STAFF MEMORANDUM

TO: COMMISSIONERS AND ADVISORS

FROM: BRITTANY MEHLHAFF, JOSEPH REZAC, AND AMANDA REISS

RE: Docket EL16-026 - In the Matter of the Filing by Montana-Dakota Utilities Co. for Approval of Tariff Revisions to its Rates 95, Rate 96 and Rate 97

DATE: August 25, 2016

Commission Staff (Staff) submits this Memorandum regarding its recommendations for the above captioned matter.

BACKGROUND

On July 27, 2016, Montana-Dakota Utilities Co. (MDU or Company) filed with the Commission a request for approval of tariff revisions to its Occasional Power Purchase Non-Time Differentiated Rate 95, Short-Term Power Purchase Rate 96, and Long-Term Power Purchase Rate 97.

Under Section 210 of the Public Utility Regulatory Policies Act of 1978 (PURPA), electric utilities are required to purchase energy offered by Qualifying Facilities (QFs), which are cogeneration facilities[1] and small power production facilities[2]. Utilities are required to purchase energy and capacity from QFs at rates which reflect the incremental costs of energy, capacity, or both, that the utility would have incurred to generate or purchase the energy if it was not supplied by the QF. These incremental costs are termed the utility's avoided costs.

Federal Energy Regulatory Commission (FERC) regulations required states to establish standardized rates for QFs with an installed capacity of 100 kW or less. These standardized rates are included in MDU's tariff as Rates 95, 96, and 97, and were first approved in Docket F-3365[3]. These tariffs are reviewed annually and revised when necessary.

This filing updates the energy and capacity payments as well as metering charges based on current data, each of which are more thoroughly explained below.

PROPOSED METERING CHARGES

The proposed metering charges reflect updated meter costs, including the carrying charge and maintenance expenses. The current and proposed meter charges ($/day) are:

[1] Cogeneration facilities are generating units that produce electricity and steam simultaneously.
[2] Small power production facilities have a maximum size of 80 MW and have a primary energy source (75 percent or more) of biomass, waste, renewable resources, geothermal resources, or any combination thereof.
[3] In the Matter of the Investigation of the Implementation of Certain Requirements of Title II of the Public Utilities Regulatory Policy Act of 1978 Regarding Cogeneration and Small Power Production

Rate Schedule	Current	Proposed
Rate 95 Single Phase	\$0.06	\$0.05
Rate 95 Three Phase	\$0.20	\$0.19
Rate 96 & 97 Single Phase	\$0.16	\$0.15
Rate 96 & 97 Three Phase	\$0.25	\$0.23

PROPOSED ENERGY PAYMENTS

MDU calculates the energy payments for purchases from qualifying facilities using the production costing model PLEXOS for Power Systems (PLEXOS). PLEXOS is a production cost software model which provides an economic dispatch simulation of MDU's generation fleet versus its load serving obligations. PLEXOS calculates an hourly marginal cost to serve MDU's customer load based upon the last generation resource dispatched or the Midcontinent Independent System Operators, Inc. (MISO) energy market price[4]. The proposed payments in this filing are based on the test year July 2016 through June 2017. MDU stated the proposed energy payments reflect a decrease in the energy payment per kWh attributable to a decrease in the forecasted MISO market prices and natural gas prices.

The Rate 95 energy payment is based on the average marginal cost for the test year. Rate 96 and 97 energy payments are separated into on-peak and off-peak based on the Company's defined on and off-peak periods defined in the tariff. The On-Peak Period is defined as between 12:00 p.m. and 8:00 p.m. Monday through Friday in the months of June through September. The Off-Peak Period is defined as all other hours. The On-Peak and Off-Peak payments are also based on the averages for the test year.

The current and proposed energy payments (¢/kWh) are:

Rate Schedule	Current	Proposed
Rate 95	3.2962¢	2.581¢
Rate 96 & 97 on-peak	2.971¢	2.605¢
Rate 96 & 97 off-peak	3.289¢	2.580¢

PROPOSED CAPACITY PAYMENTS

The proposed Rate 96 capacity payment reflects the levelized cost of a new combustion turbine. While the capital costs have increased, this was more than offset by the updated capital structure. Therefore, the proposed capacity payment reflects a decrease of \$0.196 per kW per month.

The proposed Rate 97 capacity payment reflects the levelized cost of a baseload coal facility and is a decrease of \$3.538/Kw per month.

[4] For additional information regarding the PLEXOS model and the calculation of the energy payments, refer to MDU's responses to Staff's data requests 1-1, 1-2, 1-3, and 1-5.

The capacity payments for both Rate 96 and Rate 97 are made during the months of June through September, based upon the amount of qualifying capacity assigned to an eligible resource under BPM-011-Resource Adequacy of the MISO Tariff[5].

The current and proposed capacity payments ($/kW) are:

Rate Schedule	Current	Proposed
Rate 96	$7.385	$7.189
Rate 97	$34.050	$30.512

CHANGES FROM INITIAL FILING

Following the receipt of MDU's responses to Staff's data requests, MDU and Staff discussed and agreed to additional tariff changes.

Staff believed the tariffs did not fully explain the differences between the three rate schedules. MDU agreed to include a definition of "occasional" in the Rate 95 tariff. Staff believes adding the phrase "capable of providing energy on a seasonal or month to month basis" helps to avoid confusion for customers reviewing the tariff.

Regarding Rates 96 and 97, Staff discovered that while MDU believed Rate 97 should be applicable only to a customer committing to an agreement of 10 years or more and to non-intermittent resources[6], the Rate 97 tariff currently does not say anything about intermittent resources and states that the term of the contract shall be for a minimum term of one year but less than 10 years. Therefore, the only difference between Rate 96 and Rate 97 is the capacity payment.

MDU suggested combining Rate 96 and Rate 97 into one category and Staff agreed this change is appropriate. Basing avoided capacity costs on a baseload coal unit is not the most representative in today's energy environment and the likelihood of a customer being eligible for an agreement of 10 years or more with a non-intermittent resource is slim. To most accurately reflect MDU's avoided costs, Rate 97 should be the same as Rate 96. MDU determines its avoided capacity in Montana and North Dakota based on the cost of a new combustion turbine as well. Combining these two rate schedules into one also makes MDU's small power producer/cogeneration rate structure similar to those of other utilities. Furthermore, MDU currently has no customers on Rates 96 or 97. Therefore, this is a good time to combine these rate schedules.

On August 23, 2016, MDU filed the appropriate changes to each rate schedule and the table of contents reflecting the changes discussed above. In summary, the revised rates after combining Rates 96 and 97 are as follows:

[5] For additional information regarding the calculation of capacity payments, refer to MDU's responses to Staff's data requests 1-5, 1-7, and 1-8.
[6] Refer to MDU's response to Staff's data request 1-7.

Rate Schedule & Charge/Payment	Current	Proposed
Rate 95 Single Phase Metering Charge	$0.06	$0.05
Rate 95 Three Phase Metering Charge	$0.20	$0.19
Rate 95 Energy Payment	3.2962¢	2.581¢
Rate 96 Single Phase Metering Charge	$0.16	$0.15
Rate 96 Three Phase Metering Charge	$0.25	$0.23
Rate 96 On-Peak Energy Payment	2.971¢	2.605¢
Rate 96 Off-Peak Energy Payment	3.289¢	2.580¢
Rate 96 Capacity Payment	$7.385	$7.189

RECOMMENDATION

Staff recommends the Commission approve the tariff revisions as filed on August 23, 2016, with an effective date of September 1, 2016.