



UTILITIES CO.

A Division of MDU Resources Group, Inc.

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

November 2, 2018

Executive Secretary
North Dakota Public Service Commission
State Capitol Building
Bismarck, ND 58505-0480

Re: Annual Update to the Renewable Resource Cost Adjustment Rate 55 Tariff
Case No. PU-18-_____

Montana-Dakota Utilities Co. (Montana-Dakota), a Division of MDU Resources Group, Inc., herewith submits for Commission approval an original and (7) copies of the Company's Application to update its Renewable Resource Cost Adjustment (RRCA) Rate 55 tariff pursuant to the terms of Rate 55 tariff which states that "[t]he RRCA will be adjusted annually to reflect the Company's most recent projected capital costs and related expenses for projects determined to be recoverable under this schedule." Montana-Dakota requests approval of 3rd Revised Sheet No. 39 of its electric tariffs, provided herein as Exhibit 1, to be effective with service rendered on and after February 1, 2019.

Montana-Dakota is requesting to update its RRCA rates to reflect the projected costs through December 31, 2019 related to the Company's investment in the Thunder Spirit Wind Project, Cedar Hills Wind Project, Diamond Willow Wind Project, and the 48 MW expansion of the Thunder Spirit Wind Project. The total projected 2019 costs as allocated to North Dakota are \$15,512,056. The projected 2019 RRCA rates also reflect a projected under-recovered balance of the current RRCA costs of \$869,377 for a total cost of \$16,381,433. The total costs to be recovered through the rates represent an increase of \$4,414,754, or approximately 36.9%, from the revenues currently being collected under the RRCA. All costs to be recovered through the RRCA rates are currently not being recovered through Montana-Dakota's North Dakota retail electric rates

The Company is also requesting the modifications to the RRCA provisions to provide for the inclusion of special rate contracts, currently being excluded from RRCA applicability.

A residential customer using 894 Kwh would see a total increase of \$1.52 per month from the currently authorized charge under Rate 55, or an increase of \$18.24 annually.

The proposed Renewable Resource Cost Adjustments (RRCA) rates are shown below, along with the change from the current RRCA rates implemented April 17, 2018:

	<u>Proposed Rate</u>	<u>Current Rate</u>	<u>Change</u>
Residential / Small General Rate/Kwh	\$0.00777	\$0.00607	\$0.00170
Large General/Kwh	\$0.00754	\$0.00586	\$0.00168
Lighting/Kwh	\$0.00813	\$0.00526	\$0.00287

Please refer all inquiries regarding this filing to:

Tamie A. Aberle
Director of Regulatory Affairs
Montana-Dakota Utilities Co.
400 North Fourth Street
Bismarck, ND 58501
Tamie.aberle@mdu.com

Also, please send copies of all written inquiries, correspondence and pleadings to:

Karl Liepitz
Assistant General Counsel
MDU Resources Group, Inc.
P.O. Box 5650
Bismarck, ND 58506-5650
Karl.Liepitz@mduresources.com

Montana-Dakota submits a check in the amount of \$10,000 for the filing fees in this case. In the event the Commission deems an additional deposit is required, Montana-Dakota will submit the required fees.

Montana-Dakota respectfully requests that this filing be accepted as being in full compliance with the filing requirements of this Commission.

Please contact me at 701.222.7856 or tamie.aberle@mdu.com with any questions.

Please acknowledge receipt by stamping or initialing the duplicate copy of this letter attached hereto and returning the same in the enclosed self-addressed, stamped envelope.

Sincerely,



Tamie A. Aberle
Director of Regulatory Affairs

Attachments

cc: Karl Liepitz
Garret Senger

**STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION**

In the Matter of the Application of)
MONTANA-DAKOTA UTILITIES CO., a)
Division of MDU Resources Group, Inc., for) Case No. PU-18-____
Approval its Annual Update to Renewable)
Resource Cost Adjustment Rate 55)

I. Summary of Application

Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc. (Montana-Dakota or Applicant), herewith submits this Application to update the rates applicable under its Renewable Resource Cost Adjustment Rate 55 tariff pursuant to the terms of Rate 55 to reflect projected costs through December 2019 related to the Company's investment in its existing renewable generation resources; namely the Thunder Spirit Wind Project, Cedar Hills Wind Project, and Diamond Willow Wind Project along with the 48 MW expansion at Thunder Spirit. Montana-Dakota respectfully requests approval of its Renewable Resource Cost Adjustment Rate 55 tariff, 3rd Revised Sheet No. 39 to be effective with service rendered on and after February 1, 2019. In support of the Company's Application, Montana-Dakota is providing the following Exhibits:

- Exhibit 1 - Renewable Resource Cost Adjustment Rate 55 3rd Revised Sheet No. 39
- Exhibit 2 - Derivation of Proposed Rates
- Exhibit 3 - Projected 2019 Revenue Requirement
- Exhibit 4 - Balancing Account Summary and 2018 Monthly Revenue Requirement Calculation
- Exhibit 5 - Revenue Requirement - Detail Schedule by wind project.
- Exhibit 6 - Customer Notice of Filing

II. Description of Applicant

Montana-Dakota is a Division of MDU Resources Group, Inc., a Delaware corporation duly authorized to do business in the State of North Dakota as a foreign corporation, and doing business in the State of North Dakota as a public utility subject to the jurisdiction of and regulation by the North Dakota Public Service Commission (Commission) under NDCC Title 49. Montana-Dakota's Certificate of Incorporation and amendments thereto have been previously filed with the Commission and such Certificate and Amendments are hereby incorporated by reference as though fully set forth herein. Montana-Dakota provides electric service to approximately 92,900 customers in North Dakota as of September 30, 2018.

III. Background of Renewable Resource Recovery Rider Rate 55

On October 26, 2015, Montana-Dakota filed an application and notice to implement a Renewable Resource Cost Adjustment (RRCA) tariff and rates for purposes of recovering its investment in renewable generation resources, specifically the Thunder Spirit Wind Project ("TSW"), a 107.5 MW generation project located near Hettinger, North Dakota in Case No. PU-15-703. On January 5, 2016, the Commission approved a Settlement Agreement between Montana-Dakota and the Commission Advocacy Staff thereby authorizing the Company's RRCA Rate 55 tariff effective with service rendered on and after January 7, 2016 on an interim basis pending the outcome of a general electric rate case to be filed by the Company. On October 14, 2016, Montana-Dakota filed an application and notice to increase its electric service rates in Case No. PU-16-666, which included an update to the RRCA rate. On June 16, 2017,

the Commission approved the Settlement Agreement entered into between Montana-Dakota, the Commission Advocacy Staff, and the AARP, authorizing the recovery of the existing wind facilities (Cedar Hills, Diamond Willow, and Thunder Spirit) through the Rate 55 tariff, as well as a true up of the over collected balance through December 31, 2016. The current RRCA rates were implemented effective with service rendered on and after April 17, 2018 in Case No. PU-18-82.

Montana-Dakota is now requesting to update its RRCA rates to reflect projected costs through December 2019 for all existing wind facilities (Cedar Hills, Diamond Willow and Thunder Spirit), to include the 48 MW expansion of the Thunder Spirit Wind Project, and to include the projected under collected balance as of December 2018. The Company began amortizing the prior period over collected balance of \$947,527 effective with service rendered August 7, 2017, pursuant to the Order in Case No. PU-16-666. The over collection has since been eliminated and the balancing account is currently under-recovered. The Company is proposing the rates proposed herein be effective with service rendered on and after February 1, 2019.

IV. Calculation of the Proposed RRCA Rates

The following exhibits are included herein in support of the Company's proposed RRCA rates and in accordance with the Company's Rate 55 tariff:

- *Exhibit 2* shows the proposed RRCA rates and the allocation of the total costs to each of the rate classes, excluding select special contracts (per Paragraph 2b of Rate 55). The total costs to be recovered include the projected RRCA under collected balance of \$869,377 as of December 31, 2018 and the projected 2019

revenue requirement of \$15,512,056 associated with Thunder Spirit, Cedar Hill, Diamond Willows, and the Thunder Spirit Expansion wind projects. Projected costs are then allocated to the rate classes based on the Company's Demand/Energy Factor No. 3, and divided by the forecasted billing determinants. The Demand/Energy Factor No. 3 from Case No. PU-16-666 has been updated to reflect the inclusion of the special contract rate customers previously excluded from the allocator as the customers' contracts limited rate increases or decreases to those unilaterally affecting the energy and demand charges under Montana-Dakota's General Service Rate 30 charges. New contracts have recently been negotiated with contract rate customers providing for the applicability of any of the Company's current, as well as future, rate riders to these contract customers.

- *Exhibit 3* shows the projected monthly revenue requirements for the above-mentioned wind projects for the year ending December 2019. The revenue requirement for the twelve months ending December 31, 2019 as allocated to North Dakota is \$15,512,056 as shown in Exhibit 3. This represents an increase of \$2,909,433 from the revenue requirement authorized in Case No. PU 18-82.

The revenue requirement is comprised of:

- Average rate base of \$174,435,342.
- Continued amortization of the decommissioning costs authorized in Case No. PU-16-666.
- Federal Production Tax Credits (PTCs): reflects a credit of 2.4 cents per Kwh of production from each of the facilities taking into account the expiration of Production Tax Credits related to thirteen of the twenty

Diamond Willow turbines that went into service starting in December 2007. The PTCs for the project are included as a reduction to taxes, but also as an addition to rate base as Montana-Dakota was not be able to claim the PTCs for 2015 and 2016. The Company projects to unwind the entire carry forward balance during year 2018.

- Return: reflective of the 2018 Capital Structure and the Return on Equity of 9.65% authorized in the Company's last electric rate case (Case No. PU-16-666).
- O&M: reflects the annual operating costs and the annual easement payments for each facility. O&M costs are recorded separately for each wind facility.
- Depreciation Expense: annual depreciation rates for production and transmission related assets, based on a 25-year life for all wind facilities, as authorized in Case No. PU-16-666.
- Taxes Other than Income: reflective of production tax rate applicable under North Dakota Century Code Chapter 57-33.2.04: Wind Generation Taxation.
- Income Taxes: current federal and state income tax rates.
- ARAM Reversal: The Tax Cuts and Jobs Act of 2017 required re-measurement of the accumulated deferred income tax balance to determine the amount of excess deferred income tax to be returned to customers over the remaining life of the asset. The excess of deferred income taxes on the Cedar Hills and Diamond Willow assets results in an

annual amortization of \$204,930 for 2019, which is a reduction to deferred tax expense. Excess deferred income taxes on the Thunder Spirit assets were calculated as of December 31, 2017, however, tax depreciation still exceeds book depreciation. Therefore, the amortization of the excess deferred income tax balance related to Thunder Spirit will take place in future periods when book depreciation exceeds tax depreciation.

- The facilities located in North Dakota are eligible for the North Dakota income tax credit (ITC) for installation of wind energy devices under N.D.C.C. Section 57-38-30. Cedar Hills is projected to have a carry forward credit of approximately \$2.1 million available at the end of 2018, and it is projected that \$2.0 million of the credit will be utilized in 2019. Thunder Spirit is projected to accrue a carry forward credit of approximately \$30 million available at the end of 2019. Carry forward credits accrued for Thunder Spirit cannot be utilized until the Cedar Hills credits are utilized in full. Since the credit allowed under the statute may not exceed the liability for tax, the excess will be carried forward for future use. Deferred tax is only established when the credit is utilized, and the deferred tax benefit is then amortized over the life of the assets. Based on the projected credit utilization, the deferred tax balance at the end of 2019 is projected to be approximately \$5.3 million.
- *Exhibit No. 4* shows the projected RRCA Balancing Account (per Paragraph 2d of Rate 55) through December 2018. The over recovered balance carried forward from the prior year includes a carrying charge owed to customers based

on the three-month Treasury Bill rate as published monthly by the Federal Reserve Board. During 2018, the over collected balance is extinguished and is an under collected balance by the end of the year.

- *Exhibit No. 5* shows the projected monthly revenue requirements in detail for each of the three existing wind projects, including the expansion to Thunder Spirit, for the year ending December 2019.

The main driver for the increase in the revenue requirement is the addition of the Thunder Spirit expansion. On November 16, 2017, an Advance Determination of Prudence and an amendment to Certificate of Public Convenience and Necessity No. 5870 was approved in Case No. PU-17-268 and Case No. PU-17-269, authorizing the expansion of the Thunder Spirit Wind Project. The \$86 million project was placed into service on October 31, 2018. This results in an increase of approximately \$59 million (allocated to North Dakota) to the plant in service balance, and annual depreciation expense of approximately \$2.3 million for 2019 offset by the PTC's provided by the 48 MW expansion.

V. Proposed Rate 55 Tariff Changes

Montana-Dakota is also proposing the following change to the Rate 55 tariff: to add the language "where the contract does not provide for RRCA applicability" following "except those served under special contract" of paragraph 2b of 3rd Revised Sheet No. 39. The clarifying revision to the contract rate exclusion language is necessary to recognize that, while each of the special rate contracts have been updated to include the applicability of Montana-Dakota's current, and future, electric rate riders, not all

include the RRCA applicability for 2019. The inclusion of these special rate contracts is a benefit to all customers and provides for a lesser increase in 2019 for all rate classes

VI. Estimated Impact by Customer Class

As shown in Exhibit No. 2, Montana-Dakota’s projected 2019 costs to be recovered under the RRCA rates are \$16,381,433, which includes the projected under-recovered balance of \$869,377. A residential customer using 894 Kwh would see an increase of \$1.52 per month, or \$18.24 annually.

Montana-Dakota requests approval of the following RRCA rates to be effective February 1, 2019:

	Proposed Rate	Current Rate	Change
Residential / Small General Rate/Kwh	\$0.00777	\$0.00607	\$0.00170
Large General/Kwh	\$0.00754	\$0.00586	\$0.00168
Lighting/Kwh	\$0.00813	\$0.00526	\$0.00287

Montana-Dakota has included as Exhibit 6 a Customer Notice to be included with customer’s bills starting thirty days from date of filing in accordance with NDCC § 69-09-02-02.1 requiring a notice to be provided to customers, within thirty days after filing, informing customers of the Company’s request to update rates.

Montana-Dakota is submitting a check in the amount of \$10,000 for the filing fees in this case. In the event the Commission deems an additional deposit is required, Montana-Dakota will submit the required fees.

VII. Conclusion

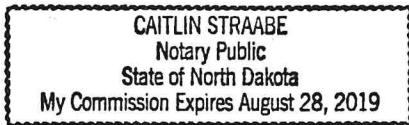
Montana-Dakota respectfully requests that the Commission approve this annual update to the Company's RRCA rates applicable under Renewable Resource Cost Adjustment Rate 55 tariff to be effective with service rendered on and after February 1, 2019.


Dated this 2nd day of November 2018.



Tamie A. Aberle
Director of Regulatory Affairs

Subscribed and sworn to before me this 2nd day of November 2018.





Caitlin Straabe, Notary Public
Burleigh County, North Dakota
My Commission Expires: 08/28/2019

Of Counsel:

Karl Liepitz
Assistant General Counsel
MDU Resources Group, Inc.
P.O. Box 5650
Bismarck, ND 58506-5650

Exhibit 1



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.
400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
3rd Revised Sheet No. 39
Canceling 2nd Revised Sheet No. 39

Renewable Resource Cost Adjustment Rate 55

Page 1 of 1

1. Applicability:

This rate schedule represents a Renewable Resource Cost Adjustment (RRCA) and specifies the procedure to be utilized to recover the jurisdictional costs associated with renewable generation resource modifications or additions approved by the Commission, but not recovered through retail rates. Costs to be recovered may include operation and maintenance expenditures, depreciation, taxes, and a current return on the project costs.

2. Renewable Resource Cost Adjustment:

- a. An adjustment per Kwh will be calculated using the projected capital costs and related expenses, along with the forecasted Kwh sales, to determine a North Dakota jurisdictional revenue requirement to be recovered through the RRCA rates. The return component of the revenue requirement calculation will include the return on equity established in the Company's most recent rate case.
- b. The RRCA is applicable to all retail customers for electric energy sold, except those served under special contract, where the contract does not provide for RRCA applicability, and are allocated amongst the rate classes based on the Company's Demand/Energy Factor No. 3 established in the Company's most recent general rate case.
- c. The RRCA will be adjusted annually (or other period authorized by the Commission) to reflect the Company's most recent projected capital costs and related expenses for projects determined to be recoverable under this schedule.
- d. A true-up will reflect any over or under collection of revenue under the RRCA based on actual expenditures from the preceding twelve month recovery period plus carrying charges or credits accrued at a rate equal to the three-month Treasury Bill rate as published monthly by the Federal Reserve Board.

3. Renewable Resource Cost Adjustment:

Residential & Small General	0.777¢ per Kwh
Large General	0.754¢ per Kwh
Lighting	0.813¢ per Kwh

Date Filed: November 2, 2018

Effective Date:

Issued By: Tamie A. Aberle
Director – Regulatory Affairs

Case No.:

Tariffs Reflecting Proposed Changes



Montana-Dakota Utilities Co.

A Division of MDU Resources Group, Inc.
400 N 4th Street
Bismarck, ND 58501

State of North Dakota Electric Rate Schedule

NDPSC Volume 4
2nd Revised Sheet No. 39
Canceling 1st Revised Sheet No. 39

Renewable Resource Cost Adjustment Rate 55

Page 1 of 1

1. Applicability:

This rate schedule represents a Renewable Resource Cost Adjustment (RRCA) and specifies the procedure to be utilized to recover the jurisdictional costs associated with renewable generation resource modifications or additions approved by the Commission, but not recovered through retail rates. Costs to be recovered may include operation and maintenance expenditures, depreciation, taxes, and a current return on the project costs.

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- c. The RRCA will be adjusted annually (or other period authorized by the Commission) to reflect the Company's most recent projected capital costs and related expenses for projects determined to be recoverable under this schedule.
- d. A true-up will reflect any over or under collection of revenue under the RRCA based on actual expenditures from the preceding twelve month recovery period plus carrying charges or credits accrued at a rate equal to the three-month Treasury Bill rate as published monthly by the Federal Reserve Board.

3. Renewable Resource Cost Adjustment:

Residential & Small General	0.6070.777¢ per Kwh
Large General	0.5860.754¢ per Kwh
Lighting	0.5260.813¢ per Kwh

Date Filed: February 23, 2018	Effective Date: Service rendered on and after April 17, 2018
Issued By: Tamie A. Aberle Director – Regulatory Affairs	Case No.: PU-18-82

**Montana-Dakota Utilities Co.
Electric Utility - North Dakota
Renewable Resource Cost Adjustment
Proposed RRCA Rates**

	<u>Total</u>	<u>Residential & Small General</u>	<u>Large General</u>	<u>Lighting</u>
Revenue Requirement 1/ 2/ (Over)/Under Recovery 2/ 3/ Net to be Recovered	<u>\$15,512,056</u> 869,377 <u>16,381,433</u>	<u>\$6,663,068</u> 373,433 <u>7,036,501</u>	<u>\$8,671,900</u> 486,019 <u>9,157,919</u>	<u>\$177,088</u> 9,925 <u>187,013</u>
Projected Kwh 4/	2,143,302,694	905,126,965	1,215,168,775	23,006,954
Proposed RRCA Rate per Kwh				
Revenue Requirement per Kwh		\$0.00736	\$0.00714	\$0.00770
Amortization per Kwh		<u>0.00041</u>	<u>0.00040</u>	<u>0.00043</u>
Proposed RRCA Rate per Kwh		<u>0.00777</u>	<u>0.00754</u>	<u>0.00813</u>
Current RRCA Rate per Kwh 5/				
Revenue Requirement per Kwh		\$0.00639	\$0.00617	\$0.00554
Amortization per Kwh		<u>(0.00032)</u>	<u>(0.00031)</u>	<u>(0.00028)</u>
Current RRCA Rate per Kwh		<u>0.00607</u>	<u>0.00586</u>	<u>0.00526</u>
Increase in RRCA Rate		<u><u>\$0.00170</u></u>	<u><u>\$0.00168</u></u>	<u><u>\$0.00287</u></u>

1/ Exhibit 3

2/ Demand/Energy for Wind Allocation Factor 3

Residential & Small General	42.954127%	(Rates 10, 13, 16, 20, 25, 26, and 40)
Large General	55.904257%	(Rates 30, 31, 32, 38, and 48)
Lighting	<u>1.141616%</u>	(Rates 41, 52)
	<u><u>100.000000%</u></u>	

3/ Exhibit 4

4/ Projected Kwh sales, excluding contracted rate customer(s) not currently subject to the RRCA.

5/ Current RRCA rates effective April 17, 2018.

Montana-Dakota Utilities Co.
Electric Utility - North Dakota
Renewable Resource Cost Adjustment
Revenue Requirement - Wind Resources
Projected Year End 2019

	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	June 2019	July 2019	Aug 2019	Sept 2019	Oct 2019	Nov 2019	Dec 2019	Average Balance
Rate Base													
Total Plant Balance	\$281,782,902	\$281,782,902	\$281,782,902	\$281,782,902	\$281,782,902	\$281,782,902	\$283,287,171	\$283,287,171	\$283,287,171	\$283,287,171	\$283,287,171	\$283,287,171	\$282,535,037
Total Accumulated Reserve	49,272,431	50,240,771	51,209,111	52,177,451	53,145,791	54,114,131	55,082,471	56,055,880	57,029,289	58,002,698	58,976,107	59,949,516	
Net Plant in Service	\$232,510,471	\$231,542,131	\$230,573,791	\$229,605,451	\$228,637,111	\$227,668,771	\$226,700,700	\$225,732,291	\$224,763,882	\$223,795,473	\$222,827,064	\$221,858,655	\$227,930,399
Add: PTC Carryforward:	0	0	0	0	0	0	0	0	0	0	0	0	0
Less: Deferred Taxes:	47,464,548	47,900,104	48,287,274	48,627,599	48,919,481	49,164,516	49,361,167	49,509,431	49,610,850	49,663,883	49,670,071	49,627,813	
Less: Investment Tax Credit:	3,750,386	3,888,709	4,027,032	4,165,355	4,303,678	4,442,001	4,580,324	4,718,647	4,856,970	4,995,293	5,133,616	5,271,938	
Total Rate Base	\$181,295,537	\$179,753,318	\$178,259,485	\$176,812,497	\$175,413,952	\$174,062,254	\$172,750,209	\$171,483,653	\$170,266,922	\$169,103,180	\$168,000,377	\$166,962,464	\$174,435,342
Return on Rate Base 1/	\$1,088,529	\$1,079,269	\$1,070,300	\$1,061,642	\$1,053,215	\$1,045,099	\$1,046,305	\$1,038,740	\$1,031,456	\$1,024,463	\$1,017,751	\$1,011,329	\$12,568,068
Expenses													
Operating Expenses													
Total O&M	214,406	214,406	214,406	214,406	214,406	214,406	214,406	214,406	214,406	214,406	214,406	214,406	214,406
Total Depreciation	968,340	968,340	968,340	968,340	968,340	968,340	968,340	968,340	968,340	968,340	968,340	968,340	968,340
Property taxes	63,006	63,006	63,006	63,006	63,006	63,006	63,006	63,006	63,006	63,006	63,006	63,006	63,006
Payroll taxes	2,653	2,653	2,653	2,653	2,653	2,653	2,653	2,653	2,653	2,653	2,653	2,653	2,653
Total Expenses	\$1,248,405	\$1,248,405	\$1,248,405	\$1,248,405	\$1,248,405	\$1,248,405	\$1,248,405	\$1,248,405	\$1,248,405	\$1,248,405	\$1,248,405	\$1,248,405	\$1,248,405
Income before Taxes (EBIT)	(\$1,248,405)	(\$1,248,405)	(\$1,248,405)	(\$1,248,405)	(\$1,248,405)	(\$1,248,405)	(\$1,248,405)	(\$1,248,405)	(\$1,248,405)	(\$1,248,405)	(\$1,248,405)	(\$1,248,405)	(\$1,248,405)
Interest Expense	346,577	343,628	340,773	338,007	335,333	332,749	330,133	327,527	324,921	322,315	319,709	317,103	314,497
Taxable income	(\$1,594,982)	(\$1,592,033)	(\$1,589,178)	(\$1,586,412)	(\$1,583,738)	(\$1,581,154)	(\$1,578,611)	(\$1,576,111)	(\$1,573,653)	(\$1,571,221)	(\$1,568,816)	(\$1,566,422)	(\$1,564,027)
Income Taxes 2/	(\$389,254)	(\$388,534)	(\$387,837)	(\$387,162)	(\$386,510)	(\$385,879)	(\$385,273)	(\$384,692)	(\$384,133)	(\$383,596)	(\$383,081)	(\$382,586)	(\$382,111)
Less: ARAM Amortization	17,078	17,077	17,076	17,075	17,074	17,073	17,072	17,071	17,070	17,069	17,068	17,067	17,066
Production Tax Credit	1,253,616	835,671	939,552	782,551	906,524	821,021	807,651	650,914	776,246	1,243,108	1,037,616	1,364,954	11,419,424
Net Income Taxes	(\$1,659,948)	(\$1,241,282)	(\$1,344,467)	(\$1,186,790)	(\$1,310,112)	(\$1,223,977)	(\$1,210,702)	(\$1,054,613)	(\$1,179,380)	(\$1,645,698)	(\$1,439,685)	(\$1,900,584)	(\$16,397,238)
Operating Income	\$411,543	(\$7,123)	\$96,062	(\$81,615)	\$61,707	(\$24,428)	(\$37,703)	(\$198,861)	(\$74,094)	\$392,224	\$186,211	\$97,791	\$841,714
Revenue Requirement	\$895,542	\$1,437,120	\$1,288,758	\$1,485,846	\$1,311,604	\$1,414,810	\$1,433,966	\$1,637,144	\$1,462,463	\$836,349	\$1,099,992	\$1,208,462	\$15,512,056

1/ Projected Capital Structure with Authorized Return on Equity

	Ratio	Cost
Long Term Debt:	42.485%	4.990%
Short Term Debt:	6.622%	2.625%
Common Equity:	50.893%	9.650%
	100.000%	7.205%

2/ Tax Rate 24.4049% (Federal Tax Rate = 21%, Tax Rate = 4.31%)
1- tax rate 75.5951%

**Montana-Dakota Utilities Co.
Electric Utility - North Dakota
Renewable Resource Cost Adjustment
Balancing Account and Carry Charge Calculation**

	Less:				Add:			Carrying Charge Calculation			Grand Total (Over)/Under Collection
	Beginning Balance	Deferred Amortization 1/ Over/Under 2/	Current Year Over/Under 2/	Ending Balance 3/ Over/Under 5/	Deferred Income Tax	Net Balance	Rate 4/ Over/Under 5/	Carrying Charge 4/ Over/Under 5/			
December 2017				(628,483) 5/	-	(628,483)			(635,944) 5/		
January 2018	(628,483)	(108,885)	(856,405)	(1,376,003)	-	(1,376,003)	1.4100%	(738)	(1,384,202)		
February	(1,376,003)	(90,294)	(176,177)	(1,461,886)	-	(1,461,886)	1.5700%	(1,800)	(1,471,885)		
March	(1,461,886)	(95,540)	(129,468)	(1,495,814)	-	(1,495,814)	1.7000%	(2,071)	(1,507,884)		
April	(1,495,814)	(80,900)	194,988	(1,219,926)	-	(1,219,926)	1.7600%	(2,194)	(1,234,190)		
May	(1,219,926)	(73,540)	223,458	(922,928)	-	(922,928)	1.8600%	(1,891)	(939,083)		
June	(922,928)	(75,530)	215,582	(631,816)	-	(631,816)	1.9000%	(1,461)	(649,432)		
July	(631,816)	(80,434)	377,373	(174,009)	-	(174,009)	1.9600%	(1,032)	(192,657)		
August	(174,009)	(60,247)	421,430	307,668	75,086	232,582	2.0300%	(294)	288,726		
September	307,668	(48,595)	206,028	562,291	137,227	425,064	2.1300%	413	543,762		
October - Est.	562,291	(47,038)	59,292	668,621	163,176	505,445	2.1300%	754	650,846		
November - Est.	668,621	(55,065)	19,775	743,461	181,441	562,020	2.1300%	897	726,583		
December - Est.	743,461	(62,461)	79,335	885,257	216,046	669,211	2.1300%	998	869,377		
Total		(878,529)	635,211					(8,419)			

1/ Deferred revenue returned based on actual sales volumes through September 2018 and projected sales for October 2018 - December 2018 at the surcharge rate approved in Case No. PU-16-666 and Case No. PU-18-82.

2/ Net of current year monthly revenue requirement (Exhibit 4, page 2) and recovery of current revenue based on the revenue requirement rate established in Case No. PU-18-82.

	Revenue Requirement	Current Revenue	(Over)/Under Collection	Current Year Cumulative (Over)/Under
January 2018	651,856	1,508,261	(856,405)	(856,405)
February	1,075,108	1,251,285	(176,177)	(1,032,582)
March	1,191,643	1,321,111	(129,468)	(1,162,050)
April	1,309,888	1,114,900	194,988	(967,062)
May	1,188,999	965,541	223,458	(743,604)
June	1,194,364	978,782	215,582	(528,022)
July	1,425,129	1,047,756	377,373	(150,649)
August	1,559,479	1,138,049	421,430	270,781
September	1,123,380	917,352	206,028	476,809
October - Est.	996,754	937,462	59,292	536,101
November - Est.	1,117,404	1,097,629	19,775	555,876
December - Est.	1,324,476	1,245,141	79,335	635,211
Total	14,158,480	13,523,269		

3/ (Over)/Under collection on revenue requirement not including the carrying charge, for use in calculating the carrying charge.

4/ Carrying charges calculated based on the three-month Treasury Bill rate, based on prior month ending balance.

5/ Ending Over/Under balance per Case No. PU-18-82, Exhibit 4, page 1.

Montana-Dakota Utilities Co.
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 Actual/Projected Year End 2018

Rate Base	Actual												Projected		Average Balance
	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	June 2018	July 2018	Aug 2018	Sept 2018	Oct 2018	Nov 2018	Dec 2018			
Total Plant Balance	221,431,003	221,403,943	221,404,745	221,391,229	221,433,628	221,431,675	221,440,975	221,486,607	221,722,181	281,316,922	281,316,922	281,782,902	236,463,561		
Total Accumulated Reserve	39,412,854	40,152,882	40,919,878	41,678,797	42,445,913	43,213,017	43,980,112	44,747,241	45,602,577	46,370,649	47,337,370	48,304,091			
Net Plant in Service	\$182,018,149	\$181,251,061	\$180,484,867	\$179,712,432	\$178,987,715	\$178,218,658	\$177,460,863	\$176,739,366	\$176,119,604	\$234,946,273	\$233,979,552	\$233,478,811	192,783,113		
Add: PTC Carryforward:	13,338,805	13,338,805	13,338,805	13,338,805	10,004,104	6,669,403	6,669,403	6,669,403	3,334,702	3,334,702	3,334,702	3,334,702	0		
Less: Deferred Taxes:	46,183,244	46,373,343	46,539,707	46,683,092	46,802,714	46,899,357	46,972,265	47,021,438	47,047,631	47,050,089	47,029,567	46,985,280			
Less: Investment Tax Credit:	1,979,400	2,127,824	2,276,248	2,424,672	2,573,096	2,721,520	2,869,944	3,018,368	3,166,792	3,315,216	3,463,640	3,612,063			
Total Rate Base	\$147,194,310	\$146,088,699	\$145,007,717	\$143,943,473	\$139,616,009	\$135,267,184	\$134,288,057	\$133,368,963	\$129,239,883	\$187,915,670	\$186,821,047	\$182,881,468	150,969,373		
Return on Rate Base 1/	\$883,779	\$877,141	\$870,651	\$864,261	\$838,278	\$812,167	\$806,288	\$800,769	\$775,978	\$1,128,277	\$1,121,705	\$1,098,051	\$1,087,345		
Expenses															
Operating Expenses															
Total O&M	146,844	181,890	218,558	448,917	65,719	46,548	203,344	222,152	191,690	242,924	242,924	242,924	2,886,833		
Total Depreciation	615,367	767,087	766,996	766,999	766,424	767,103	767,096	767,129	767,287	768,072	966,721	966,721	9,453,002		
Property taxes	55,833	55,833	55,833	55,833	55,833	55,833	55,833	55,833	55,833	55,833	55,833	55,833	669,993		
Payroll taxes	3,167	2,553	2,948	2,374	2,486	2,484	2,603	3,164	2,096	2,653	2,653	2,653	31,834		
Total Expenses	\$821,211	\$1,007,363	\$1,044,335	\$1,274,023	\$890,462	\$871,968	\$1,028,876	\$1,048,278	\$1,016,906	\$1,069,482	\$1,268,131	\$1,700,627	\$13,041,662		
Income before Taxes (EBIT)	(\$821,211)	(\$1,007,363)	(\$1,044,335)	(\$1,274,023)	(\$890,462)	(\$871,968)	(\$1,028,876)	(\$1,048,278)	(\$1,016,906)	(\$1,069,482)	(\$1,268,131)	(\$1,700,627)	(\$13,041,662)		
Interest Expense	281,386	279,273	277,206	275,172	266,899	258,586	256,714	254,957	247,064	359,232	357,140	349,608	3,463,237		
Taxable income	(\$1,102,597)	(\$1,286,636)	(\$1,321,541)	(\$1,549,195)	(\$1,157,361)	(\$1,130,554)	(\$1,285,590)	(\$1,303,235)	(\$1,263,970)	(\$1,428,714)	(\$1,625,271)	(\$2,050,235)	(\$16,504,899)		
Income Taxes 2/	(\$269,088)	(\$314,002)	(\$322,521)	(\$378,079)	(\$282,453)	(\$275,911)	(\$313,747)	(\$318,053)	(\$308,471)	(\$348,676)	(\$396,646)	(\$500,358)	(\$4,028,005)		
Less: ARAM Amortization	21,524	21,524	21,524	21,524	21,524	21,524	21,524	21,524	21,524	21,524	21,524	21,524	258,288		
Production Tax Credit	921,607	736,249	670,117	748,470	525,938	483,819	422,565	330,580	613,669	1,074,062	1,126,963	1,275,557	8,929,596		
Net Income Taxes	(\$1,212,219)	(\$1,071,775)	(\$1,014,162)	(\$1,148,073)	(\$829,915)	(\$781,254)	(\$757,836)	(\$670,157)	(\$943,664)	(\$1,444,262)	(\$1,545,133)	(\$1,797,439)	(\$13,215,889)		
Operating Income	\$391,008	\$64,412	(\$30,173)	(\$125,950)	(\$60,547)	(\$90,714)	(\$271,040)	(\$378,121)	(\$73,242)	\$374,780	\$277,002	\$96,812	\$174,227		
Revenue Requirement	\$651,856	\$1,075,108	\$1,191,643	\$1,309,888	\$1,188,999	\$1,194,364	\$1,425,129	\$1,559,479	\$1,123,380	\$996,754	\$1,117,404	\$1,324,476	\$14,158,480		

1/ Projected Capital Structure with Authorized Return on Equity

	Ratio	Cost
Long Term Debt:	42.485%	4.990%
Short Term Debt:	6.622%	2.625%
Common Equity:	50.893%	9.650%
	100.000%	7.205%

2/ Tax Rate 24.4049% (Federal Tax Rate = 21%, Tax Rate = 4.31%)
 1- tax rate 75.5951%

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Revenue Requirement - Wind Resources
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	Actual					
	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	June 2018
Rate Base						
Plant Balance						
Thunder Spirit Production	\$141,695,902	\$141,668,842	\$141,668,842	\$141,668,842	\$141,668,842	\$141,668,842
Thunder Spirit Transmission	5,440,539	5,440,539	5,440,539	5,440,539	5,440,539	5,440,539
Thunder Spirit Expansion						
Cedar Hills Production	30,278,793	30,278,793	30,278,793	30,278,793	30,302,682	30,303,144
Diamond Willow Production	41,700,281	41,700,281	41,701,083	41,687,567	41,706,077	41,703,662
Diamond Willow Transmission	2,315,488	2,315,488	2,315,488	2,315,488	2,315,488	2,315,488
Total Plant Balance	221,431,003	221,403,943	221,404,745	221,391,229	221,433,628	221,431,675
Accumulated Reserve						
Thunder Spirit Production	\$11,901,243	\$12,346,503	\$12,818,733	\$13,296,399	\$13,768,629	\$14,240,858
Thunder Spirit Transmission	163,373	170,640	177,906	185,173	192,440	199,707
Thunder Spirit Expansion						
Cedar Hills Production	10,840,402	10,937,550	11,034,698	11,131,846	11,228,994	11,326,229
Diamond Willow Production	15,854,743	16,000,924	16,147,105	16,279,772	16,426,072	16,572,273
Diamond Willow Transmission	406,351	409,399	412,446	415,493	418,540	421,588
Decommissioning Balance	246,742	287,866	328,990	370,114	411,238	452,362
Total Accumulated Reserve	39,412,854	40,152,882	40,919,878	41,678,797	42,445,913	43,213,017
Net Plant in Service	\$182,018,149	\$181,251,061	\$180,484,867	\$179,712,432	\$178,987,715	\$178,218,658
Adds:						
PTC Carryforward - Thunder Spirit 1/	5,956,265	5,956,265	5,956,265	5,956,265	4,467,198	2,978,131
PTC Carryforward - Cedar/Diamond 1/	7,382,540	7,382,540	7,382,540	7,382,540	5,536,906	3,691,272
Def. Tax on ND Invest. Tax Credit	727,139	762,141	797,143	832,145	867,147	902,149
Def. Tax on Wind Decommissioning 3/	87,763	97,799	107,835	117,871	127,907	137,943
Less:						
Accum DIT - Thunder Spirit 4/	\$30,898,958	\$31,142,382	\$31,361,235	\$31,556,299	\$31,726,763	\$31,873,437
Accum DIT - Thunder Spirit Expansion 4/	42,066	80,617	115,277	146,169	173,165	196,394
Accum DIT - Cedar/Diamond 4/	16,057,122	16,010,284	15,968,173	15,930,640	15,897,840	15,869,618
Accum. Def. Invest. Tax Credit 2/	1,979,400	2,127,824	2,276,248	2,424,672	2,573,096	2,721,520
Total Rate Base	\$147,194,310	\$146,088,699	\$145,007,717	\$143,943,473	\$139,616,009	\$135,267,184
Return on Rate Base 5/	\$883,779	\$877,141	\$870,651	\$864,261	\$838,278	\$812,167
Expenses						
Operating Expenses						
O&M - Thunder Spirit	\$96,128	\$134,324	\$175,922	\$407,392	\$13,229	\$9,342
O&M - Thunder Spirit Expansion						
O&M - Cedar Hills	20,503	15,679	17,119	17,279	19,582	19,834
O&M - Diamond Willow	30,213	31,887	25,517	24,146	32,908	17,372
Total O&M	146,844	181,890	218,558	448,817	65,719	46,548
Depreciation Expense						
Thunder Spirit Production	472,319	472,320	472,229	472,229	472,229	472,229
Thunder Spirit Transmission	7,267	7,267	7,267	7,267	7,267	7,267
Thunder Spirit Expansion						
Cedar Hills Production	97,148	97,148	97,148	97,148	97,148	97,235
Diamond Willow Production	(5,538)	146,181	146,181	146,184	145,609	146,201
Diamond Willow Transmission	3,047	3,047	3,047	3,047	3,047	3,047
Wind Decommissioning	41,124	41,124	41,124	41,124	41,124	41,124
Total Depreciation	615,367	767,087	766,996	766,999	766,424	767,103
Property taxes 6/	55,833	55,833	55,833	55,833	55,833	55,833
Payroll taxes	3,167	2,553	2,948	2,374	2,486	2,484
Total Expenses	\$821,211	\$1,007,363	\$1,044,335	\$1,274,023	\$890,462	\$871,968
Income before Taxes (EBIT)	(\$821,211)	(\$1,007,363)	(\$1,044,335)	(\$1,274,023)	(\$890,462)	(\$871,968)
Interest Expense	281,386	279,273	277,206	275,172	266,899	258,586
Taxable income	(\$1,102,597)	(\$1,286,636)	(\$1,321,541)	(\$1,549,195)	(\$1,157,361)	(\$1,130,554)
Income Taxes 7/	(\$269,088)	(\$314,002)	(\$322,521)	(\$378,079)	(\$282,453)	(\$275,911)
Less: ARAM Amortization	21,524	21,524	21,524	21,524	21,524	21,524
Production Tax Credit 8/	921,607	736,249	670,117	748,470	525,938	483,819
Net Income Taxes	(\$1,212,219)	(\$1,071,775)	(\$1,014,162)	(\$1,148,073)	(\$829,915)	(\$781,254)
Operating Income	\$391,008	\$64,412	(\$30,173)	(\$125,950)	(\$60,547)	(\$90,714)
Revenue Requirement	\$651,856	\$1,075,108	\$1,191,643	\$1,309,888	\$1,188,999	\$1,194,364

Montana-Dakota Utilities Co.
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Revenue Requirement - Wind Resources
Actual/Projected Year End 2018

	Actual			Projected			Average Balance
	July 2018	Aug 2018	Sept 2018	Oct 2018	Nov 2018	Dec 2018	
Rate Base							
Plant Balance							
Thunder Spirit Production	\$141,672,548	\$141,672,548	\$141,712,911	\$141,712,911	\$141,712,911	\$141,712,911	
Thunder Spirit Transmission	5,440,539	5,440,539	5,440,539	5,440,539	5,440,539	5,440,539	
Thunder Spirit Expansion				59,594,741	59,594,741	59,594,741	
Cedar Hills Production	30,306,128	30,310,884	30,416,000	30,416,000	30,416,000	30,464,030	
Diamond Willow Production	41,706,272	41,747,148	41,837,243	41,837,243	41,837,243	42,255,193	
Diamond Willow Transmission	2,315,488	2,315,488	2,315,488	2,315,488	2,315,488	2,315,488	
Total Plant Balance	221,440,975	221,486,607	221,722,181	281,316,922	281,316,922	281,782,902	236,463,561
Accumulated Reserve							
Thunder Spirit Production	\$14,713,087	\$15,185,329	\$15,657,571	\$16,129,948	\$16,602,325	\$17,074,702	
Thunder Spirit Transmission	206,973	214,240	221,507	228,774	236,041	243,308	
Thunder Spirit Expansion				198,649	198,649	397,298	
Cedar Hills Production	11,423,466	11,520,713	11,617,976	11,715,572	11,813,168	11,910,764	
Diamond Willow Production	16,718,465	16,864,667	17,099,066	17,245,727	17,392,388	17,539,049	
Diamond Willow Transmission	424,635	427,682	430,723	433,770	436,817	439,864	
Decommissioning Balance	493,486	534,610	575,734	616,858	657,982	699,106	
Total Accumulated Reserve	43,980,112	44,747,241	45,602,577	46,370,649	47,337,370	48,304,091	
Net Plant in Service	\$177,460,863	\$176,739,366	\$176,119,604	\$234,946,273	\$233,979,552	\$233,478,811	192,783,113
Adds:							
PTC Carryforward - Thunder Spirit 1/	2,978,131	2,978,131	1,489,064	1,489,064	1,489,064	0	
PTC Carryforward - Cedar/Diamond 1/	3,691,272	3,691,272	1,845,638	1,845,638	1,845,638	0	
Def. Tax on ND Invest. Tax Credit	937,151	972,153	1,007,156	1,042,159	1,077,162	1,112,165	
Def. Tax on Wind Decommissioning 3/	147,979	158,015	168,051	178,087	188,123	198,162	
Less:							
Accum DIT - Thunder Spirit 4/	\$31,995,540	\$32,093,072	\$32,166,814	\$32,215,985	\$32,241,366	\$32,242,147	
Accum DIT - Thunder Spirit Expansion 4/	215,731	231,177	242,856	250,643	254,663	254,787	
Accum DIT - Cedar/Diamond 4/	15,846,124	15,827,357	15,813,168	15,803,707	15,798,823	15,798,673	
Accum. Def. Invest. Tax Credit 2/	2,869,944	3,018,368	3,166,792	3,315,216	3,463,640	3,612,063	
Total Rate Base	\$134,288,057	\$133,368,963	\$129,239,883	\$187,915,670	\$186,821,047	\$182,881,468	150,969,373
Return on Rate Base 5/	\$806,288	\$800,769	\$775,978	\$1,128,277	\$1,121,705	\$1,098,051	\$10,877,345
Expenses							
Operating Expenses							Total
O&M - Thunder Spirit	\$152,498	\$157,951	\$148,372	143,906	143,906	459,501	
O&M - Thunder Spirit Expansion				51,195	51,195	71,876	
O&M - Cedar Hills	17,716	26,469	18,043	19,136	19,136	58,830	
O&M - Diamond Willow	33,130	37,732	25,275	28,687	28,687	85,216	
Total O&M	203,344	222,152	191,690	242,924	242,924	675,423	2,886,833
Depreciation Expense							
Thunder Spirit Production	472,229	472,242	472,242	472,377	472,377	472,377	
Thunder Spirit Transmission	7,267	7,267	7,267	7,267	7,267	7,267	
Thunder Spirit Expansion				198,649	198,649	198,649	
Cedar Hills Production	97,237	97,247	97,262	97,596	97,596	97,596	
Diamond Willow Production	146,192	146,202	146,345	146,661	146,661	146,661	
Diamond Willow Transmission	3,047	3,047	3,047	3,047	3,047	3,047	
Wind Decommissioning	41,124	41,124	41,124	41,124	41,124	41,124	
Total Depreciation	767,096	767,129	767,287	768,072	966,721	966,721	9,453,002
Property taxes 6/	55,833	55,833	55,833	55,833	55,833	55,830	669,993
Payroll taxes	2,603	3,164	2,096	2,653	2,653	2,653	31,834
Total Expenses	\$1,028,876	\$1,048,278	\$1,016,906	\$1,069,482	\$1,268,131	\$1,700,627	\$13,041,662
Income before Taxes (EBIT)	(\$1,028,876)	(\$1,048,278)	(\$1,016,906)	(\$1,069,482)	(\$1,268,131)	(\$1,700,627)	(\$13,041,662)
Interest Expense	256,714	254,957	247,064	359,232	357,140	349,608	3,463,237
Taxable income	(\$1,285,590)	(\$1,303,235)	(\$1,263,970)	(\$1,428,714)	(\$1,625,271)	(\$2,050,235)	(\$16,504,899)
Income Taxes 7/	(\$313,747)	(\$318,053)	(\$308,471)	(\$348,676)	(\$396,646)	(\$500,358)	(\$4,028,005)
Less: ARAM Amortization	21,524	21,524	21,524	21,524	21,524	21,524	258,288
Production Tax Credit 8/	422,565	330,580	613,669	1,074,062	1,126,963	1,275,557	8,929,596
Net Income Taxes	(\$757,836)	(\$670,157)	(\$943,664)	(\$1,444,262)	(\$1,545,133)	(\$1,797,439)	(\$13,215,889)
Operating Income	(\$271,040)	(\$378,121)	(\$73,242)	\$374,780	\$277,002	\$96,812	\$174,227
Revenue Requirement	\$1,425,129	\$1,559,479	\$1,123,380	\$996,754	\$1,117,404	\$1,324,476	\$14,158,480

Factor 271 - Integrated Peak and Energy
2018: 68.937832%

1/ Production Tax Credit prior year carryforward of 13,338,805 is projected to be fully utilized during the year along with all current year PTC. Utilization of prior credits is quarterly in May, June, September, and December.

	Carryforward	% of Total	Utilization of carryforward per tax month
Carryforward:	13,338,805		
Quarterly carryforward utilized:	<u>4 months</u> (3,334,701)		
Thunder Spirit:	5,956,265	44.654%	(1,489,067)
Cedar/Diamond:	7,382,540	55.346%	(1,845,634)
	13,338,805	100.000%	(3,334,701)

2/ Investment tax credit: Cedar Hills

	Accumulated Deferred Tax
Ending Balance: 12/31/2017:	1,830,976
Projected balance: 12/31/2018:	3,612,063
Projected ITC activity 2018:	1,781,087
Monthly Activity:	148,424

3/ Deferred Tax on Wind Decommissioning

2018 Decommissioning Dep. Expense:	493,485
Tax Rate:	24.4049%
2018 Activity:	120,435
Monthly Activity:	10,036

4/ Monthly Deferred Income Tax activity is 1/12 of projected 2018 DIT activity.

	Thunder Spirit I	Thunder Spirit Expand.	Cedar/Diamond			
Projected DIT activity 2018:	5,037,784	797,836	(969,347)			
ND Fac. #271:	68.937832%	68.937832%	68.937832%			
ND projected activity:	3,472,939	550,011	(668,247)			
Monthly:	289,412	45,834	(55,687)			
	January	February	March	April	May	June
	91.78%	84.11%	75.62%	67.40%	58.90%	50.68%
Thunder Spirit I:	265,622	243,424	218,853	195,064	170,464	146,674
Thunder Spirit Expand:	42,066	38,551	34,660	30,892	26,996	23,229
Cedar/Diamond:	(51,110)	(46,838)	(42,111)	(37,533)	(32,800)	(28,222)
	July	August	September	October	November	December
	42.19%	33.70%	25.48%	16.99%	8.77%	0.27%
Thunder Spirit I:	122,103	97,532	73,742	49,171	25,381	781
Thunder Spirit Expand:	19,337	15,446	11,679	7,787	4,020	124
Cedar/Diamond:	(23,494)	(18,767)	(14,189)	(9,461)	(4,884)	(150)

5/ Projected Capital Structure with Authorized Return on Equity

	Ratio	Cost	
Long Term Debt:	42.485%	4.990%	2.120%
Short Term Debt:	6.622%	2.625%	0.174%
Common Equity:	50.893%	9.650%	4.911%
	100.000%		7.205%
			2.294%

6/ Property tax (Thunder Spirit accrues generation taxes in lieu of ad valorem taxes for production)

	<u>2018 Estimated</u>
Thunder Spirit - Generation:	493,930
Thunder Spirit Expand - Generation:	145,479
Cedar Hills:	44,939
Diamond Willow:	<u>287,533</u>
	971,881
ND Fac. #271:	<u>68.937832%</u>
Total North Dakota:	<u>669,994</u>
Monthly:	55,833

7/ Tax Rate 24.4049% (Federal Tax Rate = 21%, Tax Rate = 4.31%)
 1- tax rate 75.5951%

8/ Production Tax Credit. Current year, 13 Diamond Willow turbines are no longer eligible for the credit.

	January	February	March	April	May	June
Thunder Spirit:	43,195,000	36,834,000	33,847,000	37,304,000	26,419,000	23,406,000
Diamond (eligible for PTC):	8,304,950	3,493,330	2,100,980	2,779,630	1,797,810	2,003,970
Cedar:	<u>4,202,830</u>	<u>4,172,240</u>	<u>4,554,530</u>	<u>5,154,580</u>	<u>3,571,350</u>	<u>3,832,470</u>
Total Generation:	55,702,780	44,499,570	40,502,510	45,238,210	31,788,160	29,242,440
Projected PTC (rate \$.024/Kwh):	<u>1,336,867</u>	<u>1,067,990</u>	<u>972,060</u>	<u>1,085,717</u>	<u>762,916</u>	<u>701,819</u>
Projected ND PTC (Fac. #271):	921,607	736,249	670,117	748,470	525,938	483,819

	<u>Projected Period</u>					
	July	August	September	October	November	December
Thunder Spirit:	19,921,000	15,939,000	30,311,100	39,828,019	42,184,419	46,854,735
Thunder Spirit Expand:				15,751,684	16,677,263	18,528,423
Diamond (eligible for PTC):	2,033,790	1,402,400	2,251,110	3,268,166	3,238,541	4,099,439
Cedar:	<u>3,585,450</u>	<u>2,639,200</u>	<u>4,528,520</u>	<u>6,069,450</u>	<u>6,014,432</u>	<u>7,613,245</u>
Total Generation:	25,540,240	19,980,600	37,090,730	64,917,319	68,114,655	77,095,842
Projected PTC (rate \$.024/Kwh):	<u>612,966</u>	<u>479,534</u>	<u>890,178</u>	<u>1,558,016</u>	<u>1,634,752</u>	<u>1,850,300</u>
Projected ND PTC (Fac. #271):	422,565	330,580	613,669	1,074,062	1,126,963	1,275,557

Montana-Dakota Utilities Co.
Electric Utility - North Dakota
Renewable Resource Cost Adjustment
Revenue Requirement - Wind Resources
Projected Year End 2019

	Projected					
	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	June 2019
Rate Base						
Plant Balance						
Thunder Spirit Production	\$141,712,911	\$141,712,911	\$141,712,911	\$141,712,911	\$141,712,911	\$141,712,911
Thunder Spirit Transmission	5,440,539	5,440,539	5,440,539	5,440,539	5,440,539	5,440,539
Thunder Spirit Expansion	59,594,741	59,594,741	59,594,741	59,594,741	59,594,741	59,594,741
Cedar Hills Production	30,464,030	30,464,030	30,464,030	30,464,030	30,464,030	30,464,030
Diamond Willow Production	42,255,193	42,255,193	42,255,193	42,255,193	42,255,193	42,255,193
Diamond Willow Transmission	2,315,488	2,315,488	2,315,488	2,315,488	2,315,488	2,315,488
Total Plant Balance	281,782,902	281,782,902	281,782,902	281,782,902	281,782,902	281,782,902
Accumulated Reserve						
Thunder Spirit Production	\$17,547,079	\$18,019,456	\$18,491,833	\$18,964,210	\$19,436,587	\$19,908,964
Thunder Spirit Transmission	250,575	257,842	265,109	272,376	279,643	286,910
Thunder Spirit Expansion	595,947	794,596	993,245	1,191,894	1,390,543	1,589,192
Cedar Hills Production	12,008,513	12,106,262	12,204,011	12,301,760	12,399,509	12,497,258
Diamond Willow Production	17,687,176	17,835,303	17,983,430	18,131,557	18,279,684	18,427,811
Diamond Willow Transmission	442,911	445,958	449,005	452,052	455,099	458,146
Decommissioning Balance	740,230	781,354	822,478	863,602	904,726	945,850
Total Accumulated Reserve	49,272,431	50,240,771	51,209,111	52,177,451	53,145,791	54,114,131
Net Plant in Service	\$232,510,471	\$231,542,131	\$230,573,791	\$229,605,451	\$228,637,111	\$227,668,771
Adds:						
PTC Carryforward - Thunder Spirit	0	0	0	0	0	0
PTC Carryforward - Cedar/Diamond	0	0	0	0	0	0
Def. Tax on ND Invest. Tax Credit 1/	1,145,923	1,179,681	1,213,439	1,247,197	1,280,955	1,314,713
Def. Tax on Wind Decommissioning 2/	208,198	218,234	228,270	238,306	248,342	258,378
Less:						
Accum DIT - Thunder Spirit 3/	\$32,391,736	\$32,528,824	\$32,652,074	\$32,761,927	\$32,857,926	\$32,940,527
Accum DIT - Thunder Spirit Expand /3	669,445	1,049,451	1,391,099	1,695,610	1,961,718	2,190,688
Accum DIT - Cedar/Diamond 3/	15,757,488	15,719,744	15,685,810	15,655,565	15,629,134	15,606,392
Accum. Def. Invest. Tax Credit 1/	3,750,386	3,888,709	4,027,032	4,165,355	4,303,678	4,442,001
Total Rate Base	\$181,295,537	\$179,753,318	\$178,259,485	\$176,812,497	\$175,413,952	\$174,062,254
Return on Rate Base 4/	\$1,088,529	\$1,079,269	\$1,070,300	\$1,061,612	\$1,053,215	\$1,045,099
Expenses						
Operating Expenses						
O&M - Thunder Spirit 5/	\$157,636	\$157,636	\$157,636	\$157,636	\$157,636	\$157,636
O&M - Cedar Hills 5/	23,625	23,625	23,625	23,625	23,625	23,625
O&M - Diamond Willow 5/	33,145	33,145	33,145	33,145	33,145	33,145
Total O&M	214,406	214,406	214,406	214,406	214,406	214,406
Depreciation Expense						
Thunder Spirit Production	472,377	472,377	472,377	472,377	472,377	472,377
Thunder Spirit Transmission	7,267	7,267	7,267	7,267	7,267	7,267
Thunder Spirit Expansion	198,649	198,649	198,649	198,649	198,649	198,649
Cedar Hills Production	97,749	97,749	97,749	97,749	97,749	97,749
Diamond Willow Production	148,127	148,127	148,127	148,127	148,127	148,127
Diamond Willow Transmission	3,047	3,047	3,047	3,047	3,047	3,047
Wind Decommissioning	41,124	41,124	41,124	41,124	41,124	41,124
Total Depreciation	968,340	968,340	968,340	968,340	968,340	968,340
Property taxes 6/	63,006	63,006	63,006	63,006	63,006	63,006
Payroll taxes	2,653	2,653	2,653	2,653	2,653	2,653
Total Expenses	\$1,248,405	\$1,248,405	\$1,248,405	\$1,248,405	\$1,248,405	\$1,248,405
Income before Taxes (EBIT)	(\$1,248,405)	(\$1,248,405)	(\$1,248,405)	(\$1,248,405)	(\$1,248,405)	(\$1,248,405)
Interest Expense	346,577	343,628	340,773	338,007	335,333	332,749
Taxable income	(\$1,594,982)	(\$1,592,033)	(\$1,589,178)	(\$1,586,412)	(\$1,583,738)	(\$1,581,154)
Income Taxes 7/	(\$389,254)	(\$388,534)	(\$387,837)	(\$387,162)	(\$386,510)	(\$385,879)
Less: ARAM Amortization 8/	17,078	17,077	17,078	17,077	17,078	17,077
Production Tax Credit 9/	1,253,616	835,671	939,552	782,551	906,524	821,021
Net Income Taxes	(\$1,659,948)	(\$1,241,282)	(\$1,344,467)	(\$1,186,790)	(\$1,310,112)	(\$1,223,977)
Operating Income	\$411,543	(\$7,123)	\$96,062	(\$61,615)	\$61,707	(\$24,428)
Revenue Requirement	\$895,542	\$1,437,120	\$1,288,758	\$1,485,846	\$1,311,604	\$1,414,810

Montana-Dakota Utilities Co.
Electric Utility - North Dakota
Renewable Resource Cost Adjustment
Revenue Requirement - Wind Resources
Projected Year End 2019

	Projected						Average Balance
	July 2019	Aug 2019	Sept 2019	Oct 2019	Nov 2019	Dec 2019	
Rate Base							
Plant Balance							
Thunder Spirit Production	\$141,712,911	\$141,712,911	\$141,712,911	\$141,712,911	\$141,712,911	\$141,712,911	
Thunder Spirit Transmission	5,440,539	5,440,539	5,440,539	5,440,539	5,440,539	5,440,539	
Thunder Spirit Expansion	59,594,741	59,594,741	59,594,741	59,594,741	59,594,741	59,594,741	
Cedar Hills Production	31,090,809	31,090,809	31,090,809	31,090,809	31,090,809	31,090,809	
Diamond Willow Production	43,132,683	43,132,683	43,132,683	43,132,683	43,132,683	43,132,683	
Diamond Willow Transmission	2,315,488	2,315,488	2,315,488	2,315,488	2,315,488	2,315,488	
Total Plant Balance	283,287,171	283,287,171	283,287,171	283,287,171	283,287,171	283,287,171	282,535,037
Accumulated Reserve							
Thunder Spirit Production	\$20,381,341	\$20,853,718	\$21,326,095	\$21,798,472	\$22,270,849	\$22,743,226	
Thunder Spirit Transmission	294,177	301,444	308,711	315,978	323,245	330,512	
Thunder Spirit Expansion	1,787,841	1,986,490	2,185,139	2,383,788	2,582,437	2,781,086	
Cedar Hills Production	12,595,007	12,694,746	12,794,485	12,894,224	12,993,963	13,093,702	
Diamond Willow Production	18,575,938	18,727,144	18,878,350	19,029,556	19,180,762	19,331,968	
Diamond Willow Transmission	461,193	464,240	467,287	470,334	473,381	476,428	
Decommissioning Balance	986,974	1,028,098	1,069,222	1,110,346	1,151,470	1,192,594	
Total Accumulated Reserve	55,082,471	56,055,880	57,029,289	58,002,698	58,976,107	59,949,516	
Net Plant in Service	\$228,204,700	\$227,231,291	\$226,257,882	\$225,284,473	\$224,311,064	\$223,337,655	227,930,399
Adds:							
PTC Carryforward - Thunder Spirit	0	0	0	0	0	0	
PTC Carryforward - Cedar/Diamond	0	0	0	0	0	0	
Def. Tax on ND Invest. Tax Credit 1/	1,348,471	1,382,229	1,415,987	1,449,745	1,483,503	1,517,261	
Def. Tax on Wind Decommissioning 2/	268,414	278,450	288,486	298,522	308,558	318,597	
Less:							
Accum DIT - Thunder Spirit 3/	\$33,009,291	\$33,064,217	\$33,105,746	\$33,133,437	\$33,147,731	\$33,148,171	
Accum DIT - Thunder Spirit Expand /3	2,381,301	2,533,556	2,648,674	2,725,434	2,765,057	2,766,277	
Accum DIT - Cedar/Diamond 3/	15,587,460	15,572,337	15,560,903	15,553,279	15,549,344	15,549,223	
Accum. Def. Invest. Tax Credit 1/	4,580,324	4,718,647	4,856,970	4,995,293	5,133,616	5,271,938	
Total Rate Base	\$174,263,209	\$173,003,213	\$171,790,062	\$170,625,297	\$169,507,377	\$168,437,904	174,435,342
Return on Rate Base 4/	\$1,046,305	\$1,038,740	\$1,031,456	\$1,024,463	\$1,017,751	\$1,011,329	\$12,568,068
Expenses							
Operating Expenses							Total
O&M - Thunder Spirit 5/	\$157,636	\$157,636	\$157,636	\$157,636	\$157,636	\$612,626	
O&M - Cedar Hills 5/	23,625	23,625	23,625	23,625	23,625	62,804	
O&M - Diamond Willow 5/	33,145	33,145	33,145	33,145	33,145	88,295	
Total O&M	214,406	214,406	214,406	214,406	214,406	763,725	3,122,191
Depreciation Expense							
Thunder Spirit Production	472,377	472,377	472,377	472,377	472,377	472,377	
Thunder Spirit Transmission	7,267	7,267	7,267	7,267	7,267	7,267	
Thunder Spirit Expansion	198,649	198,649	198,649	198,649	198,649	198,649	
Cedar Hills Production	97,749	99,739	99,739	99,739	99,739	99,739	
Diamond Willow Production	148,127	151,206	151,206	151,206	151,206	151,206	
Diamond Willow Transmission	3,047	3,047	3,047	3,047	3,047	3,047	
Wind Decommissioning	41,124	41,124	41,124	41,124	41,124	41,124	
Total Depreciation	968,340	973,409	973,409	973,409	973,409	973,409	11,645,425
Property taxes 6/	63,006	63,006	63,006	63,006	63,006	63,006	756,072
Payroll taxes	2,653	2,653	2,653	2,653	2,653	2,653	31,836
Total Expenses	\$1,248,405	\$1,253,474	\$1,253,474	\$1,253,474	\$1,253,474	\$1,802,793	\$15,555,524
Income before Taxes (EBIT)	(\$1,248,405)	(\$1,253,474)	(\$1,253,474)	(\$1,253,474)	(\$1,253,474)	(\$1,802,793)	(\$15,555,524)
Interest Expense	333,133	330,724	328,405	326,179	324,042	321,997	4,001,547
Taxable income	(\$1,581,538)	(\$1,584,198)	(\$1,581,879)	(\$1,579,653)	(\$1,577,516)	(\$2,124,790)	(\$19,557,071)
Income Taxes 7/	(\$385,973)	(\$386,622)	(\$386,056)	(\$385,513)	(\$384,991)	(\$518,553)	(\$4,772,884)
Less: ARAM Amortization 8/	17,078	17,077	17,078	17,077	17,078	17,077	204,930
Production Tax Credit 9/	807,651	650,914	776,246	1,243,108	1,037,616	1,364,954	11,419,424
Net Income Taxes	(\$1,210,702)	(\$1,054,613)	(\$1,179,380)	(\$1,645,698)	(\$1,439,685)	(\$1,900,584)	(\$16,397,238)
Operating Income	(\$37,703)	(\$198,861)	(\$74,094)	\$392,224	\$186,211	\$97,791	\$841,714
Revenue Requirement	\$1,433,966	\$1,637,144	\$1,462,463	\$836,349	\$1,099,992	\$1,208,462	\$15,512,056

Factor 271 - Integrated Peak and Energy

2018: 68.937832%

1/ Investment tax credit: Cedar Hills

	Accumulated Deferred Tax		Deferred Tax
Ending Balance: 12/31/2018:	3,612,063	Projected ITC activity 2019:	1,659,875
Projected balance: 12/31/2019:	5,271,938	Tax Rate:	24.4049%
Projected ITC activity 2019:	1,659,875	2019 Activity:	405,091
Monthly Activity:	138,323	Monthly Activity:	33,758

2/ Deferred Tax on Wind Decommissioning

2019 Decommissioning Dep. Expense:	493,485
Tax Rate:	24.4049%
2019 Activity:	120,435
Monthly Activity:	10,036

3/ Monthly Deferred Income Tax activity is 1/12 of projected 2019 DIT activity.

	Thunder Spirit I	Thunder Spirit Expand	Cedar/Diamond			
Projected DIT activity 2018:	2,837,101	7,864,401	(781,119)			
ND Fac. #271:	68.937832%	68.937832%	68.937832%			
ND projected activity:	1,955,836	5,421,548	(538,487)			
Monthly:	162,986	451,796	(44,874)			
	January	February	March	April	May	June
	91.78%	84.11%	75.62%	67.40%	58.90%	50.68%
Thunder Spirit I:	149,589	137,088	123,250	109,853	95,999	82,601
Thunder Spirit Expand:	414,658	380,006	341,648	304,511	266,108	228,970
Cedar/Diamond:	(41,185)	(37,744)	(33,934)	(30,245)	(26,431)	(22,742)
	July	August	September	October	November	December
	42.19%	33.70%	25.48%	16.99%	8.77%	0.27%
Thunder Spirit I:	68,764	54,926	41,529	27,691	14,294	440
Thunder Spirit Expand:	190,613	152,255	115,118	76,760	39,623	1,220
Cedar/Diamond:	(18,932)	(15,123)	(11,434)	(7,624)	(3,935)	(121)

4/ Projected Capital Structure with Authorized Return on Equity

	Ratio	Cost		
Long Term Debt:	42.485%	4.990%	2.120%	
Short Term Debt:	6.622%	2.625%	0.174%	2.294%
Common Equity:	50.893%	9.650%	4.911%	
	100.000%		7.205%	

5/ Projected O&M - 2019:

	Resp. # 859 Thunder Spirit	Resp. # 858 Cedar Hills	Resp. # 856 Diamond Willow
Budgeted O&M:	2,743,959	411,244	576,957
ND Factor #271:	68.937832%	68.937832%	68.937832%
Budgeted ND O&M:	1,891,626	283,503	397,742
Monthly Budgeted ND O&M:	157,636	23,625	33,145
Annual Easement (ND Allocated):	454,990	39,179	55,150
December O&M:	612,626	62,804	88,295

6/ Property tax (Thunder Spirit accrues generation taxes in lieu of ad valorem taxes for production)

Thunder Spirit - Generation:	764,273	Based on 2019 projected generation
Cedar Hills:	44,939	2018 Estimate
Diamond Willow:	287,533	2018 Estimate
	<u>1,096,745</u>	
ND Fac. #271:	68.937832%	
Total North Dakota:	756,072	
Monthly:	63,006	

7/ Tax Rate 24.4049% (Federal Tax Rate = 21%, Tax Rate = 4.31%)
1- tax rate 75.5951%

8/ ARAM Amortization 2019

Cedar Hills/Diamond Willow:	(297,268)
ND Fac. #271:	68.937832%
ND ARAM:	(204,930)
Monthly:	(17,078)

9/ Production Tax Credit. Current year, 13 Diamond Willow turbines are no longer eligible for the credit.

	January	February	March	April	May	June
Thunder Spirit:	67,910,112	44,203,164	48,670,128	40,215,336	47,148,858	41,755,746
Diamond (eligible for PTC):	3,160,010	2,602,950	2,762,760	2,343,565	2,382,275	2,509,815
Cedar:	4,699,595	3,702,599	5,354,479	4,739,233	5,259,996	5,357,745
Total Generation:	75,769,717	50,508,713	56,787,367	47,298,134	54,791,129	49,623,306
Projected PTC (rate \$.024/Kwh):	1,818,473	1,212,209	1,362,897	1,135,155	1,314,987	1,190,959
Projected ND PTC (Fac. #271):	1,253,616	835,671	939,552	782,551	906,524	821,021

	July	August	September	October	November	December
Thunder Spirit:	41,913,552	33,244,266	41,153,034	65,254,962	55,240,338	71,355,174
Diamond (eligible for PTC):	2,178,190	1,775,760	1,966,055	3,851,925	2,858,800	4,370,940
Cedar:	4,723,410	4,321,836	3,797,968	6,027,704	4,615,313	6,772,970
Total Generation:	48,815,152	39,341,862	46,917,057	75,134,591	62,714,451	82,499,084
Projected PTC (rate \$.024/Kwh):	1,171,564	944,205	1,126,009	1,803,230	1,505,147	1,979,978
Projected ND PTC (Fac. #271):	807,651	650,914	776,246	1,243,108	1,037,616	1,364,954

Notice of Annual Update to the Renewable Resource Cost Adjustment with the North Dakota Public Service Commission

On November 2, 2018, Montana-Dakota Utilities Co. (Montana-Dakota) filed an application with the North Dakota Public Service Commission (Commission) to update its Renewable Resource Cost Adjustment (RRCA) rates in accordance with the Company's Renewable Resource Cost Adjustment Rate 55 tariff that states the rates will be revised annually to reflect the most recent projected level of costs to be recovered.

The proposed Renewable Resource Cost Adjustment rates include North Dakota's allocation of the Company's investments in its three wind facilities (Diamond Willow, Cedar Hills, and Thunder Spirit) currently not being recovered through the Company's electric service rates and the amortization of the under-recovered RRCA balance through 2018.

Montana-Dakota has requested the proposed RRCA rates be effective with service rendered on and after February 1, 2019, subject to Commission review and approval. This change is only being proposed at this time and, if rates are suspended by the Commission, the new rates will not be effective until Commission action has been taken.

If approved, a typical residential customer using 894 Kwh will see an increase of \$1.52 per month, or \$18.24 annually. The RRCA is shown as a separate line item on your bill.

	Residential & Small General
Applicable Rate Schedules	10, 13, 16, 20, 25, & 40
Current Rate	\$0.00607 per Kwh
Proposed Rate	\$0.00777 per Kwh
Change	\$0.00170 per Kwh
	Large General
Applicable Rate Schedules	30, 31, 32, 38, & 48
Current Rate	\$0.00586 per Kwh
Proposed Rate	\$0.00754 per Kwh
Change	\$0.00168 per Kwh
	Lighting
Applicable Rate Schedules	41 & 52
Current Rate	\$0.00526 per Kwh
Proposed Rate	\$0.00813 per Kwh
Change	\$0.00287 per Kwh

For more information, please contact a Montana-Dakota representative at 1-800-638-3278.