BEFORE THE

NORTH DAKOTA PUBLIC SERVICE COMMISSION

MONTANA-DAKOTA UTLITIES CO.

Electric Service Agreement – Applied Blockchain, Approval, Case No. PU-22-371

DIRECT TESTIMONY

OF

ADAM RENFANDT

ON BEHALF OF THE

NORTH DAKOTA PUBLIC SERVICE COMMISSION

ADVOCACY STAFF

April 17, 2023

Q: Provide your name and qualifications.

A: My name is Adam Renfandt, and the Commission has appointed me advocacy staff in this proceeding. I am a public utility analyst with the Commission, and I have been an analyst on prior electric service agreements, rate cases, and advance determination of prudence reviews. I have also advised the Commission on MISO related transmission topics.

Q: What is the purpose of your testimony?

A: I will provide the commission with an analysis and recommendation concerning the settlement agreement submitted by Montana-Dakota Utilities Co. (MDU) and the North Dakota Public Service Commission Advocacy Staff (Staff).

Q: Briefly describe the ESA that MDU was originally asking the Commission to approve.

A: MDU was seeking Commission approval for an ESA under the High-Density Contracted Demand Response Rate 45 for a customer with a load up to 180 MW with 171 MW served on an interruptible basis and 9 MW served on a firm basis. The customer, Applied Digital (Applied), would be served from the Ellendale 345 kV substation, and it would pay the approximately $3.4M transmission extension to the substation. MDU would treat this load as a wholesale customer, and MDU would pass MISO transmission and market charges directly to Applied. MDU has no investment to serve Applied, since the customer paid for the incremental transmission investment.

Q: Please summarize the settlement.

The settlement provides for [Trade Secret Begins] [redacted] [Trade Secret Ends] of the margin going back to ratepayers with interest on the balance accruing equal to the three-month treasury yield, a study conducted to determine the effect of this load on ND ratepayers' fuel and purchased power costs, and confirmation that all MISO charges would be passed through to the customer. MDU has confirmed that the addition of this load will not impact jurisdictional allocators, and if it did, they shall not seek regulatory recovery for the resultant change. However, nothing precludes MDU from filing an application with the Commission to update the jurisdictional allocators or amend the ESA if ordered by another state. Another provision of the settlement provides that when it comes to disconnecting Applied and removing the installed facilities to serve Applied, MDU will not seek regulatory recovery if removal costs exceed salvage value.

Q: How is this load registered with MISO, and how is the firm portion of the load recovered?

A: 171 MW of the load would be registered as a load modifying resource (interruptible) with 9 MW of the load on a firm basis. Applied is also subject to [Trade Secret Begins] [redacted] [Trade Secret Ends] of curtailment over a period of a year, which would be at the direction of MDU. Applied would also follow all directives to interrupt its load if ordered by MISO during emergencies. Applied would be responsible for the cost to procure the firm 9 MW plus the planning reserve margin. MDU intends to charge Applied for the firm load at a negotiated rate, or MDU could instead sell its own excess zonal resource credits (ZRC), if available, or purchase the ZRCs from the MISO Planning Resource Auction (PRA). If MDU chooses to sell its own ZRCs or procure them in MISO's PRA, the price in either case would be the Zone 1 clearing price.

Q: How does the addition of the Applied load benefit MDU's existing ratepayers?

A: Applied would pay all MISO transmission and market charges, including its portion of MDU's Attachment O transmission investments. This represents a [Trade Secret Begins] [redacted] [Trade Secret Ends] per year reduction in transmission rates that otherwise would have been collected from existing ratepayers, or a $28.20 per year reduction to the average residential bill that uses an average of 894 kwh per month. This would be credited back to customers via MDU's transmission rider.

Q: How else does the addition of this load benefit MDU's existing customers via the margin sharing mechanism, and is it reasonable?

A: MDU negotiated [Trade Secret Begins] [redacted] [Trade Secret Ends] MDU collects from Applied for providing the service in the ESA, and therefore this margin is based on Applied's load. The margin earned will vary based on the amount of load online. The margin sharing per the settlement splits the margin among MDU, Dakota Valley Coop, and ratepayers. Ratepayers are receiving [Trade Secret Begins] [redacted] [Trade Secret Ends] of the margin, or approximately [Trade Secret Begins] [redacted] [Trade Secret Ends] per year assuming a 95% load factor. The remaining [Trade Secret Begins] [redacted] [Trade Secret Ends] of the margin will go back to MDU and Dakota Valley Coop with Dakota Valley Coop getting [Trade Secret Begins] [redacted] [Trade Secret Ends]. At a 95% load factor, this would represent approximately [Trade Secret Begins] [redacted] [Trade Secret Ends] per year going to MDU and [Trade Secret Begins] [redacted] [Trade Secret Ends] per year going to Dakota Valley Coop. I believe this amount leaves MDU with a financial incentive to further explore such opportunities and balances the parties' interests while offering a return to the cooperative as an affected party that withdrew its objections to the certificate of public convenience and necessity in cases PU-22-366 and PU-22-370.

In total, between the reduction in transmission investments that would otherwise be recovered from existing ratepayers and the margin ratepayers would receive, the total ratepayer benefit is approximately [Trade Secret Begins] [redacted] [Trade Secret Ends] per year assuming the Applied's load factor is 95%. For the average residential electric customer using 894 kwh per month, this represents an approximately [Trade Secret Begins] [redacted] [Trade

Secret Ends] per year billing reduction [Trade Secret Begins [redacted] [Trade Secret Ends].

Q: How will the addition of this load impact MDU's jurisdictional allocations?

A: MDU proposes not to change the jurisdictional allocators based on the load addition. If MDU were to include the volumes of this load into the calculation of the ND jurisdictional allocator, there could be a sizable increase in costs allocated to ND. However, if for some reason the ND allocator did change from this load addition, the settlement provides that they shall not seek regulatory recovery for the resultant change. However, nothing precludes MDU from filing an application with the Commission to update the jurisdictional allocators or amending the ESA if ordered by another state.

Q: Does this ESA or the settlement have provisions that serve to protect ratepayers' interests in other ways?

A: The ESA requires that a security deposit be posted, the size of which is recalculated on an annual basis, and the payments made from the customer are settled on a frequent basis. Furthermore, the settlement provides that when disconnecting Applied and removing the installed facilities to serve it, MDU will not seek regulatory recovery if the removal costs exceed the salvage value.

Q: How will this load impact the cost to serve existing ratepayers?

A: In a data request, MDU acknowledged that the addition of this load will increase local area LMPs. This would mean the cost of MDU's fuel and purchased power may increase, and hence the amount existing ratepayers pay for electricity. However, Applied can also voluntarily curtail their load during times of high prices, which may mitigate some adverse impacts to pricing pressure to other MDU customers. Furthermore, the area is known for frequent generation curtailment that may now be able to generate during those hours, when their generation may have been otherwise unable to dispatch. For instance, in 2022, approximately 45% of the hours at the Ellendale pricing node experienced negative day-ahead pricing. Given the potential to impact the transmission system by adding loads of this magnitude, MDU has agreed to study the potential impacts this load addition would have on ratepayers' fuel and purchased power. The cost up to a certain dollar value would be split equally out of MDU's and ratepayers' margin. Any cost over that amount would come out of MDU's margin. Furthermore, if the Commission orders additional future studies, MDU agrees that costs will be allocated in the same manner.

Q: Is this load paying for any rider revenues or the integrated system costs beyond the MISO charges and investments?

A: No. Applied is not paying any costs outside the pass-through MISO transmission and MISO market charges. MDU considers this customer to be a wholesale customer that is paying the MISO charges versus an embedded retail rate. They connect directly into the 345 kV Ellendale substation in an area MDU acknowledges has over 1000 MW of wind assets, which are not owned by MDU, and Applied is not using or paying for MDU's distribution system.

Q: Does this conclude your testimony?

A: Yes it does.