pro forma income statement and rate base as adjusted by MCC witnesses and the calculation of the appropriate base rate revenue increase. Exhibit No.___(AEC-2) is a summary of the MCC adjustments and a complete set

of schedules that show the calculations of each of the adjustments that I am proposing in this case. Exhibit No.__(AEC-3) shows the detail of the allowable post-test year plant in service excluding the four major generation projects, which are currently scheduled for in-service dates quite late in 2015, and are handled separately. The four major projects are (1) the Thunder Spirit Wind Farm, (2) the Reciprocating Internal Combustion Engine ("RICE") units at Lewis & Clark, (3) the Air Quality Control System ("AQCS") at Big Stone and (4) the Mercury and Air Toxic Standards Rule ("MATS") project at Lewis & Clark. Exhibit No.___(AEC-4) shows the calculation of the annual depreciation expense using the depreciation rates recommended by Mr. Pous excluding the major projects. Exhibit No.___(AEC-5) shows the revenue requirement impacts of the four major post-test year generation plant additions.

Q. WHAT IS THE TEST YEAR IN THIS CASE?

A. The Company has proposed to use an historical test year ended December 31, 2014. I accept the use of this historical period, as adjusted, for the test year in this case. The Company has made many adjustments to the historical test year actual revenues, expense and investment that are asserted to be "known and measureable" – i.e. known with certainty and measureable with reasonable accuracy at the time of the filing. In reality, however, the Company has made many substantial post-test year

adjustments that are based on the 2015 operating and construction budgets. As will be discussed more fully below, a budget is not an appropriate basis to be used to determine known and measureable changes as contemplated by the Commission rules.

Q. WHAT CONCLUSIONS HAVE YOU REACHED REGARDING MONTANA-DAKOTA UTILITIES CO.'S REQUESTED ANNUAL REVENUE INCREASE IN THIS CASE?

A. I first conclude that MDU's requested annual revenue increase is excessive and should not be allowed by this Commission. Secondly, I conclude that the Commission should order a revenue increase of no more than $3,767,053. Both of these conclusions are based on my analyses and the cost of capital recommendations of MCC witness Dr. Wilson and the depreciation rate recommendations of MCC witness Mr. Pous. These conclusions do not reflect the removal of any of the four major post-test year generation plant additions.

Q. LET US TURN TO YOUR EXHIBIT NO.___(AEC-2). WOULD YOU PLEASE EXPLAIN THE FIRST ADJUSTMENT THAT YOU ARE PROPOSING TO MONTANA-DAKOTA UTILITIES, CO.'S PRO FORMA RESULTS OF OPERATION?

A. Yes, I will. I propose to use actual 2014 KVAR revenues in lieu of MDU's

three year average. MDU did not utilize a three year average for any other component of other revenues and I can find no justification for using the average for the KVAR revenues. This adjustment, an increase of $10,760, is calculated in Exhibit No.___(AEC-2), page 4 of 29. It is brought forward to page 1, column (B) and then included in Exhibit___(AEC-1).

Q. PLEASE EXPLAIN YOUR NEXT PROPOSED ADJUSTMENT TO MDU'S PRO FORMA INCOME STATEMENT.

A. I am proposing an adjustment that reduces the test year level of expense for the MPSC and the MCC taxes to reflect the latest known rates for both. MDU used the rates effective as of October 1, 2014 in its filing. These were the latest known rates at the time of the filing. As noted in the Company's response to Data Request MCC-068, new rates became effective as of October 1, 2015. The latest MCC tax rate is 0.06% and the latest MPSC tax rate is 0.23%. My proposed adjustment is calculated in Exhibit No.___(AEC-2) at page 5 of 29 and is brought forward to Page 1. The adjustment reduces Other Taxes by $5,565. The changes in these tax rates also impacts the determination of the allowable revenue increase shown in Exhibit No.___(AEC-1).

Q. ARE YOU PROPOSING AN ADJUSTMENT TO THE COMPANY'S TEST YEAR INCREMENTAL LABOR EXPENSE?

A. Yes, I am proposing an adjustment to the Company's test year incremental labor expense of $(56,985). My adjustment is based on using information supplied in response to Data Request No. MCC-024. As can be seen in the Statement Work Papers, page G-56, MDU greatly increased the salaries of all of the incremental employees by including large amounts of unexplained "premium time" in the calculation. Of particular note is the financial analyst. The salary is shown as $45,390 in the referenced data response, but MDU has included $91,431 of salary and premium – an increase of over 100%. Similar, but lesser increases are shown for all the other positions as well. I have found no justification for the unwarranted inflation of these salaries in the Company's filing. Therefore, I propose to calculate the incremental labor adjustment using only the stated starting salaries for each of these seven positions. My adjustment is calculated in Exhibit No.___(AEC-2), at page 6 of 29 and is included on page 1 of Exhibit No.___(AEC-1). I would also add that as of the time of this testimony, my latest information indicates that at least two of these positions are currently not filled. If these positions remain unfilled at the end of the allowable twelve month adjustment period, a further adjustment should be made to reduce the revenue requirement accordingly.

Q. YOU ARE PROPOSING AN ADJUSTMENT TO THE COMPANY'S TEST YEAR FRINGE BENEFITS EXPENSES. WOULD YOU PLEASE EXPLAIN THIS ADJUSTMENT?

A. Yes, I will. The adjustment is to reduce the pro forma 401-k and "Other" benefits. Other benefits are primarily, if not totally, disability insurance. The Company inflated both of these costs by a factor of 3.97% based on the increased labor expense. But the footnote on Statement G, page 7 of 35, and confirmed in MDU's response to Data Request No. MCC-181 indicates the increase should have been 3.69% for the 401-k expense. It is my opinion that the "Other" benefits should not reflect an increase of 3.97% that includes the incentive compensation. Therefore, my proposed increase is similarly restricted to 3.69%. The adjustment to fringe benefits expenses is calculated in Exhibit No.___(AEC-2) at page 7 of 29.

Q. ARE YOU PROPOSING ADDITIONAL ADJUSTMENTS TO THE COMPANY'S PRO FORMA INCOME STATEMENT?

A. Yes, I am. The next adjustment is to the expense for uncollectible accounts. I have made two changes to the Company's calculation. First, I have incorporated actual data from January to September 2015. Second, I do not assume that the Company will receive 100% of its requested revenue increase as MDU does in its calculation. For the purposes of my

calculation (shown in Exhibit No.___(AEC-2), page 8 of 29) I have assumed approval of 32% of the requested increase is allowed by the Commission. The 32% represents the portion of MDU's proposed increase based on the analyses of the MCC witnesses in this case.

The next adjustment is to postage expense. This adjustment is based on the latest known level of customers using E-bills. As shown in the response to Data Request No. MCC-046, the number of customers using E-bills continues to increase each month. I have used the August 2015 number of customers annualized for my calculation. The adjustment is shown in Exhibit No.___(AEC-2), page 9 of 29.

As shown in Exhibit No.___(AEC-2), at page 10 of 29, I am proposing to reduce the amortization period for the over recovery of decommissioning expense from ten years to five years. It is my opinion that these funds should be returned to ratepayers on a timelier basis than ten years, especially at this time when the Company is requesting a very substantial revenue increase from its customers. I believe that a case could be made for a period even shorter than five years, but I believe that five years is a reasonable compromise and helps to offset a portion of the requested increase. My proposal reduces this expense by an additional $671,219.

My next proposed adjustment is to advertising expense. This adjustment simply removes what the Company has labelled as institutional advertising from the revenue requirement. As I understand the Montana statute, basically all advertising expenses are banned from inclusion in the revenue requirement, with an exception for advertising to foster safety and efficiency (see Section 69-3-307, Montana Code Annotated). Institutional advertising does not fit the exception and, therefore, should be excluded from the revenue requirement. The adjustment, a reduction of $2,840, is calculated in Exhibit No.___(AEC-2), page 11 of 29.

I am also proposing an adjustment to the Company's Self-Insurance expense. The Company has proposed to use an average of the actual costs for a five year period from 2010 to 2014. The use of an average is normally an attempt to level out the cost at a reasonable amount on a going forward basis. In this case, however, the year 2012 was so far out of line with the remaining years that it skews the average beyond a reasonable level. The actual amount in 2012 was $886,928 (total company). This is higher than the next higher amount by a factor of 2.41x (2011 at $367,923). It is also higher by a factor of 2.40 than the average proposed by the Company of $369,390. Therefore, I propose to use the average of 2010, 2011, 2013 and 2014. This results in an average of $240,005 (total company). I use the same allocation factors as does MDU for the Montana

portion of the electric utility. The resulting adjustment of $(14,137) is shown in Exhibit No.___(AEC-2), page 12 of 29.

Q. ARE YOU PROPOSING AN ADJUSTMENT TO THE HESKETT UNIT III O&M EXPENSES?

A. Yes, I am. MDU is proposing an adjustment for the Heskett III O&M expenses in the amount of $347,859 (total Company) with $78,765 allocated to Montana customers. In the response to Data Request No. MCC-028 the Company provided the actual expenses through August 2015. The narrative, however, indicates that the Company does not believe this level of expenses is useful on a going forward basis in 2015 because "…work has been covered under warranty." In the response to Data Request No. MCC-174 the Company provides an annual expense estimate from a "consultant using Thermoflow", but cautions that this estimate is high because it assumes a stand-alone unit as compared to a unit that is located at the existing Heskett station. The problem that I have is that I cannot find any specific justification for the numbers included in the Company's case. The Company's contentions are that the actuals are too low and the consultant's estimate is too high, but there is nothing to get me to the pro forma numbers in the Company's case. Therefore, I am proposing to use actual expenses from January to August 2015 annualized. The adjustment in the amount of $(39,918) is calculated in Exhibit

No.___(AEC-2), page 13 of 29.

Q. WHY ARE YOU PROPOSING AN ADJUSTMENT TO PRODUCTION TAXES?

A. This is actually a contingent adjustment that may have to be removed. I have placed it in Exhibit No.___(AEC-2) at page 14 of 29. It is based on the proposition that the Thunder Spirit wind farm does not come into service by the end of the twelve month adjustment period ending December 31, 2015. If that is the case and the Commission does not then allow inclusion of Thunder Spirit in rate base, production taxes should be reduced by $112,051. If the Commission allows Thunder Sprit in rate base then this adjustment should be reversed. I will discuss Thunder Spirit, as well as the other "major" post-test year plant additions later.

Q. ARE THERE ADDITIONAL ADJUSTMENTS THAT SHOULD BE MADE TO THE COMPANY'S PRO FORMA INCOME STATEMENT?

A. Yes, there are additional adjustments that should be made to the Company's pro forma income statement. The first such adjustment is to the Company Use calculation. MDU has assumed that the entire 21.1% increase will be approved by this Commission. My proposed calculation, which is shown in Exhibit No.___(AEC-2), page 15 of 29, uses 32% of the proposed

increase based on the analyses of the MCC witnesses in this case. This adjustment reduces expense by $7,472.

The next adjustment that I am proposing is to regulatory expense. I propose to amortize the Company's rate case expense over a five year period in lieu of the three years proposed by MDU. While the response to Data Request No. MCC-060 indicates electric rate cases were filed in 2007 and 2010; the next case (the current one) was not filed until 2015. If MDU is successful in getting all of the major post-test year projects into the rate base along with the associated expenses, I believe it could be at least five years before the Company files again. My proposed adjustment is calculated in Exhibit No.___(AEC-2), page 16 of 29. The adjustment reduces test year expenses by $37,640.

Q. ARE YOU PROPOSING AN ADJUSTMENT TO THE O&M EXPENSES ASSOCIATED WITH THE RICE UNITS AT THE LEWIS & CLARK STATION?

A. Yes, I am. MDU has included $511,671 (total Company) for a full year of O&M expense for the RICE project and the MATS project combined at the Lewis & Clark station. The Company's response to Data Request No. MCC-174 indicates that total annual O&M expenses for the RICE units would be $372,060 if the units were on a stand-alone basis. The narrative

states that these costs should be lower because of "synergies with co-locating the units at existing facilities." Then, in response to Data Request No. MCC-190, MDU attempts to separate the expenses between the RICE units and the MATS project, but acknowledges that labor and labor related costs are joint costs. In the absence of any guidance provided by MDU, in my calculation, I have split the joint costs 50% to the RICE units and 50% to the MATS project. The RICE unit specific costs are also included. The result of my analysis is shown in Exhibit No.___(AEC-2), page 17 of 29. The joint costs are labor, benefits and training. The direct RICE expenses are subcontract labor, materials and office supplies. The result is a reduction to Montana O&M expenses of $36,405.

Q. DO YOU HAVE ANY ADDITIONAL ADJUSTMENTS TO THE COMPANY'S PRO FORMA INCOME STATEMENT?

A. Yes. I have three remaining adjustments to the pro forma income statement. The first is subcontract labor expense. Part of this adjustment is to correct an error noted in the response to Data Request No. MCC-176(b). The other portion of this adjustment is proposed because MDU utterly failed to substantiate a rather large adjustment of $1,620,619 (Montana) for increased transmission charges. As an aside, I fail to see why this adjustment is included in subcontract labor, but it does not impact my conclusion and recommendation. In the first round of data requests (MCC-

033) I asked for all supporting documentation for the Company's adjustment. The response simply pointed me to Statement Work Papers G-62 through G-70. Work Paper G-62, in a footnote, says the amount "represents engineering estimates for transmission charges due to Basin Electric Cooperative becoming a member of the Southwest Power Pool." I asked again at the discovery audit (MCC-176) and again all the Company did was refer to Work Paper G-62, which, of course, I already had that Work Paper and was not satisfied without additional supporting documentation. While it would be unfortunate if MDU experiences transmission cost increases simply because Basin and WAPA opted to join the SPP, I suppose that is a possibility. MDU, however, has provided no support beyond the unsubstantiated estimate noted on Work Paper G-62. Therefore, I have absolutely no basis to agree with the Company's estimate. Therefore, I am proposing to reverse MDU's proposed adjustment. My calculation is shown in Exhibit No.___(AEC-2), page 18 of 29. The reduction to test year O&M expense is $1,631,698.

The second remaining adjustment is to the regional market expense. MDU used a historical three year average for this expense. Once again, the average used by MDU includes a very large amount for one of the years used in the averaging process. In this case the year is 2013 (see the response to Data Request No. MCC-061). The years 2012, 2014 and 2015

annualized are all relatively close to one another. Therefore, I am proposing to use the latest known actual data for January through September of 2015 annualized for twelve months. The result is a reduction to Montana O&M of $15,777 as shown in Exhibit No.___(AEC-2), page 19 of 29.

The final additional adjustment is to synchronize interest expense to the weighted cost of capital and the allowable rate base. MDU and I use the same methodology and the result flows from other adjustments to the weighted cost of debt and the rate base. The adjustment is calculated after the rate base adjustments and is shown in Exhibit No.___(AEC-2), page 29 of 29.

Q. ARE YOU PROPOSING ANY ADJUSTMENTS TO THE COMPANY'S PRO FORMA RATE BASE?

A. Yes, I am. I am proposing adjustments to the Company's pro forma balances for materials and supplies, fuel stores, prepaid insurance and the provision for injuries and damages. For the first three of these rate base components the Company used averages of balances for the thirteen month-ends from December 2014 to December 2015. For materials and supplies, the Company used actual balances through January 2015 and assumed February through December of 2015 would be the same as 2014. For fuel

stores, the Company used actual balances through March 2015 with April through December balances "restated at the current price." The Company did the same for prepaid insurance as it did for the materials and supplies. For injuries and damages the Company used an estimated December 2015 balance and a BOY and EOY average. I have used actual balances from September 2014 to September 2015 in lieu of the Company's estimated 2015 amounts for materials and supplies, fuel stores and prepaid insurance. All three of these adjustments increase the pro forma rate base. For the provision for injuries and damages I propose to use the latest known data – i.e., September 2015 to calculate the average rate base balance. This adjustment slightly decreases the pro forma rate base.

These adjustments are calculated in Exhibit No.___(AEC-2) at pages 20, 21, 22 and 23 of 29 respectively. The adjustments individually increase or decrease rate base but, collectively, the result is a rate base increase of $477,033.

Q. ARE YOU RECOMMENDING ANY OTHER RATE BASE ADJUSTMENTS?

A. Yes, I am. I am recommending that the amount of post-test year plant included in the Company's pro forma rate base be reduced. Based on my review of the Company's response to Data Request No. MCC-070, I

propose to remove some projects and to adjust the costs of other projects that have actually been completed by the end of September 2015. In addition, I have not included two additional transmission projects at this time that MDU is apparently attempting to include through a response to a data request. The first such project is FP-10056 in the amount of $1,361,121 as of September 30, 2015. This project was not even included in MDU's original filing. In addition, the project's in-service date is not provided but rather is listed as an unexplained "Multi-Phase." The second such project is FP-300154. This project was originally in the budget at $(43,146) with an in-service date of December 31, 2014. This indicates to me that there was "clean-up" to do in 2015, but that the project was complete and in-service in the test year. The response to Data Request No. MCC-070, however, indicates another $931,742 spent through September 30, 2015 with an in-service date still at December 31, 2014. The complete list of includable projects and their respective costs are shown on Exhibit No.___(AEC-3) and are supported by AEC Work Paper 1 attached to my Exhibit No.___(AEC-2). My proposed adjustment reduces the Company's post-test year plant included in rate base by $6,671,405. The rate base adjustment is one-half of that amount, on an average of beginning and end of year basis, which is shown in Exhibit No.___(AEC-2) at page 24 of 29.

I would add that this adjustment does not reflect the rate base impact of the four major projects – i.e., the Thunder Spirit wind farm, the MATS project

at the Lewis & Clark station, the RICE units at the Lewis & Clark station and the AQCS project at Big Stone. I will address each of these projects later.

Q. ARE THERE ADDITONAL ADJUSTMENTS REQUIRED AS A RESULT OF YOUR PROPOSED ADJUSTMENT TO POST TEST YEAR PLANT IN SERVICE?

A. Yes, there are additional adjustments required. My proposed reduction in the post test year plant in service also requires adjustments to MDU's proposed accumulated deferred income taxes and the accumulated provision for depreciation. Also, the depreciation and deferred income tax expenses need to be adjusted as well as the property tax expense. These adjustments are shown in Exhibit No.___(AEC-2), pages 25 and 26 of 29. I followed the Company's methodology for the calculation of these items and scaled them down by the ratio of allowable plant. The result is a decrease in deferred tax expense of $141,113 and a reduction- i.e. an increase in rate base of $70,557 to the accumulated deferred income taxes. The adjustments to the depreciation expense and the accumulated provision for depreciation reduce depreciation expense by $121,447 and reduce the accumulated provision for depreciation (increase rate base) by $60,723. The adjustments to the depreciation expense and the accumulated provision for depreciation are included in the adjustment shown in Exhibit

No.___(AEC-2) page 2, column R. The adjustment to property taxes is shown on page 26 of 29. This adjustment reflects the reduction in property taxes for post-test year plant additions excluding any impact for the four major post-test year generating projects. The reduction to property taxes expense is $128,107.

Q. ARE THERE ANY OTHER ADJUSTMENTS THAT REQUIRE EXPLANATION?

A. The only remaining adjustments are to the depreciation rates and to the interest expense which, as noted earlier, is noncontroversial. The adjustment synchronizes the interest expense deduction for income tax purposes with the weighted cost of debt and the rate base. MDU and I have used the same methodology to determine the appropriate level of interest expense. This adjustment is calculated in Exhibit No.___(AEC-2), page 29 of 29. The income tax impact of this adjustment is brought forward to page 2, column AD. The adjustment for the recommended changes in the Company's proposed depreciation rates is supported by MCC witness, Mr. Pous and is shown in Exhibit No.__(AEC-4) for all plant including allowable post-test year plant additions but excluding the four major post-test year generation plant additions which are shown in Exhibit No.__(AEC-5).

Q. WOULD YOU PROVIDE THE COMMISSION WITH YOUR CONCLUSIONS AND RECOMMENDATIONS CONCERNING THE ALLOWABLE REVENUE CHANGE IN THIS CASE BASED ON YOUR ANALYSIS?

A. Yes, I will. I conclude that the Company's revenue increase of $11,755,544 is excessive and I recommend that the Commission reject the Company's request for that level of increase. I further conclude that the Company actually requires an increase in revenues of no more than $3,767,053 from its Montana operations on a pro forma basis assuming all four of the major post-test year generation projects are includable in the revenue requirement. Therefore, I recommend that the Commission allow an increase in base rate revenues that does not exceed $3,767,053. If any of the four major post-test year generation plant additions are ultimately excluded from the revenue requirement, the overall allowable revenue increase should be reduced accordingly. My conclusions and recommendations are based on my analysis of the Company's filing and supporting data and information – including work papers and responses to data requests. In addition, my conclusions and recommendations incorporate the cost of capital and capital structure recommendations of MCC witness Dr. John Wilson and the recommended depreciation rates proposed by Mr. Jack Pous. At this point in time, the impacts of the four

major post-test year generation projects are included in my recommended revenue increase.

Q. ARE THERE ANY OTHER ITEMS THAT YOU WOULD LIKE TO DISCUSS AT THIS TIME?

A. Yes, there are. Left to be discussed are the four major post-test year generation projects and the possible impact if bonus depreciation is extended. These projects, in order of the plant value allocated to Montana are: (1) the Thunder Spirit wind farm ($56,669,131), (2) AQCS at Big Stone ($21,841,157), (3) Simple cycle or RICE units at Lewis & Clark ($9,812,164) and (4) the MATS project at Lewis & Clark ($3,663,366). These projects are distinguishable from all of the other Company claimed post-test year plant additions because of their magnitude in dollars and the fact that the Company proposes to annualize them into rate base and expense as opposed to using an average rate base as is proposed for all other post-test year plant additions.

Q. WOULD YOU FIRST DISCUSS THE THUNDER SPIRIT WIND GENERATION PROJECT?

A. This project is well defined in the Company's filed case. It is a 107.5 MW wind farm located in North Dakota. Because it is a wind farm, however, MDU receives only 15.8 MW Zonal Resource Credit from the MISO. (See

the response to Data Request No. MCC-189). The latest information that I have received from MDU is that the in-service date is scheduled for December 31, 2015 which, of course, is the last day of the allowable one year adjustment period after the close of the historical test year. This is the second time that I can recall where a wind farm (Diamond Willow) was scheduled to be in-service on the last day of the adjustment period. At that time I stated generally that if it went into service on schedule it should be allowed. If not, the Commission could disallow it from rate base. Alternatively, if it came into service relatively quickly after the close of the allowed adjustment period, the Commission could still include it in rate base, and thus rates, as a public policy matter. I feel the same way about Thunder Spirit. If the project makes it into rates under either scenario, the only adjustments that should be made are to depreciation expense, because Mr. Pous has proposed to change the depreciation rate applicable to wind generation, and the allowable cost of capital recommended by Dr. Wilson. Additionally, as I indicated earlier, if Thunder Spirit is allowed in rates my proposed adjustment to Production Taxes should be reversed. MDU estimates the approximate revenue requirement impact of Thunder Sprit to be about $2.5 million after taking into account the reduced cost of fuel and purchased power that the wind generation offsets. Using the depreciation rate recommended by Mr. Pous and the cost of capital supported by Dr. Wilson, the revenue requirement impact is approximately $1.0M.

Q. WOULD YOU DISCUSS THE AQCS PROJECT AT THE BIG STONE PLANT?

A. Yes. This project is also extensively discussed by MDU in its filing. It is an Air Quality Control System that will presumably allow the Big Stone plant to continue to provide service for the foreseeable future. Indeed, the owners of Big Stone (including MDU) have now extended the life of the plant until 2046. The Montana portion of the plant expenditure is $21,841,157. The project is currently scheduled for an in-service date of December 01, 2015. It would not take much in the way of delays (weather or other unforeseen construction problems) to move this project beyond the limit of the adjustment period. Also, MDU has little, if any, direct control over the project since Otter Tail Power is the operator of the plant and is the utility over seeing this construction. I have not removed this project at this time. By the time of MDU's rebuttal, and certainly by the hearing, we should all be more comfortable with the decision to include or exclude this project. MDU estimates the approximate revenue requirement impact of the AQCS project to be about $3.3 million. Using the depreciation rate recommended by Mr. Pous that is applicable to this project as well as the appropriate cost of capital recommended by Dr. Wilson, the revenue requirement impact is approximately $2.4M.

Q. WOULD YOU DISCUSS THE RICE UNITS CURRENTLY UNDER CONSTRUCTION AT THE LEWIS & CLARK STATION?

A. Yes. As with the other major projects, this one is extensively described in MDU's filing. The project brings 18.6 MW of new capacity. The Montana portion of plant expenditures is $9,812,164. It is currently slated for an in-service date of November 30, 2015. Essentially, all of my comments related to the AQCS project, except for the control by Otter Tail Power, relate to the RICE units as well. MDU estimates the approximate revenue requirement impact of this project to be about $1.5 million. The revenue requirement impact is approximately $1.4 million using the lower cost of capital recommended by Dr. Wilson.

Q. THE FINAL PROJECT IS THE MATS PROJECT ALSO LOCATED AT THE LEWIS & CLARK STATION. WOULD YOU DISCUSS THIS PROJECT?

A. Yes. This project is discussed extensively in the Direct Testimony of MDU witness Mr. Alan L. Welte. This is also a pollution control project to allow the Lewis & Clark station to continue to supply service. The plant costs allocated to Montana are $3,663,366. The latest information I have is that the in-service date is to be December 1, 2015. MDU has indicated that the approximate revenue requirement impact is $718,675. My determination of

the revenue requirement impact is $678,177 using Dr. Wilson's recommended cost of capital. All of the concerns that I expressed for the AQCS (except for the Otter Tail connection), the RICE units and Thunder Spirit are also applicable to the MATS compliance project.

Q. TAKEN INDIVIDUALLY, WHAT IS YOUR OPINION AS TO THE INCLUSION OR EXCLUSION OF EACH OF THESE PROJECTS?

A. Individually I am not proposing to exclude any of them at this time. If, however, any of them ultimately fail to be in-service during the allowable adjustment period set forth in the Commission rules, any of them could properly be excluded by the Commission.

Q. EARLIER YOU MENTIONED THE POSSIBLE IMPACT ON THE REVENUE REQUIREMENT IF BONUS DEPRECIATION IS EXTENDED. WOULD YOU EXPLAIN?

A. Yes, I will. At this point I am not aware of bonus depreciation being extended. If it is, however, it would certainly have a dramatic downward impact on MDU's revenue requirement in this case that only the Company would have the wherewithal to precisely calculate. The Commission should be aware that such an undertaking would result in a greatly revised filing.

Q. DOES THIS CONCLUDE YOUR TESTIMONY AT THIS TIME?

A. Yes, it does.

Exhibit AEC-1

D2015.6.51

Montana-Dakota Utilities

Direct Testimony of

Albert E. Clark

on behalf of the

Montana Consumer Counsel

November 20, 2015

MONTANA-DAKOTA UTILITIES, CO.
INCOME STATEMENT
ELECTRIC UTILITY - MONTANA
TWELVE MONTHS ENDED DECEMBER 31, 2009
PRO FORMA

	Per Books	Company Pro Forma Adjustments	Pro Forma Per Company	MCC Pro Forma Adjustments	Pro Forma Per MCC
	(A)	(B)	(C)	(D)	(E)
Operating Revenues					
Sales	$55,454,440	$150,374	$55,604,814	$0	$55,604,814
Sales for Resale	232,169	(232,169)	0	0	0
Other	2,506,951	(284,667)	2,222,284	10,760	2,233,044
Total Revenues	58,193,560	(366,462)	57,827,098	10,760	57,837,858
Operating Expenses					
Operation and Maintenance					
Fuel and purchased power	22,311,650	(1,803,587)	20,508,063	$0	20,508,063
Other O&M	15,814,581	3,447,455	19,262,036	(1,855,576)	17,406,460
Total O&M	38,126,231	1,643,868	39,770,099	(1,855,576)	37,914,523
Depreciation and amortization	6,901,084	4,608,077	11,509,161	(2,856,764)	8,652,397
Taxes Other Than Income	4,080,303	617,219	4,697,522	(251,287)	4,446,235
Current Income Taxes	(4,064,984)	(13,304,337)	(17,369,321)	852,400	(16,516,921)
Deferred Income Taxes	5,966,982	7,080,844	13,047,826	719,719	13,767,545
Total Expenses	51,009,616	645,671	51,655,287	(3,391,510)	48,263,777
Operating Income	$7,183,944	($1,012,133)	$6,171,811	$3,402,270	$9,574,081
Average Rate Base	$87,013,106	$87,944,242	$174,957,348	($1,828,247)	$173,129,101
Rate of Return	8.256%		3.528%		5.530%

MONTANA-DAKOTA UTILITIES, CO.
AVERAGE RATE BASE
ELECTRIC UTILITY - MONTANA
TWELVE MONTHS ENDED DECEMBER 31, 2014
PRO FORMA

	Actual Average (A)	Company Pro Forma Adjustments (B)	Pro Forma Per Company (C)	MCC Prof Froma Adjustments (D)	Pro Forma Per MCC (E)
Electric Plant in Service	$236,462,751	$104,374,441	$340,837,192	-$3,335,703	$337,501,490
Accumulated Reserve for Depreciation	123,710,867	8,209,219	131,920,086	-1,583,609	130,336,477
Net Electric Plant in Service	112,751,884	96,165,222	208,917,106	(1,752,094)	207,165,013
CWIP in Service Pending Reclassification	0		0		0
Total Electric Plant in Service	112,751,884	96,165,222	208,917,106	(1,752,094)	207,165,013
Additions					
Materials and Supplies	2,956,360	(59,974)	2,896,386	424,558	3,320,944
Cash working capital requirement	0	0	0		0
Fuel stocks	1,258,391	(51,222)	1,207,169	61,661	1,268,830
Prepayments	40,434	120,008	160,442	13,524	173,966
Unamortized loss on debt	893,137	(98,461)	794,676		794,676
Decommissioning of retired plants	(121,716)	16,984	(104,732)		(104,732)
Prov. For pensions & benefits	3,382,275	491,293	3,873,568		3,873,568
Prov. For injuries & benefits	10,876	50,168	61,044	-22,710	38,334
Total Additions	8,419,757	468,796	8,888,553	477,033	9,365,586
Total Before Deductions	$121,171,641	$96,634,018	$217,805,659	($1,275,060)	$216,530,599
Deductions					
Accumulated deferred income taxes	32,840,906	9,148,165	41,989,071	553,187	42,542,258
Accumulated ITCs	0	0	0	0	0
Personal injury & property damage	0	0	0		0
Customer Advances	1,317,629	(458,389)	859,240	0	859,240
Total Deductions	34,158,535	8,689,776	42,848,311	553,187	43,401,498
Total Rate Base	$87,013,106	$87,944,242	$174,957,348	($1,828,247)	$173,129,101

MONTANA-DAKOTA UTILITIES, CO.
PROJECTED OPERATING INCOME AND RATE OF RETURN
REFLECTING ADDITIONAL REVENUE REQUIREMENTS
ELECTRIC UTILITY - MONTANA

	Before Additional Revenue Requirements 1/	**Additional Revenue Requirements**	Reflecting Additional Revenue Requirements
Operating Revenues			
Sales	$55,604,814	**$3,767,053**	$59,371,867
Sales for Resale	0		0
Other	2,233,044		2,233,044
Total Revenues	57,837,858	3,767,053	61,604,911
Operating Expenses			
Operation and Maintenance			
Cost of Fuel and Purchased Power	20,508,063		20,508,063
Other O&M	17,406,460		17,406,460
Total O&M	37,914,523		37,914,523
Depreciation	8,652,397		8,652,397
Taxes Other Than Income	4,446,235	10,924	4,457,159
Current Income Taxes	(16,516,921)	1,479,445	(15,037,476)
Deferred Income Taxes	13,767,545		13,767,545
Total Expenses	48,263,777	1,490,370	49,754,147
Operating Income	$9,574,081	$2,276,683	$11,850,764
Rate Base	$173,129,101		$173,129,101
Rate of Return	**5.530%**		**6.845%**

1/ See Page 1.

Exhibit AEC-2

D2015.6.51

Montana-Dakota Utilities

Direct Testimony of

Albert E. Clark

on behalf of the

Montana Consumer Counsel

November 20, 2015

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Summary of Pro Forma Adjustments
Test Year Ended December 31, 2014

		Miscellaneous Revenues	MCC/MPSC Tax Rates	Incremental Labor	Benefits-401-K and Other	Uncollectible Expense	Postage Expense	Demmissioning Expense	Advertising	Self Insurance	Heskett III O&M
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
	Operating Revenues										
1	Sales										
2	Sales for Resale										
3	Transmission										
4	Other	10,760									
5	Total Revenues	$10,760	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Operating Expenses										
	Operation and Maintenance										
6	Cost of Fuel and Purchased Power										
7	Other O&M			-56,985	-1,864	-9,526	-1,314	0	-2,840	-14,137	-39,918
8	Total O&M	0	0	-56,985	-1,864	-9,526	-1,314	0	-2,840	-14,137	-39,918
9	Depreciation							-671,219			
10	Taxes Other Than Income	-5,565	-5,565	0							
11	Current Income Taxes	6,430	2,192	22,445	734	3,752	518	0	1,119	5,568	15,723
12	Deferred Income Taxes										
13	Total Expenses	865	-3,373	-34,540	-1,130	-5,774	-796	-671,219	-1,721	-8,569	-24,195
14	Operating Income	$9,895	$3,373	$34,540	$1,130	$5,774	$796	$671,219	$1,721	$8,569	$24,195
15	Average Rate Base										
	Source:	Page 4	Page 5	Page 6	Page 7	Page 8	Page 9	Page 10	Page 11	Page 12	Page 13

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Summary of Pro Forma Adjustments
Test Year Ended December 31, 2014

		Production Taxes	Company Use	Regulatory Expense	RICE Units O & M	Sublabor	Regional Market Expense	Depreciation Expense	Depreciation Expense Major Projects		
	(A)	(L)	(M)	(N)	(O)	(P)	(Q)	(R)	(S)	(T)	(U)
	Operating Revenues										
1	Sales					$0					
2	Sales for Resale										
3	Transmission					0					
4	Other										0
5	Total Revenues	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Operating Expenses										
	Operation and Maintenance										
6	Cost of Fuel and Purchased Power										
7	Other O&M	0	-7,472	-37,640	-36,405	-1,631,698	-15,777				
8	Total O&M	0	-7,472	-37,640	-36,405	-1,631,698	-15,777	0	0	0	0
9	Depreciation							(1,203,872)	(981,673)		
10	Taxes Other Than Income	-112,051			0	0			0	0	0
11	Current Income Taxes	44,134	2,943	14,826	14,339	642,685	6,214		0	0	0
12	Deferred Income Taxes							474,175	386,656		
13	Total Expenses	-67,917	-4,529	-22,815	-22,066	-989,013	-9,563	-729,697	-595,017	0	0
14	Operating Income	$67,917	$4,529	$22,815	$22,066	$989,013	$9,563	$729,697	$595,017	$0	$0
15	Average Rate Base							$364,848	$595,017		
	Source:	Page 14	Page 15	Page 16	Page 17	Page 18	Page 19	AEC-4	AEC-5		

MONTANA-DAKOTA UTILITES, CO.
Montana - Electric Utility
Summary of Pro Forma Adjustments
Test Year Ended December 31, 2014

		Materials & Supplies	Fuel Stores	Prepaid Insurance	Injuries & Damages	Post Test Year Plant	Post Test Year Plant Related			Interest Sync.		Total Adjustments
	(A)	(V)	(W)	(X)	(Y)	(Z)	(AA)	(AB)	(AC)	(AD)	(AE)	(AF)
	Operating Revenues											
1	Sales						$0					$0
2	Sales for Resale											0
3	Transmission											0
4	Other											10,760
5	Total Revenues	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$10,760
	Operating Expenses											
	Operation and Maintenance											
6	Cost of Fuel and Purchased Power											$0
7	Other O&M					0						-1,855,576
8	Total O&M	0	0	0	0	0	0	0	0	0	0	-1,855,576
9	Depreciation											-2,856,764
10	Taxes Other Than Income						($128,107)					-251,287
11	Current Income Taxes	0	0	0	0	0	50,458	0	0	18,321	0	852,400
12	Deferred Income Taxes						($141,113)					719,719
13	Total Expenses	0	0	0	0	0	-218,762	0	0	18,321	0	-3,391,510
14	Operating Income	$0	$0	$0	$0	$0	$0	$0	$0	-$18,321	$0	3,402,270
15	Average Rate Base	$424,558	$61,661	$13,524	-$22,710	-$3,335,703	$70,557					-1,828,248
	Source:	Page 20	Page21	Page 22	Page 23	Page 24	Pages 25&26			Page 29		

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to Other Operating Revenues
Test Year Ended December 31, 2014

Line No.		2014 Per Books	Company Adjustment	Company Pro Forma	MCC Pro Forma(1)	Adjustment
	(A)	(B)	(C)	(D)	(E)	(F)
1	Miscellaneous service revenues	$35,150	$0	$35,150	$35,150	$0
2	Rent from property	1,187,462	-276,569	910,893	910,893	0
3	Other revenue	1,284,339	-8,098	1,276,241	1,287,001	10,760
5	Total miscellaneous revenues	$2,506,951	-$284,667	$2,222,284	$2,233,044	$10,760
7	Total adjustment					$10,760

(1) MCC pro forma KVAR revenues at $137,971 (2014 actual) in lieu of $127,211 per Company less the minute change in late payment revenues.

Sources and references:
Rule 38.5.164, Statement H, page 7 of 8
Statemnet H Work Papers H-5 and H-6

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to MCC and MPSC Taxes
Test Year Ended December 31, 2014

Line No.		MCC Tax	MPSC Tax	Total
	(A)	(B)	(C)	(D)
1	Taxable revenue	$55,638,782	$55,638,782	
2	Tax rates effective 10/01/15	0.06%	0.23%	
3	Allowable Pro Forma Tax	$33,383	$127,969	
4	Pro Forma tax per Company	55,639	111,278	
5	Adjustment	-$22,256	$16,691	-$5,565

Sources and references:
Rule 38.5.174, Statement K, page 4 of 5
Company response to Data Request No. MCC-068

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to Increemental Labor and Benefits Expense
Test Year Ended December 31, 2014

Line No.		Per MDU	Per MCC	Adjustment
	(A)	(B)	(B)	(C)
	Power Production Department			
1	Financial analyst	$91,431	$45,390	($46,041)
2	Environmental scientist	95,088	63,500	(31,588)
3	Environmental scientist	95,088	64,500	(30,588)
4	Engineer	95,088	64,500	(30,588)
	Glendive Turbine			
5	Operator technician	90,000	61,050	(28,950)
6	Diamond Willow			
7	Wind technician	78,000	73,000	(5,000)
	Cedar Hills			
8	Wind technician	78,000	73,000	(5,000)
9	Total	$622,695	$444,940	($177,755)
10	Associated benefits at 36.86%	229,525	164,005	(65,520)
11	Incremental labor and benefits	$852,220	$608,945	($243,275)
12	Montana Portion	$199,623	$142,638	($56,985)

Rule 38.5.157, Statement G, page 8 of 35
Statement Work Papers. G-56
MDU response to Data Request No. MCC-024

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to 401-K and Other Benefits
Test Year Ended December 31, 2014

Line No.		Per Books Montana	Allowable Amount(1)	Pro Forma Per MDU	Adjustment
	(A)	(B)	(C)	(D)	(E)
1	401-K	$645,802	$669,632	$671,440	($1,808)
2	Other	$20,365	$21,116	$21,173	($57)
3	Total				($1,864)

(1) Increase of 3.69%

Sources and references:
Rule 38.5.157, Statement G, Page 7 of 35
Company response to Data Request MCC-019(d)
Company response to Data Request MCC-181

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to Uncollectible Expense
Test Year Ended December 31, 2014

Line No.	Year	Sales Revenue	Write-offs	Percent	Full Increase Revenues	32% Increase Revenues
	(A)	(B)	(C)	(C)	(D)	(E)
1	2012	$50,424,562	$77,545			
2	2013	52,341,530	112,294	0.2145%		
3	2014	55,570,602	168,583	0.3034%		
4	Totals	$158,336,694	$358,422	0.2264%		
5	January	$5,235,394	$5,369			
6	February	4,613,520	7,580			
7	March	4,810,463	8,964			
8	April	4,320,360	4,694			
9	May	3,825,990	9,128			
10	June	4,414,221	13,468			
11	July	5,331,586	16,023			
12	August	5,237,357	26,782			
13	September	5,031,725	34,073			
14	October					
15	Total Jan-Sep 2015	$42,820,616	$126,081	0.2944%		
16	Total 2012 - Sep 2015	$201,157,310	$484,503	0.2409%		
17	Pro forma revenues				$67,281,825	$ 59,288,055
18	Allowable pro forma expense				$162,053	$ 142,800
19	Pro forma expense per Company				152,326	152,326
20	Adjustment				$9,727	-$9,526

Sources and references:
Statement Workpapers, Statement G, page G-102

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to Postage Expense
Test Year Ended December 31, 2014

Line No.		Momtana Electric	Rate Increases	E-Bill Offest(1)	Pro Forma Amount
	A	B	C	D	E
1	Steam Production	$878	$8		$886
2	Other Production	366	3		369
3	Transmission	17	0		17
4	Distribution	2,798	26		2,824
5	Customer Acct.	88,901	2,329	(2,081)	89,149
6	Sales	107	1		108
7	A&G	43,340	399		43,739
8	TOTAL	$136,407	$2,766	($2,081)	$137,092
9	Total per MDU				138,406
10	ADJUSTMENT				($1,314)

(1) August 2015 E-Bills of 7,349 annualized results in increased E-bills of 41,780 over 2014.
12.74% of the increase to Electric $0.391 each.

Rule 38.5.157, Statement G, page 21 of 35
Statement Work Papers, pages G-98 - 100
Company response to Data Reuest No. MCC-046

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to Demmissioning of Retired Plants
Test Year Ended December 31, 2014

Line No.		Total Montana	Amortization
	(A)	(B)	(C)
1	R.M. Heskett Plant	$891,943	
2	Lewis & Clark	1,505,311	
3	Coyote	1,216,501	
4	Big Stone	779,982	
5	Glendive 1	231,776	
6	Glendive 2	580,770	
7	Miles City	300,882	
8	Glen Ullin	17,895	
9	Heskett III Turbine	371,143	
10	RICE Unit - L&C	371,143	
11	Diamond Willow	98,121	
12	Cedar Hills	183,911	
13	Thunder Spirit	608,322	
14	TOTAL	$7,157,700	
15	Total decommissioning costs collected - 12/31/14	$13,869,894	
16	Over collection	($6,712,194)	
17	Amortization per MDU		($671,219)
18	Amortization per MCC		(1,342,439)
19	ADJUSTMENT		($671,219)

Sources and references:
Statement Work Papers, I-13

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MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to Remove Institutional Advertising Expense
Test Year Ended December 31, 2014

Line No.		Per Books Electric Utility	Per Books Montana	Montana Pro Forma Per Company	Pro Forma Adjustment Per Company	Adjustment
	(A)	(B)	(C)	(D)	(E)	(F)
1	Informational	$147,715	27,370	$27,333	-$37	
2	Promotional	46,860	10,712	0	(10,712)	
3	Institutional	73,527	6,458	2,840	(3,618)	
4	Average balance	$268,102	$44,540	$30,173	-$14,367	
5	Remove institutional advertising					($2,840)

Sources and references:
Rule 38.5.157, Statement G, page 23 of 35

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to Self Insurance Expense
Test Year Ended December 31, 2014

Line No.		Total Company	Electric Utility at 57.3%	Montana Electric at 19.068283%	Pro Forma Per MDU	Adjustment
	(A)	(B)	(C)	(D)	(E)	(F)
	Self Insurance					
1	2010	$299,632				
2	2011	$367,923				
3	2013	$126,114				
4	2014	$166,352				
5	Four Year Average	$240,005	$137,523	$26,223	$40,360	($14,137)

Sources and references:
Company response to Data request MCC-052
Rule 38.5.157, Statement G,page 24 of 35
Statement Work Paperrs, page G-143

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Adjustment to Heskett III O&M Expenses
Test Year Ended December 31, 2014

Line No.		Actuals thru August	Annualized	As Originally Filed	Adjustment
	A	B	C	D	E
	Labor	$5,014	$7,521	$17,977	
	Benefits	1,468	2,202	6,626	
	Subcontract labor	13,870	20,805	25,020	
	Materials	5,512	8,268	23,662	
	Office supplies	27	41	906	
	Permits & filing fees	4	6	1,857	
	Safety & other EE training	3	5	2,717	
	TOTAL	$25,898	$38,847	$78,765	($39,918)

Rule 38.5.157, Statement G, Page 9 of 35
Company response to Data Request Mo. MCC-028
Company response to Data Request No. MCC-174

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to Production Taxes
Test Year Ended December 31, 2014

Line No.		Per Books Montana	Pro Foma Per MDU	Adjustment Per MDU	Assuming no Thunder Spirit	MCC Adjustment
	A	B	C	D	E	F
1	Montana Electric Tax	$54,191	$53,749	($442)	$54,191	
2	ND Coal Concersion Tax	260,522	250,266	(10,256)	260,522	
3	ND Wind Generation Tax	0	122,749	122,749	0	
4	TOTAL	$314,713	$426,764	$112,051	$314,713	($112,051)

Rule 38.5.174, Statement K, page 5 of 5
Statement Work Papers, pages K-4,K-5 and K-6

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to Company Use
Test Year Ended December 31, 2014

Line No		Per Books	Pro Froma Per MDU (1)	Pro Forma Per MCC (2)	Adjustment
	A	B	C	D	E
	Production	$187	$226	$200	($26)
	Transmission	3,345	4,050	3,571	(479)
	Distribution	27,336	33,096	29,183	(3,913)
	A&G	21,327	25,821	22,768	(3,053)
	TOTAL	$52,195	$63,193	$55,721	($7,472)

(1) Assumes the entire 21.11% increase is in effect.
(2) Assumes 32%f of the requested increase.

Rule 38.5.157, Statement G, page 20 of 35

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to Regulatory Expense
Test Year Ended December 31, 2014

Line No	A	B	Expense per MDU C	Adjustment D
1	Total rate case expense (estimated by MDU)	$282,304		
2	Amortized over 5 years	$56,461		
3	Average recurring expense	72,500		
4	Projected regulatory expense	$128,961	$166,601	($37,640)

Rule 38.5.157, Statement G, page 29 of 35
Statement Work Papers, page G-173
Company response to Data Request No. MCC-060

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MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to L&C RICE O&M
Test Year Ended December 31, 2014

Line No.		PER MDU Total Company	PER MDU Montana	Per MCC Total Compamy	Per MCC Montana	Adjustment
	A	B	C	D	E	F
1	Labor	$227,971	$51,519	$113,986	$25,760	
2	Benefits	84,030	19,027	42,015	9,514	
3	Subcontract labor	88,500	20,039	88,500	20,039	
4	Materials	99,170	22,455	99,170	22,455	
5	Office supplies	2,000	453	2,000	453	
6	Other employee training	10,000	2,264	5,000	1,132	
7	TOTAL	$511,671	$115,757	$350,671	$79,352	($36,405)

Rule 38.5.157, Statement G, page 10 of 35
MDU response to Data Request No. MCC-174
MDU response to Data Request No. MCC-190

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to Subcontract Labor Expense
Test Year Ended December 31, 2009

Line No.	A	Per Books Elec. Util B	Per Books Montana C	Pro Forma Montana Per MDU D	E		F
	Fuel & purchased power	$130,556	$35,607	$35,607			
	Production	2,802,490	626,320	783,125			
	Transmission	6,950,461	1,294,134	2,624,786	1,004,167	(1)	(1,620,619)
	Distribution	3,283,898	232,557	235,446			
	Customer Accounting	124,897	24,276	28,346	17,267	(2)	(11,079)
	Administrative & general	818,730	142,243	157,168			
	Total	$14,111,032	$2,355,137	$3,864,478			($1,631,698)

(1) the adjusment represents MDU's proposed increase in transmission service (SPP).

(2) The response to MCC0176(b) indicates two errors totalling $57,000 and reduces Montana pro forma customer accounting expense by $2,791. MCC pro forma customer accounts expense allocates the $57,000 reduction based column E as a percent of column D.

Rule 38.5.157, Statement G, page 13 of 35
Statement Work Papers, page G-62
MDU response to Data Request No. MCC-176(a)

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to Regional Market Expense
Test Year Ended December 31, 2009

Line No.		Montana Actual	Pro Frorma Per MDU	Adjustment
	A	B	C	D
1	January 2015	$8,761		
2	February	11,284		
3	March	10,010		
4	April	7,557		
5	May	6,967		
6	June	7,719		
7	July	7,863		
8	August	8,541		
9	September	7,084		
11	Total	$75,786		
12	Total annualized	$101,048	$116,825	($15,777)

Rule 38.5.157, Statement G, page 30 of 35
MDU response to Data Request No. MCC-192

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MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to Materials and Supplies
Test Year Ended December 31, 2014

Line No.		Monthly Amount	Pro Forma Per Company	Adjustment
	(A)	(B)	(B)	(D)
1	December	$2,400,593		
2	January	2,104,214		
3	February	2,063,551		
4	March	2,103,411		
5	April	2,383,985		
6	May	2,518,031		
7	June	2,699,289		
8	July	2,872,599		
9	August	2,825,418		
10	September	3,372,828		
11	October	3,461,185		
12	November	3,328,139		
12	December	3,512,126		
14	BOY and EOY average	$2,956,360		
15	January	3,300,325		
16	February	3,032,021		
17	March	2,978,554		
18	April	3,023,477		
19	May	3,043,730		
20	June	3,252,289		
21	July	3,513,453		
22	August	3,546,987		
23	September	3,807,157		
24	October			
25	Thirteen month average balance	$3,320,944	$2,896,386	$424,558

Sources & references:
Company response to Data Request MCC-073
Rule 38.5.143, Statement E, page 1 of 8

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MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to Fuel Stores
Test Year Ended December 31, 2014

Line No.		Monthly Amount	Pro Forma Per Company	Adjustment
	(A)	(B)	(B)	(D)
1	December	$1,328,152		
2	January	1,289,974		
3	February	1,319,321		
4	March	1,311,719		
5	April	1,352,364		
6	May	1,320,474		
7	June	1,189,274		
8	July	1,203,681		
9	August	1,152,253		
10	September	1,094,874		
11	October	1,174,701		
12	November	1,077,409		
12	December	1,188,630		
14	BOY and EOY average	$1,258,391		
15	January	1,294,185		
16	February	1,296,202		
17	March	1,287,292		
18	April	1,308,667		
19	May	1,266,271		
20	June	1,290,293		
21	July	1,390,573		
22	August	1,404,446		
23	September	1,421,251		
24	October			
25	Thirteen month average b	$1,268,830	$1,207,169	$61,661

Sources & references:
Company response to Data Request MCC-074
Rule 38.5.143, Statement E, page 2 of 8

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MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to Prepaid Insurance
Test Year Ended December 31, 2014

Line No.		Monthly Amount	Pro Forma Per Company	Adjustment
	(A)	(B)	(B)	(D)
1	December	$38,535		
2	January	288,673		
3	February	258,464		
4	March	226,284		
5	April	250,422		
6	May	221,354		
7	June	192,033		
8	July	162,442		
9	August	132,985		
10	September	103,529		
11	October	74,073		
12	November	72,009		
12	December	42,333		
14	BOY and EOY average	$40,434		
15	January	307,489		
16	February	275,519		
17	March	241,392		
18	April	268,693		
19	May	241,124		
20	June	207,427		
21	July	175,042		
22	August	142,658		
23	September	110,273		
24	October			
25	Thirteen month average b	$173,966	$160,442	$13,524

Sources & references:
Company response to Data Request MCC-075
Rule 38.5.143, Statement E, page 3 of 8

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MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to Provision for Injuries and Damages
Test Year Ended December 31, 2014

Line No.		Total Company	Montana Electric	Montana Electric Per MDU	Adjustment
	A	B	C	D	E
	Balance at 12/31/2014	$664,309	$61,559		
	ADIT at 12/31/2014	(252,437)	(23,393)		
	Total	$411,872	$38,166		
	Balance at 09/31/2015	($137,374)	($12,730)		
	ADIT at 09/30/2015	52,202	4,837		
	Total	($85,172)	($7,892)		
	Average balance	$263,468	$24,415	$61,044	($36,629)
	Average ADIT balance	(100,118)	(9,278)	(23,197)	13,919
	Total	$163,350	$15,137	$37,847	($22,710)

Rule 38.5.143, Statement K, page 7 of 8
MDU response to Data Request MCC-078

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to Post Test Year Plant in Service (1)
Test Year Ended December 31, 2014

Line No.		Post Test Year Plant Per Compnay	Post Test Year Plant Per MCC	Adjustment
	(A)	(B)	(C)	(D)
1	Steam production	$2,200,323	$793,348	($1,406,975)
2	Other production	466,899	115,418	(351,481)
3	Total production	$2,667,222	$908,766	($1,758,456)
4	Transmission	1,576,156	186,688	(1,389,468)
5	Distribution	3,897,364	1,586,310	(2,311,054)
6	General	857,636	473,642	(383,994)
7	General intangible	124,718	0	(124,718)
8	Common	774,282	324,696	(449,586)
9	Common intangible	445,252	191,123	(254,129)
10	Subtotal	$10,342,630	$3,671,225	($6,671,405)
11	AFUDC - Coyiote	(168,451)	(168,451)	0
12	Total	$10,174,179	$3,502,774	($6,671,405)
13	Rate Base Impact - BOY & EOY average			($3,335,703)

(1) Excluing MATS - Lewis & Clark, AQCS - Big Stone, Simple Cycle - Lewis & Clark and Thunder Spirit

Sources and references:
Rule 28.5.125, Statement C, Page 1 of 5
AEC Plant Work Paper

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustments Related to Post Test Year Plant in Service
Test Year Ended December 31, 2014

		Per MDU Plant Additions	Per MCC Plant Additions	Adjustment
	A	B	C	D
	Deferred Taxes			
1	Post test year plant (1)	$10,342,630	$3,671,225	
2	Tax depreciation	$743,699	$263,984	
3	Book depreciation	188,278	66,831	
4	Net tax depreciation	$555,421	$197,153	
5	Deferred income tax	$218,766	$77,653	($141,113)
6	ADIT	$109,383	$38,827	($70,557)
	Depreciation			
7	Accumulated reserve	$94,139	$33,416	($60,723)
8	Depreciation expense	$188,278	$66,831	($121,447)
9	Rate base impact			$131,280

(1) Excluding the Large Generation Projects

Rule 38.5.169, Statement J, page 15 of 18
Company response to Data Request No. MCC-072

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to Property Tax Expense
Test Year Ended December 31, 2014

Line No.		Effective Tax Rate	Plant Balance	Property Tax	Pro Forma Property Tax Per Company	Adjustment
	(A)	(B)	(C)	(D)	(E)	(F)
1	Production(1)	0.6137%	$72,755,712	$446,502	$457,293	($10,791)
2	Transmission	1.2399%	40,485,322	501,978	519,330	(17,352)
3	Distribution	3.5861%	56,999,389	2,044,055	2,126,932	(82,877)
4	General	1.9475%	6,499,270	126,573	134,052	(7,479)
5	Common	2.0044%	6,444,407	129,172	138,183	(9,011)
6	Intangible(2)	0.1574%	4,786,041	7,533	8,130	(597)
7	Totals		$187,970,141	$3,255,813	$3,383,920	($128,107)

(1) Excludes MATS and RICE at Lewis & Clark and excludes AQCS at Big Stone as well as Thunder Spirit
(2) General and common intangible plant

Sources and references:
Rule 38.5.175, Statement K,pages 1 and 2 of 5
Exhibit No.___(AEC-2), page 24 of __

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Adjustment to Accumulated Provision for Depreciation (1)
Test Year Ended December 31, 2014

Line No.		Pro Forma APFD Per Compnay (A)	Prro Forma APFD Per MCC (B)	Adjustment (C)
	Steam production	$60,707,159	$58,880,077	($1,827,082)
	Other production	11,983,494	4,703,899	(7,279,595)
	Total production	$72,690,653	$63,583,976	($9,106,677)
	Transmission	20,383,873	18,699,303	(1,684,570)
	Distribution	26,501,496	23,857,751	(2,643,745)
	General	2,862,806	2,295,677	(567,129)
	General intangible	308,190	1,255,304	947,114
	Common	3,201,574	3,470,497	268,923
	Common intangible	1,980,263	2,327,973	347,710
	Subtotal	$127,928,855	$115,490,481	($12,438,374)
	AFUDC - Coyiote	(168,451)	(168,451)	0
	Total	$127,760,404	$115,322,030	($12,438,374)

(1) Excludes MATS - Lewis & Clark, AQCS - Big Stone, RICE units - Lewis & Clark and Thunder Spirit

Sources and references:
Rule 28.5.133, Statement D, Page 2 of 2

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Overall Rate of Return
Test Year Ended December 31, 2014

Line No.		Balance	Capital Ratio	Cost	Weighted Cost
	(A)	(B)	(C)	(D)	(E)
1	Long term debt	$505,460,413	41.14%	5.95%	2.45%
2	Short term debt	99,623,527	8.11%	1.63%	0.13%
3	Preferred stock	15,258,600	1.24%	4.58%	0.06%
4	Common equity	608,435,332	49.52%	8.50%	4.21%
5	Total	$1,228,777,872	100.00%		6.85%

MONTANA-DAKOTA UTILITIES, CO.
Montana - Electric Utility
Calculation of Interest Expense Synchronization
Test Year Ended December 31, 2014

Line No.		Pro Forma Per Company	Pro Forma Adjustments	Pro Forma	Income Tax
	(A)	(B)	(C)	(C)	(D)
1	Rate Base	$174,957,348	-$1,828,248	$173,129,100	
2	CWIP not in service	0	0	0	
3	Interest base	$174,957,348	-$1,828,248	$173,129,100	
4	Weighted cost of debt			2.579%	
5	Pro forma interest expense			$4,465,636	($1,758,902)
6	Pro forma interest expense per Company			4,512,150	(1,777,223)
7	Adjustment to pro forma interest expense			-$46,514	$18,321

Sources and references:
Rule 38.5.169, Statement J, Page 8 of 18

Exhibit AEC-3

D2015.6.51

Montana-Dakota Utilities

Direct Testimony of

Albert E. Clark

on behalf of the

Montana Consumer Counsel

November 20, 2015

Docket No. D2015.6.51
Exhibit No.___(AEC-3)

MONTANA-DAKOTA UTILITIES CO.
Analysis of Post Test Year Plant Additions
Test Year Ended December 31, 2014

Line No.		Montana	Remove Major Projects(1)	Deferred Beyond 12/31/2015	Actual v. Budget as of 9/30/15	F	G	Adjustment
	A	B	C	D	E	F	G	H
	Steam Production							
1	Account 311	$ 368,039		$ (153,903)	$ (227,751)			$ (381,654)
2	Account 312	26,962,010	(25,504,523)	(26,851)	(662,335)			(26,193,709)
3	Account 314	199,125		(6,083)	(168,137)			(174,220)
4	Account 315	139,747			(139,807)			(139,807)
5	Account 316	35,925			(22,108)			(22,108)
6	Total Steam Production	$ 27,704,846	$ (25,504,523)	$ (186,837)	$ (1,220,138)	$ -	$ -	$ (26,911,498)
	Other Production							
7	Account 341	$ -						$ -
8	Account 342	20,475		(20,475)				(20,475)
9	Account 344	66,901,509	(66,481,295)		(304,773)			(66,786,068)
10	Account 345	22,068		(14,015)	(8,076)			(22,091)
11	Account 346	4,142		(4,142)				(4,142)
12	Total Other Production	$ 66,948,194	$ (66,481,295)	$ (38,632)	$ (312,849)	$ -	$ -	$ (66,832,776)
	Transmission							
13	Account 353	$ 1,292,329		$ (1,042,085)	$ (282,315)			$ (1,324,400)
14	Account 355	223,426						-
15	Account 356	60,401		975	(66,043)			(65,068)
16	Total Transmission	$ 1,576,156		$ (1,041,110)	$ (348,358)	$ -	$ -	$ (1,389,468)
	Distribution							
17	Account 362	$ 1,264,451		$ (848,599)	$ (448,670)			$ (1,297,269)
18	Account 365	242,558			(27,847)			(27,847)
19	Account 367	1,185,576			(711,178)			(711,178)
20	Account 368	753,348			(185,496)			(185,496)
21	Account 369	207,685			(12,684)			(12,684)
22	Account 370	91,833			(36,096)			(36,096)
23	Account 373	151,913			(40,484)			(40,484)
24	Total Distribution	$ 3,897,364		$ (848,599)	$ (1,462,455)	$ -	$ -	$ (2,311,054)
	General							
25	Account 392	$ 269,517			$ (167,525)			$ (167,525)
26	Account 394	45,428			(17,982)			(17,982)
27	Account 396	539,732			(199,614)			(199,614)
28	Account 397	2,959			1,127			1,127
29	Total General	$ 857,636		$ -	$ (383,994)	$ -	$ -	$ (383,994)
	General Intangible							
30	Account 303	$ 124,718		$ (124,718)				$ (124,718)
	Common							
31	Account 389	$ 26,687		$ (26,687)				$ (26,687)
32	Account 390	172,983		(87,959)	(29,300)			(117,259)
33	Account 391	270,635		(46,646)	(84,844)			(131,490)
34	Account 392	132,018			(80,894)			(80,894)
35	Account 393	24,211		(24,211)				(24,211)
36	Account 394	20,110			(19,008)			(19,008)
37	Account 397	124,066		(18,597)	(27,868)			(46,465)
38	Account 398	3,572		(3,572)				(3,572)
39	`Total Common	$ 774,282		$ (207,672)	$ (241,914)	$ -	$ -	$ (449,586)
	Common Intangible							
40	Account 303	$ 445,252		$ (135,260)	$ (118,869)			$ (254,129)
41	TOTAL MONTANA	$ 102,328,448	$ (91,985,818)	$ (2,582,828)	$ (4,088,577)	$ -	$ -	$ (98,657,223)
	Less Major Projects							
42	MATS - Lewis & Clark	$ 3,663,366						$ (3,663,366)
43	AQCS - Big Stone	21,841,157						(21,841,157)
44	Simple cycle - Lewis & Clark	9,812,164						(9,812,164)
45	Thunder Spirit	56,669,131						(56,669,131)
46	Total major projects	$ 91,985,818						$ (91,985,818)
47	Balance	$ 10,342,630		$ (2,582,828)	$ (4,088,577)			$ (6,671,405)
48	AFUDC interest & deprec - on Coyote	(168,451)						
49	Balance - Adjustment A	$ 10,174,179						

(1) The major projects are handled indivually outside of Adjustment A.

Rule 38.5.125, Atatement C, pages 1 and 10 through 14 of 14
MDU response to Data Request No. MC-070, Attachment A

Exhibit AEC-4

D2015.6.51

Montana-Dakota Utilities

Direct Testimony of

Albert E. Clark

on behalf of the

Montana Consumer Counsel

November 20, 2015

MONTANA-DAKOTA UTILITIES CO.
SUMMARY OF DEPRECIATION EXPENSE (1)
ELECTRIC UTILITY - MONTANA
FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2014

MPSC Docket No. D2015.6.51
Exhibit No.___(AEC-4)

Function	2014 Per Books	Pro Forma Adjustments	Pro Forma Per Company (2)	Pro Forma Per MCC (3)	Adjustment
Steam Production	$2,261,946	($18,495)	$2,243,451	$1,972,253	-$271,198
Other Production	1,800,774	459,920	2,260,694	1,827,540	-433,154
Total Production	4,062,720	441,425	4,504,145	3,799,793	(704,352)
Transmission	540,745	267,159	807,904	685,911	(121,993)
Distribution	1,217,917	522,603	1,740,520	1,435,927	(304,593)
General	148,248	(2,341)	145,907	141,513	(4,394)
General Intangible	63,028	5,956	68,984	68,984	0
Common	244,754	29,578	274,332	205,792	(68,540)
Common Intangible	227,323	26,341	253,664	253,664	0
AFUDC int. & deprec. On Coyote	168,451	0	168,451	168,451	
Amort, of retired plants	(16,984)	0	(16,984)	-16,984	0
Amort. - Unrecovered plant	242,228	0	242,228	242,228	0
Acquisition adjustment	2,654	(2,654)	0	0	
End of life decommissioning	0	(671,219)	(671,219)	($1,342,439)	(671,220)
Total	$6,901,084	$616,848	$7,517,932	$5,642,840	($1,875,092)
Depreciation expense - Major Projects					($981,673)
TOTAL ADJUSTMENT					($2,856,765)

1/ Excludes MATS - Lewis & Clark, AQCS - Big Stone, RICE units - Lewis & Clark and Thunder Spirit
2/ See Rule 38.5.165, Statement I, page 2 of 17
3/ See pages 2 through 7

MONTANA-DAKOTA UTILITIES CO.
AVERAGE DEPRECIATION EXPENSE INCLUDING PLANT ADDITIONS (1)
ELECTRIC UTILITY - MONTANA
FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2009

MPSC Docket No. D2010.8.82
Exhibit No.___(AEC-4)

Acct. No.	Account	Pro Forma Average Plant 1/	Depreciation Rate	Annual Depreciation	Accumulated Reserve
	Steam Production Plant				
810	Heskett				
310	Land	$54,408			
311	Structures & Improvements	6,470,242	5.75%	$372,039	$372,039
312	Boiler Plant Equipment	11,860,787	3.37%	399,709	399,709
314	Turbogenerator units	3,809,705	4.03%	153,531	153,531
315	Accessory Equipment	418,106	3.51%	14,676	14,676
316	Miscellaneous Equipment	1,706,298	3.72%	63,474	63,474
	Total Heskett	$24,319,546		$1,003,429	$1,003,429
820	Lewis & Clark				
310	Land	$18,136			
311	Structures & Improvements	938,941	2.14%	20,093	20,093
312	Boiler Plant Equipment	5,319,629	4.16%	221,297	221,297
314	Turbogenerator units	1,374,509	2.41%	33,126	33,126
315	Accessory Equipment	225,139	0.57%	1,283	1,283
316	Miscellaneous Equipment	1,145,297	4.67%	53,485	53,485
	Total Lewis & Clark	$9,021,651		$329,284	$329,284
830	Coyote				
310	Land	$117,251			
311	Structures & Improvements	5,946,250	1.01%	60,057	60,057
312	Boiler Plant Equipment	15,738,644	1.35%	212,472	212,472
314	Turbogenerator units	4,345,174	2.42%	105,153	105,153
315	Accessory Equipment	1,961,222	1.67%	32,752	32,752
316	Miscellaneous Equipment	808,330	3.85%	31,121	31,121
	Total Coyote	$28,916,871		$441,555	$441,555
861	Big Stone				
310	Land	$33,769			
311	Structures & Improvements	2,125,258	0.31%	6,588	6,588
312	Boiler Plant Equipment	8,007,316	1.58%	126,516	126,516
314	Turbogenerator units	2,726,631	1.70%	46,353	46,353
315	Accessory Equipment	949,812	1.21%	11,493	11,493
316	Miscellaneous Equipment	281,395	2.50%	7,035	7,035
	Total Big Stone	$14,124,181		$197,985	$197,985
	Other Steam Production				
310	Land	$4,914			
	Total Other Steam Production	$4,914		$0	$0
	Steam Production Summary				
310	Land	$228,478		$0	$0
311	Structures & Improvements	15,480,691		458,777	458,777
312	Boiler Plant Equipment	40,926,376		959,994	959,994
314	Turbogenerator units	12,256,019		338,163	338,163
315	Accessory Equipment	3,554,279		60,204	60,204
316	Miscellaneous Equipment	3,941,320		155,115	155,115
	Total Steam Production	$76,387,163	2.58% 5/	$1,972,253	$1,972,253

MONTANA-DAKOTA UTILITIES CO.
AVERAGE DEPRECIATION EXPENSE INCLUDING PLANT ADDITIONS (1)
ELECTRIC UTILITY - MONTANA
FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2009

MPSC Docket No. D2010.8.82
Exhibit No.___(AEC-4)

Acct. No.		Account	Pro Forma Average Plant 1/	Depreciation Rate	Annual Depreciation	Accumulated Reserve
		Other Production Plant				
	851	Glendive Turbine - Unit 1				
340		Land	$8,506			
341		Structures & Improvements	62,427	8.78%	$5,481	$5,481
342		Fuel Holders, Producers & Acces.	69,406	9.26%	6,427	6,427
344		Generators	1,527,243	2.74%	41,846	41,846
345		Accessory Equipment	104,647	6.95%	7,273	7,273
346		Miscellaneous Equipment	26,341	10.42%	2,745	2,745
		Total Glendive Turbine - Unit 1	$1,798,570		$63,772	$63,772
	851	Glendive Turbine - Unit 2				
340		Land				
341		Structures & Improvements	$3,451	2.74%	$95	$95
342		Fuel Holders, Producers & Acces.	461,056	2.81%	12,956	12,956
344		Generators	3,997,088	2.57%	102,725	102,725
345		Accessory Equipment	0	0.00%	0	0
346		Miscellaneous Equipment	2,829	4.15%	117	117
		Total Glendive Turbine - Unit 2	$4,464,424		$115,893	$115,893
	852	Miles City Turbine				
340		Land	$137			
341		Structures & Improvements	46,567	15.97%	$7,437	$7,437
342		Fuel Holders, Producers & Acces.	34,808	10.69%	3,721	3,721
344		Generators	578,374	4.11%	23,771	23,771
345		Accessory Equipment	66,553	11.41%	7,594	7,594
346		Miscellaneous Equipment	4,035	11.08%	447	447
		Total Miles City Turbine	$730,474		$42,970	$42,970
	853	Williston Turbine				
340		Land	$6,280			
341		Structures & Improvements	0	0.00%	$0	$0
342		Fuel Holders, Producers & Acces.	0	0.00%	0	0
344		Generators	0	0.00%	0	0
345		Accessory Equipment	0	1.31%	0	0
346		Miscellaneous Equipment	0	0.00%	0	0
		Total Williston Turbine	$6,280		$0	$0

MONTANA-DAKOTA UTILITIES CO.
AVERAGE DEPRECIATION EXPENSE INCLUDING PLANT ADDITIONS (1)
ELECTRIC UTILITY - MONTANA
FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2009

MPSC Docket No. D2010.8.82
Exhibit No.___(AEC-4)

Acct. No.		Account	Pro Forma Average Plant 1/	Depreciation Rate	Annual Depreciation	Accumulated Reserve
	855	Portable Generator				
340		Land				
341		Structures & Improvements	$37,256	2.55%	$950	$950
342		Fuel Holders, Producers & Acces.	35,003	2.60%	910	910
344		Generators	313,411	2.99%	9,371	9,371
345		Accessory Equipment	128,513	3.04%	3,907	3,907
346		Miscellaneous Equipment	0	0.00%	0	0
		Total Portable Generator	$514,183		$15,138	$15,138
	856	Dianmond Willow Wind Farm				
341		Structures & Improvements	$884,813	4.11%	$36,366	$36,366
344		Geneators	12,887,014	4.21%	542,543	542,543
345		Accessory equipment	2,181,474	4.23%	92,276	92,276
346		Miscellaneous equipment	14,674	4.08%	599	599
		Total Diamond Willow	$15,967,975		$671,784	$671,784
	857	Ormat				
344		Generators	$3,391,731	5.21%	$176,709	$176,709
	858	Cedar Hills Wind Farm				
341		Structures & Improvements	$736,266	3.88%	$28,567	$28,567
344		Generators	9,202,868	3.81%	350,629	350,629
345		Accessory equipment	1,569,679	4.06%	63,729	63,729
346		Miscellaneous equipment	16,652	4.36%	726	726
		Total Cedar Hills	$11,525,465		$443,651	$443,651
		Heskett II Gas Turbine				
344		Generators	$11,679,443	2.48%	$289,650	$289,650
346		Miscellaneous equipment	234,499	3.40%	7,973	7,973
		Total Heskett III turbine	$11,913,942		$297,623	$297,623
		Other Production Summary				
340		Land	$14,923		$0	$0
341		Structures & Improvements	1,770,780		78,896	78,896
342		Fuel Holders, Producers & Acces.	600,273		24,014	24,014
344		Generators	43,577,172		1,537,244	1,537,244
345		Accessory Equipment	4,050,866		174,779	174,779
346		Miscellaneous Equipment	299,030		12,607	12,607
		Total Other Production	$50,313,044	3.63% 5/	$1,827,540	$1,827,540
		Transmission Plant				
350.1		Land	$135,387			
350.2		Rights of Way	575,130	1.44%	$8,282	$8,282
352		Structures & Improvements	401	1.44%	6	6
353		Station Equipment	20,492,869	1.58%	323,787	323,787
354		Towers and Fixtures	1,063,806	1.79%	19,042	19,042
355		Poles and Fixtures	10,423,997	2.03%	211,607	211,607
356		Overhead Conductor & Devices	7,014,137	1.53%	107,316	107,316
357		Underground conduit	272,041	2.01%	5,468	5,468
358		Undergrond devices	517,554	2.01%	10,403	10,403
		Total Transmission Plant	$40,495,322	1.69% 5/	$685,911	$685,911
		Distribution Plant				
360.1		Land	$84,484			
360.2		Rights of Way	191,543	1.25%	$2,394	$2,394
362		Station Equipment	8,547,113	1.92%	164,105	164,105
364		Poles, Towers & Fixtures	8,021,462	3.09%	247,863	247,863
365		Overhead Conductors & Devices	6,121,181	2.55%	156,090	156,090
366		Underground Conduit	12,967	1.81%	235	235
367		Underground Conductor & Devices	10,056,914	2.14%	215,218	215,218

MONTANA-DAKOTA UTILITIES CO.
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MPSC Docket No. D2010.8.82
Exhibit No.___(AEC-4)

Acct. No.	Account	Pro Forma Average Plant 1/	Depreciation Rate	Annual Depreciation	Accumulated Reserve
368	Line Transformers	12,202,721	1.85%	225,750	225,750
369	Services	5,676,895	1.65%	93,669	93,669
370	Meters	3,168,780	7.19%	227,835	227,835
371	Installation on Cust. Premises	959,551	4.84%	46,442	46,442
373	Street Lighting & Signal System	1,955,778	2.88%	56,326	56,326
	Total Distribution Plant	$56,999,389	2.52% 5/	$1,435,927	$1,435,927

MONTANA-DAKOTA UTILITIES CO.
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MPSC Docket No. D2010.8.82
Exhibit No.___(AEC-4)

Acct. No.	Account	Pro Forma Average Plant 1/	Depreciation Rate		Annual Depreciation	Accumulated Reserve
	General Plant					
389	Land	$2,054				
390	Structures and Improvements	135,830	0.81%		$1,100	$1,100
391.1	Office Furniture & Fixtures	31,795	6.67%		2,121	2,121
391.3	Computer Equip. - PC	29,361	20.00%		5,872	5,872
391.4	Computer Equip. - Prime	51,014	20.00%		10,203	10,203
391.5	Computer Equip. - Other	4,371	10.00%		437	437
392.1	Trans. Equip., Non-Unitized	155,402	4.54%	2/		7,055
392.2	Trans. Equip., Unitized	1,406,290	5.48%	2/		86,245
393	Stores Equipment	0	0.00%	4/	0	0
394.1	Tools,Shop&Gar. Eq.-Non-Un.	779,485	5.00%		38,974	38,974
395	Laboratory Equipment	27,099	5.00%		1,355	1,355
396.1	Work equipment trailers	130,451	5.44%	2/		7,097
396.2	Power operated equipment	3,136,253	5.39%	2/		179,803
397.1	Radio Comm. Equip.-Fixed	9,505	6.67%		634	634
397.2	Radio Comm. Equip.-Mobile	4,538	6.67%		303	303
397.3	General Tele. Comm. Equip.	35,198	10.00%		3,520	3,520
397.4	Carrier Current Comm. Equip.	35,478	6.67%		2,366	2,366
397.5	Supervisory & Telephone Equipment	12,028	10.00%		1,203	1,203
397.6	Scada System	221,416	10.00%		22,142	22,142
397.8	Network Equipment	242,136	20.00%		48,427	48,427
397.9	Trip Comm. Equip.	36,090	6.67%		2,407	2,407
398	Miscellaneous Equipment	11,222	4.00%		449	449
	Total General Plant	$6,497,016	2.18%	5/	$141,513	$421,713
303	Intangible Plant - General	$636,242		3/	$68,984	$68,984
	Common Plant					
389	Land	$138,728				
390	Structures and Improvements	3,556,715	0.85%		$30,232	$30,232
391.1	Furniture and Fixtures	177,036	6.67%		11,808	11,808
391.3	Computer Equip. - PC	207,137	20.00%		41,427	41,427
391.4	Computer Equip. - Other (EMS)	0	0.00%		0	0
391.5	Computer Equip. - Other	293,655	20.00%		58,731	58,731
392.1	Trans. Equip., Non-Unitized	273	0.00%	2/	0	0
392.2	Trans. Equip., Unitized	961,006	6.65%	2/		69,286
392.3	Aircraft	476,093	4.00%		19,044	19,044
393	Stores Equipment	20,571	3.33%		685	685
394.1	Tools, Shop & Gar. Equip., Non-Un.	61,126	5.56%		3,399	3,399
394.3	Vehicle Maint. Equip.	6,302	5.00%		315	315
394.4	Vehicle Refueling Equip.	1,177	5.00%		59	59
396.2	Power operated equipment	0	6.67%	2/	0	0
397.1	Radio Comm. Equip.-Fixed	218,909	6.67%		14,601	14,601
397.2	Radio Comm. Equip.-Mobile	104,369	6.67%		6,961	6,961
397.3	General Tele. Comm. Equip.	65,406	10.00%		6,541	6,541
397.5	Supervisory & Tele. Equip.	2,935	6.67%		196	196
397.8	Network Equipment	25,932	20.00%		5,186	5,186
398	Miscellaneous Equipment	132,137	5.00%		6,607	6,607
	Total Common Plant	$6,449,507	3.19%	5/	$205,792	$275,078

MONTANA-DAKOTA UTILITIES CO.
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MPSC Docket No. D2010.8.82
Exhibit No.___(AEC-4)

Acct. No.	Account	Pro Forma Average Plant 1/	Depreciation Rate		Annual Depreciation	Accumulated Reserve
303	Intangible Plant - Common	$0		3/	$253,664	$253,664
182	AFUDC Interest & Dep on Coyote	$224,606		3/	$168,451	
	Amort of retired power plants	$0		3/	($16,984)	
	Amort. - Unrecovered plant	$0			$242,228	
	Amort. - End of life decommissionong	$0			($671,219)	($671,219)
	Total Electric Plant in Service	$238,002,289			$6,314,060	$6,269,851

1/ See Rule 38.5.165, Statement I, pages 3 through 7
2/ Charged to a clearing account.
3/ Amortized.
4/ Fully depreciated.
5/ Composite rates by function.

Exhibit AEC-5

D2015.6.51

Montana-Dakota Utilities

Direct Testimony of

Albert E. Clark

on behalf of the

Montana Consumer Counsel

November 20, 2015

Docket No. D2015.6.51
Exhibit No.___(AEC-5)

MONTANA-DAKOTA UTILITIES, CO.
Analysis of Revenue Requirement Impact of New Large Generating Projects
Test year ended December 31, 2014

Line No.		12/31/15 Thunder Spirit	11/30/15 RICE Units at L&C	11/30/15 MATS Project at L&C	12/01/15 AQCS Project at Big Stone	Total	Adjustment
	A	B	C	D	E	F	G
	Rate Base						
1	Plant in service	$ 56,669,131	$ 9,812,161	$ 3,663,366	$ 21,841,157	$ 91,985,815	
2	Accum. Prov. For Deprec.	(2,266,765)	(245,304)	(152,396)	(345,090)	(3,009,555)	$ 981,673
3	Net Plant in Service	$ 54,402,366	$ 9,566,857	$ 3,510,970	$ 21,496,067	$ 88,976,260	
4	Accum. Def. Income Taxes	(3,348,083)	(96,619)	(200,345)	(3,163,125)	(6,808,172)	
5	Total Rate Base	$ 51,054,283	$ 9,470,238	$ 3,310,625	$ 18,332,942	$ 82,168,088	
	Expenses						
9	Operation & maintenance	$ 713,516	$ 83,701	$ 149,671	270119	$ 1,217,007	
10	Depreciation (1)	2,266,765	245,304	152,396	345,090	3,009,556	$ (981,673)
11	Other taxes	112,051	-	-	-	112,051	
12	Income taxes	(7,325,750)	(226,206)	(319,322)	(3,568,891)	(11,440,169)	
13	Deferred income taxes	3,348,083	96,619	200,345	3,163,125	6,808,172	
14	Total Expenses	$ (885,335)	$ 199,418	$ 183,090	$ 209,443	$ (293,383)	
15	Net income	$ 885,335	$ (199,418)	$ (183,090)	$ (209,443)	$ 293,383	
16	Rate of return (2)	6.85%	6.85%	6.85%	6.85%		
17	Allowable return	$ 3,497,218	$ 648,711	$ 226,778	$ 1,255,807	$ 5,628,514	
18	Increased income required	$ 2,611,884	$ 848,129	$ 409,868	$ 1,465,250	$ 5,335,131	
19	Revenue multiplier (3)	1.65462313	1.65462313	1.65462313	1.65462313		
20	Required revenue increase	$ 4,321,683	$ 1,403,334	$ 678,177	$ 2,424,436	$ 8,827,630	
21	Reduced F&PP	(3,275,354)	0	0	0		
22	Total Revenue Requirement	$ 1,046,329	$ 1,403,334	$ 678,177	$ 2,424,436	$ 5,552,276	

(1) Reflects depreciation rates propose by Mr. Pous
(2) Refelcts the cost of capital recommended by Dr. Wilson
(3) Reflects the latest know MCC and MPSC tas rates

MDU response to Data Request No. PSC-071, Attachment A