



August 30, 2019

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

RE: PETITION FOR APPROVAL OF THE ACQUISITION OF THE

MOWER COUNTY WIND FACILITY DOCKET NO. E002/PA-19-____

Dear Mr. Wolf:

Northern States Power Company, doing business as Xcel Energy, submits to the Minnesota Public Utilities Commission the enclosed Petition for approval of the Company's agreement to acquire, own, and operate the 98.9 megawatt Mower County Wind Facility.

Portions of the enclosed Petition and Attachments A, C, D, E and G are marked "NOT-PUBLIC" as they contain information the Company considers to be trade secret data as defined by Minn. Stat. §13.37(1)(b). This data includes confidential pricing and other contract terms, and proprietary analyses design. The information has independent economic value from not being generally known to, and not being readily ascertainable by, other parties who could obtain economic value from its disclosure or use. We have marked additional information as "NOT PUBLIC" because the knowledge of such information in conjunction with public information in our Petition could also adversely impact future contract negotiations, potentially increasing costs for these services for our customers. Thus, the Company maintains this information as a trade secret.

Attachments A and G provided with the Not-Public version of this filing contain information classified as trade secret pursuant to Minn. Stat. § 13.37 for the abovenoted reasons and are marked as "NOT-PUBLIC" in their entirety. Pursuant to Minn. R. 7829.0500, subp. 3, the Company provides the following description of the excised material:

Attachment A:

- 1. **Nature of the Material:** PDF copy of the Purchase and Sale Agreement for the Company's acquisition of the Mower County Wind Facility.
- 2. **Authors:** The Purchase and Sale Agreement was prepared by the Company's Corporate Development personnel.
- 3. **Importance:** The Purchase and Sale Agreement contains competitively sensitive pricing and other contract terms the Company considers as trade secret.
- 4. **Date the Information was Prepared:** The Purchase and Sale Agreement was executed June 17, 2019.

Attachment G:

- 1. **Nature of the Material:** Excel spreadsheet containing competitively sensitive pricing and generation information associated with the Project amended REPA.
- 2. **Authors:** The Company's Corporate Development personnel.
- 3. **Importance:** The Company protects the analyses design as proprietary and the data as trade secret in that others could obtain a financial advantage from its use.
- 4. Date the Information was Prepared: Q3:2019

We have electronically filed this document with the Minnesota Public Utilities Commission, and copies have been served on the parties on the attached service lists. Please contact me at bria.e.shea@xcelenergy.com or (612) 330-6064 or Farah Mandich at farah.l.mandich@xcelenergy.com or (612) 330-5918 if you have any questions regarding this filing.

Sincerely,

/s/

Bria E. Shea Director, Regulatory and Strategic Analysis

Enclosures c: Service Lists

STATE OF MINNESOTA BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Katie J. Sieben	Chair
Dan Lipschultz	Vice-Chair
Valerie Means	Commissioner
Matt Schuerger	Commissioner
John A. Tuma	Commissioner

IN THE MATTER OF THE PETITION OF NORTHERN STATES POWER COMPANY FOR APPROVAL OF THE ACQUISITION OF THE MOWER COUNTY WIND FACILITY DOCKET NO. E002/PA-19-____

PETITION

INTRODUCTION

Northern States Power Company, doing business as Xcel Energy (Xcel Energy or the Company), submits this Petition to the Minnesota Public Utilities Commission for approval of the Company's agreement to acquire, own, and operate a 98.9 megawatt (MW) repowered wind facility in Mower County, Minnesota (Project). The Mower County Wind Facility (Facility) is currently owned by FPL Energy Mower County, LLC, (Seller), which is ultimately owned by NextEra Energy, Inc.

The Company originally entered into a Renewable Energy Purchase Agreement (REPA) with Seller on November 18, 2005, and the Commission approved the REPA on March 31, 2006. The 20-year term of the existing REPA will expire in December 2026. In late 2018, Seller approached the Company expressing interest in completing a partial repowering of the Project's existing wind turbine generators (WTG) by replacing several key components of the turbines, in conjunction with a sale of the repowered project to the Company.

Recognizing that both customers and the Company could benefit from that scenario, we negotiated and executed a Purchase and Sale Agreement (PSA)—subject to Commission approval—to acquire the repowered Mower County Wind Facility. The proposed PSA is consistent with our most recent Resource Plan's Preferred Plan and the wind procurement strategies we have discussed therein. We further note that, by completing the repower prior to the end of 2020, the Project is expected to qualify for 100 percent of the existing federal renewable electricity Production Tax Credit (PTC).

¹ See In the Matter of the Petition of Northern States Power Company d/b/a Xcel Energy's Request for Approval of Power Purchase Agreement with FPL Energy Mower County LLC, Docket No. E002/M-05-1934.

Seller has also committed to expressing a preference for using union labor to construct the repowering Project.

Our economic analyses demonstrate that the proposed acquisition results in substantial customer benefits. When analyzing the Project as a partial fulfillment of the wind replacement procurement discussed in our Preferred Plan, the estimated present value of revenue requirement (PVRR) savings to customers resulting from the repower and purchase is \$48-49 million, with a present value societal cost (PVSC) savings of approximately \$50 million. Further, even if this acquisition were considered incremental to the wind in our Preferred Plan, it would provide a PVRR benefit of over \$10 million, and a PVSC benefit of \$49 million. It is important to note that substantial benefits are delivered in the near term in both scenarios, and thus today's customers will benefit from the purchase.

Not only does this Project deliver customer benefits, but – because it is a repower – it does so without the transmission risk of a greenfield project; and, in fact, it brings long-term value as a site that will be available to deliver renewable energy to our customers in the future. This is an important consideration, as we are increasingly recognizing barriers to bringing planned incremental wind resources in the Upper Midwest online. These challenges are a result of transmission interconnection constraints in the Midwest Independent System Operator's (MISO's) western region. We identified transmission constraints as an emerging issue in our most recent Resource Plan. MISO's latest evaluation of interconnection upgrade costs for new proposed projects bears out these concerns, as the most recently completed MISO West region study resulted in required upgrade costs of around \$2 million per MW, on average.³

In the face of these extensive interconnection cost assessments, the Company and our developer withdrew the final 200 MW phase of the Company's planned Crowned Ridge project. As we noted in our filing requesting approval of this 600 MW project, the last phase would be split evenly – 100 MW each – between capacity we planned to own and capacity for which NextEra would retain ownership and sell energy to the Company via a purchase power agreement. We also noted at the time that each 200 MW phase of the Project had separate interconnection requests before MISO, and the third and final phase was subject to some risk, given the interconnection study had not yet been completed. We took steps in our contracts to mitigate the effects of this

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² In the incremental analysis, however, we note that the PVRR and PVSC results diverge because adding incremental wind to the amount of wind already included in the Preferred Plan results in further reductions of carbon emissions.

³ See MISO DPP 2017 February West Area Phase 2 Study. Siemens (July 19, 2019).

⁴ See E002/M-16-777. Supplement Wind Generation Acquisition. (March 15, 2017) at 14-15.

risk on our customers. Accordingly, customers will not be impacted by this project change, and it does not affect the economic viability of phases one and two.⁵ The Company continues to work to identify alternative options to move forward with the final phase of the Crowned Ridge project, including exploring alternate transmission queue positions and project configurations. We plan to provide the Commission ongoing updates on these developments per our quarterly reporting requirements in Docket No. E002/M-16-777.

This development is a concrete illustration that repowered Projects carry substantial additional value in our current market environment. To maintain progress toward our clean energy goals, there is significant benefit in making use of available existing interconnection rights that will allow us to maintain or increase the level of renewable energy on our system and control those sites for the next wave of renewable technology.

For all of these reasons, Xcel Energy respectfully requests the Commission to approve the Company's acquisition, ownership, and operation of the Mower County Facility pursuant to the terms of the executed PSA, as a regulated asset. In the alternative, Xcel Energy requests approval of the First Amendment to the REPA, which – though less beneficial to customers than the acquisition – incorporates certain modern contract provisions and customer protections. Further, if the Commission approves the amended REPA rather than the proposed regulated asset acquisition, the Company is prepared to step into the shoes of Seller by acquiring the repowered Facility under an unregulated affiliate.

I. SUMMARY OF FILING

A one-paragraph summary is attached to this filing pursuant to Minn. R. 7829.1300, subp. 1.

II. SERVICE ON OTHER PARTIES

Pursuant to Minn. R. 7829.1300, subp. 2, the Company has served a copy of this filing on the Department of Commerce, Division of Energy Resources, the Office of the Attorney General–Residential Utilities and Antitrust Division, and the applicable general service list.

⁵ We note the Company has agreed with NextEra to delay the in-service date of the Crowned Ridge project to accommodate final permitting requirements and avoid winter construction.

III. GENERAL FILING INFORMATION

Pursuant to Minn. R. 7829.1300, subp. 3, the Company provides the following information.

A. Name, Address, and Telephone Number of Utility

Northern States Power Company 414 Nicollet Mall Minneapolis, MN 55401 (612) 330-5500

B. Name, Address, and Telephone Number of Utility Attorney

Ryan J. Long Lead, Assistant General Counsel Xcel Energy 414 Nicollet Mall – 401, 8th Floor Minneapolis, MN 55401 (612) 215-4659

C. Date of Filing

Xcel Energy submits this Petition on August 30, 2019. The proposed repower and PSA will not result in any rate changes until after the Project acquisition is approved, and a rate change is authorized in the Renewable Energy Standard (RES) Rider. In the event that the First Amendment to the REPA is approved, no change in the contract price will occur, and any required fuel clause adjustments from the expected increase in energy will only become effective after the project is complete and acceptable energy delivery from the Project begins.

D. Statute Controlling Schedule for Processing the Filing

This filing is made pursuant to Minn. Stat. § 216B.50. No specific statute controls the timeframe for this filing. The processing is therefore controlled by the Commission's rules on Miscellaneous Filings, Minn. R. 7829.1300 and 7829.1400. We have included the information required under Minn. R. 7829.1300, subp. 3 for miscellaneous filings that, like this one, are subject to specific content requirements.

However, we respectfully request Commission consideration of our proposed acquisition that would allow an Order before August 31, 2020, as there is a condition precedent under the executed Purchase and Sale Agreement tied to a Commission Order by that date.

The executed PSA and the executed First Amendment to the Mower County Wind Facility REPA result from negotiations established as a result of Minn. Stat. § 216B.1645.

E. Utility Employee Responsible for Filing

Bria E. Shea Director, Regulatory and Strategic Analysis Xcel Energy 414 Nicollet Mall – 401, 7th Floor Minneapolis, MN 55401 (612) 330-6064

IV. MISCELLANEOUS INFORMATION

Pursuant to Minn. R. 7829.0700, the Company requests that the following persons be placed on the Commission's official service list for this proceeding:

Ryan Long Lynnette Sweet

Lead, Assistant General Counsel Regulatory Administrator

Xcel Energy Xcel Energy

414 Nicollet Mall – 401, 8th floor 414 Nicollet Mall – 401, 7th Floor

Minneapolis, MN 55401 Minneapolis, MN 55401

<u>ryan.j.long@xcelenergy.com</u> <u>regulatory.records@xcelenergy.com</u>

Any information requests in this proceeding should be submitted to the Regulatory Records e-mail address above.

V. DESCRIPTION

Through this Petition, the Company is requesting Commission approval of the Company's acquisition, ownership, and operation of the Mower County Wind Facility.

In the alternative, should the Commission not approve the Company's acquisition of the Project, the Company is requesting Commission approval of the First Amendment to the Mower County REPA.

In support of this Petition, Xcel Energy provides:

- Background history and Project description
- Pricing and terms information under both the PSA and the First Amendment to the REPA

- Benefits analyses of the PSA and First Amendment to the REPA
- Discussion of the public interest

Further, we provide several attachments in support of the Petition, including the original Renewable Energy Purchase Agreement, executed November 18, 2005, and both the Purchase and Sale Agreement and First Amendment to the Renewable Energy Purchase Agreement, executed June 17, 2019. Certain provisions in these attachments are marked as Not-Public and have been redacted in the Public version of this filing.

VI. BACKGROUND

This section provides background information on the history of the Mower County Wind Facility and the repowering proposal.

A. Mower County Wind Facility and REPA

The Project is located in Mower County, Minnesota. The Facility currently consists of 43 Siemens 2.3 MW MKII WTGs. The original REPA was the result of negotiations subsequent to an all-source bidding in Docket No. E002/M-01-1618. The Facility is one of the selections identified in Xcel Energy's June 19, 2003 Final Evaluation Report for the 2001 all-source competitive bidding process. The Company sought to count the renewable energy purchase toward legislative requirements pursuant to Minn. Stat. §§ 216B.1691 subd. 6(a) and 216B.1645, and the resource planning mandate of Minn. Stat. § 216B.1691 subd. 6(a).

The following provides a summary of the Project's related procedural background:

On July 17, 2001, the Company filed a short report on efforts to develop an unbiased bidding process, indicating areas of parties' concern and discussing steps to address the same in future Requests For Proposal (RFP).

On October 31, 2001, the Company submitted a petition requesting Commission approval of a proposed all-source RFP, including improved bidding and contracting processes in compliance with the Commission's Order in the Xcel Energy 2000 Resource Plan.⁶ The Company was seeking to procure approximately 1,000 MW of capacity through this RFP.

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⁶ Xcel Energy 2000 Resource Plan (Docket No. E002/RP-00-787).

On December 6, 2001, the Company issued its 2001 All-Source RFP to fill resource needs.

On November 1, 2002, the Company submitted its Short-List Selection Report for selected projects with a total capacity of 9,500 MW. The Short List included the Mower County Wind Facility.

On June 19, 2003, the Company filed its Final Report regarding its All Source Request for Proposals for 2005-2009. The Final Report included the Mower County Wind Facility.

The Company executed a REPA with Seller on November 18, 2005 and submitted a petition on December 12, 2005 requesting Commission approval.

The Commission issued its Order approving the Mower County Wind REPA on March 31, 2006. The Company has been purchasing the output from the Mower County Facility since December 3, 2006, and the current REPA extends through December 2, 2026.

FPL Energy Mower County, LLC has been the sole owner of the Project. ESI Energy, LLC currently owns 100 percent of the interests in this entity. Both are ultimately owned by NextEra Energy, Inc.

B. Repowering Project Overview

In late 2018, Seller approached the Company regarding its interest in repowering the Mower County Wind Facility and selling the Project to the Company. The repowered Project is expected to qualify for 100 percent of the existing federal Production Tax Credits (PTCs). Seller plans to repower each of the existing 43 2.3 MW WTGs with *[Protected Data Begins*]

Protected Data Ends]. Some existing components, such as towers, concrete platforms, and other balance of plant (BOP) infrastructure, will continue to be utilized going forward. Seller has also committed to expressing a preference for union labor in repowering construction work. The repowering will allow for more efficient energy generation, and extend the useful life of the Facility for an additional 25 years. We note that our 25-year useful life expectation for the repowered Project is consistent with industry and Company experience.

Section 3.3 of the existing REPA requires the Seller to maintain the Facility for all 20 years of the Agreement term according to "Good Utility Practices," which, as defined in REPA Section 1.4, includes taking reasonable steps to perform preventive, routine,

and non-routine maintenance and repairs to ensure reliable, long-term, and safe operation. Section 5.4 of the REPA requires the Seller to meet a Peak Production Availability requirement and use commercially reasonable efforts to maximize the amount of net energy produced as well as minimize forced outages.

Nothing in the REPA precludes Seller from repowering the Project to continue meeting its contractual requirements, so long as the repowering leaves the Facility within the designated nameplate capacity and does not result in any material change in Xcel Energy's obligations under the REPA.

VII. PURCHASE AND SALE AGREEMENT

Acquiring, owning, and operating the Project following its repowering is beneficial to customers – and this benefit can be demonstrated in several discrete ways. First, when compared to the existing terms of the REPA, the agreed-upon purchase price for the Facility offers PVRR savings to our customers of approximately \$48-49 million, and PVSC savings of approximately \$50 million. Two separate analytic approaches, described in detail below, reflect this result. Further, the public interest benefits of the acquisition go beyond customer savings. At a time of uncertainty for bringing incremental renewable energy online affordably, repowering projects – such as the Mower County Project – take on an increased importance in keeping the Company on the path of carbon reduction. Additionally, as noted above, Seller has committed to expressing a preference to use union labor to construct the project.

The addition of this repowered Facility contributes to our goal of achieving 80 percent carbon reduction from 2005 levels by 2030, and ultimately furthers the State's policy to support clean energy. We believe a key aspect of achieving these goals affordably is our "no going back" strategy with regard to renewable energy supply, as described in our 2020-2034 Upper Midwest Integrated Resource Plan.⁷ There, we said:

"Currently approved and/or operating renewable facilities (including both those facilities we plan to own and those we plan to contract) are assumed to be replaced at their end of life or contract expiration with the equivalent amount of similar energy from generic wind and solar resources..."

The "no going back" strategy, in brief, is intended to ensure that the amount of wind generation procured in the future does not fall below current levels even as some of our older units either approach power purchase contract expiration or the units' end of life. In our Resource Plan analysis, we modeled these wind replacements as new

⁷ As filed in Docket No. E002/RP-19-368.

⁸ Docket No. E002/RP-19-368. Upper Midwest Integrated Resource Plan 2020-2034, at 79.

generic resources. However, we also explained that we expect that increasingly significant transmission system constraints will make utilizing repowering opportunities – where GIAs are already in place – increasingly important to maintaining affordability.

Recent developments in the MISO Definitive Planning Phase (DPP) underscore the challenges associated with pursuing incremental greenfield wind resources, and the value of securing or extending resources with existing interconnection agreements. As previously noted, MISO recently completed Phase 2 of the DPP that began in February 2017, which contained over 1,300 MW of wind projects in the West region. Following release of the study results, all but one MISO West region wind project in the study group withdrew from the queue. The study identified upgrade costs of approximately \$2 million per MW, on average, and due to the magnitude of these identified costs, the majority of developers opted to withdraw rather than put increasing amounts of milestone payments at risk. Withdrawn projects include 200 MW of the Company's planned Crowned Ridge Wind Facility.

We believe that the transmission value benefits of the transaction are real and long-term. Acquiring the repowered Mower County Facility as a regulated asset is a cost effective step that benefits customers and contributes toward the Company affordably achieving our carbon reduction goals.¹¹

The record demonstrates that acquiring this project is squarely within the public interest. However, in the event the Commission does not agree, the Company is willing to move forward with this transaction on a wholesale basis, taking ownership of the Facility under an unregulated affiliate that would step into the shoes of Seller under the amended or existing REPA. This unregulated affiliate would then operate the Facility consistent with the practices of other independent power producers in Minnesota, similar to our proposal in the Mankato Energy Center docket.¹²

A. Overview of Proposed Acquisition

On June 17, 2019, the Company executed a Purchase and Sale Agreement for the Mower County Wind Facility with ESI Energy, LLC, (ultimately owned by NextEra

⁹ See "MISO Queue Project Information at DPP Decision Points as of 08/12/2019," at PDF page 15. Most current version available at: https://cdn.misoenergy.org/DPP%20Decision%20Point%20Updates110679.pdf
¹⁰ The Commission approved the Company's proposed procurement of the Crowned Ridge Facility in Docket No. E002/M-16-777. See ORDER APPROVING PETITION, GRANTING VARIANCE, AND REQUIRING COMPLIANCE FILING, at Order Point 1.

¹¹ Further, while these recent developments at MISO were not known at the time of the Longroad filing (Docket No. E002/PA-18-777), they reinforce our belief that acquiring the Longroad wind projects is prudent as well. ¹² Docket No. IP6949, E002/PA-18-702.

Energy, Inc.) which owns 100 percent of the membership interests of FPL Energy Mower County, LLC. A copy of the PSA is included as Attachment A.¹³

The purchase price to be paid by the Company is approximately [Protected Data Begins Protected Data Ends], based on the contractual purchase price of [Protected Data Begins

Protected Data Ends]. This price was the result of a series of negotiation sessions between the parties. The Company's obligations under the PSA are conditioned upon the Commission's approval of the transaction. If the acquisition is approved, the Company would seek to recover costs of this acquisition in customer rates via the RES Rider.

The closing of the purchase and sale is anticipated to occur on or about the Commercial Operation Date (COD) for the refurbished Facility. The PSA sets forth a number of provisions including, but not limited to, [Protected Data Begins

Protected Data Ends].

The proposed PSA is subject to Minn. Stat. § 216B.50, and Minn. Rule 7825.1800. We discuss these provisions below.

B. Minn. Stat. § 216B.50

Minn. Stat. § 216B.50 governs the transfer of utility assets exceeding \$100,000:

No public utility shall sell, acquire, lease, or rent any plant as an operating unit or system in this state for a total consideration in excess of \$100,000 . . . without first being authorized so to do by the commission. . . . If the commission finds that the proposed action is consistent with the public interest, it shall give its consent and approval. . . . In reaching its determination, the commission shall take

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¹³ Note that the Company and Seller executed an Amendment to the PSA, with respect to the date by which the Company must file a petition for regulatory approval. This Amendment is included as Attachment B.

into consideration the reasonable value of the property, plant, or securities to be acquired or dispatched of, or merged and consolidated.

We respectfully request that the Commission find that our proposed acquisition of the Mower County Wind Facility is in the public interest and thus complies with Minn. Stat. § 216B.50. We confirm that the Company does not intend to issue, sell, or transfer any stock in connection with the Project. And, as discussed below, our proposed acquisition is in the public interest because it results in benefits to our customers and places them in a better position than they would be were we to continue with either the existing or amended REPA.

C. Minn. R. 7825.1800

Minn. R. 7825.1800 also addresses property transfers. Minn. R. 7825.1800, subps. B, C, and D state that petitions to acquire property shall contain the following:

- B. Petitions for approval of a transfer of property shall be accompanied by the following: all information as required in part 7825.1400, items A to J; the agreed upon purchase price and the terms for payment and other considerations.
- C. A description of the property involved in the transaction including any franchises, permits, or operative rights, and the original cost of such property, individually or by class, the depreciation and amortization reserves applicable to such property, individually or by class. If the original cost is unknown, an estimate shall be made of such cost. A detailed description of the method and all supporting documents used in such estimate shall be submitted.
- D. Other pertinent facts or additional information that the commission may require.

Below we discuss compliance with this rule and respectfully request that the Commission waive application of Minn. R. 7825.1800, subp. B.

1. Minn. R. 7825.1800, subp. B – Variance Request:

Minn. R. 7825.1800, subp. B requires detailed information (items A through J) set forth in Minn. R. 7825.1400. Minn. R. 7825.1400—entitled, Filing Requirements for Capital Structure Approval—however, concerns capital structure filings and is geared toward the issuance of securities, which is not at issue here.

Accordingly, we respectfully request that the Commission waive application of Minn. R. 7825.1800, subp. B. The Commission has previously granted a variance to the requirements to provide the information outlined under Minn. R. 7825.1400 (A)-(J) in proposed acquisition of property transactions. ¹⁴ The Commission has found that Minn. R. 7825.1400 is applicable to capital structure filings and, therefore, the information does not pertain to petitions to acquire property. 15 The Company respectfully requests a similar variance in this case pursuant to Minn. R. 7829.3200. Minn. R. 7829.3200 allows the Commission to vary its rules if it finds:

- (a) Enforcement of the rule would impose an excessive burden upon the applicant or others affected by the rule;
- (b) Granting the variance would not adversely affect the public interest; and
- (c) Granting the variance would not conflict with standards imposed by law.

The Company can satisfy all three elements. First, as noted above, the proposed transaction does not implicate the information sought by Minn. R. 7825.1400 (A)-(J) and, thus, its provision would impose an excessive burden on the Company. Second, because the proposed transaction does not involve the issuance of securities, granting a variance does not conflict with the public interest. Third, as evidenced by previous Commission precedent waiving these requirements under similar circumstances, a waiver will not violate any standards imposed by law.

With regard to Minn. R. 7825.1800, subps. C and D, we provide the information below.

2. Minn. R. 7825.1800, subp. C – Property Description and Cost:

With respect to the discussion required under Minn. R. 7825.1800, subp. C, the Company notes that the proposed acquisition of the Mower County Wind Facility will take the form of a cash payment to ESI Energy, LLC at the closing of the transaction. There are no affiliated interests between the Company and ESI Energy, LLC or its subsidiaries. The Company is a wholly-owned utility operating company subsidiary of Xcel Energy Inc., a public utility holding company under the Public Utility Holding Company Act of 2005.

¹⁴ See, e.g., In the Matter of Northern States Power Company and ITC Midwest LLC for Approval of a Transfer of Transmission Assets and Route Permit, ORDER APPROVING SALE AS CONDITIONED, GRANTING VARIANCE AND REQUIRING FILING, Docket No. E002/PA-10-685 (Dec. 28, 2010).

¹⁵ In the Matter of Xcel Energy's Petition for Approval of a Transfer and Exchange of Transmission Assets with Great River Energy and Member Cooperatives, ORDER, Docket No. E002/PA-06-932 (Oct. 16, 2006).

As detailed in the Purchase and Sale Agreement between ESI Energy, LLC and Xcel Energy, the proposed acquisition includes all the assets used in connection with the ownership and operation of the Mower County Wind Facility.

The transaction includes the value of land rights for turbines and collection lines, permits necessary to own and operate the Facility, interconnection rights, service and parts warranty agreements with Siemens, O&M and substation facilities at the project site, and upgraded equipment as previously described.

Taking into consideration estimated remaining project costs and additional assets to be acquired, at or around COD, the estimated net book value of electric plant in service (including estimated repowering expenditures) for the Project is [Protected Data Begins Protected Data Ends], and the accumulated provision for depreciation of electric utility plant is [Protected Data Begins Protected Data Ends]. As the purchase price is in excess of the net book value, an acquisition adjustment of [Protected Data Begins Protected Data Ends] will also be recognized, which we will request to include in rate base with a full return over the same useful life as the plant investment.

We provide proposed journal entries as Attachment C.

3. Minn. R. 7825.1800, subp. D – Other Pertinent Facts:

Other pertinent facts are found in this Petition.

For the reasons set forth in this Petition, the Company respectfully submits that the proposed transaction with ESI Energy, LLC is consistent with the public interest and should be approved.

VIII. FIRST AMENDMENT TO THE REPA

Should the Commission not approve the Company's acquisition of the Mower County Wind Facility, the Company seeks approval of the First Amendment to the Mower County REPA. The Company negotiated the First Amendment to the REPA to ensure additional customer protections and benefits would be incorporated into the terms, in the event that the PSA is not approved. The original REPA and the First Amendment are provided as Attachments D and E respectively. ¹⁶ Certain provisions of the REPA

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¹⁶ Note that the Company and Seller executed a Second Amendment to the REPA, with respect to the date by which the Company must file a petition for regulatory approval of the First Amendment. This Second Amendment is included as Attachment F.

and the First Amendment are Not-Public and have been redacted in the Public version of this Petition.

If the PSA is denied and the First Amendment to the REPA is approved, NSP proposes to continue recovering the costs of the REPA pursuant to Minn. Stat. § 216B.1645 through the Fuel Cost Charge of the Fuel Clause Rider, consistent with the recovery method for wind generation projects that satisfy the legislative requirements of Minn. Stat. § 216B.1691, subd. 2. We also note that, in the event the Commission does not approve either the PSA or the First Amendment to the REPA, the repowering may still move forward at the current owner's discretion. This would likely obligate NSP to purchase the full output of the repowered Facility, without allowing customers to benefit from the amended terms described below. However, in the event that the Commission denies the PSA – regardless of whether it approve the First Amendment to the REPA or maintains the current REPA – the Company is prepared to move forward with the acquisition under an unregulated affiliate. In this case, the unregulated affiliate would step into the shoes of Seller, and NSP would continue purchasing the Facility's output under the prevailing REPA from this unregulated affiliate.

A. Terms of Amended Mower County Wind Facility REPA

1. Purchase Price and Cost-Related Provisions

In the event the Commission approves the First Amendment to the REPA, NSP would purchase energy from the Facility for the first year of Commercial Operation of the refurbishment at a price of *[Protected Data Begins Protected Data Ends]*. Over the additional remaining six years of the contract term, the pricing shall change effective as of the first date of each Commercial Operation Year as detailed in Exhibit F to the First Amendment. This pricing is consistent with the existing REPA. Under the terms of the refurbishing Project, the Mower County repowering will result in no change to the nameplate capacity of 98.9 MW, but is expected to generate more energy than the current Facility given the improved efficiency of the repowered turbines.

The Company negotiated the Amendment with Seller to include important additional provisions that will benefit customers. First, the amended REPA includes a maximum generation volume of [Protected Data Begins Protected Data Ends], above which the Company will settle excess energy at [Protected Data Begins

Protected Data Ends]. There are no generation caps or excess generation

provisions present in the existing REPA, and currently the Company is committed to purchase all energy from the facility at the REPA price. Further, the amended REPA includes provisions that differentiate between compensable and non-compensable curtailment, consistent with modern contract terms. Customers will benefit from the revision in these curtailment terms, as they more narrowly define the circumstances under which the Company would be required to compensate Seller for energy that is not delivered. Amended curtailment terms are further detailed below.

Consistent with the existing REPA, the Company will receive the Renewable Energy Credits (RECs) from all purchased energy production from the Facility.

2. Commercial Operation Date

The expected COD for the repowering project is December 1, 2020 but no later than December 31, 2020.

3. Term

The original 20-year Mower County Wind Facility REPA is scheduled to terminate December 2, 2026. The First Amendment to the REPA does not extend the project term.

4. Security

As required by the initial REPA, FPL Energy Mower County, LLC was required to establish and maintain a Security Fund either through an irrevocable standby letter of credit or by establishing an interest-bearing escrow account in the amount of *[Protected Data Begins Protected Data Ends]*. The First Amendment makes no revisions to the Security Fund provisions of the REPA.

5. Transmission and Curtailment

The REPA includes amended provisions that govern compensable curtailment and non-compensable curtailment. Under the existing REPA, the Company provides payment for curtailments except in conditions of *[Protected Data Begins]*

Protected Data Ends]. Under the Amended REPA, the definition of compensable curtailment is more narrowly defined to include [Protected Data Begins

Protected Data Ends] and non-compensable curtailment is expanded to include curtailment not specifically defined as compensable curtailment, including such examples as: **[Protected Data Begins**

Protected Data Ends]. In the event any compensable wind curtailment occurs, the incremental cost above the energy purchase cost is consistent with the existing REPA, in an amount [Protected Data Begins

Protected Data Ends].

6. Effect of First Amendment on Xcel Energy Revenue

The First Amendment to the REPA is expected to result in energy expenditures of approximately [Protected Data Begins Protected Data Ends] from the time the repowered Project achieves COD through the remaining term of the Project. No net increase in net income to NSP will result from this amendment, as the Minnesota costs of the power purchase will equal the Minnesota revenue collected. Pursuant to Minn. Stat. § 216B.1645, the Minnesota portion of these energy costs would be recovered through the Fuel Cost Charge of the Fuel Clause Rider, as further discussed below.

B. Proposed Use of Fuel Clause Riders to Recover the Cost of the Purchases

The Company intends to count power purchases under the amended REPA toward the legislative requirements of Minn. Stat. § 216B.1691 subd. 2, and upon approval, costs incurred in connection with the REPA will be recoverable consistent with Minn. Stat. § 216B.1645. As with other Company wind generation purchases, costs for these purchases are priced entirely on an energy basis. Consistent with the purchases from other wind projects, we seek approval for NSP to continue recovering these costs pursuant to Minn. Stat. § 216B.1645 through the Fuel Cost Charge of the Fuel Clause Rider.

This recovery method is the same as that set forth in other power purchase agreements for wind generation projects that satisfy the legislative requirements of Minn. Stat. § 216B.1691 subd. 2,¹⁷ and is consistent with how energy costs from the Mower County REPA are currently recovered in Minnesota.

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¹⁷ Except for those proposed in the Windsource program (Docket No. E002/M-01-1479).

IX. BENEFITS ANALYSES

In this section, we provide analyses that evaluate the benefits delivered under both the proposed PSA, as well as the First Amendment to the REPA. To evaluate the benefits associated with the PSA, we modeled the Project in a pro forma model, as well as under the traditional Strategist analysis. The Project-specific pro forma helps us understand the Project's expected benefits relative to the current REPA, whereas Strategist helps us evaluate the proposed repowering and acquisition in the broader context of the integrated Northern States Power system and our most recent Resource Plan's Preferred Plan. Both analyses are important to examine, and both show that the proposed PSA is most beneficial scenario for customers.

Overall, the analyses show that customers will benefit from the Company purchasing, owning and operating the Project, relative to the Base Case. This holds true both in the pro forma and Strategist analyses, which each show approximately \$48-49 million of PVRR benefits within the context of our "no going back" wind strategy. However, for comparison we also used Strategist to analyze the proposed PSA as incremental generation to the level of replacement wind procurement contemplated in our most recent Resource Plan. Even when modeled as incremental generation, the Company's ownership generates customer benefits in the near term, and returns overall PVRR and PVSC savings. Thus, under either approach, the forecasted level of customer benefits supports the Company's proposed acquisition of the Facility as a regulated asset, including the proposed acquisition adjustment.

We also present economic analyses for the repowering and First Amendment to the REPA, in the event the Commission does not approve the PSA. Our analyses show that incremental costs associated with the repowering and First Amendment to the REPA are marginally positive relative to the Base Case, only because the repowered Facility will produce more energy. However, it is likely that Seller would move forward with repowering whether or not we receive regulatory approval to purchase the facility or amend the REPA; therefore we also present economic analysis of the First Amendment to the REPA compared to a scenario in which the Facility is repowered but the terms under which NSP purchases energy from the Facility under the REPA do not change. Relative to a repowered Facility under the existing REPA, the REPA amendments yield \$3.8 million in benefits to customers as a result of the new customer protections discussed in Section VIII.

Given that, and considering all scenarios, customers benefit most from the Company acquiring the wind project. And, not only is it more economically beneficial to customers, there are additional benefits associated with a Project in the form of interconnection certainty and commitments around Seller's preference for use of union labor.

A. Economic Benefit Analysis of the Proposed PSA and First Amendment to the REPA

As noted above, the Company performed economic analysis on the proposed PSA using a Project-specific pro forma financial model, as well as the traditional Strategist analyses. These approaches and outcomes are described further below.

1. Pro Forma Model Approach and Results

The pro forma analysis uses Project cost and operational information, alongside company financial assumptions to evaluate the present value and annual cost implications of the repower and PSA. It then compares this cost information to the existing Facility REPA through its current term and assumed costs of generic replacement wind after the REPA term is complete. This comparison is consistent with the "no going back" approach discussed previously. The pro forma model provides us a simpler view of the economic costs or benefits of the project than does the Strategist modeling. Because of that, we often use this modeling internally, in conjunction with Strategist, to evaluate a prospective contract. It uses project-specific cost and production information, and Company financial assumptions, to derive a view of the proposed acquisition's costs and benefits.

The pro forma analysis indicates that the proposed repowering and PSA results in PVRR benefits of approximately \$48 million over the life of the Project. On a levelized cost basis, our analysis estimates that the PSA would result in savings to customers of nearly \$11/MWh. Figure 1 below shows an annualized view of the cost of the PSA, as compared to the existing REPA. The PSA results in savings in nearly every year, primarily because our ownership and operation will result in lower costs to customers than the existing REPA and the expected costs for generic wind in the future. In the year where estimated costs of the PSA exceed the cost of generic wind, these costs are the result of PTC expiration and the associated impacts of the expected deferred tax asset utilization.

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¹⁸ Note that the existing Facility cost estimates include a generic wind adder equivalent to the expected increase in generation from the repowering. We do this adjustment to ensure the existing REPA and proposed repowering costs are compared on equivalent levels of generation.

Figure 1: Annual Estimated Costs for Mower County Repower and PSA, Relative to Existing REPA and Generic Wind Replacement (\$\pi\text{millions})^{19}

We include this model as Attachment G to this filing.

2. Strategist Modeling Approach and Results

Strategist modeling for the Project, as it pertains to its effect on the integrated NSP system, depends upon several key assumptions and outcomes included in our most recent Resource Plan. However, an important component relevant to the Mower County Project – and future planned wind procurement – is our "no going back" strategy. As previously discussed, this strategy is intended to ensure that we sustain the progress we have made on integrating substantial amounts of wind energy onto our system, by ensuring that it does not drop below current levels even as we have older assets that are reaching their end of contract or operating lives. Implementing the "no going back" approach will help us achieve our stated goal of reducing our carbon emissions across the Xcel Energy footprint 80 percent below 2005 levels by 2030.

To achieve this objective, we indicated in our most recent Resource Plan that we will need to add approximately 1,200 MW of generic new wind capacity on our system by 2034, which equates to approximately 5,270 gigawatt hours (GWh). Our Plan includes an assumption that this need will be filled by generic new wind resources. However, we also realize that potential significant transmission constraints for greenfield sites, and potential cost efficiencies associated with repowering existing sites, may require the envisioned replacement wind energy to include a mix of new generic resources

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¹⁹ Note that values for 2020 reflect a December COD for the repowered Project.

and repowered facilities. We will evaluate these options on an economic basis as they arise.

Implementing this approach with respect to the Mower County repower and PSA means that, in our view, it is most prudent to evaluate the economic costs or benefits of the proposal as a partial fulfillment of the wind replacement need identified in our Resource Plan, rather than as an incremental resource. In other words, we do not envision this Project to be additional to the 5,270 GWh of generic wind energy by 2034, as discussed in our Resource Plan; rather, it would be a part of achieving that total. We believe this is the most practical view of how the resource acquisition aligns with state policy that prefers renewables, and is a cost-effective way to achieve that outcome.

We realize that this approach, and our Resource Plan more broadly, have not yet been discussed with the Commission and stakeholders in the Resource Plan proceeding, although it is consistent with state policy on renewable energy. Therefore, we have included for consideration two sets of economic analysis for the proposed PSA – one that shows our preferred "partial fulfillment" approach, where the PSA fulfills part of the need identified in the Resource Plan, and another that shows the repowering and PSA as an incremental resource to our Resource Plan. Both approaches show that customers will benefit from the Company owning and operating the repowered Project.

As further discussed below, the modeling of both the replacement and incremental approach was based on our Resource Plan modeling. We do note that the net sales forecast in our Resource Plan, and thus analysis of this Project, is lower than in previous dockets. Additional detail regarding the key assumptions in the most recent Resource Plan's Preferred Plan are included in Attachment H.

a. Strategist Analysis of the Mower County Repower and PSA

As noted above, we evaluated the Project assuming our most recent Resource Plan's Preferred Plan as our "Base Case." We analyzed the Facility's repowering and acquisition based on the two approaches outlined above; first, the "partial fulfillment" approach – where the incremental generation from the Facility's repowering partially fulfills future wind replacement procurement – and the "incremental analysis" approach, where the Project is considered incremental generation on top of the procurement included in the Base Case. The results of the Strategist analysis show that the purchase of this Facility under the PSA terms as replacement wind is expected to result in net savings for our customers. Further, although we do not consider the PSA to be incremental to the need identified in our Preferred Plan, evaluating it as such also results in customer savings. These outcomes reinforce the reasonableness of the proposed acquisition.

i. Overall System Cost/(Savings) Results

Table 1 below shows both the present value of societal costs (PVSC) and present value of revenue requirement (PVRR) savings of the proposed repowering and acquisition from our Strategist analyses that examine system costs through 2045, compared to the existing REPA. Though more pronounced in the partial fulfillment runs, we note that the proposed repowering and acquisition option results in customer benefits in every scenario. In the incremental analysis, however, we note that the PVRR and PVSC results diverge because adding incremental wind to the amount of wind already included in the Preferred Plan results in further reductions of carbon emissions.

Table 1: Mower County Repower and PSA Incremental PVSC and PVRR Savings from Preferred Plan (Base Case) (\$2019 millions)

Present Value Measure Cost/(Savings) (\$2019 millions)	Partial Fulfillment Analysis ²⁰	Incremental Analysis
PVSC (High Ext Costs thru 2024, High Reg Costs)	(50.5)	(49.1)
PVRR (No CO ₂ Costs)	(48.8)	(10.7)

As noted above, the base PVSC assumptions include the high externality costs through 2024 and the high regulatory costs in 2025 and beyond, as approved by the Commission in its June 11, 2018 Order.²¹ The Commission's Order also required that:

In all electricity generation resource acquisition proceedings during 2018 and 2019, utilities shall analyze potential resources under a range of assumptions about environmental values, including scenarios that—

A. Incorporate, for all years, the low end of the range of environmental costs for carbon dioxide as approved by the Commission in its January 3, 2018 Order Updating Environmental Costs in Docket No. E999/CI-14-643, In the Matter of the Further Investigation into Environmental and Socioeconomic Costs Under Minnesota Statutes Section 216B.2422, Subdivision 3.

²¹ Order Establishing 2018 and 2019 Estimate of Future Carbon Dioxide Regulation Costs, Docket Nos. E999/CI-07-1199 and E999/DI-17-53.

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²⁰ Results in this table reflect a market price shape in Strategist that is based on net thermal load. In an analysis that uses a market price shape based on net load, the PVSC benefits amount to \$45.1 million and PVRR benefits are \$42.1 million.

- B. Incorporate, for all years, the high end of the range of environmental costs for CO₂ as approved by the Commission in its January 3, 2018 Order.
- C. Incorporate the low end of the range of environmental costs for CO₂ but substituting, for planning years after 2024, the low end of the range of regulatory costs for CO₂ regulations, in lieu of environmental costs.
- D. Incorporate the high end of the range of environmental costs for CO2 but substituting, for planning years after 2024, the high end of the range of regulatory costs for CO₂ regulations, in lieu of environmental costs.

We have included these sensitivities, to comply with the Commission's Order, in Table 2 below. We note that all sensitivity analyses associated with both the partial fulfillment *and* incremental resource approaches show that the PSA is expected to yield customer benefits.

Table 2: Mower County Repower and PSA Customer Costs/(Savings) Under Environmental Cost Sensitivities

Cost Sensitivity	Partial Fulfillment	Incremental
Cost/(Savings)	Analysis	Analysis
(\$2019 millions)		
PVRR (Base) – No Externalities	(48.8)	(10.7)
or Regulatory Costs		
PVSC (Base)	(50.5)	(49.1)
Low Externality	(49.6)	(14.1)
Low Externality, Low Regulatory	(48.8)	(21.9)
Cost of CO ₂		
Mid Externality, Mid Regulatory	(49.7)	(34.0)
Cost of CO ₂		
High Externality	(52.2)	(25.8)

ii. Annual Cost/(Savings) Results

To understand how the costs or savings change over time, we examined the proposed repowering and acquisition costs, first on the basis of costs for the project itself, and then on a total annual system cost basis. These perspectives show that customers will benefit from our purchase and operation of the repowered Project, relative to the Base Case, in particular as we pursue the "no going back" strategy.

Figure 2 below portrays the annual system cost impacts of the contemplated repower and acquisition, as compared to a Base Case where the existing REPA is sustained

through its term and replaced with generic wind energy thereafter. The partial fulfillment analysis shows savings accruing to customers in most years. The analysis includes the crediting of the PTCs annually to customers until PTC expiration at the end of 2030 and the carrying costs of the expected deferred tax asset utilization, consistent with past resource acquisition filings. Customers accrue benefits in nearly all years from the Company's lower cost of ownership, as compared to new generic wind costs after the REPA term ends.

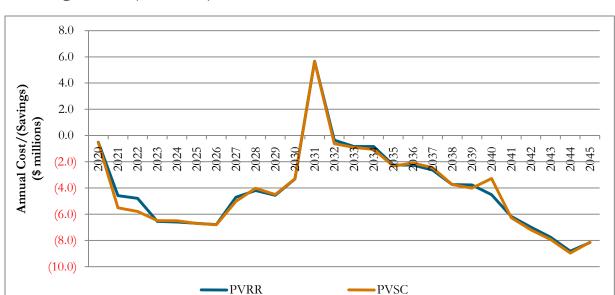


Figure 2: Partial Fulfillment Analysis Annual Costs/(Savings) as Compared to Existing REPA (\$ million)

As expected, treating the Project's acquisition as incremental wind procurement shows more mixed outcomes on an annual basis. In this case, PVSC results show benefits to customers in nearly all years as well; however, the PVRR picture is more mixed. While the overall PVRR still results in customer benefits of nearly \$11 million, much of which is realized in the near term, there are several years following the original REPA expiration where layering on wind generation incremental to the Base Case would result in upward pressure on system costs. Specifically, in 2027, costs would be expected to increase as a result of new generic wind coming online after the original REPA term ends. Because the Project would, in this case, be incremental to the procurement proposed in our Resource Plan, the PVRR analysis reflects costs until the years beyond 2040. At this point, PVRR savings accrue again, because this incremental wind would displace other market purchases that are more expensive than

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²² Per our Preferred Plan scenario in our most recent Resource Plan.

the Project's modeled costs. We note, however, that the PVSC analysis shows benefits in nearly all analysis years, reflecting the environmental benefit of additional clean energy on our system.

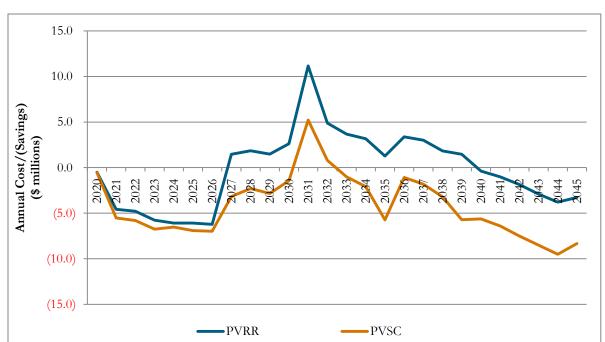


Figure 3: Incremental Analysis Annual Costs/(Savings) as Compared to Existing EPA (\$ million)

b. Analysis of the Mower County Repower First Amendment to the REPA

With regard to the First Amendment to the REPA, the repowering is expected to result in an incremental revenue requirement of approximately \$4.6 million relative to the existing Facility. However, this is not a result of any changes in contract pricing; rather, the repowered Project is expected to produce additional energy relative to the existing Facility. As previously discussed, in order to mitigate potential cost impact to customers of this repowering, the First Amendment to the REPA includes a maximum amount of generation, over which the Company will settle excess energy at *[Protected Data Begins*]

Protected Data Ends], as well as updated terms regarding compensable and non-compensable curtailment.²³

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²³ Note that the benefits of differentiating compensable and non-compensable curtailment cannot be adequately captured in the Strategist modeling, and thus are not included in the analysis.

Further, regardless of whether the Commission approves either the PSA or the First Amendment to the REPA, we expect Seller to move forward with the repowering. In the event the Commission approves neither proposal, the Company would be likely obligated to continue purchasing the full energy output of the repowered Facility under the existing contract. As the existing REPA does not include provisions for settling excess generation nor the expanded definition of non-compensable curtailment, this potential outcome is the most costly, and therefore least favorable, to customers of any path forward on the Mower County Project. Therefore, we have also examined the benefits of the First Amendment to the REPA, in comparison to a scenario in which Seller moves forward with the repowering without regulatory approval for the PSA or REPA amendments. As shown below, the amended REPA results in customer PVRR benefits of \$3.8 million through the duration of the contract, thus reducing the benefits accruing to Seller by this amount. In either case, it is evident that maintaining a REPA for the Mower County Facility is less beneficial to customers than the proposed PSA.

Table 3 below shows the anticipated total change in PVRR and PVSC associated with the repowering and First Amendment to the REPA, in both scenarios described above.

Table 3: Mower County Repower and First Amendment to the REPA Customer Costs/(Savings) Under Environmental Cost Sensitivities

Cost Sensitivity Cost/(Savings) to Customers (\$2019 millions)	Repowering with First Amendment to the REPA, in Comparison to the Base Case	Repowering with No Amendments to the REPA, in Comparison to the Base Case	Cost/(Savings) Associated with the First Amendment to the REPA
PVRR (Base) –	4.6	8.4	(3.8)
No Externalities			
or Regulatory			
Costs			
PVSC (Base)	1.0	4.8	(3.8)
Low Externality	3.7	7.5	(3.8)
Low Externality,	4.0	7.8	(3.8)
Low Regulatory			
Cost of CO ₂			
Mid Externality,	2.6	6.4	(3.8)
Mid Regulatory			
Cost of CO ₂			
High Externality	0.7	4.5	(3.8)

B. Additional Benefits of the Proposed PSA

As previously discussed, there are additional benefits associated with the repowering and PSA that we have not quantified but are nevertheless important to consider. First, Seller has committed to expressing a preference for union labor in its repowering construction work. This is consistent with the public interest and the Commission's preference for local labor. Second, with regard to transmission interconnection access, there is significant value in acquiring a project with existing interconnection rights. The withdrawal of nearly all projects in the most recently completed MISO DPP study – including the third phase of our Crowned Ridge Wind Project – sends a clear signal that new wind facilities in the MISO West region will face extensive system upgrade requirements, unless and until additional transmission capacity becomes available. While the Company recently announced it is working with other utilities in the region on a long term Transmission Vision Study – to develop an assessment of the new transmission required as the system adds more carbon-free energy – bringing online new transmission capacity requires long lead times and is unlikely to occur for several years.

Given the existing constraints and time required to develop new transmission capacity, we expect to see a continuing trend of prospective wind project queue withdrawals, where high interconnection costs challenge projects' economic viability. Further, we increasingly anticipate upward cost pressure on future wind project bids until these constraints are alleviated. These factors make existing facility repowering projects, such as the Mower County Project, a key piece of achieving our clean energy goals affordably in the near- to medium-term.

X. PUBLIC INTEREST

As discussed, our proposal to purchase and operate the repowered Mower County Project will provide substantial benefits to customers. Further, although we believe our proposal to purchase the Mower County Facility will provide greater benefits to customers than the First Amendment to the REPA, both proposals are in the public interest, reasonable and protect the interests of customers.

- 1. The Project is Reasonable
- The Project will improve the efficiency of an existing wind facility; and

 The purchase price under the PSA will provide significant savings for our customers, compared to the existing or amended REPA.²⁴

2. The Project is in the Public Interest

- Repowering and PSA allows the Company to continue to include the more efficient repowered Project as a component of our regulated renewable generation portfolio, with significant economic benefits accruing to customers;²⁵
- Economic benefits begin accruing to customers in the near term, so today's customers benefit from the purchase;
- The purchase will add wind energy to the NSP system for the long-term, and avoid significant transmission costs while preserving the site and its rights well into the future; and
- Seller has expressed a preference for using local labor in its repowering work, for which the Commission has also expressed a preference.

3. Customers are Protected

 The PSA negotiated by the Company includes provisions to protect the interests of customers, including industry-standard warranties on the refurbished turbines to be installed.

 Approving the Company's request to acquire the Project as a regulated asset ensures the Facility will achieve a lower levelized cost of energy than if the existing REPA were maintained, thereby benefitting customers.²⁶

²⁴ Although not as beneficial to customers as the PSA, the alternative First Amendment to the REPA provides certain customer protections that are not in place in the existing REPA. These protections include excess generation price reduction provisions and narrower terms under which curtailment is compensable. If the Commission does not approve the PSA, the First Amendment to the REPA will result in customer

benefits relative to a case where the Project is repowered but no REPA Amendments are approved. ²⁵ In the event the Commission does not approve the PSA, the repowering and First Amendment to the REPA is beneficial, as it allows introduction customer protections that have become more standard since the existing REPA began.

²⁶ We further note that, if the Commission does not approve the PSA, the First Amendment to the REPA updates and improves customer protection provisions common in more modern REPA terms, including excess generation settlement provisions and differentiation of compensable and non-compensable curtailment.

CONCLUSION

The proposed purchase of the Mower County Wind Facility provides customers with substantial value because it will result in cost savings for customers from efficient, refurbished renewable energy sources. We believe that the analysis we present provides the information necessary for the Commission to find the Company's proposed acquisition to be in the public interest and to approve the transaction. Xcel Energy respectfully requests the Commission approve the Company's acquisition, ownership, and operation of the Facility pursuant to the terms of the executed PSA. In the alternative, if not approving the PSA, Xcel Energy respectfully requests the Commission approve the First Amendment to the REPA.

Dated: August 30, 2019

Northern States Power Company

STATE OF MINNESOTA BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Katie J. Sieben	Chair
Dan Lipschultz	Vice-Chair
Valerie Means	Commissioner
Matt Schuerger	Commissioner
John A. Tuma	Commissioner

IN THE MATTER OF THE PETITION OF NORTHERN STATES POWER COMPANY FOR APPROVAL OF THE ACQUISITION OF THE MOWER COUNTY WIND FACILITY

DOCKET NO. E002/PA-19-____

PETITION

SUMMARY OF FILING

Please take notice that on August 30, 2019, Northern States Power Company, doing business as Xcel Energy, filed with the Minnesota Public Utilities Commission a Petition for approval of the Company's agreement to acquire, own, and operate a 98.9 megawatts refurbished wind facility in Mower County, Minnesota.

Northern States Power Company

Docket No. E002/PA-19-___ Petition – Acquisition of Mower County Wind Facility Attachment A – 309 Pages Total

Attachment A is marked "NOT-PUBLIC" as it contains information the Company considers to be trade secret data as defined by Minn. Stat. §13.37(1)(b). This data includes confidential pricing and other contract terms. The information has independent economic value from not being generally known to, and not being readily ascertainable by, other parties who could obtain economic value from its disclosure or use. We have marked additional information as "NOT PUBLIC" because the knowledge of such information in conjunction with public information in our Petition could also adversely impact future contract negotiations, potentially increasing costs for these services for our customers. Thus, the Company maintains this information as a trade secret.

Attachment A provided with the Not-Public version of this filing contains information classified as trade secret pursuant to Minn. Stat. § 13.37 for the above-noted reasons and is marked as "NOT-PUBLIC" in its entirety. Pursuant to Minn. R. 7829.0500, subp. 3, the Company provides the following description of the excised material:

- 1. **Nature of the Material:** PDF copy of the Purchase and Sale Agreement for the Company's acquisition of the Mower County Wind Facility.
- 2. **Authors:** The Purchase and Sale Agreement was prepared by the Company's Corporate Development personnel.
- 3. **Importance:** The Purchase and Sale Agreement contains competitively sensitive pricing and other contract terms the Company considers as trade secret.
- 4. **Date the Information was Prepared:** The Purchase and Sale Agreement was executed June 17, 2019.

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AMENDMENT NO. 1 TO PURCHASE AND SALE AGREEMENT

This **AMENDMENT NO. 1 TO PURCHASE AND SALE AGREEMENT** (this "Amendment") is made as of August 7, 2019 (the "Execution Date") by and between Northern States Power Company, a Minnesota corporation ("Buyer"), and ESI Energy, LLC, a Delaware limited liability company ("Seller"). Each of Buyer and Seller are sometimes referred to herein as a "Party" and collectively as the "Parties".

RECITALS

- A. WHEREAS, Seller and Buyer are Parties to that certain Purchase and Sale Agreement, dated as of June 17, 2019, (as amended or otherwise modified, the "Agreement"), under which Seller agrees to sell to Buyer and Buyer agrees to purchase from Seller one hundred percent (100%) of the membership interests of FPL Energy Mower County, LLC, as more fully set forth in the Agreement; and
- B. WHEREAS, the Parties mutually desire to modify certain terms and conditions of the Agreement, as more fully set forth herein.
- **NOW THEREFORE**, in consideration of the foregoing and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:
- 1. <u>Definitions</u>. Capitalized terms used in this Amendment and not otherwise defined herein shall have the meanings assigned to such terms in the Agreement.
- 2. <u>Amendments</u>. The Agreement shall be amended as of the Effective Date as follows:
 - (a) <u>Section 8.1.2</u>. Section 8.1.2 is hereby amended by replacing the phrase "August 7, 2019" with "August 30, 2019" in the first sentence thereof.

3. General Terms.

- (A) The Agreement. Except to the extent expressly modified by this Amendment, all other terms and conditions of the Agreement will remain unmodified and continue in full force and effect. Any reference to the Agreement from and after the Effective Date will be deemed to refer to the Agreement as amended hereby, unless otherwise expressly stated.
- (B) <u>Governing Law</u>. This Amendment will be governed by the same state whose laws govern the Agreement.
- (C) <u>Counterparts</u>. This Amendment may be executed in any number of counterparts, each of which will be an original and all of which together will constitute one and the same agreement.

IN WITNESS WHEREOF, Seller and Buyer have duly executed this Amendment as of the date first written above.

ESI ENERGY, LLC

By: Name:

Title:

Michael O'Sullivan

Vice President

NORTHERN STATES POWER COMPANY

By:

Name: Title:

hristopher B.

Northern States Power Company	Petition - Acquisition of Mowe	Docket No. E002/PA-19 Petition - Acquisition of Mower County Wind Facility Attachment C – Page 1 of 1	
Proposed Journal Entries – Mower			
Estimated at Closing December 31, 2020			
FERC FERC Description	Debit	Credit	

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Execution Version

RENEWABLE ENERGY PURCHASE AGREEMENT

Between

Northern States Power Company

as Purchaser

and

FPL Energy Mower County, LLC

as Seller

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RENEWABLE ENERGY PURCHASE AGREEMENT BETWEEN

FPL ENERGY MOWER COUNTY, LLC

AND

NORTHERN STATES POWER COMPANY-MINNESOTA

This RENEWABLE ENERGY PURCHASE AGREEMENT (the "REPA" and the "Agreement") is made this 18 day of November, 2005, by and between FPL Energy Mower County, LLC ("Seller"), a Delaware limited liability company with a principal place of business at 700 Universe Boulevard, Juno Beach, Florida, 33408 and Northern States Power Company ("Purchaser"), a Minnesota corporation with headquarters in Minneapolis, Minnesota, Seller and Purchaser are hereinafter referred to individually as a "Party" and collectively as the "Parties"

WHEREAS Seller desires to develop, design, construct, own and operate a wind turbine electric generating facility with an expected total nameplate Capacity of approximately 100 MW, and which is further defined below as the "Facility"; and

WHEREAS Seller intends to locate the Facility at Mower County, Minnesota, and to interconnect the Facility (via the Seller's Interconnection Facilities) with the Interconnection Provider's System at the Electric Interconnection Point; and

WHEREAS Seller desires to sell to Purchaser all of the Renewable Energy and Environmental and Renewable Energy Credits produced by the Facility and Purchaser desires to buy the same from Seller.

NOW THEREFORE, in consideration of the mutual covenants herein contained, the sufficiency and adequacy of which are hereby acknowledged, the Parties agree to the following:

Article 1

DEFINITIONS AND RULES OF INTERPRETATION

- Rules of Construction. The capitalized terms listed in this Article shall have the meanings set forth herein whenever the terms appear in this REPA, whether in the singular or the plural or in the present or past tense. Other terms used in this REPA but not listed in this Article shall have meanings as commonly used in the English language and, where applicable, in Good Utility Practice. Words not otherwise defined herein that have well known and generally accepted technical or trade meanings are used herein in accordance with such recognized meanings. accounting terms not specifically defined herein shall be construed in accordance with generally accepted accounting principles in the United States of America, consistently applied. In addition, the following rules of interpretation shall apply:
- The masculine shall include the feminine and neuter and vice (A) versa

- References to "Articles," "Sections," or "Exhibits" shall be to articles, sections, or exhibits of this REPA.
- The Exhibits attached hereto are incorporated in and are intended to be a part of this REPA; provided, however that in the event of a conflict between the terms of any Exhibit and the terms of this REPA, the terms of this REPA shall take precedence.
- This REPA was negotiated and prepared by both Parties with the advice and participation of counsel The Parties have a greed to the wording of this REPA and none of the provisions hereof shall be construed against one Party on the ground that such Party is the author of this REPA or any part hereof.
- The Parties shall act reasonably and in accordance with the principles of good faith and fair dealing in the performance of this REPA expressly provided otherwise in this REPA, (a) where the REPA requires the consent. approval, or similar action by a Party, such consent or approval shall not be unreasonably withheld, conditioned or delayed, and (b) wherever the REPA gives a Party a right to determine, require, specify or take similar action with respect to a matter, such determination, requirement, specification or similar action shall be reasonable.
- All references to a particular entity shall include a reference to such The words "herein," "hereof" and entity's successors and permitted assigns "hereunder" shall refer to this Agreement as a whole and not to any particular section or subsection hereof. References to this Agreement shall include a reference to all appendices, annexes, schedules and exhibits hereto, as the same may be amended, modified, supplemented or replaced from time to time.
- Interpretation with Interconnection Agreement. The Parties recognize that Seller will enter into a separate Interconnection Agreement with the Interconnection Provider.
- The Parties acknowledge and agree that the Interconnection Agreement shall be a separate and free-standing contract and that the terms of the Interconnection Agreement are not incorporated by reference into or made a part of this Agreement and that the Interconnection Provider shall be deemed to be a separate contracting party whether or not the Interconnection Agreement is entered into with Northern States Power Company or any Affiliate thereof
- Notwithstanding any other provision in this Agreement and except to the extent of a Force Majeure event, nothing in the Interconnection Agreement shall alter or modify Seller's or Purchaser's rights, duties and obligations under this Agreement. This Agreement shall not be construed to create any rights between Seller and the Interconnection Provider.
- Arrangements for Electric Supply to the Facility Seller shall enter into 1.3 separate arrangements for the supply of electric services to the Facility, including the

supply of turbine unit start-up and shut-down power and energy. Seller is responsible for ensuring that the electric services are a vailable to commence testing prior to the Commercial Operation Date.

- (a) The Parties acknowledge and agree that the arrangements for the supply of electric services to the Facility shall be separate and free-standing arrangements and that the terms of any agreements with respect to such supply arrangement are not incorporated by reference into or made a part of this Agreement.
- (b) Notwithstanding any other provision in this Agreement and except to the extent of a Force Majeure event, nothing in the agreements for the supply of electric services to the Facility shall alter or modify Seller's or Purchaser's rights, duties and obligations under this Agreement. This Agreement shall not be construed to create any rights between Seller and the supplier of such electric services.
- 1.4 <u>Definitions</u>. The following terms shall have the meanings set forth herein:

"Abandonment" means the termination or abandonment by Seller of construction and commissioning of the Facility after the Seller Notice Date and before the Commercial Operation Date which continues for more continuous days, but only if such termination or abandonment is not caused by or attributable to an Event of Default of, or a written request by, Purchaser, or a Force Majeure event.

Trade Secret in Brackets

"Accreditable Capacity" means the amount of net generating capability associated with the Facility for which accreditation may be maintained under applicable MISO resource adequacy requirements or MAPP rules as applicable.

"Affiliate" shall mean, with respect to any Person, each Person that now or in the future directly or indirectly controls, is controlled by, or is under common control with, such designated Person. The term "control" (including the terms "controls", "controlled by" and "under common control with"), as used with respect to any Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through ownership interest, by contract or otherwise.

"After-Tax Basis" shall mean, with respect to any payment received or deemed to have been received by any Party, the amount of such payment (the "Base Payment") supplemented by a further payment (the "Additional Payment") to such Party so that the sum of the Base Payment plus the Additional Payment shall, after deduction of the amount of all income taxes required to be paid by such Party in respect of the receipt or accrual of the Base Payment and the Additional Payment (taking into account any current or previous credits or deductions arising from the underlying event giving rise to the payment, the Base Payment and the Additional Payment), be equal to the amount required to be received. Such calculations shall be made on the assumption that the recipient is subject to Federal income taxation at the highest applicable statutory rate applicable to corporations for the relevant period or periods, is subject to state and local income taxation at the highest applicable statutory rates applicable to corporations doing business in Minnesota and shall take into account the deductibility (for Federal income tax purposes) of state and local income taxes.

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"Aggregate Liability Limit" shall mean

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"Agreement" or "REPA" shall mean this Renewable Energy Purchase Agreement

"Applicable Law" means, with respect to any Person or the Facility, all laws, statutes, codes, acts, treaties, ordinances, orders, judgments, writs, decrees, injunctions, rules, regulations, governmental approvals, licenses and permits, directives and requirements of all regulatory and other governmental authorities, in each case applicable to or binding upon such Person or the Facility (as the case may be).

"Available Capacity" shall have the meaning set forth in Section 7.5(c)

"Business Day" means any calendar day that is not a Saturday, a Sunday, or a NERC recognized holiday.

"Capacity" means the output potential a machine or system can produce or carry under specified conditions. The capacity of generating equipment is generally expressed in MW. Capacity is also referred to as "capability" in the industry and for the purposes of the Agreement the terms are synonymous.

"COD Conditions" shall have the meaning set forth in Section 4.7.

"Commercial Operation" means the occurrence or satisfaction of each of the COD Conditions.

"Commercial Operation Date" or "COD" means the date that Seller provides acceptable notification to Purchaser, pursuant to Section 4.7, of Seller's declaration that Commercial Operation has occurred.

"Commercial Operation Milestone" means December 31, 2006, as such date may be extended due to the effects of Force Majeure or actions or inactions of Purchaser specified in Section 14.4

"Commercial Operation Year" means any consecutive twelve (12) month period, during the Term of this REPA, commencing with the Commercial Operation Date or any of its anniversaries

"Confidential Information" shall have the meaning set forth in Section 20.16.

"Confirmation of Purchaser's Conditions" shall have the meaning set forth in Section 2.4(b).

"Construction Milestone Date(s)" means the date(s) set forth in Exhibit A by which Seller agrees to achieve the corresponding result(s) specified for such date(s), and as such dates may be extended due to the effects of Force Majeure or actions or inactions of Purchaser specified in Section 14.4 including, but not limited to, the Commercial Operation Milestone.

"Curtail" or "Curtailment" means the reduction, suspension, or interruption of deliveries of Renewable Energy from the Facility at the Point of Delivery and may constitute a Seller Curtailment under Section 7.4, a Voluntary Curtailment under Section 7.5(b), or a Non-Compensable Curtailment under Section 7.5(a).

"Curtailment Energy" means the quantity of Renewable Energy as determined in accordance with Section 7.5 that would have been produced by the Facility and delivered to the Point of Delivery had such Curtailment not been implemented.

"Day" means a calendar day

"Delay Conditions" shall have the meaning set forth in Section 14.4.

"Delay Damages" shall be those damages arising pursuant to Section 12.4.

"Dispute" shall have the meaning set forth in Section 13.9(a).

"Dispute Notice" shall have the meaning set forth in Section 13.9(a)

"Effective Date" means the date that this Agreement is executed and delivered by both Parties

"Electric Interconnection Point" means the physical point at which electrical interconnection is made between the Facility and the Interconnection Provider's System which shall be the disconnect switch on the 161 kV bus of the Adams Substation as more specifically depicted in Exhibit B.

"Electric Metering Device(s)" means all Purchaser owned meters, metering equipment, and data processing equipment used to measure, record, and transmit data relating to the Renewable Energy output from the Facility Metering Devices include the metering current transformers ("CTs") and the metering voltage transformers ("VTs").

"Emergency" shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of a Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to Transmission Provider's Transmission System, Transmission Provider's Interconnection Facilities or the electric system of others to which the Transmission Provider's Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided, however that Interconnection Customer is not obligated by the Standard Large Generator Interconnection Agreement to possess black start capability. Any condition or situation that results from lack of sufficient generating capacity to meet load requirements or that results solely from economic conditions shall not constitute an Emergency Condition, unless one of the enumerated conditions or situations identified in this definition also exists.

"Energy Markets Control Center" means Purchaser's merchant function representative(s) responsible for MISO day-ahead and real-time dispatch of generating units within the Purchaser Control Area

"Energy Resource" means Interconnection service which allows the Seller to connect the Facility to the transmission system as an "Energy Resource" as defined by the MISO EMT, and be eligible to deliver the Facility's output using the existing firm or nonfirm capacity on the transmission system on an as available basis

"Environmental and Renewable Energy Credits" means any and all environmental air quality credits, off-sets, certificates, rights, powers, privileges or other benefits related to the generation of energy at the Facility in a manner which reduces, displaces or off-sets emissions resulting from fuel combustion at another location pursuant to any federal, state or local legislation or regulation, the aggregate amount of credits, offsets or other benefits related to Purchaser's current marketing program, any successor green pricing program or other environmental or renewable energy credit trading program derived from the use, purchase or distribution of Renewable Energy from the generation of energy at the Facility or any similar program pursuant to any federal, state or local legislation or regulation, and any renewable energy certificates issued pursuant to any program, information system, or tracking system associated with the Renewable Energy generated from the Facility, but specifically excluding (i) any and all state and federal production tax c redits, investment tax c redits and any other tax credits which are or will be generated by the Facility, and (ii) cash payments or outright grants of money relating in any way to the Facility.

"Environmental Contamination" means the introduction or presence of Hazardous Materials at such levels, quantities or location, or of such form or character, as to constitute a violation of federal, state or local laws or regulations, and present a material risk under federal, state or local laws and regulations that the Site will not be available or usable for the purposes contemplated by this REPA.

"EPC" shall have the meaning set forth in Section 4.4

"Event of Default" shall have the meaning set forth in Article 12.

"Extended Purchaser Guaranteed Conditions Date" shall have the meaning set forth in Section 6.1(b).

"Facility" means Seller's electric generating facility and Seller's Interconnection Facilities, as identified and described in Article 3 and in the Seller Notice, including, but not limited to, all of the following, the purpose of which is to produce electricity and deliver such electricity to the Point of Delivery: Seller's equipment, buildings, all of the Wind Turbines, generators, step-up transformers, output breakers, facilities necessary to connect to the Electric Interconnection Point, protective and associated equipment, improvements, and other tangible assets, easements, rights of way, surface use agreements and other interests or rights in real estate reasonably necessary for the construction, operation, and maintenance of the electric generating facility that produces the Renewable Energy subject to this REPA

"Facility Debt" means the obligations of Seller to any lender pursuant to the Financing Documents, including without limitation, principal of, premium and interest on indebtedness, fees, expenses or penalties, amounts due upon acceleration, prepayment or restructuring, swap or interest rate hedging breakage costs and any claims or interest due with respect to any of the foregoing and any obligations

guaranteed by Seller in connection with the financing of a portfolio of wind projects that includes the Facility.

"Facility Lender" means, collectively, any lender(s) providing any Facility Debt and any successor(s) or assigns thereto

"<u>FERC</u>" means the Federal Energy Regulatory Commission or any successor agency.

"Financing Documents" means the loan and credit agreements, guarantees, notes, bonds, indentures, security agreements, lease financing agreements, mortgages, deeds of trust, interest rate exchanges, swap agreements and other documents relating to the development, bridge, construction and/or permanent debt financing for the Facility, or any financing for which the Facility is pledged as collateral, including any credit enhancement, credit support, working capital financing, or refinancing documents, and any and all amendments, modifications, or supplements to the foregoing that may be entered into from time to time at the sole discretion of Seller in connection with development, construction, ownership, leasing, operation or maintenance of the Facility.

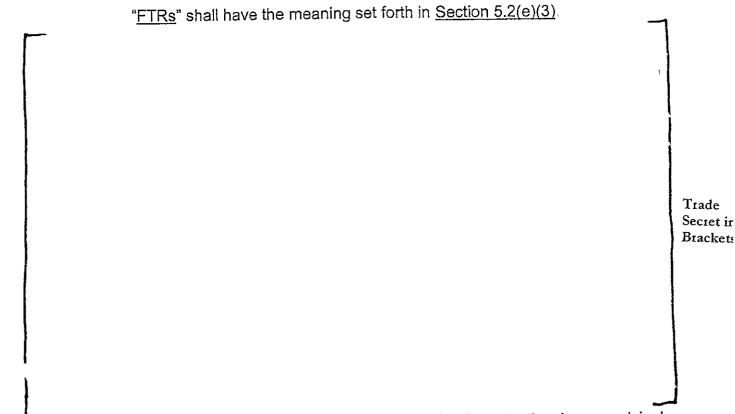
"Firm Transmission Service" means (a) if transmission service is available as it existed prior to MISO Day Two, firm point-to-point transmission service or firm network integration transmission service, (b) during MISO Day Two, the transmission service provided to a Network Resource, or (c) in the event that neither (a) nor (b) apply, the substantial equivalent of the transmission service contemplated in (a) above constituting the highest priority transmission service available under the OATT.

"Forced Outage" means any condition at the Facility that requires immediate removal of the Facility, or some part thereof, from service, another outage state, or a reserve shutdown state. This type of outage results from immediate mechanical, electrical, or hydraulic control system trips and operator-initiated trips in response to Facility conditions and/or alarms.

"Force Majeure" means causes or events beyond the reasonable control of, and without the fault or negligence of the Party claiming Force Majeure, including, without limitation, acts of God or public enemy, sudden or unusual actions of the elements such as floods, earthquakes, hurricanes, tornadoes, severe storms or other unusual natural calamities; high winds of sufficient strength or duration to materially damage a facility; long-term material changes in wind flows across the Facility caused by climactic change; lightning; fire; ice storms; sabotage; vandalism beyond that which could reasonably be prevented by Seller; terrorism; war (whether or not declared); riots; explosion; blockades; insurrection; a Force Majeure event on the Interconnection Provider's System as defined in the Interconnection Agreement; a Force Majeure event (as defined in the OATT) on the Transmission System to the extent it causes Purchaser to be physically incapable of (a) accepting delivery of energy at the Point of Delivery or (b) transmitting such energy from and after the Point of Delivery; strike; slow down or labor disruptions (even if such difficulties could be resolved by conceding to the demands of a labor group);

explosion, accident or epidemic, the unavailability of labor, fuel, power or raw materials, the breakdown of the

Trade Secret in Brackets Facility or other plant breakdown or equipment failure, any event affecting the ability of any supplier (including under any engineering, procurement or construction agreement for the Facility) to the Facility to fulfill its obligations to Seller and the Facility so long as, in each case, the cause thereof otherwise would qualify as a Force Majeure; air crash, shipwreck, train wrecks or other failures or delays of transportation and actions or inactions by any Governmental Authority taken after the date hereof (including the adoption or change in any rule or regulation or environmental constraints lawfully imposed by such Governmental Authority) but only if such requirements, actions, or failures to act prevent or delay performance; and inability, despite due diligence, to obtain any licenses, permits, or approvals required by any Governmental Authority; provided, however, that Force Majeure shall not include the following: (i) the lack of money or changes in market conditions; (ii) any acts or omissions of any third party, including, without limitation, any vendor, materialman, customer, or supplier of Seller, unless such acts or omissions are themselves excused by reason of Force Majeure; or (iii) any mechanical or equipment breakdown at the Facility or other mishap attributable to normal wear and tear.



"Governmental Authority" means any federal, state, local or municipal governmental body; any governmental, quasi-governmental, regulatory or administrative agency, commission, body or other authority exercising or entitled to exercise any administrative, executive, judicial, legislative, policy, regulatory or taxing authority or power; or any court or governmental tribunal.

"<u>Hazardous Materials</u>" means any substance, material, gas, or particulate matter that is regulated by any local governmental authority, any applicable State, or the United States of America, as an environmental pollutant or dangerous to public

health, public welfare, or the natural environment including, without limitation, protection of non-human forms of life, land, water, groundwater, and air, including, but not limited to, any material or substance that is (i) defined as "toxic," "polluting," "hazardous waste," "hazardous material," "hazardous substance," "extremely hazardous waste," "solid waste" or "restricted hazardous waste" under any provision of local, state, or federal law; (ii) petroleum, including any fraction, derivative or additive; (iii) asbestos; (iv) polychlorinated biphenyls; (v) radioactive material; (vi) designated as a "hazardous substance" pursuant to the Clean Water Act, 33 U.S.C. §1251 et seq (33 U.S.C. §1251); (vii) d efined as a "hazardous waste" pursuant to the Resource Conservation and Recovery Act, 42 U.S.C §6901 et seq (42 U.S.C §6901); (viii) defined as a "hazardous substance" pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §9601 et seq (42 U.S.C. §9601); (ix) defined as a "chemical substance" under the Toxic Substances Control Act, 15 USC §2601 et seq. (15 U.S.C. §2601); or (x) defined as a pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. §136 et seq. (7 U.S.C. §136).

"Indemnified Party" shall have the meaning set forth in Section 17(a).

"Indemnifying Party" shall have the meaning set forth in Section 17(a).

"Installed Capacity" shall mean the aggregate nameplate Capacity of all Wind Turbines that have achieved Commercial Operation and are part of the Facility, in each case expressed in MW.

"Interconnection Agreement" means the separate agreement between Seller and the Interconnection Provider for interconnection of the Facility to the Interconnection Provider's System and pursuant to which the Interconnection Facilities will be constructed, operated and maintained, as such agreement may be amended from time to time.

Provider's Interconnection "Interconnection Facilities" means Interconnection Facilities and Seller's Interconnection Facilities.

"Interconnection Provider" means MISO and/or IPL and any successor(s) thereto that owns and operates the Interconnection Provider's System and Interconnection Provider's Interconnection Facilities.

"Interconnection Provider's Interconnection Facilities" means all of the facilities necessary to connect Interconnection Provider's existing electric system to the Electric Interconnection Point, including breakers, bus work, bus relays, control and protective devices, metering facilities and associated equipment installed by or on behalf of the Interconnection Provider for the direct purpose of interconnecting the Facility, along with any easements, rights of way, surface use agreements and other interests or rights in real estate reasonably necessary for the construction, operation and maintenance of such facilities Arrangements for the installation and operation of the Interconnection Provider's Interconnection Facilities shall be governed by the Interconnection Agreement

"Interconnection Provider's System" contiguously means the interconnected electric transmission and sub-transmission facilities, Interconnection Provider's Interconnection Facilities, over which the Interconnection Provider has rights (by ownership or contract) to provide bulk transmission of Renewable Energy from the Electric Interconnection Point

"IPL" means Interstate Power & Light Company, the owner of the Interconnection Provider's Interconnection Facilities

"Issuer" shall have the meaning set forth in Section 11.1(c)

"Late Payment Rate" shall have the meaning set forth in Section 9.2.

"MAPP" means the Mid-Continent Area Power Pool, or any successor organization.

"MISO" means the Midwest Independent System Operator, Inc., or any successor organization, the Transmission Provider with operational control over the Interconnection Provider's Interconnection Facilities and the Transmission Provider's Transmission System.

"MISO Day Two" means MISO regulations implemented beginning as of April 1, 2005 governing operation of MISO's day-ahead and real-time energy markets pursuant to the MISO EMT.

"MISO EMT" means the MISO Open Access and Energy Markets Tariff, as amended from time to time.

"Mobile-Sierra doctrine" shall have the meaning set forth in Section 20.4(b).

"MPUC" means the Minnesota Public Utilities Commission or any successor agency.

"MPUC Approval" means a written order by the MPUC approving of this REPA and Purchaser's purchase hereunder as being reasonable and in public interest, that the purchase hereunder qualifies for inclusion under the renewable energy objective applicable to Purchaser under Minn. Stat. 216B 1691 to the full extent requested by Purchaser, qualifies as for inclusion as 100 MW of the 300 MW of distributed wind generation referred to in Minn. Stat. § 216B 1691, subd. 6 to the full extent requested by Purchaser, and that all amounts prudently incurred by Purchaser hereunder shall be recoverable from Purchaser's Minnesota retail customers through an automatic adjustment of charges or comparable ratemaking mechanism

"MRO" means the Midwest Reliability Organization, a NERC regional electric reliability council, or any successor organization.

"NERC" means the North American Electric Reliability Council or any successor organization.

"Network Resource" means a generation resource designated as a "Network Resource" under Module E of the MISO EMT.

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"OATT" means the MISO EMT or any applicable Open Access Transmission and Energy Markets Tariff, as amended from time to time

"On Peak Month" means the months of January, February, June, July August and December.

"Operating Committee" means one representative each from Purchaser and Seller pursuant to Section 10.4

"Operating Procedures" shall have the meaning set forth in Section 10.4(a).

"Operating Records" means all a greements a ssociated with the Facility, operating logs, blueprints for construction, operating manuals, all warranties on equipment, and all documents, whether in printed or electronic format, that the Seller uses or maintains for the operation of the Facility.

"Party Representative" or "Parties' Representatives" shall have the meaning set forth in Section 13.9(a).

"Person" means an individual, partnership, corporation, business trust, joint stock company, trust, unincorporated association, joint venture, governmental entity, limited liability company or any other entity of whatever nature.

"Point of Delivery" means the Electric Interconnection Point as depicted on Exhibit B, at which Seller makes available to Purchaser and delivers to Purchaser the Renewable Energy being provided by Seller to Purchaser under this REPA.

"Pool Tie" shall mean those contractual arrangements among any or all of Seller, MISO, IPL, other transmission-owning entities, and any other necessary party, which results in and authorizes a 'net actual interchange' as that term is defined by NERC, and which results in the net metered interchange of the Facility between the Purchaser control area and the Alliant-West control area for the purpose of delivering the output of the Facility to Purchaser at the Point of Delivery as if the Point of Delivery is located in the Purchaser control area, including but not limited to application of the ancillary service schedules of the OATT to the Facility, despite the fact that the Electric Interconnection Point is physically located in the Alliant-West control area.

"Projected Installed Capacity" shall mean between 97 MW and 103 MW of nameplate Capacity or as otherwise reduced in accordance with Section 4.9

"Project Abandonment Damages" shall have the meaning set forth in Section 4.11.

"PTCs" means Production Tax Credits applicable to electricity produced from certain renewable resources pursuant to 26 U.S.C. § 45 as in effect as of the date of this REPA, or such substantially equivalent federal or state tax credit that provides Seller with a tax credit based on energy production from any portion of the Facility.

"Purchaser Conditions" shall have the meaning set forth in Section 6.1(a).

"Purchaser Control Area" means the system of electrical generation, distribution, and transmission facilities within which generation is regulated in order to maintain interchange schedules with other such systems

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Petition - Acquisition of Mower County Wind Facility

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"Purchaser Guaranteed Conditions Date" means the date on or before which the Purchaser Conditions must be satisfied or waived or the REPA is subject to termination, which date shall not be later than April 1, 2006.

"<u>Purchaser Conditions Notice</u>" has the meaning set forth in <u>Section 6.1</u>, below.

"Purchaser Notice Date" means the earlier to occur of the following: (i) the date on which the Purchaser Conditions Notice is issued and delivered by Purchaser to Seller, or (ii) five days after satisfaction of all of the Purchaser Conditions has occurred.

"Renewable Energy" means the net electric energy generated by the Facility and delivered to the Point of Delivery (including without limitation any Test Energy and all Environmental and Renewable Energy Credits), which shall exclude the electric energy consumed by the Facility as described in Section 7.2 and shall be in the form of three (3) phase, sixty(60) hertz, alternating current.

"Renewable Energy Payment Rate" means the rate as defined in Section 8.2 of this REPA.

"REPA" means this Renewable Energy purchase agreement between Seller and Purchaser, including the Exhibits attached hereto.

"Replacement Energy Costs"

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"Reported Availability" shall have the meaning set forth in Section 5.3(a)

"Scheduled Outage/Derating" means a planned interruption/reduction of the Facility's generation by more than ten percent (10%) that both (i) has been coordinated in advance with Purchaser, and (ii) is required for inspection, or preventive or corrective maintenance

"Seller Guaranteed Conditions Date" means the date on or before which the Seller Conditions must be satisfied or waived or the REPA is subject to termination, which date shall not be later than June 1, 2006.

"Seller Conditions" has the meaning set forth in Section 6.2

"Seller Confirmation Date" means the date which is ten (10) Business Days after receipt by Seller of the Purchaser Conditions Notice.

"Seller Notice" has the meaning set forth in Section 2.4(c).

"Seller Notice Date" means the earlier to occur of the following: (1) the date on which the Seller Conditions Notice is issued and delivered by Seller to Purchaser, or (ii) five days after satisfaction of all of the Seller Conditions has occurred

"Seller's Back-Up Metering" shall have the meaning set forth in Section 5.5(c).

"Seller's Interconnection Facilities" means the equipment between the high side disconnect of the step-up transformer and the Electric Interconnection Point, including all related relaying protection and physical structures as well as all transmission facilities required to access the Interconnection Provider's System at the Electric Interconnection Point, along with any easements, rights of way, surface use agreements and other interests or rights in real estate reasonably necessary for the construction, operation and maintenance of such facilities. On the low side of the stepup transformer it includes Seller's metering, relays, and load control equipment as provided for in the Interconnection Agreement. This equipment is located within the Facility and is conceptually depicted in Exhibit B to this REPA

"Site" means the parcel of real property located entirely within the State of Minnesota on which the Facility will be constructed and located, including any easements, rights of way, surface use agreements and other interests or rights in real estate reasonably necessary for the construction, operation and maintenance of the Facility. The Site shall be more specifically described in the Seller Notice.

"Subordinated Mortgage" shall have the meaning set forth in Section 11.2(a).

"Tax Benefits" means, as the case may be, (i) an amount equal to the dollar value of the PTCs that would have been associated with Curtailment Energy had there been no Voluntary Curtailment or (ii) the dollar value of the PTCs that would have been associated with Renewable Energy that Purchaser failed to accept as required by this Agreement and that Seller was unable to resell, in each case calculated on an After-Tax Basis with respect to Seller (or any of its Affiliates who utilize such PTCs)

"Term" means the period of time during which this REPA shall remain in full force and effect which is further defined in Article 2

"Term Commencement Date" means the first day of the calendar month occurring after the occurrence of the Commercial Operation Date

"Test Energy" means that energy which is produced by the Facility, delivered to Purchaser at the Point of Delivery prior to the Commercial Operation Date

"Test Energy Rate" means the purchase price for all Test Energy as set forth in Section 4.8 of this Agreement

"TLR Event" shall mean an action taken by a reliability coordinator, a security coordinator, or the Transmission Provider in accordance with the MISO EMT, and NERC Transmission Loading Relief Procedure that requires reduction of electric power output of the Seller's Facility to address reliability concerns on the Transmission System.

"Transmission Provider" shall mean MISO, the functionally unbundled transmission function of Xcel Energy, or IPL as the case may be

"Transmission Services" means all transmission or wheeling services, scheduling services, imbalance services, congestion services, tagging services, dispatch services, ancillary services, control area services, and other transmission services necessary to transmit Renewable Energy and Test Energy from Purchaser's side of the Point of Delivery.

"Transmission System" shall mean the facilities controlled or operated by the Transmission Provider that are used to provide Transmission Services for the transmission of electric energy pursuant to the OATT.

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"Wind Turbine" means each single wind turbine generating device powered by the wind that is included in the Facility

Article 2

TERM AND TERMINATION

2.1 <u>Term.</u> This REPA shall become effective on the Effective Date, and shall continue for twenty (20) years from the Term Commencement Date, and terminate at 00:00 hours on the date that is twenty (20) years after the Term Commencement Date (the "*Term*"), unless sooner terminated in accordance with the terms of this Agreement.

2.2 Intentionally Omitted

2.3 Preliminary Obligations

- (a) Prior to satisfaction of the Purchaser Conditions, Purchaser's sole and exclusive obligations under this Agreement shall be to undertake its confidentiality obligations described in Section 20.16, Confidential Information, the duty to take all reasonable action necessary to seek PUC Approval as described in Section 15.2(e), the duty to negotiate in good faith the Pool Tie as described in Section 15.2(f), and to undertake its indemnification obligations described in Article 17, Indemnity. Upon satisfaction of the Purchaser Conditions, Purchaser's obligations to perform under this REPA shall also include the obligation to issue a Purchaser Conditions Notice pursuant to Section 2.4
- (b) Prior to satisfaction of the Seller Conditions, Seller's sole and exclusive obligations under this Agreement shall be to undertake its confidentiality obligations described in Section 20.16, Confidential Information, the duty to take all commercially reasonable action necessary to seek the permits required to perform its obligations under this REPA as described in Section 15.1(e), the duty to negotiate in good faith the Pool Tie as described in Section 15.1(f), and its indemnification obligations described in Article 17, Indemnity For the avoidance of doubt, Seller shall have no obligation to develop, construct, test, commission, start-up, operate or maintain the Facility until issuance of the Seller Notice

- 2.4 <u>Purchaser Conditions Notice</u> After the Purchaser Conditions are satisfied or waived by Purchaser, Purchaser shall provide the Purchaser Conditions Notice to Seller in accordance with this <u>Section 2.4</u>. Upon delivery of the Purchaser Conditions Notice all Purchaser Conditions are deemed satisfied and Purchaser shall waive all rights to terminate the Agreement as a result of failure to satisfy the Purchaser Conditions.
- (a) <u>Purchaser Conditions Notice</u> Purchaser shall deliver the Purchaser Conditions Notice to Seller on or before the Purchaser Guaranteed Conditions Date
- (b) <u>Confirmation of Purchaser Conditions</u> Within ten (10) Business Days after the receipt by Seller of the Purchaser Conditions Notice, Seller shall confirm in writing to Purchaser that Purchaser's satisfaction or waiver of the Purchaser Conditions is either: (i) acceptable to Seller or (ii) not acceptable to Seller; in Seller's reasonable discretion. If Seller confirms in writing ("Confirmation of Purchaser's Conditions") that Purchaser's satisfaction or waiver of the Purchaser Conditions is acceptable to Seller, the Seller Condition set forth in <u>Section 6.2(d)</u> shall be deemed satisfied and Seller shall establish the Security Fund in accordance with <u>Section 11.1</u>. If Purchaser's satisfaction or waiver of the Purchaser Conditions is not acceptable to Seller, Seller shall have the right to terminate this REPA effective immediately. Upon such termination, neither party shall have any further financial or other obligations under this REPA.
- Early Termination/Seller Determination to Proceed. If prior to the Seller Notice Date, Seller elects to terminate this REPA due to failure to satisfy any of the Seller Conditions upon the giving of such notice of termination to Purchaser, this REPA shall terminate, the Security Fund shall be terminated and all proceeds thereof returned to Seller and neither Seller nor Purchaser shall have any further financial or other obligations under this REPA. In addition, if Purchaser has issued the Purchaser Conditions Notice and Seller fails either (i) to issue the Confirmation of Purchaser's Conditions on or before the Seller Confirmation Date, or (ii) to fund the Security Agreement in accordance with Section 11.1, then Purchaser shall have the right to terminate this Agreement within thirty (30) days at no cost or liability to Purchaser Upon the giving of such notice of termination to Seller, this REPA shall terminate and neither Seller nor Purchaser shall have any further financial or other obligations under this REPA If Seller is entitled to exercise its termination right under this Section but fails to do so on or before the Seller Guaranteed Conditions Date and Purchaser fails to terminate this REPA in accordance with this paragraph (c), then all approvals necessary for this REPA to go forward and the Facility to be developed will be deemed given and this REPA shall continue in full force and effect
- (d) <u>Seller Notice</u>. If this REPA is not terminated pursuant to paragraph (b) or (c) of this Section, then not later than the Seller Notice Date, Seller shall provide to Purchaser the Seller Notice containing a certificate executed by an authorized officer of Seller certifying to Purchaser that the performance by Seller of Seller's obligations under this REPA throughout the Term has been duly authorized by all necessary corporate action, and does not and will not:

- require any consent or a pproval by any governing body of Seller, other than that which has been obtained and is in full force and effect (evidence of which shall be delivered to Purchaser upon its request);
- violate any provision of law, rule, regulation, order, writ, judgment, injunction, decree, determination, or award currently in effect having applicability to Seller or violate any provision in any formation documents of Seller, the violation of which could have a material adverse effect on the ability of Seller to perform its obligations under this REPA;
- result in a breach or constitute a default under Seller's formation documents or bylaws, or under any agreement relating to the management or affairs of Seller or any indenture or loan or credit agreement, or any other agreement, lease, or instrument to which Seller is a party or by which Seller or its properties or assets may be bound or affected, the breach or default of which could reasonably be expected to have a material adverse effect on the ability of Seller to perform its obligations under this REPA; or
- result in, or require the creation or imposition of any mortgage, deed of trust, pledge, lien, security interest, or other charge or encumbrance of any nature (other than as may be contemplated by this REPA) upon or with respect to any of the assets or properties of Seller now owned or hereafter acquired, the creation or imposition of which could reasonably be expected to have a material adverse effect on the ability of Seller to perform its obligations under this REPA.
- Upon providing the Seller Notice (or deemed Seller Notice), Seller shall develop, construct, test, commission, start-up, operate and maintain the Facility pursuant to its obligations under this Agreement and all of Seller's obligations under this Agreement shall apply.

Article 3

FACILITY DESCRIPTION

Summary Description. Subject to Seller's right to revise the amount of Projected Installed Capacity as set forth in Section 4.9 b elow, Seller shall construct, own, operate, and maintain the Facility, which shall consist of Wind Turbines and associated equipment having an Installed Capacity of between 97 MW and 103 MW Exhibit B to this REPA, provides a conceptual description of the Facility, including identification of the type of equipment and components which may make up the Facility Seller shall have the right to revise such conceptual description of the Facility and to identify the detailed description of the Facility, the Site, and the type of equipment to be used in the Seller Notice, provided, however that Seller shall maintain the Projected Installed Capacity between 97 and 103 MW (except as otherwise permitted pursuant to Section 4.9 below) and shall maintain the Electric Interconnection Point and the Point of Delivery.

- Seller Notice and shall be identified as the Mower County Renewable Generation Facility. A one-line diagram conceptually depicting the Site, Point of Delivery and Point of Interconnection is attached as Exhibit B Notwithstanding any other provision of this Agreement, the attached Exhibit B is in draft format only and shall not be binding on Seller in any way, provided, however that the Electric Interconnection Point and Point of Delivery shall remain fixed and may not be changed without Purchaser's written consent exercised in its absolute discretion. Seller shall have the right in its sole discretion to revise Exhibit B except for the Electric Interconnection Point. A scaled map that identifies the Site, the location of the Facility at the Site, the location of the Point of Delivery and the location of the important ancillary and interconnection facilities, shall be included in the Seller Notice.
- 3.3 <u>General Design of the Facility</u>. Seller shall construct the Facility according to Good Utility Practice(s) and the material terms and conditions of the Interconnection Agreement. Seller shall maintain the Facility according to Good Utility Practice(s) and the material terms and conditions of the Interconnection Agreement The Facility shall at all times:
- (a) have the required panel space and 125Vdc battery supplied voltage to accommodate Purchaser's metering, generator telemetering equipment and communications equipment required in the Interconnection Agreement or the Pool Tie;
- (b) use communication circuits from the Facility to Purchaser for the purpose of telemetering, supervisory control/data acquisition, and voice communications as required in the Interconnection Agreement or in the Pool Tie

Article 4

COMMERCIAL OPERATION

- Operation Date, and shall be fully capable of reliably producing the Renewable Energy to be provided under this REPA and delivering such Renewable Energy to Purchaser at the Point of Delivery, no later than the Commercial Operation Milestone; *provided*, *however* that Seller shall not be obligated to establish a Commercial Operation Date under this REPA that is earlier than the Commercial Operation Milestone and Purchaser shall not be obligated to establish a Commercial Operation Date under this REPA that is earlier than one month prior to the Commercial Operation Milestone
- 4 2 <u>Construction Milestones</u>. In order to achieve the Commercial Operation Date by the Commercial Operation Milestone, Seller agrees to meet the Construction Milestones set forth in Exhibit A to this REPA.
- A.3 <u>Site Report</u>. Seller shall provide to Purchaser prior to the Seller Notice Date, in a form and substance reasonably acceptable to Purchaser: (i) a copy of the report summarizing a Phase I investigation of the Site, together with any data or information generated pursuant to such investigation; (ii) a reliance letter from the

individual or entity preparing such Phase I environmental report addressed to Purchaser; (iii) confirmation from Seller that, to the best of Seller's knowledge, no conditions involving Environmental Contamination exist at or under the Site other than such as are addressed in such report, and (iv) Seller has either (x) proposed a plan for remediation (at Seller's cost) of any environmental contamination addressed in such report, or (y) proposed to relocate Wind Turbines and other equipment as necessary to avoid the identified Environmental Contamination.

- Facility Contracts Seller shall provide to Purchaser, within the time 4.4 frames specified by the Construction Milestones, certification that the following major contracts which govern the design and construction of the Facility and the ability of Seller to deliver Renewable Energy to Purchaser at the Point(s) of Delivery have been entered into and are in full force and effect: contracts for the manufacture, delivery and installation of the generating and step-up transformation equipment; engineering, procurement and construction ("EPC"), or other general contractor, agreements; agreements; applicable transmission electric operating applicable interconnection agreements ("Major Contracts"). Seller shall also provide Purchaser with reasonable evidence that it has the financial capability to construct the Facility. In addition, Seller shall provide Purchaser with a memorandum of agreement executed by the Seller and the contractor party to each Major Contract, which Memorandum shall set forth the basic terms of such contract, including without limitation the names of the parties thereto, the date of such contract, a summary of any products or services to be provided and information reasonably sufficient for Purchaser to determine that such Major Contract provides obligations necessary to meet the Construction Milestones
- 4.5 <u>Progress Reports</u>. Commencing upon the Seller Notice Date, Seller shall submit to Purchaser, on the first Day of each calendar month thereafter until the Commercial Operation Date is achieved, progress reports in a form mutually agreed to by the Parties. These progress reports shall include information concerning the current status of each Construction Milestone.
- Operation Date, Purchaser shall have the right (at its sole cost and expense) to monitor the construction, start-up and testing of the Facility; <u>provided, however</u>, that Seller shall not be obligated or otherwise required to comply with any requests made by Purchaser in connection with such monitoring. Seller shall cooperate in such physical inspections of the Facility as may be reasonably requested by Purchaser during and after the completion of construction. All persons visiting the Facility on behalf of Purchaser shall comply with all of Seller's applicable safety and health rules and requirements Purchaser's technical review and inspection of the Facility shall not be construed as endorsing the design thereof nor as any warranty of safety, durability, or reliability of the Facility.
- 4.7 <u>Conditions to Commercial Operation</u>. Seller shall notify Purchaser in writing when Seller has provided evidence to Purchaser that all of the conditions set forth in this Section to achieving Commercial Operation have been met (the "COD Conditions").

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Wind Turbines having an aggregate Installed Capacity of at least Trade have been installed entirely within the State of Minnesota and Secret in interconnected to the Interconnection Facilities, the Facility is being operated by Seller and is capable of generating Renewable Energy in a safe and reliable manner at all design output levels:

an officer of Seller familiar with the Facility, has provided a list of the Wind Turbines at the Facility, showing the make model, serial number and designed maximum output of each Wind Turbine and has certified the nameplate Capacity for each of the Wind Turbines and the entire Facility

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- the Facility has achieved initial synchronization with the Interconnection Provider's System, and has demonstrated the reliability of its communications systems and communications with Purchaser's Energy Markets Control Center:
- an officer of Seller will certify that the Facility has been completed in all material respects (excepting punch list items that do not materially and adversely

affect the ability of the Facility to operate as intended hereunder) in accordance with this REPA;

- (e) Seller is in material compliance with the Interconnection Agreement, and to the extent reasonably available to Seller pursuant to the Interconnection Agreement, Purchaser has been provided written notice from the Interconnection Provider that the Facility has been interconnected and can be safely energized, provided, however that if Seller cannot reasonably require such notice from the Interconnection Provider to Purchaser then an officer of Seller shall certify that Seller has no notice of any objection from the Interconnection Provider to energizing the Facility in accordance with the Interconnection Agreement;
- (f) Seller has made all arrangements and executed all agreements required to deliver the Renewable Energy from the Facility to the Point of Delivery in accordance with the provisions of this REPA;
- (g) all arrangements for the supply of required electric services to the Facility, including the supply of turbine unit start-up and shut-down power and energy, house power and maintenance power have been completed by Seller separate from this REPA, are in effect, and are available for the supply of such electric services to the Facility;

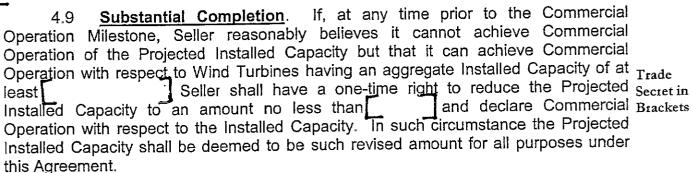
(i) certificates of insurance evidencing the coverages required by Article 16 have been obtained and submitted to Purchaser; and

- Seller familiar with the Facility after due inquiry stating that all permits, consents, licenses, approvals, and authorizations required to be obtained by Seller from any Governmental Authority to construct and/or operate the Facility in compliance with Applicable Law and this REPA have been obtained and are in full force and effect unless such failure to obtain and maintain would not have a material adverse effect on Seller's ability to perform its obligations pursuant to this REPA, and that Seller is in compliance with the terms and conditions of this REPA in all material respects;
- (k) Seller has submitted to Purchaser a certificate of an officer of Seller familiar with the Facility after due inquiry stating that Seller has constructed Seller Interconnection Facilities necessary to interconnect the Facility to the Electric Interconnection Point in accordance with the requirements of the Pool Tie and is in compliance with Seller's obligations under the Pool Tie
- 4.8 <u>Test Energy</u>. Seller shall coordinate the production and delivery of Test Energy with Purchaser. Purchaser shall accept delivery of and shall purchase all Test Energy delivered to Purchaser prior to the Commercial Operation Date. The purchase price of all Test Energy delivered under this Agreement shall be equal to the following Test Energy rates:

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- 4.10 Sole and Exclusive Remedies. Purchaser's sole remedies and Seller's sole liability for failure of the Commercial Operation Date to occur on or before the Commercial Operation Milestone shall be the payment of Delay Damages as provided in Section 12.4.
- 4.11 Project Abandonment Damages In the event of an Abandonment by Seller, Purchaser or Seller shall be entitled to terminate this Agreement pursuant to this Section upon thirty (30) days' prior written notice to the other Party (provided, however that, in the case of a notice of termination by Purchaser, Seller fails to cure such Abandonment during such 30 day period) and in connection with such termination, Seller shall pay Purchaser an amount equal to the Aggregate Liability Limit less any Delay Damages paid by or on behalf of Seller ("Project Abandonment Damages"). Notwithstanding any other provision set forth in this REPA, Purchaser's sole and exclusive remedies in connection with an Abandonment by Seller shall be to terminate this Agreement and recover the Project Abandonment Damages, and such termination and Project Abandonment Damages shall be in lieu of any other remedies at law or in equity.

Article 5

DELIVERY, AVAILABILITY REPORTING, METERING, AND TRANSMISSION

MISO Day Two. The Parties recognize that the implementation of MISO Day Two and the MISO EMT may have unintended consequences on the rights and

obligations of the Parties as set forth is this REPA The Parties agree that if implementation of MISO Day Two or MISO EMT renders any of the terms, covenants, or conditions of this REPA, its Exhibits, or the application of any such terms, covenants, or conditions invalid, illegal or unenforceable the Parties shall negotiate in good faith pursuant to Section 20.9 to implement an equitable adjustment in the provisions of this REPA with a view toward effecting the purposes of this REPA.

5.2 **Delivery Arrangements and Transmission Responsibilities**

- Seller shall be responsible to obtain and pay for all interconnection, (a) electric line and transformer losses, transmission and ancillary service arrangements and costs required for Seller to deliver the Renewable Energy and Test Energy from the Facility to Purchaser at the Point of Delivery.
- Purchaser shall be responsible for transmission of the Renewable Energy from the Point of Delivery Seller shall cooperate reasonably to facilitate obtaining such Transmission Services (such cooperation shall include performing reasonable tasks required by MISO EMT to obtain such Transmission Services) As between the Parties under this Agreement, Purchaser shall be responsible for, and shall reimburse Seller to the extent Seller incurs, all costs associated with Purchaser obtaining Transmission Services, including line losses, imbalance charges, congestion charges, scheduling and tagging associated with delivering Renewable Energy from the Point of Delivery The Parties acknowledge that the Renewable Energy Payment Rate does not include charges for Transmission Services from and beyond the Point of Delivery, all of which shall be paid by Purchaser. If requested by Purchaser, the Parties will cooperate reasonably and undertake any reasonably necessary actions to have the Facility designated as a Network Resource; provided that all costs associated with such actions shall be paid by Purchaser
- Purchaser shall be responsible for the scheduling of all Renewable Energy during the Term, including, without limitation, arranging any Open Access Same Time Information Systems (OASIS), tagging, transmission scheduling or similar protocols with the Transmission Provider or any other Persons. Purchaser shall be responsible for the payment of all charges associated with such scheduling activities, including, without limitation, any imbalance charges.
- The Parties recognize that the Electric Interconnection Point and the Point of Delivery are physically located within the MISO footprint and within the Alliant-West control area. The Parties agree to cooperate in good faith to minimize the cost impact to Purchaser of any incremental expenses incurred by Purchaser as a result of the Point of Delivery not being located in the Xcel Energy control area, provided that this provision will not obligate the Seller to incur additional cost other than costs Seller has agreed to assume in any contract or arrangement in connection with the Pool Tie.
- Under MISO Day Two, it may be advantageous to both the Seller and the Purchaser for Seller to arrange Firm Transmission Service by requesting designation of the Facility as a Network Resource through an amendment of the Interconnection Agreement If Seller agrees in its sole discretion to request Firm

Transmission Service in this manner, Purchaser's hall reimburse Seller all of Seller's commercially reasonable expenses incurred in requesting and attempting to obtain such service, whether or not Seller is successful in obtaining designation of the Facility as a Network Resource pursuant to terms acceptable to Purchaser.

- (1) If Firm Transmission Service is arranged pursuant to this Section 5.1(e), Seller shall remain responsible for all costs (and refunds, reimbursements, or credits) associated with obtaining Energy Resource designation under the Interconnection Agreement Purchaser shall be responsible for all costs (and refunds, reimbursements, or credits) associated with obtaining 'Network Resource' designation under the Interconnection Agreement for transmission of Renewable Energy from the Delivery Point. In such event, Seller and Purchaser shall cooperate reasonably to ensure that the cost allocation described in this paragraph is maintained. The Parties shall provide all necessary written authorizations to MISO required to facilitate this cost allocation.
- (2) Seller shall either provide all necessary written authorizations to MISO reasonably required to designate the Facility as a Network Resource of Purchaser or, to the extent permitted by law, allow Purchaser access to all MISO studies and results undertaken in designating the Facility as a Network Resource of Purchaser.
- ("FTRs") under the MISO EMT for certain network upgrades necessary for the Facility to be designated as a Network Resource that are funded by Seller. To the extent that Purchaser bears actual cost responsibility for such network upgrades, Seller covenants that it will assign or transfer all such FTRs to Purchaser or Purchaser's designee at no additional cost to Purchaser.

5.3 Availability Reporting.

- (a) Seller shall be responsible for providing a monthly report on the current availability of the Facility to Purchaser ("*Reported Availability*").
- (b) Seller shall install at its own cost two meteorological towers at or near the Site or in conjunction with the Wind Turbines to provide the capability of measuring and recording representative wind data 24 hours per day. Seller shall provide real-time electronic access to Purchaser of meteorological data collected by the two meteorological towers located at the Facility.
- (c) At Purchaser's sole cost and expense, Seller shall make available to Purchaser on a real-time, Turbine-by-Turbine basis, any data from the Facility that Seller receives on a real time basis. Seller shall provide such real time data to Purchaser on the same basis as the basis on which Seller receives the data (e.g., if Seller receives the data in four second intervals, Purchaser shall also receive the data in four second intervals). Purchaser will receive the real-time data contemplated by this Section through either (i) the terminal provided by Seller at Purchaser's expense and located on the trading floor of Purchaser's offices, or (ii) a direct interface with Seller's equipment at the Facility site provided by Seller at Purchaser's expense

- (d) Within thirty (30) Days after the end of each calendar month, Seller shall provide to Purchaser a monthly report in electronic format, which report shall include information on the availability of the Turbines, summaries of production of the Turbines and any other significant events related to the operation of the Turbines.
- Peak Production. During any Business Day of an On-Peak Month, Seller shall: (a) not plan Scheduled Outage/Derating of (i) the Facility's main transformer or any other preplanned maintenance that would require an outage of the entire Facility, or Trade (ii) of the Wind Turbines constituting the Installed Capacity Secret in of the Facility; and (b) to the extent such can be accomplished by Seller at a Brackets commercially reasonable cost, taking into account circumstances relative to the Facility and the terms of this Agreement, (i) maximize the amount of Renewable Energy produced by the Facility up to the lesser of the Installed Capacity or 100 MW per hour, and (ii) minimize the extent and duration of Forced Outages

5.5 Electric Metering Devices.

- All Electric Metering Devices and associated measuring and recording equipment necessary to accurately measure the Renewable Energy made available to Purchaser by Seller under this REPA and to monitor and coordinate operation of the Facility shall be owned, installed, and maintained by Purchaser. If Electric Metering Devices are not installed at the Point of Delivery, meters or meter readings will be adjusted to reflect losses from the Electric Metering Devices to the Point of Delivery. Purchaser shall specify the number, type, and location of such Electric Metering Devices. Seller shall be entitled to the raw data output of the Electric Metering Devices together with information sufficient to allow Seller reasonable verification and auditing (at Seller's sole expense) of metering activities shall exercise reasonable care in the maintenance and operation of any such Electric Metering Devices and equipment so as to assure to the maximum extent reasonably practicable, an accurate determination of the quantities of the hourly Renewable Energy delivered under this Agreement. Purchaser's Electric Metering Devices shall be located on Purchaser's side of the Point of Delivery or on Seller's side of the Point of Delivery (with an adjustment for losses). Except as otherwise provided in this Section or in Section 5.5, below) Purchaser's Electric Metering Devices shall be used for quantity measurements under this Agreement.
- Metering Devices u pon installation and at least annually thereafter which installation, maintenance, inspection and testing shall be performed in a ccordance with standard operating practices, Good Utility Practices and applicable Tariffs. Purchaser shall provide Seller with reasonable advance notice of, and permit a representative of Seller to witness and verify, such inspections and tests, *provided, however*, that Seller shall not unreasonably interfere with or disrupt the activities of Purchaser and shall comply with all of Purchaser's safety standards. Upon request by Seller, Purchaser shall perform additional inspections or tests of any Electric Metering Device and shall permit a qualified representative of Seller to inspect or witness the testing of any Electric Metering Device, *provided, however*, that Seller shall not unreasonably interfere with or disrupt the activities of Purchaser and shall comply with all of Purchaser's safety

standards. The actual expense of any such requested additional inspection or testing shall be borne by Seller, unless upon such inspection or testing an Electric Metering Device is found to register inaccurately by more than one percent (1%), in which event the expense of the requested additional inspection or testing shall be borne by Purchaser If requested by Seller in writing, Purchaser shall provide copies of any inspection or testing reports to Seller

- Seller may elect to install and maintain, at its own expense, backup (c) metering devices ("Seller's Back-Up Metering") in addition to those installed and maintained by Purchaser, which installation and maintenance shall be performed in a manner reasonably acceptable to Purchaser. Seller, at its own expense, shall inspect and test Seller's Back-Up Metering upon installation and at least annually thereafter. Seller shall provide Purchaser with reasonable advance notice of, and permit a representative of Purchaser to witness and verify, such inspections and tests, provided, however, that Purchaser shall not unreasonably interfere with or disrupt the activities of Seller and shall comply with all of Seller's safety standards Upon request by Purchaser, Seller shall perform additional inspections or tests of Seller's Back-Up Metering and shall permit a qualified representative of Purchaser to inspect or witness the testing of Seller's Back-Up Metering, provided, however, that Purchaser shall not unreasonably interfere with or disrupt the activities of Seller and shall comply with all of Seller's safety standards. The actual expense of any such requested additional inspection or testing shall be borne by Purchaser, unless, upon such inspection or testing, Seller's Back-Up Metering is found to register inaccurately by more than one percent (1%), in which event the expense of the requested additional inspection or testing shall be borne by Seller. If requested by Purchaser in writing, Seller shall provide copies of any inspection or testing reports to Purchaser.
- If any Electric Metering Devices, or Seller's Back-Up Metering, are found to be defective or inaccurate, they shall be adjusted, repaired, replaced, and/or recalibrated as near as practicable to a condition of zero error by the Party owning such defective or inaccurate device and at that Party's expense
- Adjustment for Inaccurate Meters If an Electric Metering Device, or Seller's Back-Up Metering, fails to register, or if a Party reasonably disputes the accuracy of any Electric Metering Device or Seller's Back-Up Metering, or if the measurement made by an Electric Metering Device, or Seller's Back-Up Metering, is found upon testing to be inaccurate by more than one percent (1.0%), an adjustment shall be made correcting all measurements by the inaccurate or defective Electric Metering Device, or Seller's Back-Up Metering, for both the amount of the inaccuracy and the period of the inaccuracy, in the following manner:
- In the event that the Electric Metering Device is found to be defective or inaccurate, the Parties shall use Seller's Back-up Metering, if installed, to determine the amount of such inaccuracy, provided, however, that Seller's Back-Up Metering has been tested and maintained in accordance with the provisions of this Article If Seller's Back-up Metering is installed on the low side of Seller's step-up transformer, the Seller's Back-up metering data shall be adjusted for losses.

- In the event that Seller did not install back-up metering, or Seller's Back-Up Metering is also found to be inaccurate by more than one percent (1%), the Parties shall use the computer monitoring system for each Wind Turbine that is part of the Facility, and a mathematical calculation determined in advance by Seller and agreed to by Purchaser, to adjust the output thereof to account for electrical losses in delivering Renewable Energy to the Point of Delivery; or
- In the absence of an installed and accurately registering back-up Meter belonging to Seller and the computer monitoring system described in clause (b), above, then, by estimating by reference to quantities measured during periods of similar operating conditions when the Electric Metering Device was registering accurately
- In the event that the Parties cannot agree on the actual period (d) during which the inaccurate measurements were made, the period during which the measurements are to be adjusted shall be the shorter of (i) the last one-half of the period from the last previous test of the Electric Metering Device to the test that found the Electric Metering Device to be defective or inaccurate, or (ii) the one hundred eighty (180) Days immediately preceding the test that found the Electric Metering Device to be defective or inaccurate
- To the extent that the adjustment period covers a period of (e) deliveries for which payment has already been made by Purchaser, Seller and Purchaser shall use the corrected measurements as determined in accordance with this Article to recompute the amount due for the period of the inaccuracy and shall subtract the previous payments by Purchaser for this period from such recomputed amount. If the difference of the payments actually made by Purchaser minus the adjusted payment is a positive number. Seller shall credit the difference to Purchaser on the next invoice issued by Seller. If the difference is a negative number, Purchaser shall pay the difference to Seller. In either case, the Party paying or crediting such difference shall also pay or credit, as applicable, interest at the Prime Rate from the last date on which such meter was tested and found to be accurate (but not to exceed the amount of time set forth in paragraph (d) above) to the date that such meter is adjusted to record properly and such payment or credit (including such interest) shall be made within thirty (30) Days of receipt of a corrected billing statement
- Maintenance and Records. Purchaser shall provide Seller on a monthly 57 basis reports indicating Seller's daily delivery of Renewable Energy. Seller shall have the right to be present whenever Purchaser reads, cleans, changes, repairs, inspects, tests, calibrates, or adjusts any of Purchaser's equipment used in measuring or checking the measurement of the amount of Renewable Energy delivered to the Point of Delivery. Purchaser shall give at least forty-eight (48) hours' notice to Seller in advance of taking any such actions The records from the measuring equipment shall remain the property of Purchaser, but, upon written request, Purchaser shall submit to Seller its records and charts, together with calculations therefrom, for inspection, verification and copying, subject to return within ten (10) Days after receipt thereof Purchaser agrees to retain such records for a period of two (2) years.

Article 6

CONDITIONS PRECEDENT

6.1 Purchaser Conditions Precedent.

- (a) This REPA and Purchaser's obligations (except the obligations set forth in <u>Section 2.3</u>) are subject to and contingent upon satisfaction, or waiver by Purchaser in writing, of each of the conditions set forth below (the "*Purchaser Conditions*"). Notwithstanding any other provision of this Agreement to the contrary, Purchaser shall not be obligated to issue the Purchaser Conditions Notice unless and until all Purchaser Conditions have been satisfied or waived by Purchaser in writing
 - (1) MPUC Approval. Obtaining MPUC Approval is a condition precedent to Purchaser's obligations under this Agreement. Seller shall cooperate reasonably in Purchaser's efforts to obtain MPUC Approval Purchaser shall inform Seller within five (5) days after receiving the MPUC Approval whether Purchaser accepts the MPUC Approval or that the condition was not satisfied.
 - (2) <u>Intentionally Omitted</u>.
 - (3) Pool Tie. A Pool Tie arrangement shall have been established that is satisfactory to Purchaser in its sole and absolute discretion. Within thirty (30) days after the Pool Tie has been finalized and provided to Purchaser by Seller for consideration, Purchaser shall advise Seller whether this Pool Tie condition has been satisfied. In making its determination, Purchaser may take into account any considerations deemed necessary in Purchaser's sole discretion including whether the Pool Tie insulates Purchaser from incurring incremental expenses for delivery of the output from the Facility to the Xcel Energy control area.

Within five (5) days after receipt or written waiver of the last Purchaser Conditions, Purchaser shall notify Seller in writing (the "*Purchaser Conditions Notice*") that each of the Purchaser Conditions has been satisfied.

(b) Notwithstanding any provisions of this REPA to the contrary, Purchaser shall have the right, unless waived by Purchaser in writing, to terminate this REPA, without any further financial or other obligation to Seller as a result of such termination, by written notice to Seller as a consequence of the failure to obtain any of the Purchaser Conditions. If the Purchaser Conditions are not satisfied or waived on or before the Purchaser Guaranteed Conditions Date, either Party may terminate this Agreement, without financial or other obligation to the other Party as a result of such termination, by written notice to the other Party within ten (10) days after the Purchaser Guaranteed Conditions Date Notwithstanding the above, if Purchaser elects to terminate this Agreement pursuant to this Section 6.1(b), Seller may elect by written notice to Purchaser within five (5) days after receipt of the notice of termination from Purchaser to void such termination and extend the Purchaser Guaranteed Conditions Date for a period of time up to the Seller Guaranteed Conditions Date (the "Extended")

Purchaser Guaranteed Conditions Date"). Thereafter, if the Purchaser Conditions are not satisfied or waived on or before the Extended Purchaser Guaranteed Conditions Date, either Party may terminate this Agreement without Financial or other obligations to the other Party by written notice to the other Party within ten (10) days after the Extended Purchaser Guaranteed Conditions Date.

- Seller Conditions Precedent. Notwithstanding any provisions of this REPA to the contrary, this REPA and Seller's obligations hereunder are subject to and contingent upon satisfaction of the Seller Conditions. Seller shall have the right, unless waived by Seller in writing, to terminate this REPA, without any further financial or other obligation to Purchaser as a result of such termination, by delivery of written notice to Purchaser (on or before the Seller Notice Date) as a consequence of the failure to satisfy any of the following, either in whole or in part (collectively, the "Seller Conditions"):
- An Interconnection Agreement in form and substance acceptable to Seller, in its sole discretion, is executed:
- Seller has obtained the necessary fee, leasehold or other title to or interest in the Site and all zoning approvals, environmental approvals, permits, land owner easement agreements, licenses and other governmental approvals necessary to construct and operate the Facility in the manner contemplated by this Agreement and which are final and no longer subject to appeal or legal challenge;
 - Intentionally Omitted; (c)
- Purchaser Conditions are satisfied or waived by the Purchaser on or before the Purchaser Guaranteed Conditions Date, and Seller accepts that Purchaser's satisfaction or waiver of the Purchaser Conditions is acceptable to Seller in its sole discretion; and
- Seller has obtained all approvals of its management and board of director (or equivalent governing body) required for the execution, delivery and performance of this REPA on or before the relevant Construction Milestone Date set forth in Exhibit A

Absent a notice of termination by Seller delivered on or before the Seller Guaranteed Conditions Date, the Seller Conditions shall be deemed waived and this REPA shall remain in full force and effect thereafter

Article 7

Sale and Purchase of Renewable Energy

7.1 Sale and Purchase. Beginning on the Commercial Operation Date, Seller shall deliver to the Point of Delivery, and sell to Purchaser, all Renewable Energy generated by the Facility up to an amount equal to 100 MW per hour Purchaser shall accept and purchase all Renewable Energy delivered to the Point of Delivery and Curtailment Energy at the prices set forth in Article 8 of this REPA.

- Renewable Energy shall be limited to the total Renewable Energy that has actually been metered as measured by the Electric Metering Devices (which obligation shall be further limited by the obligations to purchase Test Energy as provided in Section 4.8 hereof) plus Curtailment Energy, if any, in accordance with Section 7.5. The energy generated by the Facility that is used by the Facility for house power, maintenance power, turbine unit start-up and shut-down power and energy (as applicable), line losses and any energy not received and metered at the Point of Delivery is not Renewable Energy.
- 7.3 <u>Title and Risk of Loss</u>. As between the Parties, Seller shall be deemed to be in exclusive control of the Renewable Energy output from the Facility (and shall be responsible for any damage or injury caused thereby) up to and until the same is delivered by Seller for the benefit of Purchaser at the Point of Delivery, at which time title to and risk of loss with respect to such Renewable Energy shall pass from Seller to Purchaser After title and risk of loss passes, Purchaser shall be deemed to be in control of such energy (and shall be responsible for any damage or injury caused thereby).



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7.5 Curtailment Production Losses.

(a) The Parties acknowledge that there may be circumstances in which Purchaser, MRO, MISO, the Interconnection Provider or a new joint transmission authority will direct Seller to curtail, reduce or suspend deliveries of Renewable Energy

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Article 8

PAYMENT CALCULATIONS

8.1 <u>Payment for Renewable Energy</u> Prior to the Commercial Operation Date, any Energy delivered from any Wind Turbines associated with the Facility shall constitute Test Energy and shall be governed by <u>Section 4.8</u> hereof. Commencing on the Commercial Operation Date of the Facility and continuing throughout the Term, Purchaser shall pay Seller for Renewable Energy (including Voluntary Curtailment) delivered by Seller to the Point of Delivery at an energy payment rate ("Renewable Energy Payment Rate") as set forth in <u>Section 8.2</u>

Rate for Renewable Energy (including without limitation Curtailment Energy) in the first Commercial Operation Year shall be Trade Secret in Brackets

Article 9

BILLING AND PAYMENT

- 9.1 <u>Billing Invoices</u>. The monthly billing period shall be the calendar month. No later than fifteen (15) Business Days after the end of each calendar month, Seller shall provide to Purchaser, by first-class mail, facsimile or email, to the address, facsimile number or email address set forth in <u>Exhibit C</u>, an invoice for the amount due Seller by Purchaser for the services provided by Seller and purchased by Purchaser, under this PPA, during the previous calendar month billing period. Seller's invoice will show all billing parameters, rates and factors, and any other data reasonably pertinent to the calculation of monthly payments due to Seller
- Payments. Unless otherwise specified herein, payments due under this 9.2 PPA shall be due and payable by check or by electronic funds transfer, as designated following receipt of the billing by the owed Party, on or before the invoice. Remittances received by mail will be considered to have been paid when due if the postmark indicates the payment was mailed on or before the following receipt of the billing invoice If the amount due is not paid on or before the due date, such amount shall bear interest from the date on which such payment was required to have been made through and including the date such payment is actually received at an annual rate equal to but in no event shall such interest exceed the maximum interest rate permitted by Applicable Law ("Late Payment Rate") If, as a result of a dispute settled in favor of Purchaser, a refund is owed to Purchaser, then the amount of the overpayment shall bear interest from the date on which such payment was made by Purchaser through and including the date that the overpayment is refunded by Seller at an annual rate equal to the Late Payment Rate.
- pay to the other Party at least the undisputed portion of invoiced amounts on or before the invoice due date. To resolve any billing dispute, the Parties shall use the procedures set forth in Section 13.9. When the billing dispute is resolved, the Party owing shall pay the amount owed within five (5) Business Days of the date of such resolution, with late payment interest charges calculated on the amount owed in accordance with the provisions of Section 9.2. Each Party may offset against any and all amounts that may be due and owed to such Party under this REPA, any and all undisputed amounts, including damages and other payments, that are owed by the other Party pursuant to this REPA. Undisputed portions of amounts invoiced under this

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Trade Secret in Brackets REPA shall be paid on or before the due date or shall be subject to the late payment interest charges set forth in <u>Section 9.2</u>.

Article 10

OPERATIONS AND MAINTENANCE

- 10.1 <u>Facility Operation</u>. Seller shall staff, control, and operate the Facility consistent at all times with Good Utility Practice(s) and Applicable Law. Personnel capable of starting, running, and stopping the Facility shall be continuously available, either at the Facility or capable of being at the Facility on no more than sixty minutes (60) notice, and shall be continuously reachable by phone or pager.
- Outage and Performance Reporting Seller shall comply with all current NERC, MISO, MRO, and MAPP generating unit outage reporting requirements, as they may be revised from time to time, and as they apply to the Facility, including the following: When Forced Outages occur of more than ten percent of the Wind Turbines at the Facility or of the step-up transformer into which the Facility interconnects, Seller shall notify Purchaser of the existence, nature, and expected duration of the Forced Outage as soon as practical, but in no event later than fifteen (15) minutes after the Forced Outage occurs. Seller shall immediately inform Purchaser of changes in the expected duration of the Forced Outage unless relieved of this obligation by Purchaser for the duration of each Forced Outage
- 10.3 <u>Capacity Accreditation</u> Purchaser has certain planning, operating and reporting requirements with MISO and MAPP. Seller shall cooperate reasonably to assist Purchaser in maximizing (pursuant to the terms and conditions of this REPA) and determining the amount of Accreditable Capacity for which Purchaser may receive credit (pursuant to the terms and conditions of this REPA). Seller shall (at Purchaser's sole cost and expense) perform such tests and calculations as may be required to comply with applicable resource adequacy requirements Capacity accreditation. All required testing shall be conducted at Purchaser's expense and in accordance with applicable resource adequacy requirements, as they change from time to time.

10.4 Operating Committee and Operating Procedures

- (a) Purchaser and Seller shall each appoint one representative and one alternate representative to act in matters relating to this REPA and to develop certain written operating procedures that are mutually agreed to by the Parties (the "Operating Procedures"). Such representatives shall constitute the Operating Committee. The Parties shall notify each other in writing of such appointments and any changes thereto. The Operating Committee shall have no authority to modify the terms or conditions of this REPA.
- (b) Prior to the Commercial Operation Date, the Operating Committee shall develop mutually agreeable written Operating Procedures which may include, but not be limited to, method of day-to-day communications; metering, telemetering, telecommunications, and data acquisition procedures; key personnel list for applicable

Purchaser and Seller operating centers; operations and maintenance scheduling and reporting; Renewable Energy reports; unit operations log; and such other matters as may be mutually agreed upon by the Parties.

- 10.5 Access to Facility Appropriate representatives of Purchaser shall at all reasonable times, and with reasonable prior notice, have access to the Facility to read meters and to perform all inspections, maintenance, service, and repairs of such meters as may be appropriate to facilitate the performance of this REPA. The Parties agree that 7 days notice shall be reasonable for all scheduled maintenance. While at the Facility, such representatives shall observe such reasonable safety precautions as may be required by Seller and shall conduct themselves in a manner that will not interfere with the operation of the Facility.
- 10.6 Reliability Standards. Seller shall operate the Facility in a manner that complies with all applicable national and regional reliability standards, including standards set by MAPP, MRO, NERC, MISO, the FERC, and the MPUC, or any successor agencies setting reliability standards for the operation of wind generation facilities.

10.7 Environmental Credits.

- The Parties acknowledge that present and future legislation or regulation may create value in the ownership, use or allocation of Environmental and Renewable Energy Credits. To the full extent allowed by such law, Purchaser shall own or be entitled to claim all Environmental and Renewable Energy Credits to the extent such credits may exist during the Term, and to the extent necessary, Seller shall assign to Purchaser all rights and authority necessary for Purchaser to register, hold, and manage such credits in Purchaser's own name and to Purchaser's account, including any rights associated with any renewable energy information or tracking system that may be established with regard to monitoring, tracking, certifying, or trading such credits. Seller shall cooperate reasonably with Purchaser's efforts to obtain, use or verify Environmental and Renewable Energy Credits. To the extent applicable Minnesota or federal law require Seller (as opposed to Purchaser) to apply for accreditation or verification of Environmental and Renewable Energy Credits from the Facility, Seller shall make all such applications upon Purchaser's request and at Purchaser's cost and expense.
- Seller shall be entitled to all (i) federal and state PTCs, investment tax credits and any other tax credits which are or will be generated by the Facility, and (ii) any cash payments or outright grants of money relating in any way to the Facility Purchaser acknowledges that Seller has the right to sell any credits to which it is entitled pursuant to this Section to any Person other than Purchaser at any rate and upon any terms and conditions that Seller may determine in its sole discretion without liability to Purchaser hereunder. Purchaser shall have no claim, right or interest in such credits or in any amount that Seller realized from the sale of such credits.

Article 11

SECURITY FOR PERFORMANCE

11.1 Security Fund.

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Article 12

DEFAULT AND REMEDIES

12.1 Events of Default of Seller

- (a) Any of the following shall constitute an Event of Default of Seller upon its occurrence and no cure period shall be applicable:
 - (1) Seller's dissolution or liquidation;
 - (2) Seller's assignment of this REPA or any of its rights hereunder for the benefit of creditors (except for an assignment to the Facility Lender as security under the Financing Documents as permitted by this REPA);

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- (3) Seller's filing of a petition in bankruptcy or insolvency or for reorganization or arrangement under the bankruptcy laws of the United States or under any insolvency act of any state, or Seller voluntarily taking advantage of any such law or act by answer or otherwise;
- (4) The sale by Seller to a third party, or diversion by Seller for any use, of Renewable Energy committed to Purchaser by Seller except as otherwise authorized pursuant to this REPA;
- (5) Seller's actual fraud, intentional tampering with Purchaserowned facilities, or other material intentional misrepresentation or misconduct in connection with this REPA and/or the operation of the Facility.
- (b) Any of the following shall constitute an Event of Default of Seller upon its occurrence but shall be subject to cure within thirty (30) Days after the date of written notice from Purchaser to Seller and the Facility Lender as provided for in Section 13.1:
 - (1) Seller's failure to meet any of the Construction Milestone(s) except the Commercial Operation Milestone;
 - (2) Seller's failure to establish and maintain the funding of the Security Fund in accordance with <u>Article 11</u>;
 - (3) Seller's Abandonment of construction or operation of the Facility;
 - (4) Seller's failure to make any payment required under this

REPA;

- (6) Seller's failure to comply with the requirements of Section 11.2; and/or
- (7) Seller's failure to comply with any other material obligation under this REPA, which would result in a material adverse impact on Purchaser.
- (c) Seller's failure to meet the Commercial Operation Milestone shall constitute an Event of Default of Seller upon its occurrence but shall be subject to cure within sixty(60) Days after the date of written notice from Purchaser to Seller and the Facility Lender as provided for in Section 13.1; provided, however, that Seller shall have an additional ninety (90) Day period to achieve the Commercial Operation Date, provided, however that, on or before the expiration of the initial sixty (60) Day period, an independent engineer, retained and paid for by Seller, and agreed to by Purchaser in its reasonable discretion provides a written opinion to Purchaser stating that Seller's plan for achieving the Commercial Operation Date is reasonably achievable within such additional ninety (90) Day cure period. This provision would allow for a total cure period

of one hundred and fifty (150) Days if all conditions of this paragraph are met. Subject to the limitation on damages set forth in <u>Section 12.6</u>, Delay Damages under <u>Section 12.4(a)</u> shall continue accruing until the occurrence of one of the following events: (i) the Commercial Operation Date is achieved, (ii) Delay Damages exceed the Aggregate Liability Limit; or (iii) this REPA is terminated.

- (d) Any of the following shall constitute an Event of Default of Seller upon its occurrence but shall be subject to cure within sixty (60) Days after the date of written notice from Purchaser to Seller and the Facility Lender as provided for in Section 13.1:
 - (1) Seller's assignment of this REPA, or any direct or indirect change of control of Seller, or Seller's sale or transfer of its interest, or any part thereof, in the Facility, except as permitted in accordance with <u>Article 19</u>;
 - (2) Any representation or warranty made by Seller in this REPA shall prove to have been false or misleading in any material respect when made or ceases to remain true during the Term if such cessation would reasonably be expected to result in a material adverse impact on Purchaser; and/or
 - (3) The filing of a case in bankruptcy or any proceeding under any other insolvency law against Seller as debtor or its parent or any other Affiliate that could materially impact Seller's ability to perform its obligations hereunder; <u>provided</u>, <u>however</u>, that Seller does not obtain a stay or dismissal of the filing within the cure period.
- Purchaser with a Notice identifying the Facility Lender (if any) and providing appropriate contact information for the Facility Lender. Following receipt of such notice, Purchaser shall provide Notice of any Event of Default of Seller to the Facility Lender, and Purchaser will accept a cure to an Event of Default of Seller performed by the Facility Lender, so long as the cure is accomplished within the applicable cure period set forth in this REPA.

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12.3 Events of Default of Purchaser

- (a) Any of the following shall constitute an Event of Default of Purchaser upon its occurrence and no cure period shall be applicable:
 - (1) Purchaser's dissolution or liquidation, <u>provided, however</u> that division of Purchaser into multiple entities shall not constitute dissolution or liquidation;
 - (2) Purchaser's assignment of this REPA or any of its rights hereunder for the benefit of creditors; and/or
 - (3) Purchaser's filing of a petition in bankruptcy or insolvency or for reorganization or arrangement under the bankruptcy laws of the United

States or under any insolvency act of any State, or Purchaser voluntarily taking advantage of any such law or act by answer or otherwise; and/or

- (4) Purchaser's actual fraud, intentional tampering with the Facility, or other material intentional misrepresentation or misconduct in connection with this REPA and/or the operation of the Facility.
- (b) Purchaser's failure to make any payment due hereunder shall constitute an Event of Default of Purchaser upon its occurrence but shall be subject to cure within thirty (30) days after the date of written notice from Seller to Purchaser as provided for in Section 13.1.
- (c) Purchaser's failure to comply with any other material obligation under this REPA, which would result in a material adverse impact on Seller, shall constitute an Event of Default of Purchaser upon its occurrence but shall be subject to cure after the date of written notice from Seller to Purchaser as provided for in Section 13.1.

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- (d) Any of the following shall constitute an Event of Default of Purchaser upon its occurrence but shall be subject to cure within sixty (60) Days after the date of written notice from Seller to Purchaser as provided for in <u>Section 13.1</u>:
 - (1) The filing of a case in bankruptcy or any proceeding under any other insolvency law against Purchaser that could materially impact Purchaser's ability to perform its obligations hereunder; <u>provided, however</u>, that Purchaser does not obtain a stay or dismissal of the filing within the cure period;
 - (2) Purchaser's assignment of this REPA, except as permitted in accordance with <u>Article 19</u>; and/or
 - (3) Any representation or warranty made by Purchaser in this REPA shall prove to have been false or misleading in any material respect when made or ceases to remain true during the Term if such cessation would reasonably be expected to result in a material adverse impact on Seller.
- Default, and subject in each case to the limitation on damages set forth in Section 12.6, the non-defaulting Party shall have the right to collect damages accruing prior to the termination of this REPA from the defaulting Party as set forth below, and the payment of any such damages accruing prior to the cure of an Event of Default shall constitute a part of the cure.
- (A) <u>Delay Damages</u>. If the Seller Notice is delivered to Purchaser, and Seller fails to meet the Milestones set forth in <u>Exhibit A</u>, Seller shall pay damage to Purchaser in an amount equal to the Delay Damages; subject to the Aggregate Liability Limit. In no event shall Seller be obligated to pay Delay Damages in excess of the Aggregate Liability Limit, except to the extent, if any, such damages are excluded from the Aggregate Liability Limit as provided in <u>Section 12.6(a)-(f)</u> On or before the tenth (10th) Day of the month when Delay Damages occur, Purchaser shall invoice Seller for Delay Damages.

1. If the Seller Notice is delivered to Purchaser, and Seller fails to meet any Construction Milestone set forth in <u>Exhibit A</u>, subject to extension for Force Majeure or delay attributable to Purchaser under <u>Section 14.4</u>, Seller shall pay damages to Purchaser on account of such delay ("**Delay Damages**") in the amounts specified below:

Delay	Delay Damages		
Failure to meet any Construction Milestone set forth in Exhibit A, except for Commercial Operation Milestone		Trade Secret in Brackets	
Failure to meet the Commercial Operation Milestone set forth		Trade Secret in Brackets	

- (2) If the Seller Notice is delivered to Purchaser, all Delay Damages shall begin to accrue on the Day after the applicable missed Construction Milestone and shall continue to accrue until the result specified for such Construction Milestone is achieved. Delay Damages shall be payable in lieu of actual damages accrued for the period during which Delay Damages are assessed. All Delay Damages shall be cumulative but in no event shall Seller be liable for Delay Damages in an aggregate amount in excess of the Aggregate Liability Limit, except to the extent, if any, such damages are excluded from the Aggregate Liability Limit as provided in Section 12.6(a)-(f).
- (3) Notwithstanding the foregoing, if Seller meets the Commercial Operation Milestone, all Delay Damages paid by Seller to Purchaser based upon a failure to meet one or more earlier Construction Milestones, less any expense amounts incurred by Purchaser pursuant to <u>Section 12.7</u>, shall be refunded to Seller, without interest, with payments due Seller for the first monthly billing period following the Commercial Operation Date.
- (B) Actual Damages. For all Events of Default (other than Seller's failure to meet a Construction Milestone, for which Purchaser shall be entitled to collect Delay Damages pursuant to Section 12.4(a)), the non-defaulting Party shall be entitled to receive from the defaulting Party all of the direct and actual damages incurred by the non-defaulting Party in connection with such Event of Default; but subject, in the case of a Seller Event of Default, to the Aggregate Liability Limit except to the extent, if any, such damages are excluded from the Aggregate Liability Limit as provided in Section 12.6(a)-(f); provided, however that if an Event of Default has occurred and has continued uncured for a period of three hundred sixty-five (365) Days, the non-defaulting Party shall be required to either waive its right to collect further damages on

in Exhibit A

account of such Event of Default or elect to terminate this REPA as provided for in Section 12.5. If the non-defaulting party elects to terminate as provided above, such party shall be entitled to receive damages as set forth in Section 12.5 below, but subject, in the case of a Seller Event of Default, to the Aggregate Liability Limit (except to the extent, if any, such damages are excluded from the Aggregate Liability Limit as provided in Section 12.6(a)-(f)).

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Termination. Upon the occurrence of an Event of Default which has not been cured within the applicable cure period, the non-defaulting Party shall have the right to declare a date, which shall be between fifteen (15) and thirty (30) Days after the notice thereof, upon which this REPA shall terminate. Neither Party shall have the right to terminate this REPA except as provided for upon the occurrence of an Event of Default not cured within the applicable cure period as described above or as otherwise may be explicitly provided for in this REPA. Upon the termination of this REPA under this Section, the non-defaulting Party shall be entitled to receive from the defaulting Party, subject to the limitation on damages set forth in Section 12.6, damages incurred by the non-defaulting Party in connection with such termination calculated as set forth below:

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- (1) For purposes of calculating the amounts owing pursuant to Section 12.5(a) or (b) above the amount of Renewable Energy that would have been delivered hereunder during the remainder of the Term in the absence of such termination shall be determined in a commercially reasonable manner based on a meteorological estimate of the wind conditions likely to be attained at the Site, taking into account all available relevant information.
- 12.6 <u>Limitation on Damages</u>. Except as otherwise provided in this Section, Trade Seller's aggregate financial liability to Purchaser, Secret in shall not exceed the Aggregate Liability Limit. The Aggregate Liability Limit shall not Brackets

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apply to damages following events:

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- (a) actual fraud or other material intentional misrepresentation or intentional misconduct or intentional tampering with Purchaser-owned facilities by Seller in connection with this REPA and/or the operation of the Facility;
- (b) the sale by Seller to a third party, or diversion by Seller for any use, of Renewable Energy committed to Purchaser under this REPA except as otherwise authorized pursuant to this REPA;
- (c) Seller's failure to apply any insurance proceeds to reconstruction of the Facility following a casualty unless such insurance proceeds are insufficient to cover the costs of such reconstruction and such reconstruction would not be commercially reasonable to Seller;
 - (d) any claim for indemnification under Article 17;
 - (e) any Environmental Contamination at the site caused by Seller; and/or
 - (f) the filing of an involuntary bankruptcy petition against Seller (other than by Purchaser), which petition is not dismissed within sixty (60) Days of its filing, or the filing of a voluntary petition in bankruptcy by Seller

12.7 Operation by Purchaser Following Event of Default of Seller.

- (a) In lieu of termination of this REPA due to an Event of Default of Seller related to the operation or maintenance of the Facility which is not cured within the applicable cure period, and subject to the rights of the Facility Lenders to cure within the Lender Cure Periods set forth in Section 12.2 described herein, Purchaser shall have the right, but not the obligation, to possess, assume control of, and operate and maintain the Facility as agent for Seller (in accordance with Seller's rights, obligations, and interest under this REPA) during the period provided for herein Seller shall not grant any person, other than the Facility Lender, a right to possess, assume control of, and operate and maintain the Facility that is equal to or superior to Purchaser's right under this Section 12.7.
- (b) Purchaser shall give Seller and the Facility Lender ten (10) Days notice in advance of the contemplated exercise of Purchaser's rights under this Section 12.7 Upon such notice, Seller shall collect and have available at a convenient, central location at the Facility all documents, contracts, books, manuals, reports, and records required to construct, operate, and maintain the Facility in accordance with Good Utility Practice. Upon such notice, Purchaser, its employees, contractors, or designated third parties shall have the unrestricted right to enter the Site and the Facility for the purpose of constructing and/or operating and maintaining the Facility. Seller hereby irrevocably appoints Purchaser as Seller's attorney-in-fact for the exclusive purpose of executing such documents and taking such other actions as

Purchaser may reasonably deem necessary or appropriate to exercise Purchaser's step-in rights under this Section 12.7.

- Purchaser shall be entitled to immediately draw upon the Security Fund to cover any expenses incurred by Purchaser to the extent such draw is necessary to exercising its rights under this Section.
- During any period that Purchaser is in possession of and constructing and/or operating and maintaining the Facility pursuant to this Section 12.7, Purchaser shall perform and comply with all of the obligations of Seller under this REPA and shall pay Seller for the Renewable Energy generated by the Facility as provided herein; provided, however, that Purchaser shall be entitled to withhold from such payment an amount sufficient to reimburse Purchaser for any and all expenses reasonably incurred by Purchaser (including a return on any capital invested by Purchaser at Purchaser's weighted average cost of capital most recently determined by the MPUC) in taking possession of and operating and maintaining the Facility.
- During any period that Purchaser is in possession of and operating and maintaining the Facility, Seller shall retain legal title to and ownership of the Facility and Purchaser shall assume possession, operation, and control solely as agent for Seller.
 - In the event that Purchaser is in possession and control of (1) the Facility for an interim period, Seller may resume possession, operation and maintenance of the Facility and Purchaser shall relinquish its right to operate and maintain when Seller demonstrates to Purchaser's reasonable satisfaction that it will remove those grounds that originally gave rise to Purchaser's right to operate and maintain the Facility, as provided above, in that Seller (i) will resume operation and maintenance of the Facility in accordance with the provisions of this REPA, and (ii) has cured any Events of Default of Seller which allowed Purchaser to exercise its rights under this Section 12.7 and which are capable of being cured in the absence of possession of the Facility, or has given Purchaser reasonable assurance that Seller will cure such Event of Default promptly following its resumption of possession
 - In the event that Purchaser is in possession and control of the Facility for an interim period, the Facility Lender, or any nominee or transferee thereof, may foreclose and take possession of and operate and maintain the Facility and Purchaser shall relinquish its right to operate and maintain when the Facility Lender or any nominee or transferee thereof, requests such relinquishment.
- Purchaser's exercise of its rights hereunder to possess and operate and maintain the Facility shall not be deemed an assumption by Purchaser of any liability attributable to Seller If at any time after exercising its rights to take possession of and operate and maintain the Facility Purchaser elects to return such possession and operation and maintenance to Seller, Purchaser shall provide Seller with at least fifteen (15) Days advance notice of the date Purchaser intends to return

such possession and operation and maintenance, and upon receipt of such notice Seller shall take all measures necessary to resume possession and operation and maintenance of the Facility on such date.

In the event Purchaser assumes operation and maintenance of the Facility under this Section 12.7, Purchaser shall operate and maintain the Facility in conformance with Good Utility Practice

- 12.8 **Specific Performance** In addition to the other remedies specified in this Article 12, in the event that any Event of Default is not cured within the applicable cure period set forth herein, the non-defaulting Party may elect to treat this REPA as being in full force and effect and shall have the right to specific performance If the breach by Seller arises from a failure by third party operating the Facility pursuant to an operating agreement entered into with Seller, and Seller fails or refuses to enforce its rights under the operating agreement which would result in the cure, or partial cure, of the Event of Default, Purchaser's right to specific performance shall include the right to obtain an order compelling Seller to enforce its rights under the operating agreement
- Subject to the Aggregate Liability Limit, the 12.9 Remedies Cumulative exclusivity of Delay Damages provided in Section 4.10, Project Abandonment Damages provided in Section 4.11, the rights of Purchaser pursuant to Section 12.7 and the limitations on damages set forth in Section 12.6, each right or remedy of the Parties provided for in this REPA shall be cumulative of and shall be in addition to every other right or remedy provided for in this REPA, and the exercise, or the beginning of the exercise, by a Party of any one or more or the rights or remedies provided for herein shall not preclude the simultaneous or later exercise by such Party of any or all other rights or remedies provided for herein
- 12 10 Waiver and Exclusion of Other Damages. The Parties confirm that the express remedies and measures of damages provided in this REPA satisfy the essential purposes hereof If no remedy or measure of damages is expressly herein provided, the obligor's liability shall be limited to direct, actual damages only. Neither Party shall be liable to the other Party for consequential, incidental, punitive, exemplary or indirect damages, lost profits or other business interruption damages by statute, in tort or contract (except to the extent expressly provided herein); provided, however that if either Party is held liable to a third party for such damages and the Party held liable for such damages is entitled to indemnification therefore from the other Party hereto, the indemnifying Party shall be liable for, and obligated to reimburse the indemnified Party for, such damages. To the extent any damages required to be paid hereunder are liquidated, the Parties acknowledge that the damages are difficult or impossible to determine, that otherwise obtaining an adequate remedy is inconvenient, and that the liquidated damages constitute a reasonable approximation of the harm or loss.
- 12.11 Payment of Amounts Due to Purchaser. Without limiting any other provisions of this Article and at any time before or after termination of this REPA, Purchaser may send Seller an invoice for such damages (including Delay Damages) or other amounts as are due to Purchaser at such time from Seller under this REPA and such invoice shall be payable in the manner, and in accordance with the applicable

provisions, set forth in Article 9, including, without limitation, the provision for late payment charges Purchaser may withdraw funds from the Security Fund as needed to provide payment for such invoice if the invoice is not paid by Seller on or before the thirtieth (30th) Business Day following the invoice due date

Each Party agrees that it has a duty to mitigate 12 12 Duty to Mitigate damages and covenants that it will use commercially reasonable efforts to minimize any damages it may incur as a result of the other Party's performance or non-performance of the REPA

Article 13

CONTRACT ADMINISTRATION AND NOTICES

- 13.1 **Notices in Writing.** Notices required by this REPA shall be addressed to the other Party, including the other Party's representative on the Operating Committee, at the addresses, facsimiles or email addresses noted in Exhibit C as either Party updates them from time to time by written notice to the other Party. Any notice, request, consent, or other communication required or authorized under this REPA to be given by one Party to the other Party shall be in writing. It shall either be hand delivered or mailed, postage prepaid, sent by facsimile or email to the representative of said other If mailed, the notice, request, consent or other communication shall be simultaneously sent by facsimile or email. Any such notice, request, consent, or other communication shall be deemed to have been received on the Business Day on which it was hand delivered, transmitted by facsimile or email (unless hand delivered or transmitted after the close of such Business Day in which case it shall be deemed received at the close of the next Business Day). Real-time or routine communications concerning Facility operations shall be exempt from this Section.
- 13.2 Representative for Notices. Each Party shall maintain a designated representative to receive notices Such representative may, at the option of each Party, be the same person as that Party's representative or alternate representative on the Operating Committee, or a different person Either Party may, by written notice to the other Party, change the representative or the address to which such notices and communications are to be sent.
- 13.3 Authority of Representatives. The Parties' representatives designated above shall have authority to act for its respective principals in all technical matters relating to performance of this REPA and to attempt to resolve disputes or potential disputes. However, they, in their capacity as representatives, shall not have the authority to amend or modify any provision of this REPA.
- 13.4 Operating Records Seller and Purchaser shall each keep complete and accurate records and all other data required by each of them for the purposes of proper administration of this REPA, including such records as may be required by state or federal regulatory authorities and applicable resource adequacy requirements; provided, that if the maintenance of such records in a form necessary to support

Capacity accreditation imposes significant expense on Seller over and above that required absent such Capacity accreditation, Purchaser shall reimburse Seller such expense in accordance with Section 10.3

- 13.5 Operating Log. Seller shall maintain an accurate and up-to-date operating log, in electronic format, at the Facility with records of production for each clock hour; changes in operating status; Scheduled Outages/Deratings and Forced Outages for the purposes of proper administration of this REPA, including such records as may be required by state or federal regulatory authorities and applicable resource adequacy requirements; provided, that if the maintenance of such a log in a form necessary to support Capacity accreditation imposes significant expense on Seller over and above that required absent such Capacity accreditation, Purchaser shall reimburse Seller such expense in accordance with Section 10.3
- 13.6 Billing and Payment Records. To facilitate payment and verification, Seller and Purchaser shall keep all books and records necessary for billing and payments in accordance with the provisions of Article 9 and grant the other Party reasonable access to those records. All records of Seller pertaining to the operation of a Facility shall be maintained on the premises of the Facility.
- Seller and Purchaser may examine the 13.7 Examination of Records. financial and Operating Records and data kept by the other Party relating to transactions under and administration of this REPA, at any time during the period the records are required to be maintained, upon request and during normal business hours
- Either Party may change the information for their notice 13.8 Exhibits. addresses in Exhibit C at any time without the approval of the other Party. Exhibits A, B. E. F and G may be changed at any time with the mutual consent of both Parties. Exhibit D may be changed in accordance with Section 16.2(b)

13.9 **Dispute Resolution**.

In the event of any dispute arising under this REPA (a "Dispute"), within ten (10) Days following the delivered date of a written request by either Party (a "Dispute Notice"), (i) each Party shall appoint a representative (individually, a "Party Representative", together, the "Parties' Representatives"), and (ii) the Parties' Representatives shall meet, negotiate and attempt in good faith to resolve the Dispute quickly, informally and inexpensively In the event the Parties' Representatives cannot resolve the Dispute within thirty (30) Days after commencement of negotiations, within ten (10) Days following any request by either Party at any time thereafter, each Party Representative (I) shall independently prepare a written summary of the Dispute describing the issues and claims, (II) shall exchange its summary with the summary of the Dispute prepared by the other Party Representative, and (III) shall submit a copy of both summaries to a senior officer of the Party Representative's Party with authority to irrevocably bind the Party to a resolution of the Dispute Within ten (10) Business Days after receipt of the Dispute summaries, the senior officers for both Parties shall negotiate in good faith to resolve the Dispute. If the Parties are unable to resolve the

Dispute within fourteen (14) Days following receipt of the Dispute summaries by the senior officers, either Party may seek available legal remedies

- Notwithstanding any provision in this REPA to the contrary, if no Dispute Notice has been issued within twenty-four (24) months following the occurrence of all events and the existence of all circumstances giving rise to the Dispute (regardless of the knowledge or potential knowledge of either Party of such events and circumstances), the Dispute and all claims related thereto shall be deemed waived and the aggrieved Party shall thereafter be barred from proceeding thereon.
- Seller and Purchaser each hereby knowingly, voluntarily and intentionally waive (to the extent allowed by law) any rights they may have to a trial by jury in respect of any litigation based hereon, or arising out of, under, or in connection with, this REPA or any course of conduct, course of dealing, statements (whether oral or written) or actions of Seller and Purchaser related hereto and expressly agree to have any disputes arising under or in connection with this REPA be adjudicated by a judge of the court having jurisdiction without a jury

Article 14

FORCE MAJEURE

14.1 Intentionally Omitted

14.2 Applicability of Force Majeure

- Neither Party shall be responsible or liable for any delay or failure in its performance under this REPA, nor shall any delay, failure, or other occurrence or event become an Event of Default, to the extent such delay, failure, occurrence or event is substantially caused by conditions or events of Force Majeure, provided, however that:
 - (1) the non-performing Party gives the other Party prompt written notice describing the particulars of the occurrence of the Force Majeure;
 - the suspension of performance is of no greater scope and of no longer duration than is required by the Force Majeure;
 - the non-performing Party proceeds with reasonable diligence to remedy its inability to perform and provides weekly progress reports to the other Party describing actions taken to end the Force Majeure; and
 - when the non-performing Party is able to resume performance of its obligations under this REPA, that Party shall give the other Party written notice to that effect.
- Except as otherwise expressly provided for in this REPA, the existence of a condition or event of Force Majeure shall not relieve the Parties of their obligations under this REPA (including, but not limited to, payment obligations) to the extent that performance of such obligations is not precluded by the condition or event of Force Majeure

- 14.3 Limitations on Effect of Force Majeure Except as provided in the previous sentence, in no event will any delay or failure of performance caused by any conditions or events of Force Majeure extend this REPA beyond its stated Term. In the event that any delay or failure of performance caused by conditions or events of Force Majeure continues for an uninterrupted period of three hundred sixty-five (365) Days from its occurrence or inception, as noticed pursuant to Section 14.2(a), the Party not claiming Force Majeure may, at any time following the end of such three hundred sixtyfive (365) Day period, terminate this REPA upon written notice to the affected Party, without further obligation by either Party except as to costs and balances incurred prior to the effective date of such termination The Party not claiming Force Majeure may, but shall not be obligated to, extend such three hundred sixty-five (365) Day period, for such additional time as it, at its sole discretion, deems appropriate, if the affected Party is exercising due diligence in its efforts to cure the conditions or events of Force Majeure
- 14.4 <u>Delays Attributable to Purchaser</u>. Seller shall be excused from a failure to meet the Commercial Operation Milestone to the extent Seller can establish that such a failure is attributable to any delay or failure by Purchaser in obtaining any permits, consents or approvals from Governmental Authorities or third parties required for Purchaser to perform its obligations under this REPA (whether or not caused by any conditions or events of Force Majeure) ("Delay Conditions"), provided, however that in the event of such a failure, the Construction Milestone that is not met due to the Delay Condition(s), and any affected Construction Milestones that follow, shall be extended for a period of time equal to the period of time between (i) the Construction Milestone that is not met due to the Delay Condition(s) and (ii) the Day that Purchaser has corrected the Delay Condition(s), and provided further, that any Delay Condition shall not entitle Seller to any change in the Renewable Energy Payment Rate and shall not constitute a cause for Seller to be entitled to damages against Purchaser unless and to the extent that such Delay Condition is caused by a Purchaser Event of Default

Article 15

REPRESENTATIONS, WARRANTIES AND COVENANTS

- 15.1 **Seller's Representations, Warranties and Covenants**. Seller hereby represents and warrants as follows:
- Seller is a limited liability company duly organized, validly existing and in good standing under the laws of the State of Minnesota. Seller is qualified to do business in each other jurisdiction where the failure to so qualify would have a material adverse effect on the business or financial condition of Seller; and Seller has all requisite power and authority to conduct its business, to own its properties, and to execute, deliver, and perform its obligations under this REPA
- The execution, delivery, and performance of its obligations under this REPA by Seller have been duly authorized by all necessary corporate action, and, following the satisfaction or waiver of the Seller Conditions, do not and will not:

- require any consent or a pproval by any governing body of Seller, other than that which has been obtained and is in full force and effect (evidence of which shall be delivered to Purchaser upon its request);
- violate any provision of law, rule, regulation, order, writ, judgment, injunction, decree, determination, or award currently in effect having applicability to Seller or violate any provision in any formation documents of Seller, the violation of which could have a material adverse effect on the ability of Seller to perform its obligations under this REPA;
- result in a breach or constitute a default under Seller's formation documents or bylaws, or under any agreement relating to the management or affairs of Seller or any indenture or loan or credit agreement, or any other agreement, lease, or instrument to which Seller is a party or by which Seller or its properties or assets may be bound or affected, the breach or default of which could reasonably be expected to have a material adverse effect on the ability of Seller to perform its obligations under this REPA; or
- result in, or require the creation or imposition of any mortgage, deed of trust, pledge, lien, security interest, or other charge or encumbrance of any nature (other than as may be contemplated by this REPA) upon or with respect to any of the assets or properties of Seller now owned or hereafter acquired, the creation or imposition of which could reasonably be expected to have a material adverse effect on the ability of Seller to perform its obligations under this REPA
- This REPA is a valid and binding obligation of Seller, subject to the contingency identified in Section 6.2
- The execution and performance of this REPA will not conflict with or constitute a material breach or default under any contract or agreement of any kind to which Seller is a party or any material provision of any judgment, order, statute, or regulation that is applicable to Seller or the Facility.
- Seller shall take all commercially reasonable action necessary to seek all permits, consents, approvals, licenses, authorizations, or other action required by any Governmental Authority to authorize Seller's execution, delivery and performance of this REPA.
 - Seller shall negotiate in good faith the Pool Tie (f)
- Seller shall comply with all applicable local, state, and federal laws, regulations, and ordinances, including but not limited to equal opportunity and affirmative action requirements and all applicable federal, state, and local environmental laws and regulations presently in effect or which may be enacted during the Term of this REPA
- Seller shall disclose to Purchaser, to the extent that, and as soon (h) as it is known to Seller, any violation of any environmental laws or regulations arising out of the construction or operation of the Facility, or the presence of Environmental Contamination at the Facility or on the Site, alleged to exist by any Governmental Authority having jurisdiction over the Site, or the existence of any past or present

enforcement, legal, or regulatory action or proceeding relating to such alleged violation or alleged presence of Environmental Contamination.

- 15.2 Purchaser's Representations, Warranties and Covenants Purchaser hereby represents and warrants as follows:
- Purchaser is a corporation duly organized, validly existing and in good standing under the laws of the State of Minnesota and is qualified in each other jurisdiction where the failure to so qualify would have a material adverse effect upon the business or financial condition of Purchaser; and Purchaser has all requisite power and authority to conduct its business, to own its properties, and to execute, deliver, and perform its obligations under this REPA.
- The execution, delivery, and performance of its obligations under this REPA by Purchaser have been duly authorized by all necessary corporate action, and, following the satisfaction or waiver of the Purchaser Conditions, do not and will not:
 - require any consent or approval of Purchaser's Board of (1) Directors, or shareholders, other than that which has been obtained and is in full force and effect (evidence of which shall be delivered to Seller upon its request);
 - violate any provision of law, rule, regulation, order, writ, judgment, injunction, decree, determination, or award currently in effect having applicability to Purchaser or violate any provision in any corporate documents of Purchaser, the violation of which could have a material adverse effect on the ability of Purchaser to perform its obligations under this REPA;
 - result in a breach or constitute a default under Purchaser's corporate charter or bylaws, or under any agreement relating to the management or affairs of Purchaser, or any indenture or loan or credit agreement, or any other agreement, lease, or instrument to which Purchaser is a party or by which Purchaser or its properties or assets may be bound or affected, the breach or default of which could reasonably be expected to have a material adverse effect on the ability of Purchaser to perform its obligations under this REPA; or
 - result in, or require the creation or imposition of any mortgage, deed of trust, pledge, lien, security interest, or other charge or encumbrance of any nature (other than as may be contemplated by this REPA) upon or with respect to any of the assets or properties of Purchaser now owned or hereafter acquired, the creation or imposition of which could reasonably be expected to have a material adverse effect on the ability of Purchaser to perform its obligations under this REPA
- This REPA is a valid and binding obligation of Purchaser, subject to the contingency identified in Section 6.1.

- (d) The execution and performance of this REPA will not conflict with or constitute a breach or default under any contract or agreement of any kind to which Purchaser is a party or any judgment, order, statute, or regulation that is applicable to Purchaser
- (e) Purchaser shall take all commercially reasonable action necessary to seek MPUC Approval.
 - (f) Purchaser shall negotiate in good faith the Pool Tie.
- (g) To the best knowledge of Purchaser, and except for the MPUC Approval and any MISO or other transmission-related approvals, all approvals, authorizations, consents, or other action required by any Governmental Authority to authorize Purchaser's execution, delivery and performance of this REPA have been duly obtained and are in full force and effect

Article 16

INSURANCE

Evidence of Insurance Seller shall upon issuing the Seller's Notice and thereafter upon renewal thereof, provide Purchaser with two copies of insurance certificates reasonably acceptable to Purchaser evidencing that insurance coverages for the Facility are in compliance with the specifications for insurance coverage set forth in Exhibit D to this REPA. Such certificates shall (a) name Purchaser as an additional insured (except worker's compensation); (b) provide that Purchaser shall receive thirty (30) Days prior written notice of non-renewal, cancellation of, or significant modification to any of the corresponding policies (except that such notice shall be ten (10) Days for non-payment of premiums); (c) provide a waiver of any rights of subrogation against Purchaser, its Affiliates and their officers, directors, agents, subcontractors, and employees; and (d) indicate that the Commercial General Liability policy has been endorsed as described above All policies shall be written with insurers that Purchaser, in its reasonable discretion, deems acceptable (such acceptance will not be unreasonably withheld). All policies shall be written on an occurrence basis, except as provided in Section 16.2 All policies shall contain an endorsement that Seller's policy shall be primary in all instances regardless of like coverages, if any, carried by Purchaser Seller's liability under this REPA is not limited to the amount of insurance coverage required herein

16.2 Term and Modification of Insurance.

- (a) All insurance required under this REPA shall cover occurrences during the Term and for a period of two (2) years after the Term. In the event that any insurance as required herein is commercially available only on a "claims-made" basis, such insurance shall provide for a retroactive date not later than the date of this REPA and such insurance shall be maintained by Seller, with a retroactive date not later than the retroactive date required above, for a minimum of five (5) years after the Term.
- (b) Purchaser shall have the right, at times deemed appropriate to Purchaser during the Term, to request Seller to modify the insurance minimum limits

specified in <u>Exhibit D</u> in order to maintain reasonable coverage amounts. Seller shall make all commercially reasonable efforts to comply with any such request

(c) If any insurance required to be maintained by Seller hereunder ceases to be reasonably available and commercially feasible in the commercial insurance market, Seller shall provide written notice to Purchaser, accompanied by a certificate from an independent insurance advisor of recognized national standing, certifying that such insurance is not reasonably available and commercially feasible in the commercial insurance market for electric generating plants of similar type, geographic location and design. Upon receipt of such notice, Seller shall use commercially reasonable efforts to obtain other insurance which would provide comparable protection against the risk to be insured and Purchaser shall not unreasonably withhold its consent to modify or waive such requirement.

Article 17

INDEMNITY

- Each Party (the "Indemnifying Party") agrees to indemnify, defend and hold harmless the other Party (the "Indemnified Party") from and against all claims, demands, losses, liabilities, penalties, and expenses (including reasonable attorneys' fees) for personal injury or death to persons and damage to the Indemnified Party's real property and tangible personal property or facilities or the property of any other person or entity to the extent arising out of, resulting from, or caused by an Event of Default under this REPA, violation of any applicable environmental laws, or by the negligent or tortuous acts, errors, or omissions of the Indemnifying Party, its Affiliates, its directors, officers, employees, or agents. The indemnification of third party claims provided under this Section is not limited by the limitation on damages set forth in Section 12.6 Nothing in this Section shall enlarge or relieve Seller or Purchaser of any liability to the other for any breach of this Agreement. This indemnification obligation shall apply notwithstanding any active or passive negligence of the Indemnified Party, but the Indemnifying Party's liability to pay damages to the Indemnified Party shall be reduced in proportion to the percentage by which the Indemnified Party's negligent acts, errors or omissions caused the Damages. N either Party shall be indemnified for its Damages resulting from its sole negligence, or its gross negligence, intentional wrongdoing, fraud or willful misconduct. These indemnity provisions shall not be construed to relieve any insurer of its obligation to pay claims consistent with the provisions of a valid insurance policy.
- (b) Promptly after receipt by a Party of any claim or notice of the commencement of any action, administrative, or legal proceeding, or investigation as to which the indemnity provided for in this Article may apply, the Indemnified Party shall notify the Indemnifying Party in writing of such fact. The Indemnifying Party shall assume the defense thereof with counsel designated by such Party and satisfactory to the Indemnified Party, provided, however, that if the defendants in any such action include both the Indemnified Party and the Indemnified Party shall have reasonably concluded that there may be legal defenses available to it which are different from or additional to, or inconsistent with, those available to the

Indemnifying Party, the Indemnified Party shall have the right to select and be represented by separate counsel, at the Indemnifying Party's expense, unless a liability insurer is willing to pay such costs.

- If the Indemnifying Party fails to assume the defense of a claim meriting indemnification, the Indemnified Party may at the expense of the Indemnifying Party contest, settle, or pay such claim, provided, however that settlement or full payment of any such claim may be made only following consent of the Indemnifying Party or, absent such consent, written opinion of the Indemnified Party's counsel that such claim is meritorious or warrants settlement.
- Except as otherwise provided in this Article, in the event that a Party is obligated to indemnify and hold the other Party and its successors and assigns harmless under this Article 17, the amount owing to the Indemnified Party will be the amount of the Indemnified Party's actual loss net of any insurance proceeds received by the Indemnified Party following a reasonable effort by the Indemnified Party to obtain such insurance proceeds

Article 18

LEGAL AND REGULATORY COMPLIANCE

- Each Party shall at all times comply with all Applicable Law, except for any non-compliance which, individually or in the aggregate, could not reasonably be expected to have a material effect on the business or financial condition of the Party or its ability to fulfill its commitments hereunder. As applicable, each Party shall give all required notices, shall procure and maintain all necessary governmental permits, licenses, and inspections necessary for performance of this REPA, and shall pay its respective charges and fees in connection therewith
- Each Party shall deliver or cause to be delivered to the other Party certificates of its officers, accountants, engineers or agents as to matters as may be reasonably requested, and shall make available, upon reasonable request, personnel and records relating to the Facility to the extent that the requesting Party requires the same in order to fulfill any regulatory reporting requirements, or to assist the requesting Party in litigation, including, but not limited to, administrative proceedings before utility regulatory commissions.

Article 19

ASSIGNMENT AND OTHER TRANSFER RESTRICTIONS

19.1 No Assignment Without Consent. Except as permitted in this Article 19, neither Party shall assign this REPA or any portion thereof, without the prior written consent of the other Party, which consent shall not be unreasonably withheld or delayed; provided, however that (i) at least thirty (30) Days prior notice of any such assignment shall be given to the other Party; (ii) any assignee shall expressly assume the assignor's obligations hereunder, unless otherwise agreed to by the other Party, and no assignment, whether or not consented to, shall relieve the assignor of its

obligations hereunder in the event the assignee fails to perform, unless the other Party agrees in writing in advance to waive the assignor's continuing obligations pursuant to this REPA; (iii) no such assignment shall impair any security given by Seller hereunder; and (iv) before the REPA is assigned by Seller, the assignee must first obtain such approvals as may be required by all applicable regulatory bodies

- (a) Seller's consent shall not be required for Purchaser to assign this REPA to an Affiliate of Purchaser, provided, however that Purchaser provides assurances and executes documents reasonably required by Seller and the Facility Lender regarding Purchaser's continued liability for all of Purchaser's obligations under this REPA in the event of any nonperformance on the part of such assignee. In the event that the assignee has or obtains an investment grade unsecured bond rating equivalent to or better than the unsecured bond rating of Purchaser (but in no event worse than the equivalent of BBB- (triple B minus), then Seller agrees to relieve Purchaser from its obligations under this REPA if Purchaser requests to be so relieved in a written notice provided to Seller, provided, further, however, that if such assignee is not a load serving entity regulated by the MPUC and serving substantially the service area currently served by Purchaser, then, prior to Purchaser being relieved of its obligations under this REPA, such assignee must agree in writing to provide Seller a letter of credit with terms and conditions acceptable to Seller in its commercially reasonable discretion and in an amount equal to the highest twelve months of payments anticipated hereunder (taking into account all relevant information), if at any time the unsecured bond rating of such assignee falls below BBB+ (triple B plus) by S&P or Baa1 by Moody's
- (b) Seller, without approval of Purchaser, may, by security, charge or otherwise encumber its interest to a Facility Lender under this REPA for the purposes of financing the development, construction and/or operation of the Facility and the Seller's Interconnection Facilities
 - Promptly after making such encumbrance, Seller shall notify Purchaser in writing of the name, address, and telephone and facsimile numbers of each Facility Lender to which Seller's interest under this REPA has been encumbered. Such notice shall include the names of the account managers or other representatives of the Facility Lender to whom all written and telephonic communications may be addressed.
 - After giving Purchaser such initial notice, Seller shall promptly give Purchaser notice of any change in the information provided in the initial notice or any revised notice.
 - If Seller encumbers its interest under this REPA as (iii) permitted by this Section 19.1(b), the Parties agree to enter into a mutually-agreeable consent to the collateral assignment of this REPA to the Facility Lender. In addition Purchaser agrees to negotiate in good faith with the Facility Lender the terms and conditions of a subordination agreement that implements Purchaser's rights under Section 11.2 hereof

- (c) Seller, without approval of purchaser, may assign this REPA to an Affiliate or to a third party provided, however that following such a ssignment (i) FPL Energy Inc. or its Affiliate is the operator of the Facility or (ii) the operator of the Facility has at least three (3) years experience operating not less than one hundred (100) wind turbines.
- 19.2 Accommodation of Facility Lender. Purchaser shall reasonably cooperate to arrange for the delivery of, such officer certificates, opinions of counsel (in a form reasonably acceptable to Purchaser including exclusions, assumptions and caveats typical for such documents) and others documents as may be reasonably necessary in order for Seller to consummate any financing or refinancing of the Facility and that Purchaser shall make representations and warranties to Seller as Seller may reasonably request with regard to (1) Purchaser's existence, (2) Purchaser's authority to execute, deliver and perform this REPA, (3) the binding nature on Purchaser of the document evidencing Purchaser's consent to the collateral assignment to Lender of this REPA, and (4) receipt of regulatory approvals by Purchaser with respect to its execution and performance under this REPA. Seller shall reimburse, or shall cause the Facility Lender to reimburse, Purchaser for the incremental reasonable direct third party expenses (including the reasonable fees and expenses of counsel of Purchaser's choice) incurred by Purchaser in the preparation, negotiation, execution and/or delivery of any documents requested by Seller or the Facility Lender up to a maximum amount of \$25,000.
- Change of Control. Except as provided in this Section, any direct or indirect change of control of Seller (whether voluntary or by operation of law), shall require the prior written consent of Purchaser, which shall not be unreasonably withheld or delayed. Purchaser's consent shall not be required for any change in control of Seller if, immediately following the change of control, (i) FPL Energy Inc. or its Affiliate is the operator of the Facility, or (ii) the operator of the Facility or the new entity which controls Seller has at least three (3) years experience operating not less than one hundred (100) wind turbines. Seller shall provide written notice of any change of control of Seller within ten (10) days of such change of control with correct notice information for Seller following such change in control.
- 19.4 Notice of Facility Lender Action. Within ten (10) Days following Seller's receipt of each written notice from the Facility Lender of default, or Facility Lender's intent to exercise any remedies, under the Financing Documents, Seller shall deliver a copy of such notice to Purchaser.
- 19.5 Transfer Without Consent is Null and Void. Any sale, transfer, or assignment of any interest in the Facility or in this REPA made without fulfilling the requirements of the REPA shall be null and void and shall constitute an Event of Default pursuant to Article 12
- 19.6 **Subcontracting**. Seller may subcontract its duties or obligations under this REPA without the prior written consent of Purchaser, provided, however that no such subcontract shall relieve Seller of any of its duties or obligations hereunder

Article 20

MISCELLANEOUS

20.1 <u>Waiver</u>. Subject to the provisions of <u>Section 13.9(b)</u>, the failure of either Party to enforce or insist upon compliance with or strict performance of any of the terms or conditions of this REPA, or to take advantage of any of its rights there under, shall not constitute a waiver or relinquishment of any such terms, conditions, or rights, but the same shall be and remain at all times in full force and effect.

20 2 **Taxes**.

- (a) Seller shall be solely responsible for any and all present or future taxes relating to the construction, ownership or leasing, operation or maintenance of the Facility, or any components or appurtenances thereof and all ad valorem taxes relating to the Facility. Purchaser shall be responsible for all present and future taxes by reason of the sale and delivery of Renewable Energy to Purchaser.
- (b) The Parties shall cooperate to minimize tax exposure; however, neither Party shall be obligated to incur any financial burden to reduce taxes for which the other Party is responsible hereunder. All Renewable Energy delivered by Seller to Purchaser hereunder shall be sales for resale, with Purchaser reselling such Renewable Energy. Purchaser shall obtain and provide Seller with any certificates required by any Governmental Authority, or otherwise reasonably requested by Seller to evidence that the deliveries of Renewable Energy hereunder are sales for resale.

20 3 Fines and Penalties.

- (a) Each Party shall pay when due all fees, fines, penalties or costs incurred by such Party Seller or its agents, employees or contractors for noncompliance by the other Party with any provision of this REPA, or any contractual obligation, permit or requirements of law except for such fines, penalties and costs that are being actively contested in good faith and with due diligence by such Party
- (b) If fees, fines, penalties, or costs are claimed or assessed against either Party by any Governmental Authority due to noncompliance by the other Party with this REPA, the defaulting Party shall indemnify and hold non-defaulting Party harmless against any and all losses, liabilities, damages, and claims suffered or incurred by such non-defaulting Party, including claims for indemnity or contribution made by third parties against non-defaulting party, except to the extent non-defaulting Party recovers any such losses, liabilities or damages through other provisions of this REPA.

20.4 Rate Changes

(a) Absent the Parties' written agreement, this Agreement shall not be subject to change by application of either Party pursuant to Section 205 or 206 of the Federal Power Act.

- Absent the agreement of all parties to the proposed change, the standard of review for changes to this Agreement whether proposed by a Party, a nonparty, or the Federal Energy Regulatory Commission acting sua sponte shall be the "public interest" standard of review set forth in United Gas Pipe Line v Mobile Gas Service Corp., 350 U.S. 332 (1956) and Federal Power Commission v. Sierra Pacific Power Co., 350 U.S. 348 (1956) (the "Mobile-Sierra doctrine")
- 20 5 Disclaimer of Third Party Beneficiary Rights. In executing this REPA, neither Party nor any of its Affiliates, does not, nor should it be construed to, extend its credit or financial support for the benefit of any third parties lending money to or having other transactions with the other Party Nothing in this REPA shall be construed to create any duty to, or standard of care with reference to, or any liability to, any person not a party to this REPA

20 6 Relationship of the Parties.

- This REPA shall not be interpreted to create an association, joint venture, or partnership between the Parties nor to impose any partnership obligation or liability upon either Party. Neither Party shall have any right, power, or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as an agent or representative of, the other Party.
- Seller shall be solely liable for the payment of all wages, taxes, and other costs related to the employment of persons to perform services on its behalf, including all federal, state, and local income, social security, payroll, and employment taxes and statutorily mandated workers' compensation coverage. None of the persons employed by Seller shall be considered employees of Purchaser for any purpose; nor shall Seller represent to any person that he or she is or shall become an employee of Purchaser.
- Purchaser shall be solely liable for the payment of all wages, taxes, and other costs related to the employment of persons to perform services on its behalf, including all federal, state, and local income, social security, payroll, and employment taxes and statutorily mandated workers' compensation coverage. None of the persons employed by Purchaser shall be considered employees of Seller for any purpose; nor shall Purchaser represent to any person that he or she is or shall become an employee of Seller.
- 20.7 Equal Employment Opportunity Compliance Certification acknowledges that as a government contractor Purchaser is subject to various federal laws, executive orders, and regulations regarding equal employment opportunity and affirmative action These laws may also be applicable to Seller as a subcontractor to Purchaser. All applicable equal opportunity and affirmative action clauses shall be deemed to be incorporated herein as required by federal laws, executive orders, and regulations, including but not limited to 41 C F.R. §60-1 4(a)(1-7).
- 20 8 Survival of Obligations. Cancellation, expiration, or earlier termination of this REPA shall not relieve the Parties of obligations that by their nature should

survive such cancellation, expiration, or termination, prior to the term of the applicable Statute of Limitations, including without limitation warranties, remedies, or indemnities which obligation shall survive for the period of the applicable statute(s) of limitation

- 20.9 **Severability**. In the event any of the terms, covenants, or conditions of this REPA, its Exhibits, or the application of any such terms, covenants, or conditions, shall be held invalid, illegal, or unenforceable by any court or administrative body having jurisdiction, all other terms, covenants, and conditions of the REPA and their application not adversely affected thereby shall remain in force and effect; provided, however, that Purchaser and Seller shall negotiate in good faith to attempt to implement an equitable adjustment in the provisions of this Agreement with a view toward effecting the purposes of this Agreement by replacing the provision that is held invalid, illegal, or unenforceable with a valid provision the economic effect of which comes as close as possible to that of the provision that has been found to be invalid, illegal or unenforceable
- 20.10 Complete Agreement; Amendments. The terms and provisions contained in this REPA constitute the entire agreement between Purchaser and Seller with respect to the Facility and shall supersede all previous communications, representations, or agreements, either verbal or written, between Purchaser and Seller with respect to the sale of Renewable Energy from the Facility This REPA may be amended, changed, modified, or altered, provided, however that such amendment, change, modification, or alteration shall be in writing and signed by both Parties hereto, and provided further, that the Exhibits attached hereto may be changed according to the provisions of Section 13.8.
- 20 11 Binding Effect This REPA, as it may be amended from time to time pursuant to this Article, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors-in-interest, legal representatives, and assigns permitted hereunder.
- 20.12 **Headings**. Captions and headings used in this REPA are for ease of reference only and do not constitute a part of this REPA.
- This REPA may be executed in any number of 20.13 Counterparts counterparts, and each executed counterpart shall have the same force and effect as an original instrument.
- 20 14 Governing Law The interpretation and performance of this REPA and each of its provisions shall be governed and construed in accordance with the laws of the State of Minnesota. The Parties hereby submit to the exclusive jurisdiction of the federal courts located in the State of Minnesota.
- 20 15 Waiver of Trial by Jury EACH OF THE PARTIES HERETO HEREBY KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVES THE RIGHT EITHER OF THEM MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION BASED HEREON, OR ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS

AGREEMENT AND ANY AGREEMENT CONTEMPLATED TO BE EXECUTED IN CONJUNCTION HEREWITH, OR ANY COURSE OF CONDUCT, COURSE OF DEALING, STATEMENTS (WHETHER VERBAL OR WRITTEN) OR ACTIONS OF ANY PARTY HERETO. THIS PROVISION IS A MATERIAL INDUCEMENT FOR THE PARTIES ENTERING INTO THIS AGREEMENT.

20 16 Confidential Information. Each Party agrees not to disclose to a third party (other than a Party's outside counsel, consultants, accountants, lenders and prospective lenders, investors and prospective investors, and prospective purchasers. who agree to maintain the confidentiality of the information) or use for its own purposes any non-public information of the other Party, including, without limitation, the existence and terms of this Agreement, information provided by one Party to the other pursuant to the terms of this Agreement, information obtained pursuant to a Party's audit or inspection of the other Party's assets and/or records; and any other information which has been designated and, if the information is in writing, clearly marked as confidential by the disclosing Party (collectively, "Confidential Information"), unless the receiving Party obtains the prior written consent of the disclosing Party. Without limiting the generality of the foregoing, each Party shall observe the same safeguards and precautions with regard to Confidential Information of the other Party which such Party observes with respect to its own information of the same or similar kind Each Party agrees that it will make Confidential Information available to its own employees only on a need-to-know basis, and that all persons to whom such Confidential Information is made available will be required to maintain the confidentiality of the information Notwithstanding the foregoing either Party may disclose any Confidential Information that (a) becomes public information through no wrongful act of the receiving Party; or that is provided to the receiving Party by a third party without restriction known to the receiving Party and without breach of this Agreement, or (b) that the receiving Party is required to disclose to comply with an Applicable Law, regulation or securities exchange rule, including but not limited to the FERC, MPUC, MAPP, MRO, and MISO; provided, however that the receiving Party gives the disclosing Party advance notice of the proposed disclosure, and, if so requested by the disclosing Party, takes advantage of any opportunity to restrict public disclosure of such Confidential Information Notwithstanding the foregoing, the Parties will cooperate reasonably to prepare a "public version" of this PPA for inclusion in the public record at the MPUC The Parties agree that the public version of this PPA will redact only such information that properly constitutes "trade secret" information as that term is construed by the MPUC.

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PAGE 82/02

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IN WITNESS WHEREOF, the Parties have executed this REPA.

Seller:

FPL Energy Mower County, LLC

Michael O'Sulfivan Vice President

Purchaser

Northern States Power Company

David L Eves, Vice President Resource Planning and Acquisition

Xcel Energy Services Inc.

Acting as agent for Northern States Power Company (a Minnesota

Corporation)

CONSTRUCTION MILESTONES

EXHIBIT A

C	onstruction Milestone	Results Seller Must Achieve	
		Seller shall provide Purchaser with written confirmation that Seller has commenced the process and is proceeding diligently to: (i) amend the Interconnection Agreement (including any required re-study associated with Seller's selection of Wind Turbines); and (ii) to negotiate the Pool Tie in a timeframe sufficient to reasonably accommodate the Commercial Operation Milestone.	Trade Secret in Brackets
		Seller shall provide Purchaser with written confirmation that Wind Turbines in sufficient quantity to complete the Facility have been ordered from the manufacturer and have been designated for use in the Facility, provided that the Purchaser Conditions are satisfied on or before the Purchaser Guaranteed Conditions Date, or the Extended Purchaser Guaranteed Conditions Date, as applicable and the Seller Conditions are satisfied or waived on or before the Seller Guaranteed Conditions Date.	Trade Secret ir Bracket
	-]	Seller shall provide evidence of Seller's land rights at the Site	Trade Secret ir Brackets
		Seller shall establish the Security Fund in accordance with Section 11.1	Trade Secret II Bracket

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	 7		 ,
		Seller shall provide the Seller Notice, written confirmation that it has obtained all approvals of its management and board of directors (or equivalent governing body) required for the execution, delivery and performance of this REPA and reasonable evidence that Seller has the financial wherewithal to perform its obligations under the REPA as required pursuant to Section 4.4.	Trade Secret in Brackets
		Seller shall provide Purchaser with a Memorandum of Agreement executed by EPC Contractor in accordance with Section 4.4	Trade Secret in Brackets
		Seller shall provide Purchaser with documentation that all governmental permits have been obtained or will be obtained by the time needed to meet all Construction Milestones.	Trade Secret in Brackets
		Seller shall provide Purchaser with documentation that all Wind Turbines and the step-up transformer have been delivered to the Site	Trade Secret in Brackets
(Commercial Operation Milestone)]	Commercial Operation Date is achieved	Trade Secret in Brackets

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Petition - Acquisition of Mower County Wind Facility
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EXHIBIT B

FACILITY DESCRIPTION AND SITE MAPS

Trade Secret ir Brackets

EXHIBIT C

NOTICE ADDRESSES

Page 1 of 1

Purchaser	Seller
Notices: Paul J Bonavia Vice President Northern States Power Company 1099 18 th Street, 30 th Floor Denver, CO 80202 Phone: (303) 308-6190 Fax. (303) 308-7681	Notices: Ronald Scheirer Vice President FPL Energy 700 Universe Boulevard Juno Beach, FL 33408 Phone: (561) 304-5110 Fax: (561) 304-5161
Manager, Renewable Energy Purchases Northern States Power Company 1099 18 th Street, 30 th Floor Denver, CO 80202 Phone ⁻ (303) 308-6111 Fax: (303) 308-6141	Glenda Wright Business Director FPL Energy 700 Universe Boulevard Juno Beach, FL 33408 Phone. (561) 304-5124 Fax: (561) 691-7309
Operating Committee Representative:	Operating Committee Representative:
Manager, Renewable Energy Purchases Northern States Power Company 1099 18 th Street, 30 th Floor Denver, CO 80202 Phone: Fax: (303) 308-6141	Ronald Scheirer Vice President FPL Energy 700 Universe Boulevard Juno Beach, FL 33408 Phone. (561) 304-5110 Fax: (561) 304-5161
Alternate:	Alternate:
Purchased Power Analyst Northern States Power Company 1099 18 th Street, 30 th Floor Denver, CO 80202 Phone: (303)308- Fax (303) 308-6141	Glenda Wright Business Director FPL Energy 700 Universe Boulevard Juno Beach, FL 33408 Phone: (561) 304-5124 Fax: (561) 691-7309

EXHIBIT D

INSURANCE COVERAGE

Page 1 of 2

SPECIFICATION OF INSURANCE COVERAGE

Type of Insurance

Minimum Limits of Coverage

Commercial General Liability (CGL) and commercial umbrella insurance

\$11,000,000 combined single limit each occurrence and the aggregate, where applicable

CGL insurance shall be written on ISO occurrence form CG 00 01 01 96 (or a substitute form providing equivalent coverage) and shall cover liability arising from premises, operations, independent contractors, products/completed operations, contracts, property damage, personal injury and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract), all with limits as specified above. There shall be no endorsement or modification of the CGL insurance limiting the scope of coverage for liability arising from explosion, collapse, or underground property damage

Purchaser shall be included as an insured under the CGL policy, using ISO additional insured endorsement CG 20 10 (or a substitute providing equivalent coverage), and under the commercial umbrella insurance. The commercial umbrella insurance shall provide coverage over the top of the CGL insurance, the Business Automobile Liability insurance, and the Employers Liability insurance

The CGL and commercial umbrella insurance to be obtained by or on behalf of Seller shall be endorsed as follows

Such insurance as afforded by this policy for the benefit of Purchaser shall be primary as respects any claims, losses, damages, expenses, or liabilities arising out of this Agreement, and insured hereunder, and any insurance carried by Purchaser shall be excess of and noncontributing with insurance afforded by this policy

Business Automobile Liability

\$1,000,000 combined single limit (each accident), including all Owned, Non-Owned, Hired and Leased Autos

Business Automobile Liability insurance shall be written on ISO form CA 00 01, CA 00 05, CA 00 12, CA 00 20, or a substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage equivalent to that provided in the 1990 and later editions of CA 00 01.

Workers Compensation

Statutory Requirements Seller may comply with these requirements through the use of a qualified self-insurance plan

EXHIBIT D

INSURANCE COVERAGE

Page 2 of 2

Type of Insurance	Minimum Limits of Coverage
Employers Liability	\$1,000,000 each accident for bodily injury by accident, or
	\$1,000,000 each employee for bodily injury by disease
Builder's Rısk	Maximum Foreseeable Loss value of the Facility

Builder's Risk insurance, or an installation floater, shall include coverage for earthquake and flood, collapse, damage resulting from faulty workmanship, materials and design, testing of machinery or equipment, debris removal, and partial occupancy

Environmental Impairment Liability: In the event that Seller obtains coverage for pollution in the basic AEGIS Excess Liability insurance policy, no separate Environmental Impairment Liability coverage is required. In the event Seller chooses insurance coverage from any insurer other than AEGIS, Seller shall maintain Environmental Impairment Liability coverage in an amount of \$5,000,000 each occurrence

All-Risk Property insurance covering the Maximum foreseeable loss of the Facility A deductible may be carried which deductible shall be the absolute responsibility of Seller

All-Risk Property insurance shall include: (i) coverage for fire, flood, wind and storm, tornado and earthquake with respect to facilities similar in construction, location and occupancy to the Facility, with sublimits of no less than \$10,000,000 each for flood and earthquake, and (ii) Boiler and Machinery insurance covering all objects customarily subject to such insurance, including boilers and turbines, in an amount equal to the maximum Foreseeable Loss value

Business interruption insurance in an Amount required to cover Seller's continuing or increased expenses, resulting from full interruption, for a period of twelve (12) calendar months

Business Interruption insurance shall cover loss of revenues and/or the increased expense to resume operations attributable to the Facility by reason of total or partial suspension or delay of, or interruption in, the operation of the Facility as a result of an insured peril covered under Property insurance as set forth above, to the extent available on commercially reasonable terms as determined by Seller, subject to a reasonable deductible which shall be the responsibility of Seller. Notwithstanding any other provision of this Agreement, Seller shall not be required to have Business Interruption insurance until the Commercial Operation Date.

Northern States Power Company

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EXHIBIT E

NOT APPLICABLE

AMENDMENT NO. 1 TO RENEWABLE ENERGY PURCHASE AGREEMENT

AMENDMENT NO. 1 TO RENEWABLE ENERGY PURCHASE **AGREEMENT** (this "Amendment") is made as of June 17, 2019 (the "Execution Date") by and between Northern States Power Company, a Minnesota corporation ("Purchaser"), and FPL Energy Mower County, LLC, a Delaware limited liability company ("Seller"). Each of Purchaser and Seller are sometimes referred to herein as a "Party" and collectively as the "Parties".

RECITALS

- WHEREAS, Seller and Purchaser are Parties to that certain Renewable Energy Α. Purchase Agreement, dated as of November 18, 2005 (as amended or otherwise modified, the "Agreement"), under which Seller sells to Purchaser and Purchaser purchases from Seller all of the energy and related products generated by Seller's wind energy generation facility, as more fully set forth in the Agreement; and
- WHEREAS, the Parties mutually desire to modify certain terms and conditions of B. the Agreement, as more fully set forth herein.

NOW THEREFORE, in consideration of the foregoing and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

- 1. Definitions. Capitalized terms used in this Amendment and not otherwise defined herein shall have the meanings assigned to such terms in the Agreement.
- 2. Amendments. The Agreement shall be amended as of the Effective Date as follows:
 - Section 1.4 **Definitions**" shall be amended as follows: (a)
 - (i) The following definitions are amended by deleting each in its entirety and inserting the following in lieu thereof:



"Facility Lender" means, collectively, any lenders or tax equity investors providing Facility Debt, including any successors or assigns thereof.

"Financing Documents" means the loan and credit agreements, notes, bonds, indentures, security agreements, lease financing agreements, mortgages, deeds of trust, interest rate exchanges, swap agreements and other documents relating to the development, bridge, construction or permanent debt financing and/or tax equity financing for the Facility, including any credit enhancement, credit support, working capital financing, or refinancing documents, and any and all amendments, modifications, or supplements to the foregoing that may be entered into from time to time at the discretion of Seller in connection with development, construction, ownership, leasing, operation or maintenance of the Facility.

"MISO" means the Midcontinent Independent System Operator, Inc., or any successor organization, the Transmission Authority with operational control over the Interconnection Provider's Interconnection Facilities and the Transmission Provider's Transmission System.

"Renewable Energy Payment Rate" means the applicable price set forth in Exhibit F per MWh for the applicable Commercial Operation Year. The price for the first Commercial Operation Year shall be applicable to the period commencing with the first deliveries by Seller of Renewable Energy to the Point of Delivery and continuing through the end of the first Commercial Operation Year. The pricing shall change effective as of the first date of each Commercial Operation Year.

"Tax Benefits" shall have the meaning set forth in Section 7.4(B).

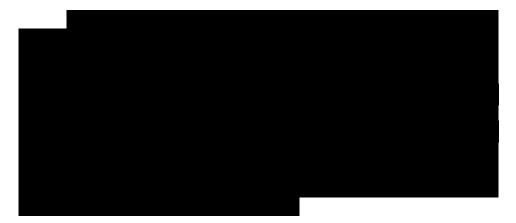
- (ii) The following new definitions shall be inserted alphabetically into Section 1.4 as follows:
 - "AGC" or "Automatic Generation Control" means the equipment and capability of an electric generation facility automatically to adjust the generation quantity within the applicable Balancing Authority with the purpose of interchange balancing and specifically, the Facility's capability of accepting an AGC Set-Point electronically, and the automatic adjustment and regulation of the Facility's energy production via the SCADA System.
 - "AGC Protocols" means the protocols for AGC included in Exhibit G AGC Protocols; Data Collection; Technical Specifications, as such protocols may be modified from time to time in accordance with Section 10.3.
 - "AGC Remote/Local" means a handshake electronic signal sent from the Facility to the EMCC AGC system, and from the EMCC AGC system to the Facility, indicating the Facility is receiving AGC Set-Point locally (from the Facility) or remotely (EMCC AGC system) and is following that AGC Set-Point.
 - "AGC Set-Point" means Purchaser-generated analog or digital signal sent by the SCADA System to the Facility, representing the quantity of Renewable Energy to be generated by the Facility. The AGC Set-Point

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is calculated by the EMCC AGC system and communicated electronically to the Facility via the SCADA System.

"Annual Excess First Interval" shall have the meaning set forth in Section 8.2(B).

"Balancing Authority" means the system of electrical generation, distribution and transmission facilities within which generation is regulated in order to maintain interchange schedules with other such systems.



"Commercially Reasonable" or "Commercially Reasonable Efforts" means, with respect to any action to be taken or attempted by a Party under this REPA, the level of effort in light of the facts known to such Party at the time a decision is made that: (a) can reasonably be expected to accomplish the desired action at a reasonable cost; (b) is consistent with Good Utility Practices; and (c) takes into consideration the amount of advance notice required to take such action, the duration and type of action, and the competitive environment in which such action occurs.



"Credit Rating" of any person or entity means the lowest rating assigned to such person or entity's long-term debt or deposit obligations (unenhanced by third-party support) by Standard & Poor's, Moody's and Fitch Ratings. If such person or entity has no outstanding long-term debt or deposit obligations, or if no rating is assigned to such obligations, "Credit Rating" shall mean the lowest general corporate credit rating or long-term issuer rating assigned to such person or entity by Standard & Poor's or Moody's or Fitch Ratings.

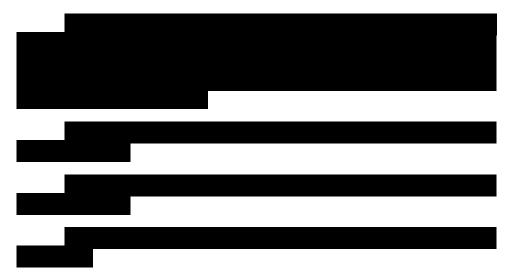
"ERO" means the Electric Reliability Organization certified by FERC pursuant to Section 215 of the Federal Power Act or any successor

organization. The certified ERO as of the date of this REPA is MISO.

"Investment Grade" means that the senior unsecured long-term Credit Rating of such Person satisfies two of the following three (3) rating requirements (a) BBB- or better by Fitch Ratings, (b) BBB- or better by Standard & Poor's, or (c) Baa3 or better by Moody's. For the avoidance of doubt, if such Person satisfies any two of the foregoing rating requirements the standard shall have been met.

"Market Operator" means the entity that instructs market participants and/or generators to regulate generation assets (including the Facility) within any energy market in which Purchaser participates, based on price-based offer curves for the purpose of matching generation output to system load demand while maintaining bulk electric system reliability. If such entity is the Transmission Authority, then "Market Operator" shall mean such entity acting in its capacity as such.

"Material Adverse Effect" means any effect (or effects taken together) that is materially adverse to the present or future business, operations, assets, liabilities, properties, results in operations or condition (financial or otherwise), prospects, or property of a Party, its business, or this REPA.

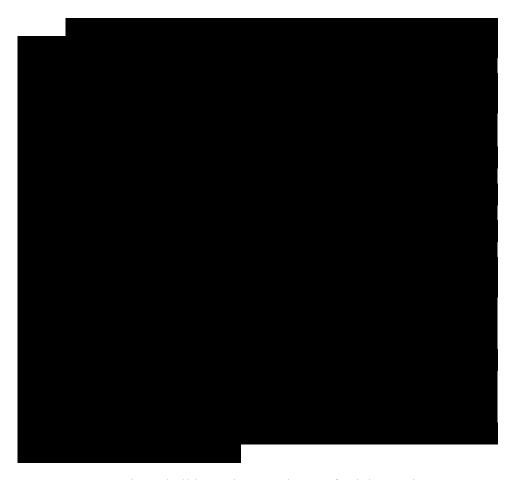


"Park Potential" means the number of MW that depicts Seller's real time calculation of the Potential Energy capable of being provided by the Facility to Purchaser at the Point of Delivery. Park Potential shall be calculated using the best-available data obtained through Commercially Reasonable methods; and shall be dependent upon measured wind speeds, power curves, Wind Turbine availability, and derate(s) and transmission line losses, and any other adjustment necessary to accurately reflect the Potential Energy at the Point of Delivery. Park Potential should be provided

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to Purchaser in real time through Purchaser's SCADA System in accordance with the AGC Protocols.

"Pending Facility Transaction" or "PFT" shall have the meaning set forth in Section 19.6.



"PFT Notice" shall have the meaning set forth in Section 19.6.

"PI System" means the "plant information" system for the Facility, as described and implemented in Exhibit G - AGC Protocols; Data Collection; Technical Specifications.

"Potential Energy" for any period of time means the MWh of energy that the Facility is actually capable of delivering to the Point of Delivery by virtue of the Park Potential during such period.

"PTC Period" means the period starting on the Repower Completion Date and ending at the end of the Term.

"Qualified Operator" means an operator of wind generation facilities that is nationally recognized and that demonstrates to Purchaser's reasonable satisfaction that such operator has sufficient experience to



"Repower" or "Repowering" shall have the meaning set forth in Section 3.4.

"Repower Commencement Notice" shall have the meaning set forth in Section 3.4.

"Repower Completion Date" means the date that

"Repowered Turbine" shall have the meaning set forth in Section 3.4.

"SCADA" means supervisory control and data acquisition.

"Transmission Authority" means collectively those entities owning and/or operating the interconnected transmission system applicable to Seller and the Facility pursuant to a Transmission Tariff, including (i) Northern States Power Company, a Minnesota corporation, or its successor as to any function, operating under and in accordance with its Transmission Tariff, and (ii) all entity(s) responsible under the Interconnection Agreement for providing the transmission lines, any Interconnection Facilities and other equipment and facilities with which the Facility interconnects at the interconnection point and transmission system.

"Transmission Tariff" means the applicable Open Access Transmission Tariff of the Transmission Authority, as amended from time to time.

- (iii) The following definitions shall be deleted from Section 1.4: Available Capacity; Curtail; Curtailment; Curtailment Energy; Non-Compensable Interruptions; TLR Event and Voluntary Curtailments.
- (b) Section 3.3 – General Design of the Facility shall be amended by inserting the following after paragraph (B) thereof:

On and after the Repower Completion Date, the Facility shall include all equipment necessary to meet the requirements of Exhibit G – AGC Protocols; Data Collection; Technical Specs.

- Attachment E Page 7 of 32
- (c) Article 3 shall be amended by inserting a new Section "3.4 Repower." at the end thereof, as follows:
 - 3.4 Repower. Seller shall repower the Wind Turbines installed at the Facility with newer technology in accordance with Exhibit B-1, Applicable Laws, applicable permits, the Interconnection Agreement (including obtaining any amendments necessary to permit such repower) and Good Utility Practices (a "Repower" or "Repowering", such replacement wind turbines, "Repowered Turbines") on or before December 31, 2020. Seller shall provide prior written notice to Purchaser of the date that Seller will commence the decommissioning and Repowering of the Wind Turbine(s) at least sixty (60) days prior to the decommissioning of the first Wind Turbine along with a detailed project schedule for the Repowering (including anticipated de-energization and re-energization dates of the Wind Turbines) (a "Repower Commencement Notice"), after which Seller shall use commercially reasonable efforts to complete such Repower in a timely manner, which repower is currently targeted to commence on or prior to September 1, 2020;

After delivery of the Repowering Commencement Notice, Seller shall submit to Purchaser, on the first Day of each calendar month thereafter until the Repower Completion Date, progress reports in a form mutually agreed by the Parties. In addition, Section 4.6 shall apply mutatis mutandis to the Repowering from the date of the Repower Commencement Notice through the Repower Completion Date. Seller shall deliver to Purchaser written notice of the Repower Completion Date promptly upon the occurrence of the Repower Completion Date. Upon delivery by Seller to Purchaser of written notice of the Repower Completion Date, the Repower shall be deemed complete and the definition of "Facility" and the description of the Facility in Article 3 referring to the Facility description in Exhibit B shall be automatically amended to refer to Exhibit B-1 (which Exhibit B-1 shall be completed promptly after the Repower Completion Date) without the necessity of further written amendment, to reflect the Facility as Repowered. In the event that there is a conflict between this REPA and the Mower PSA with respect to the Repowering, the Mower PSA shall control.

(d) Section 5.2 – Delivery Arrangements and Transmission Responsibilities shall be amended by inserting the following at the end of paragraph (c) thereof:

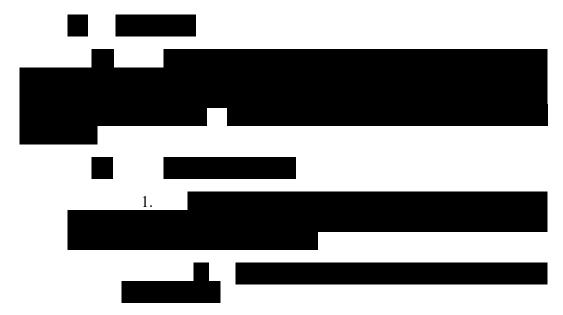
In connection therewith, Purchaser shall arrange and be responsible for scheduling and transmission services at and beyond the Point of Delivery. To the extent applicable, Purchaser shall be the market participant for the Facility, as defined by the Transmission Authority.

A new section "5.8 – Market Changes" shall be inserted as follows: (e)

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5.8 Market Changes.

- (A) If at any time during the Term, the Transmission Authority changes, or if the facilities at the Point of Delivery cease to be subject to the Transmission Tariff, then the Parties shall cooperate in good faith to facilitate the delivery of Renewable Energy from the Point of Delivery to Purchaser's load, while attempting to preserve to the maximum extent possible, and at the lowest reasonable cost, the benefits, burdens and obligations set forth in this REPA as of the Effective Date.
- (B) If and to the extent that changes to the rules of the Market Operator require Purchaser to change the manner in which the Facility is scheduled and dispatched, the Parties shall cooperate in good faith to change their protocols for operation of the Facility accordingly, while attempting to preserve to the maximum extent possible, and at the lowest reasonable cost, the benefits, burdens and obligations set forth in this REPA as of the Effective Date.
- In the event that improvements to the Facility or other expenditures by Seller are necessary to comply with this Section 5.8, which expenditures must be capitalized by Seller under generally accepted accounting principles consistently applied, Purchaser shall reimburse Seller one percent (1%) of such expenditures per month, beginning with the first month following substantial completion of such expenditures and ending upon the earlier to occur of (i) the one hundredth (100th) month following the start of such reimbursements, and (ii) the end of the Term of this REPA.
- Each reference in the REPA to: (i) "Curtailment Energy" shall be deemed a (f) reference to "Compensable Curtailment Energy" and (ii) "Voluntary Curtailment" shall be deemed a reference to "Compensable Curtailment"
- Sections 7.4 and 7.5 shall be amended by deleting the same in their entirety and (g) inserting the following in lieu thereof:



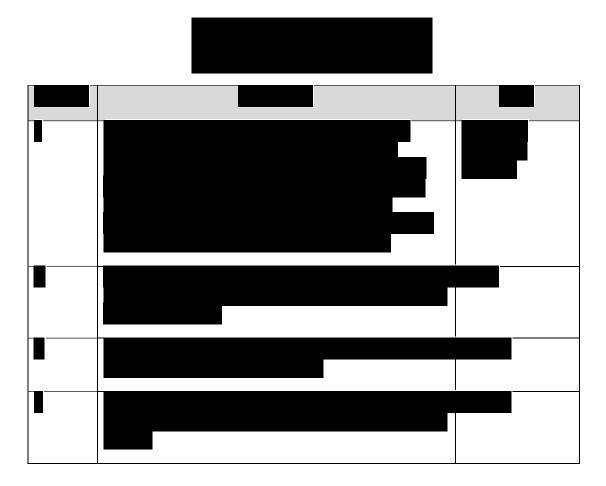






- (h) Section 8.1 shall be amended by deleting the same in its entirety and inserting the following in lieu thereof:
 - Payment for Renewable Energy. Until the expiration of the Term, 8.1 Purchaser shall pay Seller for Renewable Energy delivered by Seller to the Point of Delivery at the Renewable Energy Payment Rate.
- (i) Section 8.2 shall be amended by deleting the same in their entirety and inserting the following in lieu thereof:





(j) Section 10.1 shall be amended by deleting the same in its entirety and inserting the following in lieu thereof:

Operation and Administration. 10.1

- (A) Seller shall staff, control, and operate the Facility consistent with Good Utility Practices, Exhibit G - AGC Protocols; Data Collection; Technical Specifications and this REPA. Personnel of Seller shall be available 24x7 via telephone or other electronic means with (i) the capability of remotely starting, operating and stopping the Facility within ten (10) minutes, and (ii) the ability to be present at the Site within thirty (30) minutes.
- Seller shall comply with Good Utility Practices, the requirements of all Governmental Authorities and all reasonable requirements of Purchaser in the operation of the Facility. By way of example only, Seller shall perform all capacity testing of the Facility and related reporting, as and when required by Governmental Authorities.
- Seller shall provide to Purchaser a day-ahead availability forecast in accordance with Exhibit G - AGC Protocols; Data Collection; Technical Specifications and any other reporting requirements required for compliance with

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NERC reliability standards. Purchaser shall forward Seller's forecast to the applicable local reliability coordinator on Seller's behalf, provided, however, that Seller shall remain responsible to ensure the timeliness and accuracy of forecasts and any changes to the real-time or forecast availability of the Facility. If and to the extent that the ERO modifies the forecasting or other reporting requirements imposed on Purchaser or the Facility, Seller shall timely provide required data to Purchaser or the ERO, as applicable.

(k) A new section "10.8 – Real Time Data" shall be inserted as follows:

10.8 Real Time Data.

- Seller shall communicate all data necessary for Purchaser to integrate the Facility into Purchaser's EMCC in real time through the Facility's SCADA System in accordance with Exhibit G - AGC Protocols; Data Collection; Technical Specifications. Seller shall maintain the Facility's SCADA System so that it is capable of interfacing with and reacting to Purchaser's AGC Set-Point and responding to signals from Purchaser Purchaser's EMCC in accordance with the AGC Protocols.
- (B) Seller shall use Commercially Reasonable Efforts to adjust the real time Park Potential of the Facility when Purchaser communicates to Seller a measured difference of plus or minus two percent (2%) between the metered Renewable Energy and Park Potential, during periods when generation is not curtailed.
- From and after the Repower Completion Date, Seller shall (C) provide Purchaser, at Seller's expense, real time performance and meteorological data for all Wind Turbines and meteorological towers (or other applicable industry approved remote sensing technologies) at the Facility in accordance with Exhibit G - AGC Protocols; Data Collection; Technical Specifications for the Term of this Seller shall maintain Seller-owned data collection systems that are compatible with Purchaser's PI System. Seller shall ensure that real time communications capabilities are available and maintained for transmission to Purchaser's PI System. Seller shall ensure that all meteorological equipment at a minimum meets the specifications set forth in Exhibit G - AGC Protocols; Data Collection; Technical Specifications. Purchaser shall have the right to disclose data gathered through Purchaser's PI System publicly; provided, however, that such data is (i) masked to obscure the origin of the data and (ii) aggregated so that the data cannot be correlated and used by competitors of Seller and/or the supplier of the Wind Turbines.
- A new section "10.9 AGC" shall be inserted as follows: (1)
 - AGC. Beginning on the Repower Completion Date, Purchaser shall dispatch the Facility through the EMCC AGC system. Seller shall ensure that, throughout the Term:

- (A) the SCADA signal is capable of functioning on all AGC Set Points within the margin of error specified in the manufacturer's energy set point margin of error; and
- the Facility AGC Remote/Local status is in "Remote" set-(B) point control during normal operations.
- Article 19 Assignment and Other Transfer Restrictions shall be deleted in its (m) entirety and the following shall be inserted in lieu thereof:

Article 19 – Lender Provisions, Assignment and Other Transfer Restrictions

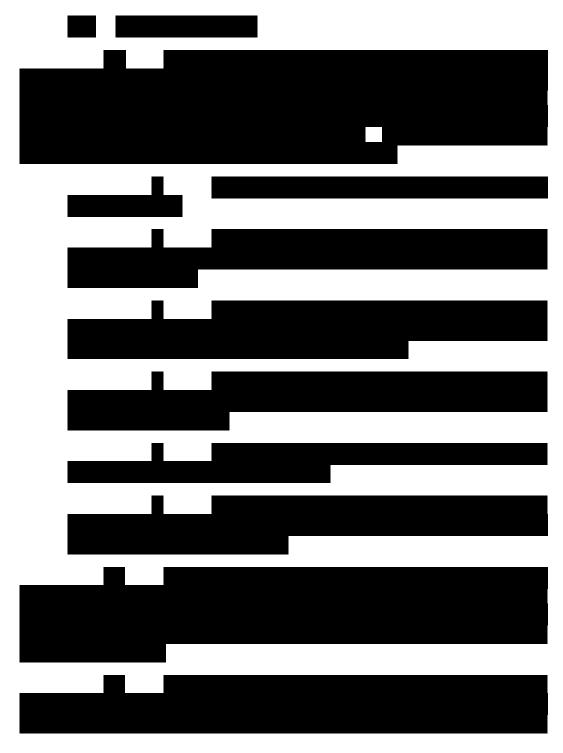
Accommodation of Facility Lender.

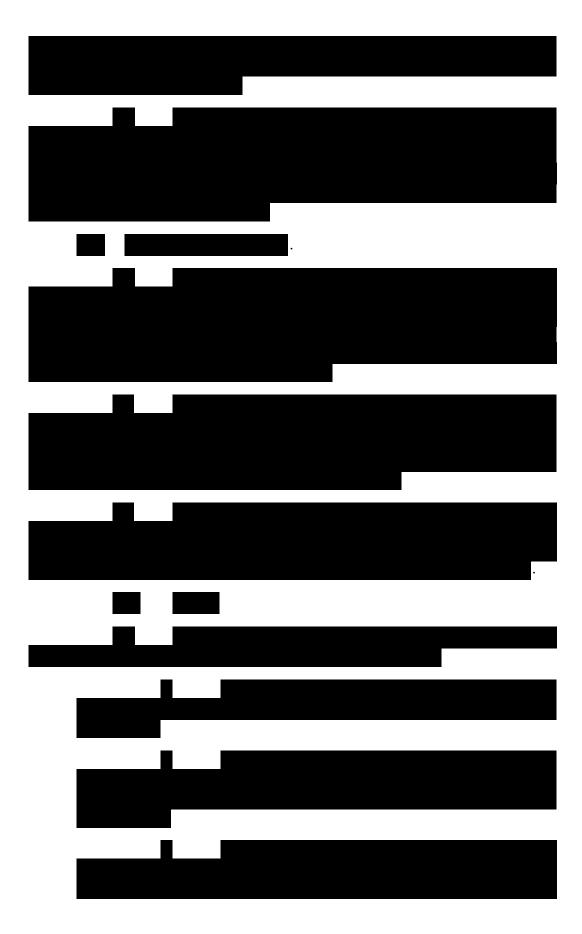
- (A) Purchaser shall provide such consents to collateral assignment, certifications, representations, estoppels, information or other documents, as may be reasonably requested by Seller in connection with the financing of the Facility consistent with the terms set forth in Exhibit H – Lender Consent Provisions (generally, a "Lender Consent"), provided, however, that in providing a Lender Consent, Purchaser shall have no obligation to:
 - 1. modify the terms of this REPA;
 - provide any consent or enter into any agreement that has a Material Adverse Effect on any of Purchaser's rights, benefits, risks, or obligations under this REPA;
 - 3. transfer or release any property or property interests of Purchaser;
 - release or subordinate (or cause the release or subordination) of any lien on any property of Company for the benefit of Seller or the Facility Lender; or
 - 5. permit any lien to be placed on property of Purchaser.
- Seller shall reimburse, or shall cause the Facility Lender to (B) reimburse, Purchaser for the direct expenses (including the fees and expenses of counsel) incurred by Purchaser in the preparation, negotiation, execution and/or delivery of each Lender Consent and any documents requested by Seller or the Facility Lender pursuant to this Section 19.1.

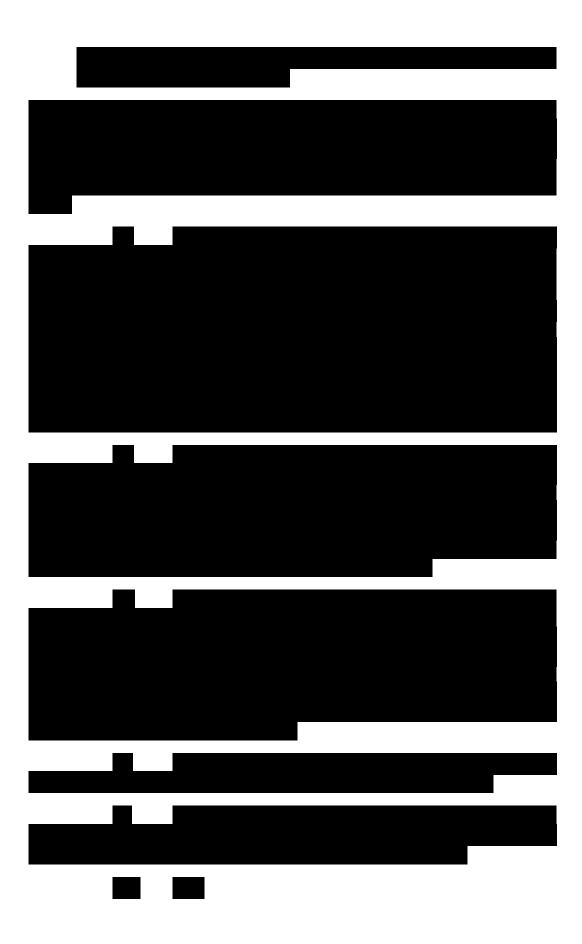
19.2 Notices.

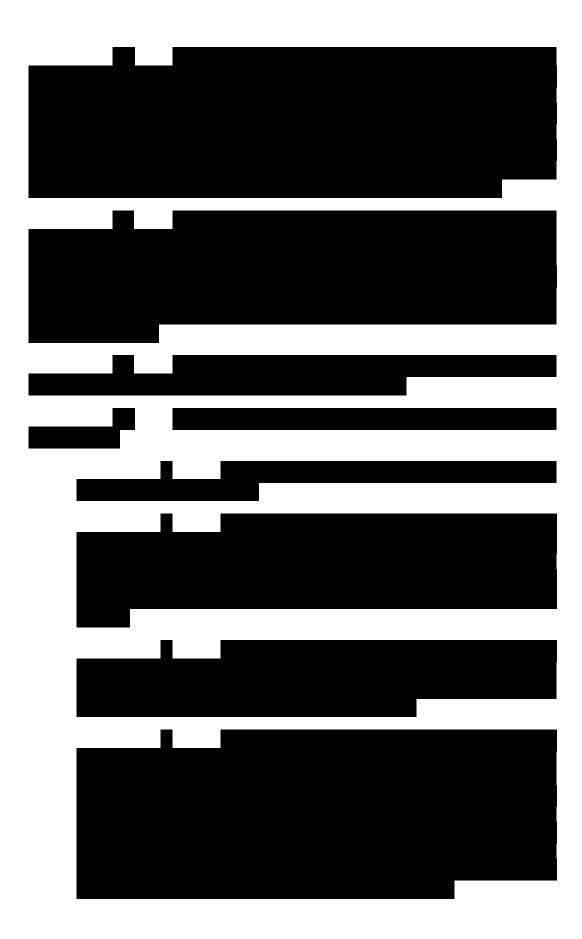
Seller shall provide Purchaser with a notice identifying the Facility Lender and providing appropriate contact information for the Facility Lender. Following receipt of such notice, Purchaser shall provide to the Facility Lender a copy of each notice of alleged default delivered to Seller under Section

- 12.1, and Purchaser will accept a cure thereof performed by the Facility Lender, so long as the cure is accomplished within the applicable cure period set forth in this REPA or the relevant Lender Consent.
- (B) Within ten (10) Days following Seller's receipt of each notice of default or Facility Lender's intent to exercise any remedies under the Financing Documents, Seller shall deliver a copy of such notice to Purchaser.

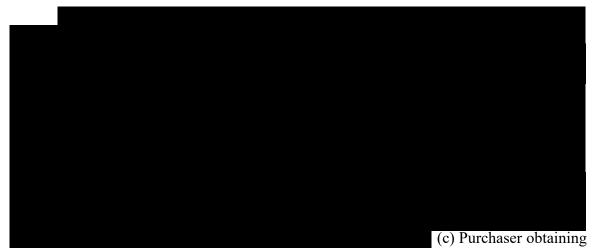








- NOT-PUBLIC AND PROTECTED DATA EXCISED Petition Acquisition of Mower County Wind Facility Attachment E - Page 19 of 32
- A new Exhibit B-1 shall be inserted in the form attached hereto as Exhibit B-1. (n)
- A new Exhibit F shall be inserted in the form attached hereto as Exhibit F. (o)
- (p) A new Exhibit G – AGC Protocols; Data Collection; Technical Specifications shall be inserted in the form attached hereto as **Exhibit G**.
- A new Exhibit H Lender Consent Provisions shall be inserted in the form (q) attached hereto as Exhibit H.
- Amendment Effective Date. This Amendment is executed in connection with, and upon 3. the Effective Date, shall be deemed to be a part of, the Agreement.



the Commission Approval, in form and substance satisfactory to Purchaser in Purchaser's sole discretion, in accordance with Section 4 below, and the same are valid, binding and non-appealable, and (d) Purchaser obtaining approvals of Purchaser's management and board of directors required for the performance of this Amendment on or prior to June 21, 2019.

Seller shall provide Purchaser with prompt written notice of Seller obtaining all such consents and approvals, or that Seller has determined that no such consents and approvals are required for the performance of this Amendment. Purchaser shall provide Seller with prompt written notice of Purchaser obtaining all such consents and approvals, or that Purchaser has determined that no such consents and approvals are required for the performance of this Amendment.

Upon the occurrence of the Effective Date, this Amendment shall thereafter automatically become a part of the Agreement. Thereafter, wherever the terms of this Amendment and the terms of the Agreement are in conflict, the terms of this Amendment shall govern and control.

- 4. <u>Regulatory Approval of Amendment</u>. Purchaser shall have the right to seek Commission Approval of this Amendment as set forth in this Section 4.
 - (a) No later than August 7, 2019, Purchaser may apply to the MPUC and/or the North Dakota Public Service Commission or any successor organization (the "NDPSC") for Commission Approval. If Purchaser fails to apply for Commission Approval from either applicable jurisdiction on or before August 7, 2019, Purchaser shall be deemed to have waived its right to obtain Commission Approval from that jurisdiction. If Purchaser fails to timely apply for Commission Approval from both applicable jurisdictions, this Amendment shall, subject to the other applicable terms and conditions herein, remain in full force and effect thereafter.
 - (b) If Purchaser applies for Commission Approval, Purchaser shall use Commercially Reasonable Efforts to obtain Commission Approval as soon as reasonably practicable.
 - (c) Seller shall reasonably cooperate with Purchaser's efforts to obtain Commission Approval. Without limiting the foregoing Seller shall make Commercially Reasonable Efforts to make available, upon Purchaser's reasonable request, access to any personnel of Seller and any records relating to the Facility to the extent not protected by confidentiality or non-disclosure agreements, statutes, or regulations and to the extent that Purchaser requires the same for such Commission Approval. Purchaser shall not be required to reimburse Seller for any expenses with respect thereto incurred by Seller.
 - (d) Each Party shall each have the right to terminate this Amendment, without any further financial or other obligation to the other Party as a result of such termination, by notice to the other Party at any time: (i) within 30 Days following issuance of a written order by the MPUC and/or the NDPSC rejecting Commission Approval, or granting Commission Approval with conditions that are unacceptable to the terminating Party in its sole discretion; (ii) if the MPUC and/or the NDPSC has not issued a written order granting or rejecting Commission Approval by August 31, 2020, or (iii) at any time within 30 Days following timely appeal to the district or appellate court (by any third party with standing) of a written MPUC and/or NDPSC order granting Commission Approval, if, prior to the date of such termination, the district or appellate court has not issued a written order dismissing the appeal.
 - (e) For purposes of this Amendment, "Commission Approval" means, as applicable a written order of (i) the MPUC, which makes an affirmative determination that this Amendment is reasonable and prudent and/or (ii) the NDPSC, which makes an affirmative advance determination of prudence of Purchaser's acquisition of the resource, and in either case that all costs incurred under this Amendment are recoverable from Purchaser's retail customers pursuant to applicable law, subject only to the requirement that the MPUC retain ongoing prudency review of Purchaser's performance and administration of this Amendment.

- 5. <u>Termination of Letter Agreements</u>. The Parties hereby agree that the Letter Agreement RE: Consent to Assignment between Purchaser and Seller dated November 18, 2005 is hereby terminated and is no longer of force and effect.
- 6. <u>General Terms</u>.
 - (A) The Agreement. Except to the extent expressly modified by this Amendment, all other terms and conditions of the Agreement will remain unmodified and continue in full force and effect. Any reference to the Agreement from and after the Effective Date will be deemed to refer to the Agreement as amended hereby, unless otherwise expressly stated.
 - (B) <u>Governing Law</u>. This Amendment will be governed by the same state whose laws govern the Agreement.
 - (C) <u>Counterparts</u>. This Amendment may be executed in any number of counterparts, each of which will be an original and all of which together will constitute one and the same agreement.

PUBLIC DOCUMENT Docket No. E002/PA-19-____ NOT-PUBLIC AND PROTECTED DATA EXCISED Petition - Acquisition of Mower County Wind Facility

Attachment E - Page 22 of 32

IN WITNESS WHEREOF, Seller and Purchaser have duly executed this Amendment as of the date first written above.

FPL ENERGY MOWER COUNTY, LLC		
By: Name: Title:	Mill ofth.	
	Michael O'Sullivan Senior Vice President	
NORT	HERN STATES POWER COMPANY	
By:		
Name: Title:		

PUBLIC DOCUMENT Docket No. E002/PA-19-_

NOT-PUBLIC AND PROTECTED DATA EXCISED Petition - Acquisition of Mower County Wind Facility Attachment E - Page 23 of 32

IN WITNESS WHEREOF, Seller and Purchaser have duly executed this Amendment as of the date first written above.

FPL ENERGY MOWER COUNTY, LLC

Ву:	
Name:	
Title:	

NORTHERN STATES POWER COMPANY

By:

Pholina A. Imbler

Name:

Vice President, Commercial Operations

Title:

Xcel Energy Services Inc.

Authorized signatory for Northern States Power Company.

A Minnesota corporation

EXHIBIT B-1

REPOWERED FACILITY DESCRIPTION AND SITE MAP

[To be provided promptly after the Repower Completion Date]

EXHIBIT F Renewable Energy Payment Rate

Commercial Operation Year	Renewable Energy Payment Rate (\$/MWh)	

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EXHIBIT G

AGC PROTOCOLS; DATA COLLECTION; TECHNICAL SPECIFICATIONS

AGC

1. AGC Communications between Purchaser and Seller

Purchaser will receive and send AGC Set-Point and related data over an analog or digital line. The data points covered under this REPA, as described below, may overlap data requirements for the Transmission Authority or Purchaser's applicable forecasting group.

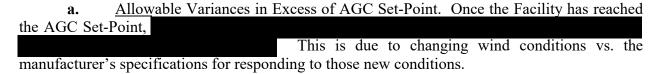
2. AGC Data Points to be sent from Seller to Purchaser via SCADA

The following data points will be transmitted via SCADA from Seller to Purchaser and represent Facility level data:

<u>Description</u>	<u>Units</u>
AGC Set-Point (echo)	MW
Power demand	MW
Actual power	MW
Park Potential	MW
Actual reactive power	Mvars
Average Voltage	kV
Number of turbines online and running	Integer
AGC Status	Remote/Local

3. Response times and limitations of Facility in regards to AGC

The following protocols outline the expectations for responding to the AGC Set-Point. Except in the case of the Frequency of Changes, these protocols will be generally bound by the manufacturers' specifications for the equipment that Seller has chosen for the Facility.



Frequency of Changes. Purchaser may send a new AGC Set-Point to the Facility as frequently as the Wind Turbine manufacturer specifications allow.

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Range of AGC Set-Point. The range of set point values can be between 0% and 100% of Park Potential.

4. Backup Communications

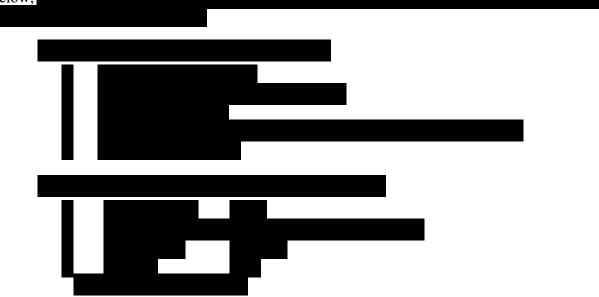
In the event of an AGC failure, Purchaser and Seller shall communicate via telephone in order to correct the failure.

DATA COLLECTION

1. Data

Seller shall install at least one meteorological tower(s) (or other applicable industry approved remote sensing technologies), spaced so as to provide the data points set forth below for the entire Facility. At least two months prior to the Commercial Operation Date, Seller will deliver to Purchaser a report showing (i) manufacturer, model, and year of all Wind Turbines and meteorological instrumentation and (ii) the latitude, longitude and hub height at every Wind Turbine and meteorological tower.

Beginning upon COD, Seller shall transmit and provide to Purchaser the real-time data set forth below,



- In addition to the other requirements for data collection, Seller shall install, maintain and operate at least one meteorological tower that is installed at hub height and is placed upstream of the prevailing wind path. The data stream from this meteorological tower to Purchaser's PI System must be reliable during periods of transmission-related curtailments and must include battery back-up at the meteorological tower and a local source of electricity to power the PI System and interconnectivity between the Facility and Purchaser during transmission outages.
- Seller shall provide a map and key for each Wind Turbine sufficient to allow d. Purchaser to correlate the data received through the PI System to each individual Wind Turbine.

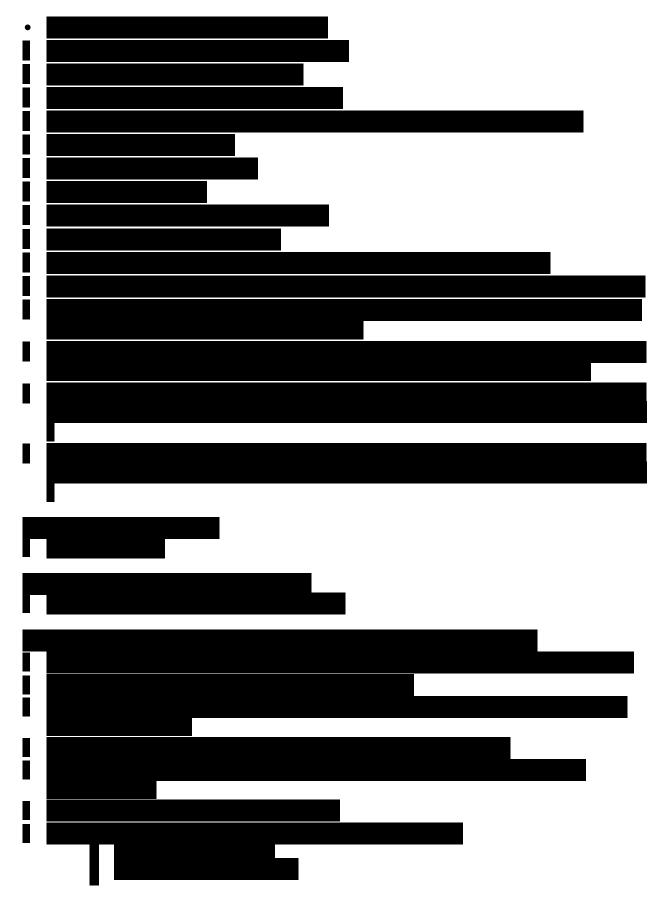
2. Forecasting Requirements

The forecast shall be posted at 4:00 AM on each Day and shall be applicable through the end of the next day. For example, at 4 AM on Monday, an availability forecast is required for Tuesday (midnight to midnight). On Tuesday, the forecast for Wednesday, Wednesday the forecast for Thursday, and so on. The forecast shall be submitted through an availability forecast system as specified by Purchaser to Seller. Prior to the Commercial Operation Date, Purchaser shall provide Seller with the information necessary for Seller to access the chosen availability forecast system.



SURFACE WEATHER SYSTEM TECHNICAL SPECIFICATIONS







NOT-PUBLIC AND PROTECTED DATA EXCISED Petition - Acquisition of Mower County Wind Facility Attachment E - Page 31 of 32

EXHIBIT H LENDER CONSENT PROVISIONS

In the event Seller seeks to enter into any Financing Document or collaterally assigns its rights hereunder to a Facility Lender as security, any related Lender Consent will contain provisions substantially as follows:

- 1. Seller and Purchaser will neither modify nor terminate the REPA other than as provided herein, without the prior written consent of the Facility Lender.
- 2. The Facility Lender shall have the right, but no obligation, to do any act required to be performed by Seller under the REPA, and any such act performed by the Facility Lender shall be as effective to prevent or cure a default as if done by Seller itself.
- If Purchaser becomes entitled to terminate the REPA due to an uncured Event of Default by 3. Seller, Purchaser shall not terminate the REPA unless it has first given notice of such uncured Event of Default to the Facility Lender and has given the Facility Lender the same cure period afforded to Seller under Article 12 of the REPA, plus (a) an additional Seller's cure period to cure any monetary Event of Default, and (b) an additional beyond Seller's cure period to cure any non-monetary Event of Default; Event of Default; provided, however, that if the Facility Lender requires possession of the Facility in order to cure the Event of Default, and if the Facility Lender diligently seeks possession, the Facility Lender's additional cure period shall not begin until foreclosure is completed, a receiver is appointed, any bankruptcy stay is removed, or possession is otherwise obtained by or on behalf of the Facility Lender.
- The Facility Lender shall provide to Purchaser a copy of any notices of default and/or intent 4. to exercise remedies delivered to Seller under the Financing Documents.
- 5. Neither the Facility Lender nor any other participant in the Facility Debt shall be obligated to perform or be liable for any obligation of Seller under the REPA until and unless any of them assumes the REPA through the exercise of the Facility Lender's rights and remedies.
- Any party assuming the REPA through the exercise of the Facility Lender's rights and 6. remedies shall remain subject to the terms of the REPA and shall (i) assume all of Seller's obligations under the REPA, (ii) cure any then-existing defaults capable of cure by performance or the payment of money damages, (iii) In the event that the Facility Lender or its successor assumes the REPA in accordance with this paragraph 6, Purchaser shall continue the REPA with the Facility Lender or its successor, as the case may be, substituted wholly in the place of Seller.
- 7. In the event that the Facility Lender or its successor assumes the REPA in accordance with paragraph 6, within ninety (90) Days of any termination of the REPA as a result of rejection in any bankruptcy or insolvency proceeding, the Facility Lender (or its successor) and Purchaser shall enter into a new power purchase agreement on the same terms and conditions

PUBLIC DOCUMENT

NOT-PUBLIC AND PROTECTED DATA EXCISED

Petition - Acquisition of Mower County Wind Facility

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as the REPA and for the period that would have been remaining under the REPA but for such termination.

Orrick Draft of 7/31/19

AMENDMENT NO. 2 TO RENEWABLE ENERGY PURCHASE AGREEMENT

This AMENDMENT NO. 2 TO RENEWABLE ENERGY PURCHASE AGREEMENT (this "Amendment") is made as of August 7, 2019 (the "Execution Date") by and between Northern States Power Company, a Minnesota corporation ("Purchaser"), and FPL Energy Mower County, LLC, a Delaware limited liability company ("Seller"). Each of Purchaser and Seller are sometimes referred to herein as a "Party" and collectively as the "Parties".

RECITALS

- A. WHEREAS, Seller and Purchaser are Parties to that certain Renewable Energy Purchase Agreement, dated as of November 18, 2005, as amended by that certain Amendment No. 1 to Renewable Energy Agreement (the "First Amendment"), dated as of June 17, 2019 (as amended or otherwise modified, the "Agreement"), under which Seller sells to Purchaser and Purchaser purchases from Seller all of the energy and related products generated by Seller's wind energy generation facility, as more fully set forth in the Agreement; and
- B. WHEREAS, the Parties mutually desire to modify certain terms and conditions of the Agreement, as more fully set forth herein.

NOW THEREFORE, in consideration of the foregoing and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

- 1. <u>Definitions</u>. Capitalized terms used in this Amendment and not otherwise defined herein shall have the meanings assigned to such terms in the Agreement.
- 2. Amendments. The Agreement shall be amended as of the Effective Date as follows:
 - (a) The date by which Purchaser must apply to the MPUC and/or the NDPSC for Commission Approval (if at all), as set forth in Section 4(a) of the First Amendment, shall be extended from August 7, 2019 to August 30, 2019.

3. General Terms.

- (A) The Agreement. Except to the extent expressly modified by this Amendment, all other terms and conditions of the Agreement will remain unmodified and continue in full force and effect. Any reference to the Agreement from and after the Effective Date will be deemed to refer to the Agreement as amended hereby, unless otherwise expressly stated.
- (B) Governing Law. This Amendment will be governed by the same state whose laws govern the Agreement.

(C) <u>Counterparts</u>. This Amendment may be executed in any number of counterparts, each of which will be an original and all of which together will constitute one and the same agreement.

IN WITNESS WHEREOF, Seller and Purchaser have duly executed this Amendment as of the date first written above.

FPL ENERGY MOWER COUNTY, LLC

By:	-3-W001A		
Name:	1		
Title:	9		

NORTHERN STATES POWER COMPANY

By: Name:

Title:

Van Abel Corporate Development IN WITNESS WHEREOF, Seller and Purchaser have duly executed this Amendment as of the date first written above.

FPL ENER	RGY MOWER COUNTY, LLC
By:	MillOff
Name:	Michael O'Sullivan
Title:	Vice President
NORTHER	RN STATES POWER COMPANY
By:	
Name:	•
Title:	

PUBLIC DOCUMENT NOT-PUBLIC AND PROTECTED DATA EXCISED

Northern States Power Company

Docket No. E002/PA-19-____
Petition – Acquisition of Mower County Wind Facility
Attachment G

Attachment G is marked "NOT-PUBLIC" as it contains information the Company considers to be trade secret data as defined by Minn. Stat. §13.37(1)(b). This data includes confidential pricing and other contract terms, and proprietary analyses design. The information has independent economic value from not being generally known to, and not being readily ascertainable by, other parties who could obtain economic value from its disclosure or use. We have marked additional information as "NOT PUBLIC" because the knowledge of such information in conjunction with public information in our Petition could also adversely impact future contract negotiations, potentially increasing costs for these services for our customers. Thus, the Company maintains this information as a trade secret.

Attachment G provided with the Not-Public version of this filing contains information classified as trade secret pursuant to Minn. Stat. § 13.37 for the above-noted reasons and is marked as "NOT-PUBLIC" in its entirety. Pursuant to Minn. R. 7829.0500, subp. 3, the Company provides the following description of the excised material:

- 1. **Nature of the Material:** Excel spreadsheet containing competitively sensitive pricing and generation information associated with the Project amended REPA.
- 2. **Authors:** The Company's Corporate Development personnel.
- 3. **Importance:** The Company protects the analyses design as proprietary and the data as trade secret in that others could obtain a financial advantage from its use.
- 4. **Date the Information was Prepared:** Q3:2019

[Protected Data Begins

STRATEGIST MODELING ASSUMPTIONS

I. PREFERRED PLAN KEY COMPONENTS

As noted in the Petition, the Base Case by which the Mower County Project is evaluated reflects the Preferred Plan in our most recent Upper Midwest Integrated Resource Plan. The following outlines the key outcomes of this Preferred Plan.

- *Nuclear* Operation of the Monticello plant is assumed to be extended through 2040. Prairie Island I and II licenses expire in 2033 and 2034, respectively.
- *Coal* As approved by the Commission in our last resource plan, Sherco Unit 2 is assumed to retire in 2023 and Sherco Unit 1 is assumed to retire in 2026. As proposed in our current Preferred Plan, the A.S. King Plant retires in 2028 and Sherco Unit 3 retires in 2030.
- Combined Cycle Plants A combined cycle unit is assumed to be added at the Sherco site, beginning operation by 2027. The Mankato Energy Center is assumed to be Company-owned.
- *PPAs* All existing PPAs are assumed to expire at the end of their current terms.
- Energy Efficiency Energy efficiency is treated as a supply-side resource available for adoption in "bundles" of achieved efficiency levels, and the first two bundles are included. Energy efficiency achieves 2-3 percent annual energy savings over the analysis timeframe.
- Demand Response Consistent with the Commission's Order in our last resource plan, 400 MW of incremental demand response is added by 2023.
- *Distributed Solar* The modeling assumes distributed generation (DG) solar additions based on our most recent forecast of distributed solar, which includes 673 MW of Community Solar Gardens by 2020.
- *Utility-Scale Solar* In addition to the DG solar, an incremental 4,000 MW of utility-scale solar is added by 2034, with additions starting in 2025.
- Wind Our analysis assumes a "no going back" strategy for wind generation, in which wind generation retiring from our system would be replaced with an equivalent amount of new or repowered wind, as discussed above. Further, our Plan includes the 1,850 MW of wind generation approved by the Commission

- in Docket Nos. E002/M-16-777 and E002/M-17-694 and the Dakota Range III resource approved in Docket No. E002/M-18-765.¹
- Reliability Requirement In our most recent Resource Plan, we have imposed a Reliability Requirement, which indicates a level of firm, dispatchable resources our system may not fall below. This leads our Preferred Plan to include approximately 1,700 MW of firm dispatchable resource additions in the post-2030 timeframe.²
- Congestion We updated our congestion assumption since our last wind acquisition filing by using the MISO MTEP 2018 models and comparing the average congestion costs between representative wind bus locations and NSP. We included a congestion cost of \$3.43 per MWh in 2020, escalating at two percent per year.
- Market interaction. As we continue to transition our fleet to include more renewables and less coal generation, there will be periods of time where the generation on our system exceeds our native load serving requirement. During these periods, we are likely to make energy sales into the MISO market. Revenues from those sales will be credited to customers through the monthly fuel clause adjustment. Assumptions regarding the likely value of these potential sales are an important factor in predicting the likely rate impact of the proposed wind portfolio. Our analysis assumes that we are able to access markets to sell some of our excess energy at a wholesale rate that is endogenous to the model. However, consistent with the analysis performed for other recent wind acquisitions, we included a limit on the maximum amount of market sales, based on historical data. Due to this limit on market sales, a portion of the incremental wind generation is "dumped" and does not receive any value.
- CO2 Costs In order to estimate a Present Value of Societal Cost (PVSC) for the repowering and PSA, the base PVSC assumptions include the high regulated cost for each ton of CO₂ emitted in 2024, escalating at two percent per year thereafter, as well as high externality costs for emissions of criteria pollutants and CO₂ before 2024.

¹ Remains pending in North Dakota PU-18-430.

² Currently the cost of these resources is assumed based on expected costs of a new combustion turbine gas unit. However, we expect that any firm dispatchable resource may be used to fill this need, including potentially non-emitting resources such as demand response and energy storage.

II. STRATEGIST MODELING INPUTS

Below we present additional key modeling input assumptions that were used to develop Strategist analysis of the Project.

A. Discount Rate and Capital Structure

The discount rate used for levelized cost calculations and the present value of modeled costs is 6.53 percent. The rates shown below were calculated by taking a weighted average of each NSP jurisdiction's last allowed/settled electric retail rate case.

Discount Rate and Capital Structure Capital Allowed **Before Tax After Tax Electric Structure** Return **Electric WACC** WACC Long-Term Debt 46.16% 4.80% 2.22% 1.60% Common Equity 52.35% 9.35% 4.90% 4.90% Short-Term Debt 1.49% 3.65% 0.05% 0.04% Total 7.17% 6.53%

Table 1: Discount Rate and Capital Structure

B. Inflation Rates

The inflation rates are used for existing resources, generic resources, and other costs related to general inflationary trends in the modeling and are developed using long-term forecasts from Global Insight. The general inflation rate of 2% is from their long-term forecast for "Chained Price Index for Total Personal Consumption Expenditures" published in the second quarter of 2018.

C. Reserve Margin

The reserve margin at the time of MISO's peak is 8.4 percent from the 2018-2019 LOLE Study Report published November 2017. The coincidence factor between the NSP System and MISO system peak is 5 percent. Therefore, the effective reserve margin is:

$$(1 - 5\%) * (1 + 8.4\%) - 1 = 2.98\%.$$

D. CO₂ Costs

The PVSC Base Case CO2 values are based on the high environmental cost values for CO2 through 2024 (page 31 of the Minnesota Public Utilities Commission's Order Updating

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Environmental Cost Values in Docket No. E999/CI-14-643 issued January 3, 2018). All prices are converted to 2018 real dollars using the 2017 GPDIPD of 113.416 and then escalate at general inflation thereafter.

The PVSC Base Case values starting in 2025 are based on the "high" end of the range of regulated costs (see page 12 of MPUC Order Establishing 2018 and 2019 Estimate of Future Carbon Dioxide Regulation Costs in Dockets No.E999/CI-07-1199 and E-999/DI-17-53 issued June 11, 2018). All prices escalate at general inflation.

The Order Establishing 2018 and 2019 Estimate of Future Carbon Dioxide Regulation Costs requires four alternative scenarios to be run in addition to the PVSC Base Case. The Order Extending Deadline for Filing Next Resource Plan issued January 30, 2019 also requires a scenario using the midpoint of the Commission's most recently approved externalities and regulatory costs of carbon. The values in the PVSC Base Case and alternative scenarios are set out below.

Table 2: CO2 Costs

			CO2 Costs (\$ p	er short ton)				
	Low	High	Low	Mid	PVSC - High	PVRR - Omitting		
	Environmental		Environmental/	Environmental/	Environmental/	CO2 Cost		
Year	Cost	Cost		Regulatory Costs		Considerations		
2018	\$9.09	\$42.76	\$9.09	\$25.92	\$42.76	\$0.00		
2019	\$9.49	\$44.58	\$9.49	\$27.04	\$44.58	\$0.00		
2020	\$9.90	\$46.45	\$9.90	\$28.18	\$46.45	\$0.00		
2021	\$10.32	\$48.39	\$10.32	\$29.35	\$48.39	\$0.00		
2022	\$10.77	\$50.38	\$10.77	\$30.57	\$50.38	\$0.00		
2023	\$11.22	\$52.43	\$11.22	\$31.82	\$52.43	\$0.00		
2024	\$11.69	\$54.55	\$11.69	\$33.12	\$54.55	\$0.00		
2025	\$12.16	\$56.72	\$5.00	\$15.00	\$25.00	\$0.00		
2026	\$12.67	\$58.97	\$5.10	\$15.30	\$25.50	\$0.00		
2027	\$13.17	\$61.29	\$5.20	\$15.61	\$26.01	\$0.00		
2028	\$13.70	\$63.67	\$5.31	\$15.92	\$26.53	\$0.00		
2029	\$14.24	\$66.12	\$5.41	\$16.24	\$27.06	\$0.00		
2030	\$14.80	\$68.64	\$5.52	\$16.56	\$27.60	\$0.00		
2031	\$15.37	\$71.24	\$5.63	\$16.89	\$28.15	\$0.00		
2032	\$15.97	\$73.91	\$5.74	\$17.23	\$28.72	\$0.00		
2033	\$16.57	\$76.67	\$5.86	\$17.57	\$29.29	\$0.00		
2034	\$17.21	\$79.50	\$5.98	\$17.93	\$29.88	\$0.00		
2035	\$17.85	\$82.41	\$6.09	\$18.28	\$30.47	\$0.00		
2036	\$18.52	\$85.41	\$6.22	\$18.65	\$31.08	\$0.00		
2037	\$19.20	\$88.50	\$6.34	\$19.02	\$31.71	\$0.00		
2038	\$19.91	\$91.68	\$6.47	\$19.40	\$32.34	\$0.00		
2039	\$20.62	\$94.96	\$6.60	\$19.79	\$32.99	\$0.00		
2040	\$21.38	\$98.32	\$6.73	\$20.19	\$33.65	\$0.00		
2041	\$22.14	\$101.78	\$6.86	\$20.59	\$34.32	\$0.00		
2042	\$22.94	\$105.34	\$7.00	\$21.00	\$35.01	\$0.00		
2043	\$23.74	\$109.00	\$7.14	\$21.42	\$35.71	\$0.00		
2044	\$24.58	\$112.76	\$7.28	\$21.85	\$36.42	\$0.00		
2045	\$25.43	\$116.63	\$7.43	\$22.29	\$37.15	\$0.00		
2046	\$26.33	\$120.61	\$7.58	\$22.73	\$37.89	\$0.00		
2047	\$27.23	\$124.71	\$7.73	\$23.19	\$38.65	\$0.00		
2048	\$28.17	\$128.92	\$7.88	\$23.65	\$39.42	\$0.00		
2049	\$29.12	\$133.24	\$8.04	\$24.13	\$40.21	\$0.00		
2050	\$30.12	\$137.69	\$8.20	\$24.61	\$41.02	\$0.00		
2051	\$31.14	\$142.26	\$8.37	\$25.10	\$41.84	\$0.00		
2052	\$32.18	\$146.97	\$8.53	\$25.60	\$42.67	\$0.00		
2053	\$33.26	\$151.80	\$8.71	\$26.12	\$43.53	\$0.00		
2054	\$34.36	\$156.76	\$8.88	\$26.64	\$44.40	\$0.00		
2055	\$35.50	\$161.87	\$9.06	\$27.17	\$45.28	\$0.00		
2056	\$36.66	\$167.11	\$9.24	\$27.71	\$46.19	\$0.00		
2057	\$37.86	\$172.51	\$9.42	\$28.27	\$47.11	\$0.00		

E. All Other Externality Costs

The values of the criteria pollutants are derived from the high and low values for each of the 3 locations, as determined in the Minnesota Commission Order Updating Environmental Cost Values in Docket No. E999/CI-14-643 issued January 3, 2018. The midpoint externality costs are the average of the low and high values. All prices are escalated to 2018 real dollars using the 2017 GPDIPD of 113.416. The high, low and midpoint externality costs will be used in the CO2 sensitivities as described above.

Table 3: Externality Costs

	MPUC Low Externality Costs 2018 \$ per short ton												
Urban Metro Fringe Rural <200m													
SO2	\$6,116	\$4,829	\$3,643	\$0									
NOx	\$2,934	\$2,622	\$2,110	\$28									
PM2.5	\$10,697	\$6,856	\$3,654	\$872									
CO	\$1.65	\$1.17	\$0.31	\$0.31									
Pb	\$4,857	\$2,562	\$624	\$624									

	MPUC High Externality Costs 2018 \$ per short ton												
Urban Metro Fringe Rural <20													
SO2	\$15,288	\$12,030	\$8,878	\$0									
NOx	\$8,390	\$7,798	\$6,771	\$158									
PM2.5	\$26,721	\$17,091	\$8,973	\$1,327									
CO	\$3.51	\$2.08	\$0.63	\$0.63									
Pb	\$6,011	\$3,094	\$695	\$695									

MPUC Midpoint Externality Costs 2018 \$ per short ton												
	Urban Metro Fringe Rural <200mi											
SO2	\$10,702	\$8,430	\$6,261	\$0								
NOx	\$5,662	\$5,210	\$4,441	\$93								
PM2.5	\$18,709	\$11,974	\$6,313	\$1,099								
CO	\$2.58	\$1.63	\$0.47	\$0.47								
Pb	\$5,434	\$2,828	\$659	\$659								

F. Demand and Energy Forecast

The Company's fall 2018 load forecast is used as the base assumption and assumes that EV impacts grow through 2023 are then held constant for the remaining forecast period. The energy efficiency (EE) forecast included in this forecast assumes impacts at a 75 percent rebate level which equals roughly 1.5 percent of sales through the planning period. The "Load Forecast with 1.5% EE" shown in Table 4 below is the starting point for the

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Strategist load inputs. In all modeling scenarios, the "1.5% EE" is removed - the removal of these EE program effects, which have a 14-year life, impacts the load forecast through 2047. In its place, three EE Bundles (discussed below) are included in Strategist as Proview Alternatives and any number of these bundles (from 0 to all 3) is allowed to be selected as part of the optimization process. The resulting forecast, before the optimized EE bundles are added, is shown below in Table 4 as "Forecast Without 1.5% EE." The forecasts shown do not include the impact of DG solar, as DG solar is modeled as a resource in Strategist, not a load modifier.

Table 4: Strategist Demand and Energy Forecast

		Demand and Ener	gy Forecast	
		ınd (MW)		gy (GWh)
V		Forecast without	Forecast	Forecast without
Year	with 1.5% EE	1.5% EE	with 1.5% EE	1.5% EE
2018	9,152	9,152	43,914	43,914
2019	9,136	9,136	43,798	43,798
2020	9,156	9,227	43,865	44,310
2021	9,191	9,333	43,560	44,447
2022	9,251	9,464	43,529	44,860
2023	9,285	9,569	43,394	45,168
2024	9,329	9,684	43,425	45,650
2025	9,354	9,780	43,257	45,919
2026	9,403	9,900	43,281	46,386
2027	9,487	10,055	43,493	47,042
2028	9,593	10,262	44,089	48,093
2029	9,635	10,403	43,972	48,408
2030	9,697	10,567	44,130	49,010
2031	9,740	10,713	44,172	49,496
2032	9,856	10,956	44,661	50,445
2033	10,005	11,211	44,875	51,087
2034	10,137	11,343	45,232	51,443
2035	10,248	11,368	45,534	51,302
2036	10,374	11,408	46,042	51,382
2037	10,482	11,430	46,126	51,006
2038	10,576	11,438	46,287	50,723
2039	10,674	11,449	46,541	50,534
2040	10,777	11,467	46,946	50,505
2041	10,873	11,476	46,975	50,081
2042	10,964	11,481	47,143	49,805
2043	11,057	11,488	47,407	49,626
2044	11,169	11,514	47,823	49,603
2045	11,241	11,500	47,879	49,210
2046	11,328	11,500	48,076	48,964
2047	11,424	11,510	48,372	48,816
2048	11,536	11,536	48,977	48,977
2049	11,626	11,626	48,811	48,811
2050	11,715	11,715	49,042	49,042
2051	11,804	11,804	49,274	49,274
2052	11,893	11,901	49,640	49,640
2053	11,982	11,992	49,736	49,736
2054	12,071	12,083	49,968	49,968
2055	12,160	12,174	50,199	50,199
2056	12,249	12,265	50,567	50,567
2057	12,339	12,356	50,662	50,662

The low load sensitivity includes high customer-adoption-based DG/DER growth and higher EE savings, which reduces load. The high load sensitivity includes high electrification load. These assumptions are shown in Table 5 and Table 6, and are incremental/decremental to the forecast shown in Table 4.

Table 5: High Load Sensitivity

Н	ligh Electri	fication				
Year	Energy (GWh)	Demand (MW)				
2018	35	8				
2019	46	6				
2020	59	7				
2021	166	20				
2022	276	33				
2023	390	47				
2024	507	62				
2025	627	77				
2026	785	96				
2027	976	117				
2028	1,194	141				
2029	1,579	171				
2030	2,122	207				
2031	2,802	250				
2032	3,622	302				
2033	4,593	362				
2034	5,706	430				
2035	6,969	509				
2036	8,320	592				
2037	9,751	681				
2038	11,248	772				
2039	12,797	866				
2040	14,387	961				
2041	15,950	1,055				
2042	17,472	1,146				
2043	18,940	1,245				
2044	20,341	1,930				
2045	21,665	2,660				
2046	22,904	3,318				
2047	24,054	3,945				
2048	25,112	4,800				
2049	26,076	5,056				
2050	26,947	5,554				
2051	28,051	6,093				
2052	29,061	6,564				
2053	30,072	7,041				
2054	31,083	7,528				
2055	32,093	8,021				
2056	33,104	8,496				
2057	34,115	8,984				

^{*}Demand values are coincident to system peak

Table 6: Low Load Sensitivity

	Hiç	gh DER Gro	wth
Year	Energy	ELCC	Demand
2019	(GWh) 0	(MW) 0	(Nameplate MW)
2018	0	0	0
2019	0	0	0
2020	-	72	144
2021	189 173		131
		66	
2023	159	60	121
2024	144	55	109
2025	135	51	103
2026	230	87	175
2027	228	87	173
2028	369	140	280
2029	377	143	286
2030	432	164	328
2031	490	186	373
2032	553	210	420
2033	617	235	469
2034	687	261	522
2035	760	289	578
2036	840	319	637
2037	920	350	700
2038	1,007	383	766
2039	1,099	418	836
2040	1,200	455	910
2041	1,225	466	931
2042	1,187	451	902
2043	1,148	437	873
2044	1,112	422	844
2045	1,070	407	814
2046	1,014	385	771
2047	974	370	740
2048	935	354	709
2049	891	339	677
2050	850	323	646
2051	799	304	607
2052	759	287	575
2053	701	266	532
2054	657	249	498
2055	607	230	461
2056	559	211	422
2057	506	192	383

G. Energy Efficiency Bundles

The EE "Program" and "Maximum" Bundles are based on the Minnesota Department of Commerce's Minnesota Energy Efficiency Potential Study: 2020-2029 published December 4, 2018. The "Optimal" Bundle was developed by the Company. The bundles are incremental to the "Forecast without 1.5% EE" shown in Table 4. They are also dependent on the Bundle before it being selected (i.e. Bundle 2 cannot be selected if Bundle 1 is not selected). The Bundles are included in Strategist as Proview Alternatives and any number of these Bundles (from 0 to all 3) is allowed to be selected as part of the optimization process.

Table 7: Energy	Efficiency	Bundles
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	Ene	ergy(MWh)		Do	emand (MV	V)		Costs (\$000	0)
	Bundle 1:	Bundle 2:	Bundle	Bundle 1:	Bundle 2:	Bundle 3:	Bundle 1:	Bundle 2:	Bundle 3:
Year	Program	Optimal	3: Max	Program	Optimal	Max	Program	Optimal	Max
2018	0	0	0	0	0	0	0	0	0
2019	0	0	0	0	0	0	0	0	0
2020	621	43	231	97	18	36	100,989	12,598	148,331
2021	1,326	91	493	207	38	77	113,525	13,905	167,221
2022	1,913	148	702	301	60	113	121,239	21,425	177,197
2023	2,555	211	928	407	86	154	133,614	23,931	196,474
2024	3,094	279	1,110	520	116	197	148,406	26,120	217,388
2025	3,629	346	1,289	635	146	241	152,433	26,077	223,293
2026	4,330	414	1,533	759	176	289	160,445	26,236	233,779
2027	5,054	482	1,785	886	206	338	167,718	26,637	242,963
2028	5,785	551	2,040	1,012	235	387	174,161	27,018	249,373
2029	6,454	606	2,280	1,127	259	432	162,170	23,442	233,114
2030	7,110	659	2,516	1,241	283	477	162,170	23,442	233,114
2031	7,753	710	2,748	1,354	307	522	162,170	23,442	233,114
2032	8,339	760	2,960	1,460	329	564	162,170	23,442	233,114
2033	8,909	808	3,168	1,564	352	605	162,170	23,442	233,114
2034	9,464	857	3,370	1,667	374	646	162,170	23,442	233,114
2035	9,250	846	3,294	1,648	370	638	0	0	0
2036	8,739	835	3,073	1,579	366	600	0	0	0
2037	8,088	789	2,829	1,470	347	557	0	0	0
2038	7,450	741	2,590	1,369	327	517	0	0	0
2039	6,841	685	2,372	1,267	304	475	0	0	0
2040	6,197	626	2,144	1,154	278	430	0	0	0
2041	5,543	562	1,919	1,036	250	384	0	0	0
2042	4,871	499	1,685	916	221	337	0	0	0
2043	4,220	434	1,457	796	191	291	0	0	0
2044	3,561	377	1,218	678	165	245	0	0	0
2045	2,912	318	990	562	139	201	0	0	0
2046	2,276	265	761	451	116	156	0	0	0
2047	1,746	212	573	349	93	117	0	0	0
2048	1,216	159	384	248	70	79	0	0	0
2049	686	106	195	146	46	40	0	0	0
2050	156	53	7	45	23	1	0	0	0
2051	0	0	0	0	0	0	0	0	0
2052	0	0	0	0	0	0	0	0	0
2053	0	0	0	0	0	0	0	0	0
2054	0	0	0	0	0	0	0	0	0
2055	0	0	0	0	0	0	0	0	0
2056	0	0	0	0	0	0	0	0	0
2057	0	0	0	0	0	0	0	0	0

**Demand values are coincident to system peak

H. Demand Response Forecast

The base demand response forecast was developed by the Company and is included in all scenarios and sensitivities. The three demand response "Bundles" are from the Brattle Potential Study provided as Appendix G2. The Bundles are incremental to the base demand response forecast and, the same as for EE, are dependent on the Bundle before it being selected (i.e. Bundle 2 cannot be selected if Bundle 1 is not selected). These Bundles are included in Strategist as Proview Alternatives and any number of the Bundles (from 0 to all 3) is allowed to be selected as part of the optimization process.

Table 8: Demand Response Forecast

	De	mand (MW	')							
		or Reserve	Margin		(Costs (\$000)			
	Base Demand									
Year	Response Forecast	Bundle 1	Bundle 2	Bundle 3	Rundle 1	Bundle 2	Rundle 3			
2018	848	0	0	0	0	0	0			
2019	924	0	0	0	0	0	0			
2019	940	270	107	89	14,380	7,659	11,311			
2020	955	290	112	97	15,724	8,150	12,587			
2021	970	312	116	106	17,212					
					,	8,676	14,016			
2023	989	322	120	110	18,124	9,137	14,758			
2024	1007	339	132	101	19,512	10,277	13,829			
2025	1023	380	145	92	22,305	11,459	12,858			
2026	1038	392	151	93	23,475	12,207	13,326			
2027	1053	406	159	95	24,786	13,080	13,845			
2028	1066	421	168	97	26,245	14,086	14,418			
2029	1054	438	178	99	27,859	15,231	15,047			
2030	1043	456	189	101	29,637	16,522	15,734			
2031	1032	476	201	104	31,551	17,926	16,467			
2032	1021	497	214	106	33,612	19,451	17,251			
2033	1010	519	227	109	35,832	21,109	18,088			
2034	1000	542	242	112	38,224	22,911	18,984			
2035	990	567	257	116	40,802	24,870	19,943			
2036	981	594	274	119	43,582	26,999	20,971			
2037	972	630	293	125	46,580	29,313	22,072			
2038	963	660	312	129	49,814	31,829	23,253			
2039	954	692	332	133	53,305	34,564	24,522			
2040	945	726	353	138	57,073	37,537	25,884			
2041	937	726	353	138	58,215	38,288	26,402			
2042	929	726	353	138	59,379	39,054	26,930			
2043	921	726	353	138	60,566	39,835	27,468			
2044	913	726	353	138	61,778	40,632	28,018			
2045	906	726	353	138	63,013	41,444	28,578			
2046	898	726	353	138	64,274	42,273	29,150			
2047	891	726	353	138	65,559	43,118	29,733			
2048	884	726	353	138	66,870	43,981	30,327			
2049	876	726	353	138	68,208	44,860	30,934			
2050	869	726	353	138	69,572	45,758	31,552			
2051	862	726	353	138	70,963	46,673	32,183			
2052	854	726	353	138	72,382	47,606	32,827			
2053	847	726	353	138	73,830	48,558	33,484			
2054	839	726	353	138	75,307	49,530	34,153			
2055	832	726	353	138	76,813	50,520	34,836			
2056	825	726	353	138	78,349	51,531	35,533			
2057	817	726	353	138	79,916	52,561	36,244			

*Demand values are coincident to system peak.

I. Fuel Price Forecasts

The natural gas prices are developed using a blend of market information (New York Mercantile Exchange futures prices) and long-term fundamentally-based forecasts from Wood Mackenzie, Cambridge Energy Research Associates (CERA) and Petroleum Industry Research Associates (PIRA).

Coal price forecasts are developed using two major inputs: the current contract volumes and prices combined with current estimates of required spot volumes and prices to cover non-contracted coal needs. Typically coal volumes and prices are under contract on a plant

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by plant basis for a one to five year term with annual spot volumes filling the estimated fuel requirements of the coal plant based on recent unit dispatch. The spot coal price forecasts are developed from price forecasts provided by Wood Mackenzie, JD Energy, and John T Boyd Company, as well as price points from recent Request for Proposal (RFP) responses for coal supply. Added to the spot coal forecast, which is just for the coal commodity, are: transportation charges, SO₂ costs, freeze control and dust suppressant, as required.

In addition to resources that exist within the NSP System, the Company is a participant in the MISO Market. Electric power market prices are developed from fundamentally-based forecasts from Wood Mackenzie, CERA and PIRA using a similar methodology as is used for the gas price forecast. Table 9 below shows the market prices under zero CO₂ cost assumptions. The market purchases and sales limit for transaction volume between the Company and MISO is 1,350 MWh/h in 2018, 1,800 MWh/h from 2019-2022, and 2,300 MWh/h for 2023 and beyond.

High and low price sensitivities were performed by adjusting the growth rate up and down by 50 percent from the base forecast starting in year 2022.

Table 9: Fuel and Market Price Forecasts

		Base Price	e Forecas			Low Price	Forecast	:	High Price Forecast					
	Fuel	Price	Marke	t Price	Fuel	Price	Marke	t Price	Fuel	Price	Market Price			
	(\$/mn	nBTu)	(\$/M	Wh)	(\$/mr	nBTu)	(\$/M	Wh)	(\$/mr	nBTu)	(\$/M	lWh)		
			Minn	Minn			Minn	Minn			Minn	Minn		
		Ventura	Hub On-			Ventura		Hub Off-		Ventura		Hub Off-		
Year	Coal	Hub	Peak	Peak	Coal	Hub	Peak	Peak	Coal	Hub	Peak	Peak		
2018	\$2.19	\$2.74	\$28.60	\$21.61	\$2.19	\$2.74	\$28.60	\$21.61	\$2.19	\$2.74	\$28.60	\$21.61		
2019	\$2.08	\$2.67	\$27.10	\$21.12	\$2.08	\$2.67	\$27.10	\$21.12	\$2.08	\$2.67	\$27.10	\$21.12		
2020	\$2.11	\$2.44	\$24.36	\$18.97	\$2.11	\$2.44	\$24.36	\$18.97	\$2.11	\$2.44	\$24.36	\$18.97		
2021	\$2.14	\$2.37	\$23.37	\$17.97	\$2.14	\$2.37	\$23.37	\$17.97	\$2.14	\$2.37	\$23.37	\$17.97		
2022	\$2.23	\$2.52	\$24.93	\$19.30	\$2.19	\$2.44	\$24.18	\$18.72	\$2.26	\$2.59	\$25.68	\$19.88		
2023	\$2.29	\$2.82	\$28.39	\$22.16	\$2.24	\$2.59	\$26.08	\$20.36	\$2.34	\$3.06	\$30.80	\$24.04		
2024	\$2.37	\$3.07	\$30.69	\$23.93	\$2.29	\$2.70	\$27.02	\$21.07	\$2.45	\$3.47	\$34.66	\$27.03		
2025	\$2.42	\$3.26	\$32.82	\$25.48	\$2.34	\$2.79	\$28.06	\$21.79	\$2.51	\$3.79	\$38.13	\$29.61		
2026	\$2.48	\$3.42	\$34.50	\$27.03	\$2.38	\$2.85	\$28.81	\$22.58	\$2.59	\$4.06	\$41.02	\$32.14		
2027	\$2.55	\$3.51	\$35.03	\$27.53	\$2.43	\$2.89	\$28.86	\$22.68	\$2.68	\$4.24	\$42.22	\$33.19		
2028	\$2.62	\$3.60	\$35.52	\$27.78	\$2.48	\$2.93	\$28.90	\$22.60	\$2.77	\$4.40	\$43.35	\$33.90		
2029	\$2.69	\$3.82	\$37.34	\$29.17	\$2.54	\$3.02	\$29.53	\$23.07	\$2.87	\$4.79	\$46.83	\$36.59		
2030	\$2.76	\$4.09	\$39.20	\$30.60	\$2.59	\$3.13	\$29.95	\$23.38	\$2.97	\$5.31	\$50.84	\$39.69		
2031	\$2.84	\$4.26	\$41.18	\$32.22	\$2.64	\$3.19	\$30.85	\$24.13	\$3.07	\$5.63	\$54.45	\$42.60		
2032	\$2.92	\$4.47	\$42.61	\$33.54	\$2.70	\$3.27	\$31.17	\$24.53	\$3.18	\$6.05	\$57.66	\$45.38		
2033	\$3.00	\$4.74	\$45.01	\$35.50	\$2.75	\$3.37	\$31.99	\$25.24	\$3.30	\$6.60	\$62.64	\$49.41		
2034	\$3.08	\$4.93	\$46.64	\$37.01	\$2.81	\$3.44	\$32.51	\$25.80	\$3.42	\$6.99	\$66.15	\$52.51		
2035	\$3.17	\$4.94	\$46.91	\$37.38	\$2.87	\$3.44	\$32.65	\$26.02	\$3.54	\$7.02	\$66.64	\$53.11		
2036	\$3.26	\$5.00	\$46.72	\$37.35	\$2.93	\$3.46	\$32.33	\$25.85	\$3.67	\$7.15	\$66.75	\$53.37		
2037	\$3.35	\$5.17	\$48.19	\$38.46	\$2.99	\$3.52	\$32.81	\$26.19	\$3.81	\$7.51	\$69.97	\$55.84		
2038	\$3.44	\$5.40	\$49.56	\$40.01	\$3.06	\$3.60	\$33.03	\$26.67	\$3.95	\$8.00	\$73.47	\$59.32		
2039	\$3.51	\$5.65	\$51.50	\$41.70	\$3.11	\$3.68	\$33.54	\$27.16	\$4.05	\$8.57	\$78.09	\$63.23		
2040	\$3.61	\$5.90	\$53.12	\$43.28	\$3.18	\$3.76	\$33.87	\$27.60	\$4.20	\$9.14	\$82.24	\$67.00		
2041	\$3.69	\$6.08	\$54.73	\$44.58	\$3.24	\$3.82	\$34.39	\$28.01	\$4.31	\$9.55	\$85.97	\$70.04		
2042	\$3.77	\$6.27	\$56.47	\$46.00	\$3.30	\$3.88	\$34.93	\$28.46	\$4.42	\$10.01	\$90.07	\$73.38		
2043	\$3.85	\$6.46	\$58.13	\$47.35	\$3.36	\$3.94	\$35.44	\$28.88	\$4.53	\$10.45	\$94.04	\$76.61		
2044	\$3.93	\$6.57	\$59.12	\$48.17	\$3.43	\$3.97	\$35.75	\$29.12	\$4.65	\$10.72	\$96.46	\$78.59		
2045	\$4.02	\$6.66	\$59.90	\$48.80	\$3.49	\$4.00	\$35.99	\$29.32	\$4.77	\$10.93	\$98.37	\$80.14		
2046	\$4.11	\$6.77	\$60.93	\$49.63	\$3.56	\$4.03	\$36.29	\$29.57	\$4.89	\$11.21	\$100.88	\$82.19		
2047	\$4.20	\$6.96	\$62.70	\$51.07	\$3.63	\$4.09	\$36.82	\$29.99	\$5.02	\$11.69	\$105.27	\$85.75		
2048	\$4.29	\$7.17	\$64.55	\$52.57	\$3.70	\$4.15	\$37.37	\$30.44	\$5.15	\$12.21	\$109.93	\$89.54		
2049	\$4.38	\$7.25	\$65.25	\$53.15	\$3.77	\$4.17	\$37.57	\$30.60	\$5.29	\$12.41	\$111.72	\$91.01		
2050	\$4.48	\$7.37	\$66.39	\$54.08	\$3.85	\$4.21	\$37.90	\$30.87	\$5.43	\$12.73	\$114.66	\$93.38		
2051	\$4.58	\$7.52	\$67.67	\$55.12	\$3.92	\$4.25	\$38.27	\$31.17	\$5.57	\$13.10	\$117.97	\$96.08		
2052	\$4.68	\$7.66	\$68.99	\$56.19	\$4.00	\$4.29	\$38.64	\$31.47	\$5.72	\$13.49	\$121.42	\$98.90		
2053	\$4.79	\$7.81	\$70.33	\$57.28	\$4.08	\$4.33	\$39.02	\$31.78	\$5.87	\$13.88	\$124.95	\$101.77		
2054	\$4.89	\$7.96	\$71.68	\$58.39	\$4.16	\$4.38	\$39.39	\$32.08	\$6.03	\$14.28	\$128.56	\$104.71		
2055	\$5.00	\$8.12	\$73.07	\$59.51	\$4.25	\$4.42	\$39.77	\$32.39	\$6.18	\$14.69	\$132.28	\$107.74		
2056	\$5.00	\$8.27	\$74.48	\$60.67	\$4.33	\$4.46	\$40.16	\$32.71	\$6.34	\$15.12	\$136.13	\$107.74		
	\$5.11						\$40.10				\$140.05	\$114.06		
2057	φο. ∠ T	\$8.43	\$75.92	\$61.83	\$4.41	\$4.50	⊅4∪.54	\$33.02	\$6.49	\$15.55	φ14U.U5	φ114.06		

^{*}Coal prices are delivered prices, while gas and market prices are hub prices.

J. Baseload Retirement "Leave Behind" Costs

Based on the MISO Y2 retirement studies performed on existing coal and nuclear resources, the Company developed transmission reinforcement or "leave behind" estimates, which reflect costs required to mitigate localized grid impacts of the retirement of major baseload resources. The reinforcement costs are included as a one-time charge based on the timing of the resource retirement.

Specifically, we have included the following proxy leave behind costs related to our baseload resource retirements as estimated from the MISO studies. We applied these costs in the modeling as soon as the resource is retired, over a three year period, to reflect the estimated local transmission reinforcement costs assumed to be required upon retirement. All numbers below are in real dollar terms (\$2020).

- King: \$48 million
- Sherco 3: \$48 million
- Monticello: \$96 million
- Prairie Island 1: \$96 million
- Prairie Island 2: \$96 million

K. Surplus Capacity Credit

The surplus capacity credit of up to 500 MW is applied for all twelve months of each year and is priced at the avoided capacity cost of a generic brownfield H-Class combustion turbine on an economic carrying charge basis.

Table 10: Surplus Capacity Credit

	Surplus Capacity Credit																			
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
\$/kw-mo	4.62	4.71	4.81	4.90	5.00	5.10	5.20	5.31	5.41	5.52	5.63	5.74	5.86	5.98	6.10	6.22	6.34	6.47	6.60	6.73
	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057
\$/kw-mo	6.87	7.00	7.14	7.29	7.43	7.58	7.73	7.89	8.04	8.20	8.37	8.54	8.71	8.88	9.06	9.24	9.42	9.61	9.80	10.00

L. Effective Load Carrying Capability (ELCC) Capacity Credit for Wind, Solar, and Battery Resources

The ELCC for existing wind units is based on current MISO accreditation. The ELCC for generic wind is equal to 15.6% of their nameplate rating per MISO 2017/2018 Wind Capacity Report. The ELCC for generic solar is 50% of the AC nameplate capacity. The ELCC for a generic 4-hour battery is equal to 100% of their AC equivalent capacity.

M. Spinning Reserve Requirement

Spinning reserve is the on-line reserve capacity that is synchronized to the grid to maintain system frequency stability during contingency events and unforeseen load swings. The level of spinning reserve modeled is 137 MW and is based on a 12 month rolling average of spinning reserves carried by the NSP System within MISO.

N. Emergency Energy

Emergency energy is \$500/MWh and is used to cover events where there are not enough resources available to meet system energy requirements.

O. Transmission Delivery Costs and Interconnection Costs

Transmission delivery costs for generic resources were developed by the Company. They are based on evaluation of recent and historical MISO studies and queue results. These costs represent "grid upgrades" to ensure deliverability of energy from these facilities to the overall bulk electric system.

We note additionally that interconnection costs for generic resources are included in the capital costs in Table 14 in Part U of this Appendix, and represent "behind the fence" costs associated with substation and representative gen-tie construction.

Table 11: Transmission Delivery Costs

Transmission Delivery Costs							
	CC CT Wind So						
\$/kw	500	200	400	140			

P. Integration and Congestion Costs

Integration costs are taken from studies conducted by Enernex and apply to new wind and solar resources only. Congestion costs were developed by the Company using the MISO MTEP 2018 models and looking at the average congestion costs between representative wind bus locations and NSP.NSP. Congestion costs are applied to new wind projects only.

Table 12: Integration and Congestion Costs

Integration	on and C	ongestio	n Costs (\$/MWh)
Vaar	Integ	ration	Cong	estion
Year	Wind	Solar	Wind	Solar
2018	0.00	0.00	0.00	0.00
2019	0.00	0.00	0.00	0.00
2020	0.41	0.41	3.43	0.00
2021	0.42	0.42	3.50	0.00
2022	0.43	0.43	3.57	0.00
2023	0.44	0.44	3.64	0.00
2024	0.45	0.45	3.71	0.00
2025	0.46	0.46	3.79	0.00
2026	0.47	0.47	3.86	0.00
2027	0.48	0.48	3.94	0.00
2028	0.49	0.49	4.02	0.00
2029	0.49	0.49	4.10	0.00
2030	0.50	0.50	4.18	0.00
2031	0.51	0.51	4.27	0.00
2032	0.53	0.53	4.35	0.00
2033	0.54	0.54	4.44	0.00
2034	0.55	0.55	4.53	0.00
2035	0.56	0.56	4.62	0.00
2036	0.57	0.57	4.71	0.00
2037	0.58	0.58	4.80	0.00
2038	0.59	0.59	4.90	0.00
2039	0.60	0.60	5.00	0.00
2040	0.62	0.62	5.10	0.00
2041	0.63	0.63	5.20	0.00
2042	0.64	0.64	5.30	0.00
2043	0.65	0.65	5.41	0.00
2044	0.67	0.67	5.52	0.00
2045	0.68	0.68	5.63	0.00
2046	0.69	0.69	5.74	0.00
2047	0.71	0.71	5.86	0.00
2048	0.72	0.72	5.97	0.00
2049	0.74	0.74	6.09	0.00
2050	0.75	0.75	6.22	0.00
2051	0.77	0.77	6.34	0.00
2052	0.78	0.78	6.47	0.00
2053	0.80	0.80	6.60	0.00
2054	0.81	0.81	6.73	0.00
2055	0.83	0.83	6.86	0.00
2056	0.84	0.84	7.00	0.00
2057	0.86	0.86	7.14	0.00

Q. Distributed Generation and Community Solar Gardens

The distributed solar inputs are based on the most recent Company forecasts. Annual additions are modeled assuming a degradation of half a percent annually in generation, and a 25-year service life. After a "vintage" of additions reach end of life, it is assumed 90% of the capacity is replaced at then-current costs. The Company expects a transition from Solar*Rewards to non-incentivized DG over time due to the end of statutory provisions.

Table 13: Distributed Solar Forecast

	Distributed	Solar (Na	meplate MW)
Year	Solar	Net	Community	Total
rear	Rewards	Metered	Gardens	Total
2018	29	18	246	293
2019	41	27	504	573
2020	49	37	641	727
2021	53	47	649	749
2022	56	58	657	771
2023	57	70	665	792
2024	57	83	673	813
2025	56	96	681	834
2026	56	109	689	854
2027	56	122	697	875
2028	55	135	705	895
2029	55	147	713	915
2030	55	160	720	935
2031	55	172	728	955
2032	54	185	736	975
2033	54	197	744	995
2034	51	212	751	1,014
2035	45	229	759	1,033
2036	39	247	766	1,052
2037	34	262	774	1,070
2038	27	280	781	1,088
2039	16	301	789	1,106
2040	8	319	796	1,123
2041	4	333	804	1,141
2042	0	346	808	1,154
2043	0	358	796	1,154
2044	0	368	781	1,149
2045	0	379	776	1,155
2046	0	389	783	1,171
2047	0	399	789	1,188
2048	0	409	795	1,205
2049	0	419	802	1,221
2050	0	429	808	1,237
2051	0	439	814	1,254
2052	0	449	821	1,270
2053	0	459	827	1,286
2054	0	469	833	1,302
2055	0	479	839	1,318
2056	0	488	845	1,334
2057	0	498	852	1,350

R. Owned Unit Modeled Operating Characteristics and Costs

Company owned units are modeled based upon their tested operating characteristics and projected costs. Below is a list of typical operating and cost inputs for each company owned resource.

- a. Retirement Date
- b. Maximum Capacity

- c. Current Unforced Capacity (UCAP) Ratings
- d. Minimum Capacity Rating
- e. Seasonal Deration
- f. Heat Rate Profiles
- g. Variable O&M
- h. Fixed O&M
- i. Maintenance Schedule
- j. Forced Outage Rate
- k. Emission rates for SO₂, NO_x, CO₂, Mercury and particulate matter (PM)
- 1. Contribution to spinning reserve
- m. Fuel prices
- n. Fuel delivery charges

S. Thermal Power Purchase Agreement (PPA) Operating Characteristics and Costs

PPAs are modeled based upon their tested operating characteristics and contracted costs. Below is a list of typical operating and cost inputs for each thermal PPA.

- a. Contract term
- b. Maximum Capacity
- c. Minimum Capacity Rating
- d. Seasonal Deration
- e. Heat Rate Profiles
- f. Energy Schedule
- g. Capacity Payments
- h. Energy Payments
- i. Maintenance Schedule
- j. Forced Outage Rate
- k. Emission rates for SO₂, NO_x, CO₂, Mercury and PM
- l. Contribution to spinning reserve
- m. Fuel prices
- n. Fuel delivery charges

T. Renewable Energy (PPAs and Owned) Operating Characteristics and Costs

PPAs are modeled based upon their tested operating characteristics and contracted costs. Company owned units are modeled based upon their tested operating characteristics and projected costs. Below is a list of typical operating and cost inputs for each renewable energy unit.

- a. Contract term
- b. Name Plate Capacity

- c. Accredited Capacity
- d. Annual Energy
- e. Hourly Patterns
- f. Capacity and Energy Payments
- g. Integration Costs

Wind hourly patterns are developed through a "Typical Wind Year" process where individual months are selected from the years 2014-2017 to develop a representative typical year. Actual generation data from the selected months is used to develop the profile for each wind farm. For farms where generation data is not complete or not available, data from nearby similar farms is used.

Solar hourly patterns are taken from the ELCC Study from Fall 2013 and updated to reflect the ELCC as stated above.

U. Generic Assumptions

Generic resources are modeled based upon their expected operating characteristics and projected costs. Generic thermal costs are developed by the Company. Generic battery costs are based on Public Service of Colorado All-Source Solicitation bids (Nov 28, 2017) with a 10% annual price improvement rate. Generic renewable costs and capacity factors are from National Renewable Energy Laboratory's 2018 Annual Technology Baseline data. Utility-scale wind and solar costs shown in Tables 16-18 include transmission costs from Table 10, while DG/distributed solar does not.

The Reference Case assumes "no going back" on renewables, meaning that we are committed to pursuing repowering and/or contract extension opportunities for renewable resources that will expire, and renewable resources are replaced "in-kind" when they reach end of life. Starting in 2023, generic solar is added to maintain at a minimum the 2015 IRP Preferred Plan solar levels. In 2023, there is approximately 1,800 GWhs of solar (both utility scale and DG solar) on the system which will grow to approximately 4,500 GWhs by 2028. The Company has already procured the levels of wind contemplated in the previous Resource Plan, so no minimum level of generic wind additions are needed. Additional renewables are included as Proview Alternatives.

In addition to base cost data for renewables, low and high costs are used for various sensitivities. Low and high wind and solar costs are based on the National Renewable Energy Laboratory's 2018 Annual Technology Baseline data. Low and high battery costs are based the percent difference in the NREL ATB low / high battery costs compared to the NREL ATB base costs, with this percent difference applied to the Company's base battery cost forecast. Below is a list of typical operating and cost inputs for each generic resource.

Thermal

- a. Retirement Date
- b. Maximum Capacity
- c. UCAP Ratings
- d. Minimum Capacity Rating
- e. Seasonal Deration
- f. Heat Rate Profiles
- g. Variable O&M
- h. Fixed O&M
- i. Maintenance Schedule
- j. Forced Outage Rate
- k. Emission rates for SO₂, NO_x, CO₂, Mercury and PM
- 1. Contribution to spinning reserve
- m. Fuel prices
- n. Fuel delivery charges

Renewable

- a. Contract term
- b. Name Plate Capacity
- c. Accredited Capacity
- d. Annual Energy
- e. Hourly Patterns
- f. Capacity and Energy Payments
- g. Integration Costs

Table 14: Thermal Generic Information (Costs in 2018 Dollars)

Thei	mal Generic	Information			
Resource	Sherco CC	Generic CC	Generic CT	Generic CT	Generic CT
Technology	7H	7H	7H	7F	7H
Location Type	Brownfield	Greenfield	Brownfield	Brownfield	Greenfield
Cooling Type	Wet	Dry	Dry	Dry	Dry
Book life	40	40	40	40	40
Nameplate Capacity (MW)	835	901	374	232	374
Summer Peak Capacity (MW)	750	856	331	206	331
Capital Cost (\$000) 2018\$	\$837,068	\$906,588	\$174,700	\$114,766	\$193,500
Electric Transmission Delivery (\$000) 2018\$	NA	\$410,505	NA	NA	\$74,804
Ongoing Capital Expenditures (\$000-yr) 2018\$	\$6,200	\$6,200	\$1,784	\$892	\$1,784
Gas Demand (\$000-yr) 2018\$	\$15,000	\$19,058	\$2,165	\$1,342	\$2,165
Gas Pipeline CIAC (\$000) 2018 \$	\$192,000	NA	NA	NA	NA
Capital Cost (\$/kW) 2018\$	\$1,002	\$1,006	\$467	\$495	\$517
Electric Transmission Delivery (\$/kW) 2018\$	NA	\$455	NA	NA	\$200
Ongoing Capital Expenditures (\$/kW-yr) 2018\$	\$7.42	\$6.88	\$4.77	\$3.85	\$4.77
Gas Demand (\$/kW-yr) 2018\$	\$17.96	\$21.14	\$5.79	\$5.79	\$5.79
Fixed O&M Cost (\$000/yr) 2018\$	\$6,592	\$6,592	\$1,253	\$1,203	\$1,253
Variable O&M Cost (\$/MWh) 2018\$	\$1.04	\$1.04	\$0.99	\$1.03	\$0.99
Levelized \$/kw-mo (All Fixed Costs) \$2018	\$14.46	\$16.19	\$5.96	\$6.27	\$8.14
Summer Heat Rate 100% Loading (btu/kWh)	6,359	6,848	9,264	10,025	9,264
Summer Heat Rate 75% Loading (btu/kWh)	6,547	6,874	9,738	10,581	9,738
Summer Heat Rate 50% Loading (btu/kWh)	6,985	7,334	11,120	12,515	11,120
Summer Heat Rate 25% Loading (btu/kWh)	8,004	8,404	11,558	13,430	11,558
Forced Outage Rate	3%	3%	3%	3%	3%
Maintenance (weeks/yr)	5	5	2	2	2
CO2 Emissions (lbs/MMBtu)	118	118	118	118	118
SO2 Emissions (lbs/MWh)	0.00	0.00	0.00	0.00	0.00
NOx Emissions (lbs/MWh)	0.05	0.05	0.90	0.32	0.90
PM10 Emissions (lbs/MWh)	0.02	0.02	0.03	0.03	0.03
Mercury Emissions (lbs/MMWh)	0.00	0.00	0.00	0.00	0.00

Table 15: Renewable Generic Information (Costs in 2018 Dollars)

Renewable Generic Information							
Resource	Wind	Utility Scale Solar	Distributed Solar Commercial	Distributed Solar Residential			
ELCC Capacity Credit (%)	15.6%	50.0%	50.0%	50.0%			
Capacity Factor	50.0%	17.7%	14.0%	14.8%			
Book life	25	25	25	25			
Electric Transmission Delivery (\$/kW)	400	140	0	0			

Table 16: Storage Generic Information (Costs in 2018 Dollars)

Storage Generic Information				
Resource	Battery			
Technology	Li Ion			
Location Type	NA			
Book life	40			
Nameplate Capacity (MW)	321			
Summer Peak Capacity (MW)	321			
Storage Volume (hrs)	4			
Cycle Efficiency (%)	88			
Equivalent Full Cycles per Year	156			
Electric Transmission Delivery (\$000) 2018\$	0			
Levelized \$/kw-mo (All Fixed Costs) \$2023	\$10.53			

Table 17: Levelized Capacity Costs by In-Service Year

	L	evelized Cap	oacity Costs k	y In-Ser	vice Yea	r (\$/kw-mo)		
COD	CT - 7H	CT - 7F	CT - 7H	СС	Sherco	Base	Low	High
COD	Greenfield	Brownfield	Brownfield	CC	CC	Battery	Battery	Battery
2018	\$8.14	\$6.27	\$5.96	\$16.19	\$14.46			
2019	\$8.31	\$6.40	\$6.08	\$16.51	\$14.75			
2020	\$8.47	\$6.53	\$6.20	\$16.84	\$15.04			
2021	\$8.64	\$6.66	\$6.33	\$17.18	\$15.35			
2022	\$8.81	\$6.79	\$6.46	\$17.52	\$15.65			
2023	\$8.99	\$6.93	\$6.58	\$17.88	\$15.97	\$10.53	\$8.03	\$13.71
2024	\$9.17	\$7.07	\$6.72	\$18.23	\$16.28	\$9.48	\$6.99	\$12.51
2025	\$9.35	\$7.21	\$6.85	\$18.60	\$16.61	\$8.91	\$6.35	\$11.92
2026	\$9.54	\$7.35	\$6.99	\$18.97	\$16.94	\$8.53	\$5.90	\$11.41
2027	\$9.73	\$7.50	\$7.13	\$19.35	\$17.28	\$8.24	\$5.53	\$11.04
2028	\$9.93	\$7.65	\$7.27	\$19.74	\$17.63	\$8.02	\$5.20	\$10.73
2029	\$10.13	\$7.80	\$7.41	\$20.13	\$17.98	\$7.83	\$4.92	\$10.49
2030	\$10.33	\$7.96	\$7.56	\$20.53	\$18.34	\$7.68	\$4.65	\$10.28
2031	\$10.53	\$8.12	\$7.71	\$20.94	\$18.71	\$7.54	\$4.51	\$10.19
2032	\$10.75	\$8.28	\$7.87	\$21.36	\$19.08	\$7.42	\$4.39	\$10.13
2033	\$10.96	\$8.44	\$8.03	\$21.79	\$19.46	\$7.31	\$4.27	\$10.08
2034	\$11.18	\$8.61	\$8.19	\$22.23	\$19.85	\$7.22	\$4.16	\$10.05
2035	\$11.40	\$8.79	\$8.35	\$22.67	\$20.25	\$7.13	\$4.05	\$10.02
2036	\$11.63	\$8.96	\$8.52	\$23.12	\$20.65	\$7.05	\$3.94	\$10.02
2037	\$11.86	\$9.14	\$8.69	\$23.59	\$21.07	\$6.98	\$3.83	\$10.03
2038	\$12.10	\$9.32	\$8.86	\$24.06	\$21.49	\$6.91	\$3.73	\$10.05
2039	\$12.34	\$9.51	\$9.04	\$24.54	\$21.92	\$6.85	\$3.63	\$10.07
2040	\$12.59	\$9.70	\$9.22	\$25.03	\$22.36	\$6.79	\$3.53	\$10.09
2041	\$12.84	\$9.89	\$9.40	\$25.53	\$22.80	\$6.73	\$3.44	\$10.11
2042	\$13.10	\$10.09	\$9.59	\$26.04	\$23.26	\$6.68	\$3.36	\$10.13
2043	\$13.36	\$10.29	\$9.78	\$26.56	\$23.72	\$6.63	\$3.28	\$10.15
2044	\$13.63	\$10.50	\$9.98	\$27.09	\$24.20	\$6.58	\$3.20	\$10.17
2045	\$13.90	\$10.71	\$10.18	\$27.63	\$24.68	\$6.54	\$3.12	\$10.20
2046	\$14.18	\$10.92	\$10.38	\$28.19	\$25.18	\$6.50	\$3.10	\$10.13
2047	\$14.46	\$11.14	\$10.59	\$28.75	\$25.68	\$6.46	\$3.09	\$10.07
2048	\$14.75	\$11.37	\$10.80	\$29.33	\$26.19	\$6.42	\$3.07	\$10.01
2049	\$15.05	\$11.59	\$11.02	\$29.91	\$26.72	\$6.38	\$3.06	\$9.96
2050	\$15.35	\$11.82	\$11.24	\$30.51	\$27.25	\$6.35	\$3.04	\$9.91
2051	\$15.65	\$12.06	\$11.46	\$31.12	\$27.80	\$6.31	\$3.03	\$9.85
2052	\$15.97	\$12.30	\$11.69	\$31.74	\$28.35	\$6.28	\$3.01	\$9.80
2053	\$16.29	\$12.55	\$11.93	\$32.38	\$28.92	\$6.25	\$3.00	\$9.76
2054	\$16.61	\$12.80	\$12.16	\$33.03	\$29.50	\$6.22	\$2.98	\$9.71
2055	\$16.94	\$13.06	\$12.41	\$33.69	\$30.09	\$6.19	\$2.97	\$9.66
2056	\$17.28	\$13.32	\$12.66	\$34.36	\$30.69	\$6.16	\$2.95	\$9.62
2057	\$17.63	\$13.58	\$12.91	\$35.05	\$31.30	\$6.13	\$2.94	\$9.58

Table 18: Base Renewable Levelized Costs by In-Service Year

	Levelize	d Costs by In-S	ervice Year \$/MWh	(LCOE)
COD	Wind	Utility Scale Solar	Distributed Solar Commercial	Distributed Solar Residential
2018		Colai	Commercial	Residential
2019				
2020	\$29.79	\$40.00	\$73.92	\$97.93
2021	\$29.65	\$40.00	\$71.77	\$91.35
2022	\$34.04	\$40.00	\$70.71	\$88.46
2023	\$38.61	\$49.48	\$69.59	\$87.04
2024	\$43.39	\$49.90	\$68.41	\$85.55
2025	\$52.15	\$50.32	\$67.18	\$83.98
2026	\$52.55	\$50.74	\$65.88	\$82.34
2027	\$52.98	\$51.17	\$64.53	\$80.63
2028	\$53.42	\$51.59	\$63.11	\$78.83
2029	\$53.89	\$52.01	\$61.62	\$76.95
2030	\$54.39	\$52.43	\$60.07	\$74.98
2031	\$54.95	\$53.10	\$60.66	\$75.15
2032	\$55.54	\$53.78	\$61.25	\$75.28
2033	\$56.16	\$54.47	\$61.84	\$75.40
2034	\$56.80	\$55.16	\$62.43	\$75.49
2035	\$57.47	\$55.86	\$63.02	\$75.56
2036	\$58.17	\$56.57	\$63.61	\$75.60
2037	\$58.91	\$57.28	\$64.20	\$75.61
2038	\$59.67	\$58.00	\$64.78	\$75.60
2039	\$60.47	\$58.72	\$65.37	\$75.56
2040	\$61.30	\$59.45	\$65.95	\$75.49
2041	\$62.17	\$60.13	\$66.88	\$76.33
2042	\$63.07	\$60.81	\$67.82	\$77.18
2043	\$64.01	\$61.50	\$68.77	\$78.04
2044	\$64.99	\$62.18	\$69.74	\$78.89
2045	\$66.01	\$62.87	\$70.71	\$79.76
2046	\$67.07	\$63.57	\$71.70	\$80.62
2047	\$68.17	\$64.27	\$72.70	\$81.49
2048	\$69.32	\$64.97	\$73.71	\$82.36
2049	\$70.52	\$65.68	\$74.73	\$83.24
2050	\$71.76	\$66.38	\$75.76	\$84.07
2051	\$73.20	\$67.71	\$77.28	\$85.75
2052	\$74.66	\$69.07	\$78.83	\$87.47
2053	\$76.16	\$70.45	\$80.40	\$89.22
2054	\$77.68	\$71.86	\$82.01	\$91.00
2055	\$79.23	\$73.29	\$83.65	\$92.82
2056	\$80.82	\$74.76	\$85.32	\$94.68
2057	\$82.43	\$76.25	\$87.03	\$96.57

^{*}Distributed Solar costs represent at the meter values before grossing up for losses.

Table 19: Low Renewable Levelized Costs by In-Service Year

	Low Levelized Costs by In-Service Year \$/MWh (LCOE)							
COD	Wind	Utility Scale	Distributed Solar	Distributed Solar				
COD	Willia	Solar	Commercial	Residential				
2018								
2019								
2020	\$25.51	\$35.18	\$56.57	\$94.61				
2021	\$24.43	\$35.18	\$51.50	\$85.46				
2022	\$27.80	\$35.18	\$50.18	\$81.18				
2023	\$31.28	\$43.52	\$48.81	\$78.32				
2024	\$34.89	\$43.21	\$47.40	\$75.38				
2025	\$42.41	\$42.88	\$45.95	\$72.34				
2026	\$41.50	\$42.54	\$44.44	\$69.21				
2027	\$40.53	\$42.17	\$42.89	\$65.98				
2028	\$39.52	\$41.79	\$41.28	\$62.65				
2029	\$38.00	\$41.39	\$39.63	\$59.22				
2030	\$37.80	\$40.97	\$37.93	\$55.69				
2031	\$37.66	\$41.28	\$37.65	\$53.91				
2032	\$38.06	\$41.58	\$37.35	\$52.04				
2033	\$38.48	\$41.88	\$37.03	\$50.07				
2034	\$38.90	\$42.28	\$36.68	\$48.02				
2035	\$39.34	\$42.25	\$36.30	\$45.87				
2036	\$39.80	\$42.39	\$35.90	\$43.62				
2037	\$40.26	\$42.52	\$35.47	\$41.27				
2038	\$40.75	\$42.64	\$35.01	\$38.81				
2039	\$41.24	\$42.75	\$34.52	\$36.25				
2040	\$41.75	\$42.85	\$33.99	\$33.57				
2041	\$42.27	\$43.27	\$34.47	\$34.11				
2042	\$42.80	\$43.39	\$34.95	\$34.64				
2043	\$43.35	\$43.37	\$35.44	\$35.19				
2044	\$43.92	\$43.33	\$35.94	\$35.75				
2045	\$44.50	\$44.15	\$36.44	\$36.31				
2046	\$45.09	\$43.34	\$36.95	\$36.88				
2047	\$45.70	\$43.39	\$37.46	\$37.46				
2048	\$46.32	\$43.42	\$37.98	\$38.05				
2049	\$46.96	\$43.44	\$38.50	\$38.65				
2050	\$47.62	\$43.97	\$39.04	\$39.22				
2051	\$48.57	\$44.85	\$39.82	\$40.00				
2052	\$49.54	\$45.74	\$40.61	\$40.80				
2053		\$46.66	\$41.43					
2044 2045 2046 2047 2048 2049 2050 2051 2052	\$43.92 \$44.50 \$45.09 \$45.70 \$46.32 \$46.96 \$47.62 \$48.57	\$43.33 \$44.15 \$43.34 \$43.39 \$43.42 \$43.44 \$43.97 \$44.85 \$45.74	\$35.94 \$36.44 \$36.95 \$37.46 \$37.98 \$38.50 \$39.04 \$39.82 \$40.61	\$35.75 \$36.31 \$36.88 \$37.46 \$38.05 \$38.65 \$39.22 \$40.00				

^{*}Distributed Solar costs represent at the meter values before grossing up for losses.

Table 20: High Renewable Levelized Costs by In-Service Year

	High Levelized Costs by In-Service Year \$/MWh (LCOE)								
COD	Wind	Utility Scale							
	· · · · · · · · · · · · · · · · · · ·	Solar	Commercial	Residential					
2018									
2019									
2020	\$34.70	\$50.52	\$88.96	\$124.70					
2021	\$35.40	\$50.52	\$91.58	\$127.20					
2022	\$40.61	\$50.52	\$93.41	\$128.14					
2023	\$46.03	\$62.48	\$95.28	\$130.70					
2024	\$51.64	\$63.73	\$97.19	\$133.32					
2025	\$61.25	\$65.01	\$99.13	\$135.98					
2026	\$62.49	\$66.31	\$101.11	\$138.70					
2027	\$63.76	\$67.63	\$103.14	\$141.48					
2028	\$65.06	\$68.99	\$105.20	\$144.30					
2029	\$66.38	\$70.37	\$107.30	\$147.19					
2030	\$67.72	\$71.77	\$109.45	\$150.13					
2031	\$69.10	\$73.21	\$111.64	\$153.14					
2032	\$70.50	\$74.67	\$113.87	\$156.20					
2033	\$71.93	\$76.17	\$116.15	\$159.32					
2034	\$73.39	\$77.69	\$118.47	\$162.51					
2035	\$74.88	\$79.24	\$120.84	\$165.76					
2036	\$76.39	\$80.83	\$123.26	\$169.08					
2037	\$77.94	\$82.45	\$125.72	\$172.46					
2038	\$79.52	\$84.09	\$128.24	\$175.91					
2039	\$81.13	\$85.78	\$130.80	\$179.42					
2040	\$82.77	\$87.49	\$133.42	\$183.01					
2041	\$84.45	\$89.24	\$136.09	\$186.67					
2042	\$86.16	\$91.03	\$138.81	\$190.41					
2043	\$87.90	\$92.85	\$141.58	\$194.21					
2044	\$89.68	\$94.70	\$144.42	\$198.10					
2045	\$91.49	\$96.60	\$147.30	\$202.06					
2046	\$93.34	\$98.53	\$150.25	\$206.10					
2047	\$95.23	\$100.50	\$153.25	\$210.22					
2048	\$97.15	\$102.51	\$156.32	\$214.43					
2049	\$99.12	\$104.56	\$159.45	\$218.72					
2050	\$101.12	\$106.65	\$162.63	\$223.09					
2051	\$103.14	\$108.79	\$165.89	\$227.55					
2052	\$105.21	\$110.96	\$169.21	\$232.10					
2053	\$107.31	\$113.18	\$172.59	\$236.75					
2054	\$109.46	\$115.44	\$176.04	\$241.48					
2055	\$111.65	\$117.75	\$179.56	\$246.31					
2056	\$113.88	\$120.11	\$183.15	\$251.24					
2057	\$116.16	\$122.51	\$186.82	\$256.26					

CERTIFICATE OF SERVICE

•	veet, hereby certify that I have this day served copies of the foregoing the attached list of persons.
V	by depositing a true and correct copy thereof, properly enveloped with postage paid in the United States mail at Minneapolis, Minnesota
<u>xx</u> e	lectronic filing
Xcel Energy	Miscellaneous Electric
Docket No. I	E002/M-05-1934
Dated this 30t	h day of August 2019
/s/	

Lynnette Sweet Regulatory Administrator

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
David	Aafedt	daafedt@winthrop.com	Winthrop & Weinstine, P.A.	Suite 3500, 225 South Sixth Street Minneapolis, MN 554024629	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Christopher	Anderson	canderson@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022191	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
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Joseph	Meyer	joseph.meyer@ag.state.mn .us	Office of the Attorney General-RUD	Bremer Tower, Suite 1400 445 Minnesota Street St Paul, MN 55101-2131	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Thomas	Tynes	jjazynka@energyfreedomc oalition.com	Energy Freedom Coalition of America	101 Constitution Ave NW Ste 525 East Washington, DC 20001	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
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Joseph	Windler	jwindler@winthrop.com	Winthrop & Weinstine	225 South Sixth Street, Suite 3500 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 551012147	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Patrick	Zomer	Patrick.Zomer@lawmoss.c om	Moss & Barnett a Professional Association	150 S. 5th Street, #1200 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.st ate.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1800	Electronic Service	No	OFF_SL_05-1934_1
				St. Paul, MN 55101			
Sharon	Ferguson	sharon.ferguson@state.mn	Department of Commerce	85 7th Place E Ste 280	Electronic Service	Yes	OFF_SL_05-1934_1
				Saint Paul, MN 551012198			
Generic Notice	Residential Utilities Division	residential.utilities@ag.stat e.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	No	OFF_SL_05-1934_1
Lynnette	Sweet	Regulatory.records@xcele nergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	OFF_SL_05-1934_1
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 551012147	Electronic Service	Yes	OFF_SL_05-1934_1