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minnesota power

AN ALLETE COMPANY

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October 5, 2018

VIA ELECTRONIC FILING
Daniel P. Wolf
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-2147

RE: In the Matter of Minnesota Power's Petition for Approval of a 250 MW Nobles 2 Wind Power Purchase Agreement
Docket No. E-015/M-18-545

Dear Dr. Wolf:

Minnesota Power hereby submits its Reply Comments in the above-referenced Docket.

If you have any questions regarding this letter, please do not hesitate to contact me at the number above.

Yours truly,

David R. Moeller

DRM:sr
Attach.

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

In the Matter of Minnesota Power's Petition for Approval of a 250 MW Nobles 2 Wind Power Purchase Agreement	Docket No. E-015/M-18-545 **MINNESOTA POWER'S REPLY COMMENTS**

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I. OVERVIEW

Minnesota Power (or "Company") submits these Reply Comments to the Minnesota Public Utilities Commission ("Commission") in response to the Minnesota Department of Commerce – Division of Energy Resources ("Department") Initial Comments filed on September 21, 2018. On August 22, 2018, Minnesota Power submitted to the Commission a Petition for Approval of an Amended and Restated Power Purchase Agreement (the "Amended PPA" or "Amended Agreement") with Tenaska for the purchase of 250 MW of wind-generated energy and capacity from the Nobles 2 wind generation facility ("Nobles 2" or "Project"), located in Nobles County in southwestern Minnesota, to serve Minnesota Power's customers. Minnesota Power and Tenaska had previously on May 10, 2017 executed the initial Power Purchase Agreement ("Initial PPA") that was submitted to the Commission in Docket No. E015/AI-17-568 and in compliance with the Commission's Order in the 2016 Integrated Resource Plan docket (Docket No. E015/RP-15-690). Through these Reply Comments, Minnesota Power affirms to the Commission that it acted with integrity and in the best interests of customers throughout the process and negotiations with Tenaska that led to the Amended PPA and that Nobles 2 and the Amended PPA will provide significant benefits to Minnesota Power's customers.

II. RESPONSE TO DEPARTMENT'S COMMENTS

A. <u>The Department's Analysis was Incomplete</u>

Overall, the Department's analysis and basis for its recommendation appears to be based on an incomplete review of the record, including the Amended PPA and Minnesota Power's process and procedures. To be clear, Minnesota Power did not receive a notice to terminate the Initial PPA and collect **[TRADE SECRET DATA EXCISED]** in compensation from Tenaska. The contingency in the Initial PPA that would have resulted in such a payment was entirely within

Tenaska's control and was available to them to exercise until January 2019. Tenaska's offer, as set forth in its January 22, 2018 email at Attachment 1, noted that Tenaska had the right to terminate the Initial PPA; however, in lieu of doing so and because of the status of Nobles 2 and the value it would bring to Minnesota Power's customers, that it was preferred to amend the Initial PPA to reflect the financial changes due to the Tax Cuts and Jobs Act ("TCJA"). Therefore, until August 20, 2018 when Minnesota Power and Tenaska executed the Amended PPA, the Initial PPA was in full force and effect and Minnesota Power did not have the right to terminate. Furthermore, if Minnesota Power had initiated a new Request for Proposal ("RFP") to replace Nobles 2 upon receiving Tenaska's request to amend the Initial Agreement, then Minnesota Power could have been in breach of the Initial PPA for not fulfilling the contractual requirements, including the requirement to use commercially reasonable means to obtain Commission approval of the PPA, upon which Tenaska was relying as they developed and permitted Nobles 2.

B. ALLETE and Minnesota Power Acted Independently

Minnesota Power takes very seriously the Department's concerns regarding whether a potential affiliate investment influenced or incentivized the Amended PPA negotiations. The timeline and context discussed in Section 4 below demonstrates this did not occur. When Tenaska and ALLETE began discussions regarding ALLETE becoming a partner in Nobles 2, ALLETE established a separate and distinct evaluation team from the team at Minnesota Power that was already negotiating the Amended PPA with Tenaska. As such, pricing information and other data related to the Amended PPA negotiations were not shared between the Minnesota Power and ALLETE teams. Furthermore, Minnesota Power unequivocally states that its customers were not harmed due to the process and negotiations that led to the Amended PPA. The structural separation processes established and the evaluation procedures employed by the Company were specifically implemented to insulate customer impacts from any potential impact to shareholders, and the Amended PPA is consistent with anticipated changes in PPAs based on publically available resources and information.

The results of the Amended PPA negotiation demonstrate the independence of the process. Tenaska's initial request for repricing in January 2018 was **[TRADE SECRET DATA EXCISED]** than the final levelized PPA price. If Minnesota Power was seeking to maximize benefits for ALLETE through a partnership opportunity, it would have accepted Tenaska's first offer without further negotiations. Tenaska represented that a repricing mechanism was necessary because of the changes in the tax laws and also in the estimated costs for transmission to interconnect the project. The impacts of the TCJA will be discussed further below, but it is important to point out that transmission network upgrade costs and related pricing adjustment discussed in detail in these Reply Comments do not benefit Tenaska or any potential investment partner. These are expenses paid to other transmission owners that build these transmission upgrades and are expenses that offset benefits derived from the Production Tax Credit ("PTC").[1]

C. <u>ALLETE has not made an Investment in the Project</u>

Reference to the potential ALLETE partnership opportunity was included in the Petition to provide regulatory transparency and because the Amended PPA included provisions that may apply if an ALLETE subsidiary ever executes a partnership arrangement. To-date the only agreement executed between ALLETE and Tenaska on an investment opportunity is a non-binding Memorandum of Understanding ("MOU") dated March 21, 2018. See Attachment 2. Neither the non-regulated subsidiary of ALLETE that was referenced in the Petition, nor any other ALLETE

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[1] See generally, Wind Energy Finance in the United States: Current Practice and Opportunities, Paul Schwabe, David Feldman, Jason Fields, and Edward Settle, National Renewable Energy Laboratory (August 2017), available at https://www.nrel.gov/docs/fy17osti/68227.pdf.

corporate entity, has executed any agreements with Tenaska to be an investor or partner in Nobles 2 Power Partners, LLC or any other Tenaska entities. Finally, as noted in the Petition, the partnership discussion was focused on ensuring the project would have financial certainty. Tenaska provides further discussion of the benefits of this financial certainty in its reply comments filed concurrently in this Docket.

D. Changes to the PPA were Consistent with Current Market

As discussed further in Section 4 below, the TCJA justifications Tenaska provided were reflective of the market for new wind projects.[2] Minnesota Power did its own high level analysis of the revised pricing proposal and consulted with industry experts on whether going forward with the Nobles 2 project was in the best interest of customers. Minnesota Power reasonably assumed that all similarly situated wind projects would be subject to TCJA pressure. Furthermore, to restart an RFP process when Minnesota Power already had executed the Initial PPA would potentially risk not only losing Nobles 2 and the associated benefits, but also risk not being able to procure a wind resource that:

> (1) qualifies for 100% PTC benefit and corresponding competitive energy and capacity pricing,
>
> (2) would be far enough along in development and permitting to be in-service by 2020, and
>
> (3) would be in at least as good of a position in the Midcontinent Independent System Operator ("MISO") transmission interconnection queue as Nobles 2.

In January 2018, Tenaska's proposed revised PPA price was **[TRADE SECRET DATA EXCISED]** without escalation and did not account for price adjustments for network transmission upgrades. The final levelized price negotiated by Minnesota Power was **[TRADE SECRET DATA EXCISED]** or almost a **[TRADE SECRET DATA EXCISED]** savings for customers compared to

[2] See Docket No. E002/M-17-694, Staff Briefing Papers for Meeting Date April 26, 2018 at pages 7-8 and quoting Xcel Energy that the "impacts of the TCJA result in an increase in the revenue requirement for Dakota Range."

Tenaska's revised pricing offer. If Minnesota Power was seeking to maximize benefits for ALLETE it would have accepted Tenaska's first repricing offer.

Minnesota Power and Tenaska also negotiated a revised transmission price adjustment based on analysis of the MISO Network Upgrade costs that could be assigned to Nobles 2. The Department's comments did not appear to analyze these network upgrade numbers. Furthermore, transmission network upgrade costs do not benefit Tenaska or any potential investment partner. These are expenses paid to other transmission owners that build these transmission facilities.

If the network upgrade costs transmission caps would have remained at the **[TRADE SECRET DATA EXCISED]** in the Initial PPA, and if those costs were finally determined to be anywhere close to the current $79M estimate from the MISO DPP Phase 1 study, then the Initial PPA likely would have been terminated without any compensation to Minnesota Power.

Minnesota Power negotiated a transmission adder and cap that benefited customers compared to what was originally proposed by Tenaska in the repricing offer. The negotiated transmission cap of **[TRADE SECRET DATA EXCISED]** in the Amended PPA also has a mechanism that **[TRADE SECRET DATA EXCISED]** between Minnesota Power and Tenaska. In addition, Tenaska had initially proposed that any Minnesota-Wisconsin Export Interface (MWEX) related transmission costs not be part of the cap on network transmission upgrades subject to the Amended PPA price adjustment. Minnesota Power rejected Tenaska's proposal because it would place an undue risk on Minnesota Power. The ultimate transmission cap and mechanism was competitive with what Minnesota Power had seen through its RFP process as discussed in Section 4.

Besides not reviewing the Amended PPA terms and the justifications for repricing and transmission adjustments, the Department disregarded the fact that Nobles 2 and the Amended PPA will provide significant benefits to Minnesota Power customers that far exceed any potential termination payment under the Initial PPA. Minnesota Power negotiated terms and conditions that were in the best interest of customers, and the Commission should review the Amended PPA as a whole. The terms and conditions are in line with industry standards and provide Minnesota Power customers additional value opportunities. For example, the Amended PPA modifies the Minnesota Power purchase option **[TRADE SECRET DATA EXCISED]** of the Amended PPA term. This protects Minnesota Power customers because, if the Amended PPA pricing becomes above available market alternatives, in which case Minnesota Power, subject to Commission approval, could purchase Nobles 2 from Tenaska and would have rate base revenue requirements based on remaining capital value and O&M versus the Amended PPA pricing. In addition, the **[TRADE SECRET DATA EXCISED]** will allow Minnesota Power to evaluate whether purchasing Nobles 2 would provide benefits to Minnesota Power customers for resource needs after the Amended PPA term expires.

E. The Amended PPA Avoided Uncertainty, Securing 100% PTC Wind

The Department's comments imply that Minnesota Power should have conducted a second RFP when Tenaska proposed higher pricing due to the TCJA and that another RFP may have resulted in a lower price. While Minnesota Power does not have access to the pricing for the Minnesota utilities that conduct RFPs or use non-RFP wind procurement processes, Figure 5 of the Petition did provide a comparison of the Amended PPA and three other wind projects that were evaluated during the RFP evaluation and may still be available. As discussed below, cost increases related to the TCJA affected the entire industry and are not unique to Nobles 2. Xcel Energy faced these same cost increases on its Dakota Range project, but could offset the increased revenue requirement due in part to an $8.1 million reinvestment payment from the State of South Dakota.[3]

As discussed above, Tenaska's tax reform contingency ran through January 2019 and there were other intervening contingencies, including related to the cost of transmission network upgrades. Given the **[TRADE SECRET DATA EXCISED]** at stake, Tenaska would have been very unlikely to exercise its contingency prior to the January 2019 deadline. If Minnesota Power were to initiate a new RFP process in January 2019, it is unlikely that a wind project with similar benefits to customers would emerge, not only because Nobles 2 already qualifies for the 100 percent PTC, but also because it is in the DPP 2016 August West Area Study queue, which is expected to be completed by October 2019 and thus have transmission certainty.[4]

Under the IRS PTC Safe Harbor guidance, projects must have spent at least five percent of the project eligible cost by December 31, 2016, and a project must be in-service by the end of 2020. If wind projects do not meet the 100 percent PTC qualification due to when Safe Harbor equipment is procured or construction commences, PTC benefits are reduced to 80 percent in 2017 and further reduced to 60 percent after December 31, 2017, for projects meeting the Safe Harbor requirements in those years. Therefore, any further delay related to a new competitive bidding process would have a greater likelihood of creating cost and tax disadvantages, rather than benefits for customers.[5] In addition to PTC Safe Harbor qualification, Tenaska has informed Minnesota Power that it has equipment and construction contracts in process in order to procure the balance

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[3] Xcel Energy's March 16, 2018 Supplemental Comments in Docket No. E002/M-17-694 had the South Dakota grant number as trade secret, but according to news reports at the time, the number was $8.1 million. See Capital Journal, November 15, 2017 available at: https://www.capjournal.com/news/northern-states-power-gets-million-back-as-reinvestment-return-under/article_c90eac64-c9d2-11e7-94d2-3765c33a44f4.html.

[4] See MISO Definitive Planning Phase Estimated Schedule dated October 1, 2018, available at: https://cdn.misoenergy.org/Definitive%20Planning%20Phase%20Schedule106547.pdf

[5] Commission Staff's discussion of shareholder and customer interests for Xcel Energy's Dakota Range self-build project and use of an affiliate for investment provides important context for the Commission to consider. See Docket No. E002/M-17-694, Commission Staff Briefing Papers for Meeting Date March 26, 2018 at pages 17-19.

of plant and be ready to begin construction in order to be in-service in 2020. The diligent review Minnesota Power did during the RFP evaluation process was to ensure the selected bidder had the capabilities to develop and execute a large wind project and associated transmission interconnection on a timely basis in order to maximize benefits for Minnesota Power's customers. Furthermore, the Nobles 2 certificate of need[6] and site permit[7] dockets are nearly complete, with strong support from landowners, labor unions, local agencies, and local elected officials and a recommendation for approval by the Administrative Law Judge. Overall, Minnesota Power selected Nobles 2 because Tenaska has demonstrated it can execute this project in a manner that will provide significant benefits to Minnesota Power customers.

Another reason for Minnesota Power's decision to amend the PPA was knowledge that two of the most competitive projects from the RFP are already being developed for other customers and are no longer available. See Department Comments at 7.[8] While the Department did not consider this a factor in its recommendation, this was a significant factor for Minnesota Power when considering the Amended PPA. Simply put, Minnesota Power had selected from its short-list the best project, and other projects on the short-list were either no longer available or were higher priced without taking into account the TCJA effect or transmission adders. In addition, at this stage in the negotiation process and any subsequent negotiations, it was not appropriate for Minnesota Power to utilize its independent evaluator because the RFP selection decision had already been made. The role of Sedway Consulting in the RFP evaluation was discussed in-depth in the August 22, 2018 Petition at pages 15-17 and Appendix B. Once the Initial PPA was

[6] Docket No. IP-6961/CN-16-289.
[7] Docket No. IP-6961/WS-17-597.
[8] The Department requested on page 7, footnote 9 of its comments whether the date bidders were notified of being shortlisted is trade secret. Minnesota Power confirms that the November 4, 2016 notification date is not trade secret.

executed, the process is an evaluation of the existing agreed upon terms and conditions and the party's rights and obligations under the Initial PPA.

III. NOBLES 2 IS IN THE BEST INTEREST OF MINNESOTA POWER'S CUSTOMERS

A. Nobles 2 is Located in Minnesota, Bringing Geographic Diversity to Minnesota Power's Wind Portfolio

Nobles 2's location on flat farm fields in southwestern Minnesota along the Buffalo Ridge is ideal from both a wind development and capacity factor standpoint. In addition, Nobles 2 is one of the few remaining areas along the Buffalo Ridge that has not yet been developed for wind production.[9] The project location has excellent wind quality and adds beneficial geographic diversity to Minnesota Power's existing significant wind portfolio of over 600 MW of owned and contracted wind resources in central North Dakota. Moreover, the Minnesota Renewable Energy Standard under Minn. Stat. § 216B.1691, subd. 9 requires that the Commission maximize local benefits:

> The commission shall take all reasonable actions within its statutory authority to ensure this section is implemented to maximize benefits to Minnesota citizens, balancing factors such as local ownership of or participation in energy production, development and ownership of eligible energy technology facilities by independent power producers, Minnesota utility ownership of eligible energy technology facilities, the costs of energy generation to satisfy the renewable standard, and the reliability of electric service to Minnesotans.

Nobles 2 will maximize benefits to Minnesota citizens including those citizens in southwestern Minnesota that have strongly supported the project, the citizens that are Minnesota Power customers will receive a significant decrease in power supply costs, and all Minnesota citizens will see an annual reduction of over 770,000 tons of carbon dioxide emissions, as well as other emissions.[10]

[9] See Petition at page 20, Figure 6.
[10] Petition at page 14, Table 2.

B. Nobles 2 Remains Market-Competitive

In its refiled Petition, Minnesota Power included a resource planning analysis demonstrating that Nobles 2 still provides a significant benefit to its customers.[11] Amongst the ten futures modeled by Minnesota Power, the net present value of the benefit of adding Nobles 2 to the power supply portfolio was between \$59 million and \$350 million[12]. In the Department's comments, these benefits were ignored in favor of focusing on the change in value of the last ten years of the PPA in the Amended PPA compared to the Initial PPA. As discussed in Section 4, the increased base pricing of the PPA was justified by the changes in tax law and the increased transmission adder was justified by evolving changes in the August 2016 MISO DPP queue. The Initial PPA price is thus not a fair comparison. Rather, Minnesota Power appropriately considered whether keeping the Nobles 2 resource in its power supply was a benefit to customers, as well as whether the resource was still market-competitive.

Nobles 2 remains market-competitive, particularly when effects of tax reform and transmission cost increases are considered. In its refiled Petition, Minnesota Power also provided an analysis showing that Nobles 2 remained the least-cost of the reasonable alternatives from its RFP.[13] Specifically, Figure 5 of the Petition compares the Nobles 2 Amended PPA pricing, including assigning the minimum and maximum transmission adders from the Amended PPA, to Alternate Projects A, B, and C. Minnesota Power selected the three Alternate Projects for comparison to the revised Nobles 2 project by reviewing the qualitative and quantitative attributes

[11] Petition at pages 10-15.
[12] Petition at page 15, Table 3.
[13] Petition at pages 15-18.

of the projects as shown in Tables A-2 and A-3 of the Sedway Consulting evaluation.[14] **[TRADE SECRET DATA EXCISED]**

Notably, Figure 5 in the refiled Petition did not attribute any cost increases due to tax reform to the Alternate Projects, and also gave the Alternate Projects the benefit of assuming that their transmission costs would fall within the same range as the transmission adder negotiated in the Amended PPA. **[TRADE SECRET DATA EXCISED]**

This figure demonstrates that Nobles 2 is very cost-competitive, particularly when taking into account the potential effects of transmission adders to the overall supply costs. This also shows that Minnesota Power had good reason to consider Nobles 2 to have an advantage as to transmission costs. This transmission advantage provided incentive for Minnesota Power to renegotiate the Amended PPA to maintain the overall project benefits for its customers.

IV. AMENDMENT OF THE PPA WAS A NECESSARY RESPONSE TO EVOLVING CIRCUMSTANCES

In order to fully respond to the Department's comments and recommendation, Minnesota Power provides additional background and a detailed timeline of the process leading up to the Amended PPA.

A. Background of Amendment

The Initial PPA between Minnesota Power and Tenaska contained a contingency in favor of Tenaska, allowing termination by Tenaska in the event of a material change in the tax law. The contingency could be exercised by Tenaska through January 2019. When the TCJA was enacted on December 22, 2017, Minnesota Power became concerned that Tenaska would invoke the

[14] Petition at Appendix B.

contingency. This change in federal tax law triggered wind developers, including Tenaska, to review the impact on wind project financing. Other industry watchers at the time noted that due to the TCJA: "We calculate that the power prices required under 20-year power purchase agreements to justify investment in new wind and solar projects will be significantly higher under the new tax law than under the old tax code: we expect 2018 solar PPA prices to be up 3% to 13%, and *wind PPA prices to be up 5% to 20%,* depending on the tax status of the developer." (emphasis added).[15] Likewise, Marathon Capital noted:

> Although a reduction in the U.S. federal corporate tax rate will have a negative impact on the valuation of wind projects, the market may be able to absorb most of the potential loss in value through some combination of adjustments to off-take prices, build costs, and Tax Equity flip yields. In order to restore Sponsor returns to 2017 levels Marathon Capital estimates that *off-take rates would need to increase by more than 10%,* build costs would need to decline by 6-7%, or Tax Equity flip yields would need to materially decrease. (emphasis added).[16]

On January 19, 2018, Minnesota Power submitted a letter in the 2016 IRP Docket (E015/RP-15-690) noting the discussions Minnesota Power had been having with Tenaska and the 10 MW Blanchard Solar project developer related to the TCJA. The letter stated:

> As Minnesota Power prepared to refile these PPAs, federal tax legislation was enacted as part of the 2017 Federal Tax Cuts and Jobs Act. The Company has since been in conversations with the counterparties of these PPAs and learned they are evaluating the impact of the legislation. While the counterparties are still vetting the full effects, initial assessments indicate tax legislation may impact the projects. Minnesota Power will continue to work with the PPA counterparties to assess potential changes to the PPAs and will communicate the results with the Commission once the Company evaluates the impacts of the changes.

On January 22, 2018, Tenaska sent an email to Minnesota Power, stating that the project was indeed negatively impacted by the tax law changes, but that Tenaska would prefer to discuss

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[15] Enovation Advisory, Utilities and Renewable Energy, December 29, 2017 available at: https://static1.squarespace.com/static/58648612e3df28f032aa8bdd/t/5a466d5a0d9297ab906f378d/1514564955643/2017+Tax+Reform+Renewables+Impact.122917.vS+%28002%29%5B2%5D.pdf

[16] Marathon Capital, Tax Cuts and Jobs Act – Impact on U.S. Renewable Energy Financing, April 27, 2018, available at: https://www.marathon-cap.com/news/tax-cuts-and-jobs-act-impact-on-u-s-renewable-energy-financing

an amendment to the Initial PPA rather than to terminate. See Attachment 1. At that time and until August 20, 2018, Minnesota Power had an executed power purchase agreement that was subject to multiple commercial and regulatory contingencies. Notably, the flat price offered at that time was **[TRADE SECRET DATA EXCISED].**

B. <u>Commencement of Investment Discussions Resulted in Separate ALLETE and Minnesota Power Evaluation Teams</u>

During the February and March timeframe, while Minnesota Power was beginning to evaluate the proposed repricing, Tenaska and ALLETE began discussions about a potential investment in the Nobles 2 Project, after Tenaska lost a prospective equity investor as a result of the TCJA, with whom it had been in advanced stages of negotiations. Upon deciding to consider the investment, ALLETE created two separate project evaluation teams – an ALLETE team to evaluate the investment and a Minnesota Power team to consider whether to amend the PPA. A clear and distinct separation was created for the teams, such that information regarding each set of negotiations was not shared between the regulated utility division and its corporate entity.

On March 21, 2018 ALLETE signed a non-binding MOU with Tenaska, indicating ALLETE's desire to continue discussions regarding the investment opportunity. See Attachment 2. Shortly thereafter, and acting independently, Minnesota Power notified Tenaska that its January offer was too high, and requested a new proposal. The new proposal came in early April and is the repricing reflected in the executed Amended and Restated PPA (Amended PPA) submitted for approval in this Docket. The value of the Amended PPA pricing is **[TRADE SECRET DATA EXCISED]** on a levelized basis, which is notably **[TRADE SECRET DATA EXCISED]** than Tenaska's January offer. Had Minnesota Power been intending to purely enrich ALLETE's shareholders, it would have simply accepted the original repricing offer. Instead, Minnesota Power negotiated a price that was lower than the Initial PPA price for the first ten years and higher than the Initial PPA in the last ten years, providing near-term price relief and long-term competitive value for its customers.

C. Minnesota Power was Aware that Network Upgrade Costs were Increasing

The Department's comments note that the magnitude of the August 2016 Definitive Planning Phase (DPP) West study group were known at the time that the Initial PPA was signed, implying that changes to the estimated network upgrade costs should not have occurred since that time. However, there were significant events between signing of the Initial PPA in May 2017 and re-negotiation of the transmission adder portion of the Amended PPA in April through August of 2018 that caused Minnesota Power to rightfully believe that network transmission costs would rise.

The queue immediately prior to the August 2016 West DPP queue was the February 2016 West DPP queue. The February 2016 West DPP queue included approximately 4.6 gigawatts of new generation. In July of 2017, after the Initial PPA had been signed in May of 2017, MISO released the results of DPP Phase 1 System Impact Study analysis for the February 2016 West DPP queue, which showed the interconnections in that queue would require approximately $2.3 billion dollars of network upgrades, a significantly larger package than prior queues.

Following the report's release, MISO made changes to the methodology used to build the transmission planning models in this cycle and future generator interconnection queues. The changes reduced power system stress as modeled for the February 2016 West DPP queue, but the changes were a one-time action and the benefits were widely expected to be fully realized within one or two interconnection queues.

MISO began studying the August 2016 West DPP queue in September of 2017. Starting in early 2018, Minnesota Power began hearing that the network upgrades delayed by the change in modeling for the February 2016 DPP queue would "reappear" in the August 2016 DPP West queue, where approximately 5.6 gigawatts of new generation had requested interconnection.

In June of 2018, MISO released the final DPP Phase 3 System Impact Study analysis for the February 2016 West DPP queue with a total expected interconnection cost of approximately $280 million dollars – down from $2.3 billion dollars – expected previously. In August of 2018, MISO released the draft DPP Phase 1 System Impact Study analysis for the August 2016 West DPP queue. The results of the study showed the queue would require approximately $3.5 billion dollars of network upgrades. Included in this package were the same large 345 kV transmission projects that were previously required in the February 2016 West DPP queue, thus bearing out Minnesota Power's belief that interconnection costs for Nobles 2 would likely be higher than thought at the time that the Initial PPA was signed.

D. Transmission Adder Adjustments were Justified by Rising Network Upgrade Costs

Pricing was not the only thing that changed from the Initial PPA to the Amended PPA, nor was it the only thing that Minnesota Power negotiated to its advantage and therefore ALLETE's potential disadvantage, if an ALLETE subsidiary would become an investor in the project. When Tenaska sent its first draft of what became the Amended PPA, Minnesota Power learned that they proposed to change the transmission adder component of the energy price. The transmission adder is measured in millions of dollars of network upgrades required to interconnect the project to the grid, as determined by MISO (and PJM and SPP, to the extent that their systems are impacted by the project). Network upgrades are constructed by the transmission owners whose facilities require upgrades to accommodate the project. The project developer has to pay the transmission owner to construct these upgrades before the project can deliver energy to the grid. In the case of Nobles 2, the project is interconnecting to the Xcel Energy transmission system.

During the Amended PPA negotiations, Minnesota Power and Tenaska were closely monitoring the MISO transmission interconnection process and evaluating the potential for significant upgrades to be assigned to Nobles 2 and how those should be reflected in any amendments. The Initial PPA required Tenaska to pay for the **[TRADE SECRET DATA EXCISED].** The following is an update to Table 2 in the Department's Initial Comments, adding the terms proposed by Tenaska in April.

[TRADE SECRET DATA EXCISED]

As can be clearly seen by this table, the Amended PPA, arrived at through negotiations by Minnesota Power, reflects concessions achieved from Tenaska.

E. <u>Other Benefits of the Amended PPA</u>

There were two other significant benefits to Minnesota Power's customers that were negotiated after ALLETE signed the MOU and before the execution of the Amended PPA. One benefit was **[TRADE SECRET DATA EXCISED].** Minnesota Power could choose to acquire ownership of the Nobles 2 project. In the Initial PPA, Minnesota Power had **[TRADE SECRET DATA EXCISED]** to acquire the project (subject to Commission approval). In the Amended PPA, **[TRADE SECRET DATA EXCISED].** Options are inherently valuable because of the flexibility that they allow – in this case over a decade in the future – to either act or not act, depending on conditions in effect at the time. **[TRADE SECRET DATA EXCISED].** Conversely, a developer considers the option to be a restraint on the marketability post-PPA, and therefore the value, of its ownership interest in the project.

The other provision that Minnesota Power ultimately negotiated in its favor in the Amended PPA is the ability to terminate for failure of the project to achieve NRIS status. The

Department Information Request No. 1 asked about NRIS. See Attachment 3. Achieving NRIS status taps the important capacity value that this 250 MW project would provide to Minnesota Power customers. Although capacity in a wind PPA is not separately paid for, if the capacity was not available, Minnesota Power would have to acquire replacement capacity from other resources at some cost to its customers. In the Initial PPA if Tenaska did not obtain NRIS status by November 30, 2018, Minnesota Power had the right to terminate the Agreement. In the April Amended PPA draft, Tenaska proposed to extend that date and that either ERIS or NRIS status should be acceptable. If only ERIS status was achieved, it would eliminate any capacity value associated with the project. While it is true that the Initial PPA contained a similar provision, the topic of NRIS versus ERIS interconnection was a definite point of negotiation in the Amended PPA. The primary driver for this was seen in the February 2016 West DPP queue, where interconnection applicants were able to avoid multi-millions of dollars of network upgrade costs by choosing to accept ERIS status in lieu of NRIS status. Given the potential liability of Tenaska and any potential financial partner for network upgrade **[TRADE SECRET DATA EXCISED]** an agreement that ERIS status was sufficient would have provided significant risk avoidance for Tenaska. Again, this is a provision negotiated independently by Minnesota Power after execution of the non-binding MOU by ALLETE.

In addition, Minnesota Power and Tenaska agreed in the Amended PPA to extend the date by which Tenaska must obtain NRIS and a signed interconnection agreement to **[TRADE SECRET DATA EXCISED].** This later date reflected the already significant MISO study delays and had it not been changed, it is likely that Minnesota Power would have had to decide whether to waive its right to terminate prior to knowing if Tenaska would be able to obtain NRIS for Nobles 2. Similar to the ERIS versus NRIS status, this would have meant Tenaska could have satisfied the Initial PPA terms without the capacity benefits being provided to Minnesota Power customers.

Just prior to the August 20, 2018 Amended PPA execution, MISO released its initial DPP 2016 August West Area Phase I Study results, which revealed MISO transmission network upgrades costs that would be assigned to Nobles 2 and other projects in the same study queue. MISO's initial study assigned **[TRADE SECRET DATA EXCISED]** of network upgrade costs to Nobles 2. While this is a significant number and above the caps negotiated in the Amended PPA, Nobles 2 was still on the lower end of wind projects in the same queue. See Figure 1 above.

Overall, the Amended PPA compared to the Initial PPA provided Minnesota Power more certainty on what the expected MISO transmission upgrades would be, that achieving NRIS by a date certain was realistic, and that Minnesota Power would obtain capacity benefits from Nobles 2 by Tenaska obtaining NRIS.

V. DEPARTMENT RFP RECOMMENDATIONS

While the Department agrees that Minnesota Power's wind RFP process was reasonable through the signing of the Initial PPA, it felt there were "significant problems" in the period after the Initial PPA was signed and subsequently recommended that "until a Commission-approved bidding is in place, MP is to pursue an RFP to investigate the possible procurement of any generation resources needed to meet the Company's energy and capacity requirements, with no presumption that any Company-owned generation identified in that bidding process will be approved by the Commission." For the reasons articulated in these Reply Comments Minnesota Power does not believe the Department's RFP recommendation is warranted. Furthermore, while specific responses to the Department's concerns regarding the period after signing of the Initial PPA are addressed above, the Company would like to note that approximately four months prior to the filing of these comments, it and the Department came to an agreement on ways to improve Minnesota Power's competitive bidding processes in Docket E015/AI-17-568. Additionally, Dr. Rakow's March 16, 2018 Surrebuttal Testimony in the same docket notes significant concerns on the timeliness of completing all-source bidding processes.

On May 22, 2018, the Department filed its Reply Brief in the Contested Case proceeding evaluating Minnesota Power's Energy*Forward* Resource Package.[17] In this Reply Brief, the Department notes that Dr. Rakow had previously requested that the Company detail steps it would take to improve its RFP process for acquiring new resources. In response, the Company provided six steps it would commit to taking to improve the process for resources greater than 100 MW or longer than five years.[18] They are:

1. Ensure that the RFP is consistent with the Commission's then-most-recent IRP order and direction regarding size, type and timing.
2. Provide the Department and other stakeholders with notices of RFP issuances.
3. Notify the Department and other stakeholders of material deviations from those timelines.
4. Update the Commission, the Department and other stakeholders regarding changes in timing or need that occur between IRP proceedings.
5. Where Minnesota Power or an affiliate proposes a project, the Company will engage an independent evaluator to oversee the bid process and provide a report for the Commission.
6. Request that the independent evaluator specifically address the impact of material delays or changes of circumstances on the bid process.

In the May 22, 2018 Reply Brief, the Department "agreed that MP's proposed steps to improve its bidding process is a reasonable outline" and recommended "that the Commission require MP to include, in the Company's next IRP, a proposed bidding process for the Commission's consideration and potential approval under Minn. Stat. 216B.2422 subd. 5."

[17] MPUC Docket No. E015/AI-17-568. Reply Brief of the Minnesota Department of Commerce. May 22, 2018.
[18] MPUC Docket No. E015/AI-17-568. Rakow Surrebuttal dated March 16, 2018 at 36-37 (agreeing with Minnesota Power's proposal subject to lowering the threshold from 200 MW to 100 MW).

Finally, regarding the Department's recommendation that the Company issue yet another RFP that is resource-agnostic, in Dr. Rakow's own Surrebuttal testimony from March 16, 2018[19], he discussed the timing challenges associated with an all-resource bidding process. Dr. Rakow's testimony stated, "As with other utilities that have attempted to use an all-source bidding process, the result was extensive delays for MP. In this case the delays have yet to create issues regarding NTEC's ability to be in-service in a timely manner. However, that may not be the case in future RFPs." Dr. Rakow goes on to cite similar timing issues experienced through Xcel Energy's all-source bidding process in the early 2000s (reference Docket Nos. E002/RP-04-1752 and E002/RP-00-787). The Company agrees with Dr. Rakow's Surrebuttal testimony that all-source bidding processes are time-intensive and can delay resource acquisitions, especially for resources that have tax deadlines or other critical timing considerations.

Given the need to have a wind project in service in 2020 to fully capture the benefit of the PTC, initiating a resource-agnostic bidding process in late 2018/early 2019 is not likely to produce a resource approved and in-service by 2020. The Company does not believe an all-source bidding process is appropriate for this resource need at this time, and also believes it has already come to an agreement with the Department to bring forward an improved bidding process for Commission approval in its next Integrated Resource Plan.

VI. CONCLUSION

Minnesota Power believes these Reply Comments fully address any concerns raised by the Department. Minnesota Power, ALLETE and Tenaska utilized processes and procedures to ensure there was clear separation between the Amended PPA negotiations and evaluation and discussions

[19] MPUC Docket No. E-15/AI-17-568. Surrebuttal Testimony of Dr. Steve Rakow on Behalf of the Minnesota Department of Commerce, Division of Energy Resources. March 16, 2018.

related to a potential investment by an ALLETE subsidiary. While these Reply Comments respond to specific recommendations raised by the Department, it is important to note that the 250 MW emissions-free Nobles 2 Project is an integral component to Minnesota Power's Energy*Forward* resource strategy to diversify how it delivers safe, reliable, affordable and clean energy. Minnesota Power has led the state in incorporating renewable energy additions to its power supply portfolio, as evidenced by meeting the 25 percent by 2025 Renewable Energy Standard a decade early. The Company's strategy to continue transitioning its power supply is on track to result in 44 percent of its energy coming from renewable sources by 2026 – and that number includes the 250 MW Nobles 2 project. Throughout 2018, the Company has adapted to historic federal tax changes, a dynamic renewable energy market and simultaneous resource acquisition processes to bring forward a project that is beneficial to its customers, its system, and the environment. By 2026, Minnesota Power will have removed 700 MW of coal-fired generation from its 1800 MW system, and to-date has added 620 MW of wind resources to its power supply. Minnesota Power is thoughtfully and proactively moving forward to diversify its generation in a way that keeps affordability and reliability for all customers front-of-mind, and that is evidenced by this Project.

Dated: October 5, 2018

Respectfully submitted,

David R. Moeller

David R. Moeller
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Duluth, MN 55802
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ATTACHMENT 1

PUBLIC DOCUMENT
TRADE SECRET DATA EXCISED

From: Link, Joel [mailto:JLink@TENASKA.com]
Sent: Monday, January 22, 2018 4:48 PM
To: Barry Gartner (MP) <bgartner@mnpower.com>
Subject: Nobles 2 Wind PPA

[redacted]

March 21, 2018

ALLETE, Inc.
Attn: Julie Pierce
Vice President Planning & Strategy
30 West Superior Street
Duluth, MN 55802

Re: <u>Non-Binding Memorandum of Understanding</u>

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

PUBLIC DOCUMENT
TRADE SECRET DATA EXCISED

Minnesota Department of Commerce
Division of Energy Resources
Information Request

Docket Number:	E015/M-18-545	☒Nonpublic ☐Public
Requested From:	Susan Ludwig, Minnesota Power	Date of Request: 8/28/2018
Type of Inquiry:	General	Response Due: 9/7/2018

Requested by: Steve Rakow
Email Address(es): stephen.rakow@state.mn.us
Phone Number(s): 651-539-1833

Request Number: **1**
Topic: Click or tap here to enter text.
Reference(s): Click or tap here to enter text.

Request:

Please provide a general description of the costs and benefits of NRIS, ERIS and NITS transmission services as applicable to the proposed Nobles 2 project.

MP Response:

The Mid-Continent Independent System Operator (MISO) provides Energy Resource Interconnection Service (ERIS) and Network Resource Interconnection Service (NRIS) through the Generator Interconnection Process to Interconnection Customers, in this case, Tenaska. Network Integration Transmission Service (NITS) is acquired from MISO to meet the needs of the Network Customer requesting service, in this case, Minnesota Power.

Generator projects requesting interconnection to the transmission system through the MISO Generator Interconnection Process can select either ERIS or NRIS. ERIS grants the interconnecting project access to deliver energy using the existing firm or non-firm capacity of the transmission system. NRIS status goes above the ERIS energy delivery threshold by designating the interconnecting generator as a Network Resource which allows the generator to “deliver” capacity, in addition to energy, to the market. The decision to acquire ERIS or NRIS interconnection service is up to the Interconnection Customer at the time they enter the interconnection queue. Interconnection Customers who request NRIS service are given opportunities during the study process to reduce the amount of NRIS service requested, but

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Response Date: September 5, 2018
Response by: John Christiansen
Email Address: jchristensen@mnpower.com
Phone Number: 218-355-3327

Minnesota Department of Commerce
Division of Energy Resources
Information Request

Docket Number:	E015/M-18-545	☒Nonpublic ☐Public
Requested From:	Susan Ludwig, Minnesota Power	Date of Request: 8/28/2018
Type of Inquiry:	General	Response Due: 9/7/2018

Requested by: Steve Rakow
Email Address(es): stephen.rakow@state.mn.us
Phone Number(s): 651-539-1833

requests for ERIS service cannot be revised to include NRIS service at a later date without submitting a new interconnection request.

The costs to interconnect any generator (ERIS or NRIS) will include the required transmission system network upgrades identified by MISO during their interconnection study required to meet the regional and local transmission planning criteria's set forth by MISO and the regional Transmission Owners. Acquiring NRIS status may require additional transmission system network upgrades in order to support the reliable delivery of energy during system peaks which allows for the generating resource to get capacity accreditation per the terms contained in Module E of the MISO Tariff. Therefore, the cost of acquiring NRIS status may be higher than the cost of acquiring ERIS status.

[TRADE SECRET DATA EXCISED]

Network Customers of Energy Resources or Network Resources can acquire Network Integration Transmission Service (NITS) to support the delivery of the energy produced by the generator(s) to load. NITS is a term used to refer to the transmission service MISO provides under Module B of the MISO Tariff and is therefore a very broad term that has many possible uses. NITS, as a term, can be used to refer to Transmission Service Requests (TSRs) which are used to secure transmission paths for the movement of energy from the generator to load. Network Customers can choose to apply annually to receive TSRs and, if available, the costs of TSRs are paid annually or by demonstrating a signed contract for energy, Network Customers can acquire long-term TSRs and pay for any required transmission system upgrades. The costs to acquire annual TSRs can vary from year-to-year and can require the construction of additional transmission assets above and beyond those required for generator interconnection. The costs to acquire long-term TSRs can be substantial due to construction of additional transmission assets above and beyond those required for generator interconnection to support the transmission service request.

Response Date: September 5, 2018
Response by: John Christiansen
Email Address: jchristensen@mnpower.com
Phone Number: 218-355-3327

STATE OF MINNESOTA	)	AFFIDAVIT OF SERVICE VIA
	)ss	ELECTRONIC FILING
COUNTY OF ST. LOUIS	)	

SUSAN ROMANS of the City of Duluth, County of St. Louis, State of Minnesota, says that on the **5th** day of **October, 2018**, she served Minnesota Power's Reply Comments in **Docket No. E-015/M-18-545** on the Minnesota Public Utilities Commission and the Office of Energy Security via electronic filing. The persons on E-Docket's Official Service List for this Docket were served as requested.

Susan Romans

Susan Romans

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