STOEL RIVES LLP
ATTORNEYS AT LAW

33 South Sixth Street, Suite 4200
Minneapolis, Minnesota 55402
main 612.373.8800
fax 612.373.8881
www.stoel.com

April 26, 2013

SARAH JOHNSON PHILLIPS
Direct (612) 373-8843
Facsimile (612) 373-8881
sjphillips@stoel.com

VIA ELECTRONIC FILING

Dr. Burl Haar
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place E., Ste. 350
St. Paul, MN 55101

Re: In the Matter of the Application of Stoneray Power Partners, LLC for a Certificate of Need for a 105 MW Wind Project in Pipestone and Murray Counties, Minnesota, PUC Docket No. IP-6646/CN-13-193

Dear Dr. Haar:

Enclosed are the **Public** and **Non-Public Trade Secret** versions of the Certificate of Need ("CON") application for Stoneray Power Partners, LLC's planned wind energy project in Pipestone and Murray Counties, Minnesota. With this CON application, Stoneray Power Partners, LLC ("Stoneray") requests authorization to build an up to 105 MW Large Wind Energy Conversion System ("LWECS") and associated facilities. This application is being submitted via the Minnesota Public Utility Commission's e-filing system by Stoel Rives LLP on behalf of Stoneray. On March 15, 2013, EDF Renewable Energy, Stoneray's parent company, filed a request for exemptions from certain data requirements in Chapter 7849 of the Minnesota Rules and a variance of the 45-day waiting period between requesting exemptions and filing a CON application. The Commission granted the exemptions and variance on April 25, 2013. Therefore, this CON application does not include data for which exemptions were granted.

Discrete parts of this CON application include proprietary information that, due to its commercially sensitive nature, has been designated as **Trade Secrets** pursuant to Minn. Stat. § 13.37, subd. 1(b). For this reason, Stoneray is filing both Public and Non-Public Trade Secret versions of this CON application. Disclosure of such proprietary information, which includes cost data, would be economically harmful to Stoneray. The Trade Secret information is properly designated because it (1) is supplied by Stoneray, (2) is the subject of reasonable efforts by Stoneray under the circumstances to maintain its secrecy, and (3) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use.

Stoneray requests that processing this CON application be combined to the extent possible with the associated LWECS Site Permit Application, which Stoneray anticipates submitting soon under Docket No. IP-6646/WS-13-216. In addition, Stoneray is requesting that the Commission review this application

on an expedited basis. As is further explained in the application, the federal Production Tax Credit ("PTC") is available for wind energy projects that begin construction before January 1, 2014. It is Stoneray's goal to obtain a CON and an LWECS Site Permit in time for the project to qualify for the PTC.

Sincerely,

STOEL RIVES LLP

/s/ Sarah Johnson Phillips

Sarah Johnson Phillips

Attachments

STATE OF MINNESOTA
BEFORE THE
PUBLIC UTILITIES COMMISSION

Beverly Jones Heydinger	Chair
David C. Boyd	Commissioner
J. Dennis O'Brien	Commissioner
Nancy Lange	Commissioner
Betsy Wergin	Commissioner

In the Matter of the Application of EDF Renewable Energy for a Certificate of Need for a 105 MW Wind Project in Pipestone and Murray Counties, Minnesota.

MN PUC Docket No. IP-6646/CN-13-193

SUMMARY OF FILING

Stoneray Power Partners, LLC, a Delaware limited liability company ("Stoneray"), is proposing to construct a wind project in Pipestone and Murray Counties, Minnesota, with an expected nameplate capacity of up to 105 MW (the "Project"). The Project will be located in Pipestone and Murray Counties near the community of Woodstock. The Project footprint is approximately 40,900 acres, with the majority of the Project located in Rock and Burke Townships in Pipestone County and portions of the Project in Chanarambie and Cameron Townships in Murray County. With this filing, Stoneray is requesting that the Minnesota Public Utilities Commission authorize construction of the Project, which is a Large Energy Facility as defined in Minn. Stat. § 216B.2421, subd. 2(1), by granting it a Certificate of Need pursuant to Minn. Stat. § 216B.243, subd. 2. The Project is intended to provide Minnesota and the surrounding region with renewable energy eligible to satisfy renewable energy requirements in Minnesota and surrounding states. Stoneray expects to begin construction before January 1, 2014 for purposes of qualifying for the federal Production Tax Credit with a commercial operation date in the fourth quarter of 2014.

APPLICATION FOR CERTIFICATE OF NEED

STONERAY POWER PARTNERS, LLC

PIPESTONE AND MURRAY COUNTIES, MINNESOTA

Docket No. IP-6646/CN-13-193

April 26, 2013

Prepared by: Stoel Rives LLP

Sarah Johnson Phillips (#0390166)
Sara Bergan (#0391994)
33 South Sixth Street, Suite 4200
Minneapolis, MN 55402

TABLE OF CONTENTS

Page

TABLE OF CONTENTS
(continued)

Page

TABLE OF CONTENTS
(continued)

Page

TABLE OF CONTENTS

Page

LIST OF TABLES

LIST OF FIGURES

Table 1: LEGF Certificate of Need Rule Cross-Reference

Minnesota Rule	Required Information	Applicability/ Location in the Document	Exemption Granted
7849.0120	Criteria – Probable result of denial would be an adverse effect upon the future adequacy, reliability, or efficiency of energy supply to applicant, customers, people of MN, and neighboring states	Section 2.2.1	Yes (partial)
7849.0120	Criteria – A more reasonable and prudent alternative has not been demonstrated	Sections 2.2.2 & 3.2.4	--
B1	Appropriate size, type, and timing compared to reasonable alternatives	Sections 2.2.2(a), 2.2.2(b), 2.2.2(c), & 3.2.4	No
B2	Cost of the facility and its energy compared to reasonable alternatives	Sections 2.2.2(e) & 3.2.4	No
B3	Effect of the facility on natural and socioeconomic environments compared to the effects of reasonable alternatives	Sections 2.2.2(f) & 3.2.4	No
B4	Expected reliability compared to reasonable alternatives	Sections 2.2.2(d) & 3.2.4	No
7849.0120	Criteria – Project will provide benefits to society	Section 2.2.3	--
C1	Relationship of the proposed facility or suitable modification to overall state energy needs	Section 2.2.3(a)	No
C2	Effects of the facility on natural and socioeconomic environments compared to the effects of not building	Section 2.2.3(b)	No
C3	Effects of the facility or suitable modification in inducing future development	Section 2.2.3(c)	No
C4	Social beneficial uses of the output of the facility, or suitable modification, including its uses to protect or enhance environmental quality	Section 2.2.3(d)	No
7849.0120 D	Criteria – Proposed facility or suitable modification will not fail to comply with relevant policies, rules, and regulations of other state, federal, and local government agencies	Sections 5 & 2.2.4	No
7849.0210	Filing Fees and Payment Schedule	Section 1.1.2	No
7849.0240	Need Summary and Additional Considerations		
Subpart 1	Need Summary – Summary of major factors justifying need for the facility	Section 2	No
Subpart 2 A	Additional Considerations – Socially beneficial uses of the output of the facility, including to protect or enhance environmental quality	Section 2.3.1	No
Subpart 2 B	Additional Considerations – Promotional activities that may have given rise to the demand for the facility	Section 2.3.2	Yes
Subpart 2 C	Additional Considerations – Effects of the facility in inducing future developments	Section 2.3.3	Yes
7849.0250	Description of Proposed LEGF and Alternatives	Section 3	--
A1	Description – Nominal generating capability and	Section 3.1.1	No

Minnesota Rule	Required Information	Applicability/ Location in the Document	Exemption Granted
	effects of economies of scale on the facility size and timing		
A2	Description – Anticipated operating cycle and annual capacity factor	Section 3.1.2	No
A3	Description – Type of fuel, reason for selection, projection of availability over life of the facility, and alternative fuels	Section 3.1.3	No
A4	Description – Anticipated heat rate of the facility	Section 3.1.4	No
A5	Description – Anticipated areas where the facility will be located	Section 3.1.5	No
B1	Discussion of Alternatives – Purchased power	Section 3.2.2(a)	Yes
B2	Discussion of Alternatives – Increased efficiency of existing facilities including transmission lines	Section 3.2.2(b)	Yes
B3	Discussion of Alternatives – New transmission lines	Section 3.2.2(c)	Yes
B4	Discussion of Alternatives – New generating facilities of a different size and energy source	Sections 3.2.2(d), 3.2.2(e), 3.2.2(f), 3.2.2(g), &3.2.2(h)	Yes (partial)
B5	Discussion of Alternatives – Reasonable combinations of alternatives	Section 3.2.2(i)	Yes (partial)
C	Proposed Facility and Alternatives	Sections 3.3,3.2.3, & 3.2.4	Yes (partial)
C1	Capacity cost in current dollars/kilowatt	Section 3.3.1	Yes (partial)
C2	Service life	Section 3.3.2	Yes (partial)
C3	Estimated average annual availability	Section 3.3.3	Yes (partial)
C4	Fuel costs in current dollars/kilowatt hour	Section 3.3.4	Yes (partial)
C5	Variable operating and maintenance costs in current dollars/kilowatt hour	Section 3.3.5	Yes (partial)
C6	Total cost in current dollars/kilowatt hour	Section 3.3.6	Yes (partial)
C7	Effect on rates systemwide and in MN	Section 3.3.7	Yes (partial)
C8	Efficiency – Expressed for a generating facility as the estimated heat rate	Section 3.3.8	Yes (partial)
C9	Major assumptions for providing information relating to Items 1-8 rates for fuel costs, operating and maintenance costs as well as projected capacity factors	Section 3.3.9	Yes (partial)
D	Map Showing Applicant's System	Section 3.4 Figures 1 & 2	Yes (partial)
E	Other Information – Relevant information about the proposed facility and alternatives necessary to determine need	Sections 2 & 3	--

Minnesota Rule	Required Information	Applicability/ Location in the Document	Exemption Granted
7849.0270	Peak Demand and Electrical Consumption Forecast	Section 6	Yes (partial)
7849.0280	System Capacity	Section 7	Yes (partial)
7849.0290	Conservation Programs	Section 8	Yes
7849.0300	Consequences of Delay – Discuss anticipated consequences if proposed facility is delayed	Section 9	Yes (partial)
7849.0310	Environmental Information – Provide environmental data in response to part 7849.0250, Item C or 7849.0260, Item C and information as requested in parts 7849.0320 to 7849.0340	Section 4	No
7849.0320	Generating Facilities	Section 4.2	No
A	The estimated range of land requirements, including water storage, cooling systems, and solid waste storage	Section 4.2.1	No
B	Estimated vehicular, rail, and barge traffic generated by construction and operation of the LEGF	Section 4.2.2	No
C	Fossil-Fueled Facilities – Fuel	Section 4.2.3(a)	No
D	Fossil-Fueled Facilities – Emissions	Section 4.2.3(b)	No
E	Water Use for Alternate Cooling Systems	Section 4.2.4	No
F	Potential sources and types of discharges to water	Section 4.2.5	No
G	Radioactive Releases	Section 4.2.6	No
H	Potential types and quantities of solid wastes in tons/year	Section 4.2.7	No
I	Potential sources and types of audible noise generated	Section 4.2.8	No
J	Estimated work force required for construction and operation	Section 4.2.9	No
K	Minimum number and size of transmission facilities required to provide a reliable outlet	Section 4.2.10	No
7849.0330	Transmission Facilities	Section 4.3	Yes
7849.0340	Alternative of No Facility	Section 3.2.2(d)	Yes (partial)

1. INTRODUCTION AND EXECUTIVE SUMMARY

Stoneray Power Partners, LLC ("Stoneray") submits this application for a Certificate of Need ("CON") from the Minnesota Public Utilities Commission ("MPUC" or the "Commission") for a 105 MW wind energy project (the "Project") pursuant to Minn. Stat. § 216B.243 and Chapter 7849 of the Minnesota Rules. Stoneray respectfully requests that the Commission issue a CON for the Project.

1.1 Introduction

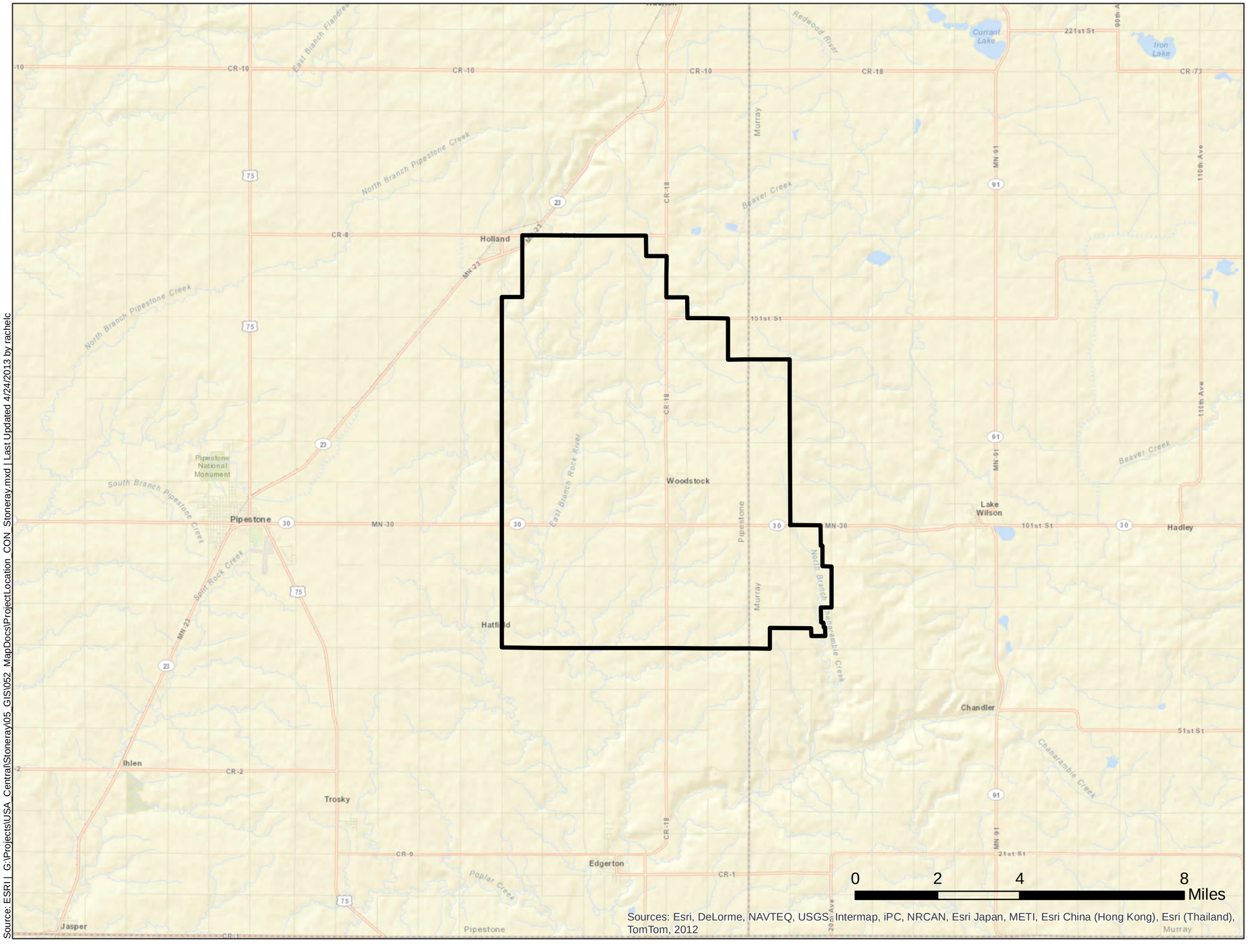
Stoneray intends to construct and operate a Large Wind Energy Conversion System ("LWECS") in southwestern Minnesota with a nameplate capacity of up to 105 MW. The Project is a Large Energy Facility as defined in Minn. Stat. § 216B.2421, subd. 2(1) and therefore requires a CON and a LWECS site permit under Minnesota law. Stoneray, a Delaware limited liability company, is a wholly-owned subsidiary of EDF Renewable Development, Inc. ("EDF-RE"). EDF-RE was formerly enXco, Inc. and is the U.S. subsidiary of EDF Energies Nouvelles, a company registered in France. EDF-RE initiated this docket on behalf of Stoneray by filing an exemption request for certain data requirements. Stoneray is the applicant for a CON for the Project in this docket and the LWECS site permit in Docket No. IP-6646-13-216.

The Project will be located in southwestern Minnesota in Pipestone and Murray Counties near the community of Woodstock. The majority of the Project will be located in Rock and Burke Townships in Pipestone County and portions of the Project in Chanarambie and Cameron Townships in Murray County. The landscape is rural with limited development or housing, and the Project will be situated on agricultural land. Approximately 11,350 acres of land within the Project's footprint are currently under agreement, which is approximately 80% of the land required to support the Project for turbines, access roads, and interconnection facilities. Stoneray is currently working to secure the remaining agreements. Stoneray anticipates constructing approximately 50 to 55 wind turbines with a maximum total nameplate net capacity of 105 MW. Stoneray has not made a final wind turbine selection, but currently considers the Vestas V-100 2.0 MW model to be a likely choice.

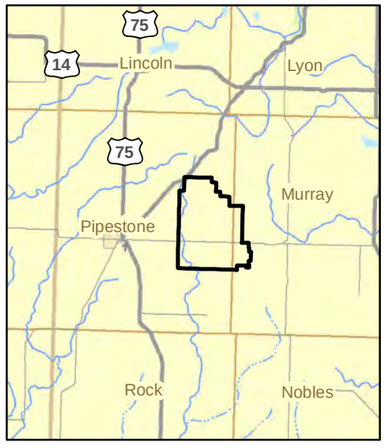
The electricity generated by the Project will be offered for sale to wholesale customers, including Minnesota utilities that forecast a need for additional renewable energy to comply with the Minnesota Renewable Energy Standard ("RES") or other renewable requirements. Power will run from each turbine through underground 34.5 kV collector lines to the Project substation. 34.5 kV lines will be constructed to connect the Project substation to Xcel Energy's Chanarambie Substation. Stoneray has completed all necessary interconnection and transmission studies and has a completed amended and restated Large

Generator Interconnection Agreement ("LGIA") with Northern States Power Company and the Midwest Independent System Operator (MISO GIA #G491). Further, Stoneray has made payments for the next phase of interconnection upgrades, with upgrades expected to be complete by December 31, 2014. Stoneray anticipates completing construction on the Project no later than the fourth quarter of 2014 based on construction deadlines in the LGIA and in order to take advantage of the scheduled expiration of the federal Production Tax Credit ("PTC") on January 1, 2014. To qualify for the PTC, the Project must begin construction before January 1, 2014. The IRS recently clarified that "beginning construction" for purposes of qualifying for the PTC means (1) beginning physical work of a significant nature or (2) qualifying for a safe harbor by paying or incurring 5% or more of the total cost of the facility and thereafter making continuous efforts to advance toward completion.

Figure 1: Project Vicinity Map



Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2012



Stoneray Project Boundary

edf renewable energy

PROJECT VICINITY MAP

Stoneray Wind Project
Pipestone and Murray Counties, Minnesota

Source: ESRI | G:\Projects\USA_Central\Stoneray\05_GIS\052_MapDocs\ProjectLocation_CON_Stoneray.mxd | Last Updated 4/24/2013 by rachelc

Figure 2: Project Area and Facilities Map

Source: ESRI, Ventyx, DNR | G:\Projects\USA_Central\Stoneray\05_GIS\052_MapDocs\ProjectLayout_CON_Stoneray.mxd | Last Updated 4/24/2013 by rachelc

Chanarambie Substation
Point of Interconnection

Holland
Woodstock
Hatfield

0 1 2 4 Miles

Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2012

- Proposed Turbine Location
- Chanarambie Substation
- Streams
- Existing Transmission
- Stoneray Project Boundary

edf renewable energy

PRELIMINARY TURBINE LAYOUT

Stoneray Wind Project
Pipestone and Murray Counties, Minnesota

1.1.1 Project Contacts

Melissa Peterson,
Senior Developer
EDF Renewable Energy
10 Second Street NE, Suite 400
Minneapolis, MN 55413
612.486.4510
Melissa.Peterson@edf-re.com

Sarah Johnson Phillips
Stoel Rives LLP
33 S 6th St., Suite 4200
Minneapolis, MN 55402
612.373.8843
sjphillips@stoel.com

Sara Bergan
Stoel Rives LLP
33 S 6th St., Suite 4200
Minneapolis, MN 55402
612.373.8819
sebergan@stoel.com

1.1.2 Filing Fees and Payment Schedule (Minn. R. 7849.0210)

The total fee for the CON application is $15,250.00 and will be paid according to the schedule provided in Minn. R. 7849.0210, subp. 2 and shown in Table 2. The total amount is calculated based on a Project capacity of 105 MW and the formula provided in Minn. R. 7849.0210, subp. 1. A check in the amount of $3,812.50 is being delivered separately via courier.

Table 2: Fee Calculation

Fee Calculation	Amount
Fee calculation equation	$10,000 + $50/MW
Due with CON Application	$ 3,812.50
Due 45 days after Application submittal date	$ 3,812.50
Due 90 days after Application submittal date	$ 3,812.50
Due 135 days after Application submittal date	$ 3,812.50
Total calculated fees	$ 15,250.00

1.1.3 Exemption and Variance Requests

CON applications must include information as described in Minnesota Rules Chapter 7849. An applicant may request to be exempted from providing certain data by making the exemption request in writing showing that the requirement is either unnecessary to determine the need for the proposed facility or may be satisfied by submitting another document. Minn. R. 7849.0200, subp. 6. On March 15, 2013, EDF-RE, acting on behalf of its subsidiary Stoneray, submitted a request for exemptions from certain requirements for data specific to the operation and regulation of utilities that are not applicable to an independent power producer. Many of these data requirements relate to a utility's "system," which is defined as the "service area where the utility's ultimate consumers are located and that combination of generating, transmission, and distribution facilities that makes up the operating physical plant of the utility, whether owned or nonowned, for the delivery of electrical energy to ultimate consumers." Minn. R. 7849.0010, subp. 29. An independent power producer like Stoneray does not have a service area or a "system," which makes information requests about Stoneray's system inapplicable.

The Project will provide renewable energy intended to be purchased by electric utilities to satisfy Minnesota's RES under Minn. Stat. § 216B.1691 and similar laws in other states. Stoneray intends to offer wind-generated electricity on the wholesale market that will help utilities meet renewable energy requirements. Because the Project is intended to help satisfy the RES, Stoneray requested exemptions from information requirements related to alternatives that would not satisfy the RES. Information requirements for which exemptions have been granted are not included in this application.

1.2 Wind Power Development in Minnesota and Surrounding Region

As an independent power producer, Stoneray will offer power for sale to wholesale customers (such as investor-owned utilities and electric cooperatives) that have a need for renewable energy.

Minnesota is home to strong wind energy resources and strong policies in support of renewable energy. Of the windy land areas[1] that are potentially available for development, the National Renewable Energy Laboratory estimates that Minnesota has a total wind energy potential of 489,271 MW.[2] As of January 1, 2013, Minnesota had a total of 2,986 MW of installed wind energy capacity.[3] Minnesota has tapped into only a small fraction of its own capacity and has recently fallen into seventh place among states in total installed capacity.[4]

The Minnesota Legislature began encouraging renewable energy development in the early 1990s when it directed Xcel Energy (then Northern States Power) to acquire 425 MW[5] of wind power and to put roughly $8.5 million (now closer to $20 million) per year toward renewable energy development.[6] The Minnesota Legislature first adopted a Renewable Energy Objective in 2001, directing electric utilities to make a good-faith effort to have 10% of retail electric sales come from renewable resources by 2015.[7] In

[1] Defined as those with a gross capacity factor (without losses) of 30% or greater at 80 meter hub height.

[2] Wind Powering America, 80-Meter Wind Maps and Wind Resource Potential, *available at* http://www.windpoweringamerica.gov/wind_maps.asp#us (last visited Apr. 25, 2013).

[3] American Wind Energy Association, U.S. Wind Industry Fourth Quarter 2012 Market Report, *available at* http://www.awea.org/learnabout/publications/reports/upload/AWEA-Fourth-Quarter-Wind-Energy-Industry-Market-Report_Executive-Summary-4.pdf (last visited Apr. 25, 2013).

[4] *Id.*

[5] Minn. Stat. § 216B.2423. In 1999 another 400 MW was added to the Xcel requirement, creating a total of 825 MW of required wind capacity.

[6] Minn. Stat. § 116C.779.

[7] Minnesota Department of Commerce, The Next Generation: Renewable Energy Objective, *available at* http://www.state.mn.us/mn/externalDocs/Commerce/The_Next_Generation_Renewable_Energy_Objective_2007_012207111157_REO%20Report2007.pdf (last visited Apr. 25, 2013).

2007, the Legislature enacted the current standard, which sets a 25% by 2025 requirement for most Minnesota utilities and a 30% by 2020 requirement for Xcel Energy.[8]

Several other Midwestern states also established renewable electricity targets, including Illinois, Iowa, Michigan, North Dakota, South Dakota, and Wisconsin. In order to facilitate compliance with state renewable standards, the Minnesota Legislature and surrounding states authorized the use of tradable renewable energy certificates ("RECs"),[9] or more specifically the retirement of RECs, to demonstrate annual compliance with state policies.[10] The Midwest Renewable Energy Tracking System tracks REC generation and retirement for compliance purposes for participating states in the region, which include all of the above-mentioned states except Michigan, which has created its own system. The flexibility provided by RECs to utilities for meeting the various standards contributes to creating a robust market for independent wind energy generation and the associated RECs into the foreseeable future.

2. NEED SUMMARY (MINN. R. 7849.0120 AND MINN. R. 7849.0240)

2.1 Certificate of Need Criteria (Minn. R. 7849.0120)

The Commission established the criteria used to assess the need for large electric generating facilities in Minnesota Rules 7849.0120. The Commission must grant a certificate of need to an applicant upon determining that:

> A. the probable result of denial would be an adverse effect upon the future adequacy, reliability, or efficiency of energy supply to the applicant, to the applicant's customers, or to the people of Minnesota and neighboring states . . . [;]
>
> . . . .
>
> B. a more reasonable and prudent alternative to the proposed facility has not been demonstrated by a preponderance of the evidence in the record . . . [;]
>
> . . . .
>
> C. by a preponderance of the evidence on the record, the proposed facility, or a suitable modification of the facility, will provide benefits to society in a manner compatible with protecting

[8] Minn. Stat. § 216B.1691.

[9] Wisconsin refers to them as Renewable Resource Credits or RRCs.

[10] Minn. Stat. § 216B.1691, subd. 4(b).

the natural and socioeconomic environments, including human health . . . [; and]

. . . .

D. the record does not demonstrate that the design, construction, or operation of the proposed facility, or a suitable modification of the facility, will fail to comply with relevant policies, rules, and regulations of other state and federal agencies and local governments.[11]

2.2 The Project Satisfies the Four-Part Need Test (Minn. R. 7849.0120)

The Project satisfies all four of the Commission's criteria for granting certification to the Project for the reasons described in this Section 2.2.

2.2.1 The Probable Result of Denial of Stoneray's Application Would Be an Adverse Effect on the Adequacy, Reliability, and Efficiency of the Regional Energy Supply

The Project will provide up to 105 MW of nameplate capacity of wind-generated electricity to meet the renewable electricity needs of Minnesota and the surrounding region. The Project's output will be available for purchase on the wholesale market by utilities. Denying this application would result in the loss of a significant amount of low-cost renewable electricity needed to satisfy growing state and regional demand for electricity, as well as to satisfy state renewable energy requirements now and in the future. Further, it would forego an opportunity to add a zero-carbon generation technology to Minnesota's energy mix in keeping with the state's long-term plans to reduce greenhouse gas emissions.[12] If the Commission grants a CON to the Project, Stoneray will be in the wholesale energy market for contracts with utilities, providing an incentive to keep the Project's costs low and select the appropriate size, type, and timing for the Project.

(a) Increasing Demand for Electricity.

Despite the recent economic recession, state and federal agencies continue to predict steady growth in demand for electricity. At the national level, the Energy Information Administration's ("EIA") Annual Energy Outlook 2013 predicts steady long-term growth in electricity demand at an average annual

[11] Minn. R. 7849.0120.

[12] *See* Minn. Stat. § 216H.02.

rate of 0.9% for its reference case scenario.[13] This number has recently been adjusted downward slightly from earlier projections of 1.0% growth over the period.[14] The North American Electric Reliability Corporation recently projected total internal peak demand to grow at a higher annual rate of 1.3% nationally.[15] At the Midwest regional level, total internal peak demand growth was closer to 1.4% annually.[16]

At the state level, the Minnesota Office of Energy Security (now Division of Energy Resources) noted in 2009 as part of its long-term resource assessment for the state: "Economies tend to operate in cycles fluctuating between period[s] of strong economic growth and periods of recession," but resource planning must continue to survey long-term periods because of the long-term planning horizons associated with planning, permitting, and constructing energy facilities.[17] At the time the Minnesota Resource Assessment Study was completed in 2009, its authors concluded that electricity demand would continue to grow well into the future.[18] The state data certainly strongly supported that conclusion given that from 2001 through 2008, total consumption of electricity in Minnesota grew at an average annual rate of 1.8% per year with a peak of 4.2% in 2005 and a low point of 0.4% in 2004.[19]

Similarly in 2008, the Quadrennial Report authors – who are by statute directed to identify major emerging trends and issues in energy supply, consumption, conservation, and costs – concluded that because there is "not enough excess generating capacity available to meet this increase in demand, new generation and transmission facilities will be needed in the near future to serve the electric needs and the reliability of the regional electricity transmission – both state and region."[20] Notably the report concluded

---

[13] U.S. Energy Information Administration, Annual Energy Outlook 2013 Early Release Overview, at 11 (2013), *available at* http://www.eia.gov/forecasts/aeo/er/pdf/0383er%282013%29.pdf.

[14] Annual Energy Outlook 2011,U.S. Energy Information Administration, at 73 (2011), *available at* http://www.eia.gov/forecasts/aeo/pdf/0383(2011).pdf.

[15] North American Electric Reliability Corporation, 2010 Long-Term Reliability Assessment, at 5-6 (Oct. 2010), *available at* http://www.nerc.com/files/2010_LTRA_v2-.pdf.

[16] *Id.* at 80 (projection includes Midwest Reliability Organization footprint).

[17] Minnesota Office of Energy Security, Minnesota Resource Assessment Study, at 3 (Oct. 23, 2009), *available at* http://www.state.mn.us/mn/externalDocs/Commerce/Minnesota_Resource_Assessment_Supplement_012910035648_MN_Resource_Assessment2.pdf.

[18] *Id.*

[19] Minnesota Department of Commerce, Electricity Consumption by Customer Sector (2001-2011).

[20] Minnesota Office of Energy Security, Energy Policy and Conservation Report, at 7-8 (2008) ("2008 Quad Report"), *available at* http://www.state.mn.us/mn/externalDocs/Commerce/Quadrennial_Report__2008_091509012935_2008-QuadReport.pdf.

that even in light of the state's Energy Conservation Policy Goal, demand for electricity in Minnesota will outstrip the contribution of conservation toward balancing supply and demand in the state in a cost-effective manner.[21]

Unfortunately at the time of this filing, the 2012 Quadrennial Report has not yet been published, and the interim years coinciding with the recession have been considerably more volatile (ranging from a 7.0% contraction in 2009 to a nearly 6.0% increase the following year).[22] Future projections for Minnesota are likely to be heavily dependent on assumptions about the underlying economy and, accordingly, subject to different points of view.

Uncertainty about load growth projections has featured prominently in utility resource planning processes with individual utilities and regulators spending considerable resources trying to make accurate projections. The most recent resource planning effort by Xcel Energy included disagreement among various parties about load growth assumptions. The utility started the process in 2010 assuming 1.1% annual growth in peak energy demand and adjusted it downward to 0.7% growth in 2011. The projected base demand growth was also adjusted downward from 0.9% per year when the process began to 0.5% in 2011.[23] Minnesota Power anticipates considerable load growth in the short term (4% per year) due to an expansion of its industrial base but then a more modest 0.7% annual growth rate over the longer term.[24]

While the economic recession affected resource planning and parties may be more cautious about growth projections, generally all continue to forecast load growth over the long term planning horizon. Because energy facilities have long planning, permitting and construction timelines, it is necessary to apply appropriate caution to growth projections to avoid over or under building to meet future electric demand.

---

[21] *Id.* at 9.

[22] Electricity Consumption by Customer Sector, *supra* note 19.

[23] Staff Briefing Papers, In the Matter of Xcel Energy's 2011-2025 Integrated Resource Plan, Minnesota Public Utilities Commission Docket No. E002/RP-10-825, at 11 (Oct. 25, 2012), *available at* https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPoup&documentId=%7B73FDC088-73E6-4509-9142-6D4BF6CECF02%7D&documentTitle=201210-79684-01.

[24] Minnesota Power 2013 Resource Plan, Minnesota Public Utilities Commission Docket No. E015/RP-13-53, at 24 (Mar. 1, 2013), *available at* http://www.mnpower.com/Environment/ResourcePlan.

(b) Increasing Demand for Renewable Electricity in Minnesota.

In 2007, the Minnesota Legislature established a particular need for additional renewable energy resources when it enacted the renewable energy standard for Xcel Energy and another 15[25] of the state's largest electric utilities.[26] The standard amended Minnesota's earlier renewable energy objective and established a new requirement that Xcel Energy generate or procure the equivalent of 30% of its total electric retail sales from renewable energy by 2020[27] and that the other subject utilities reach 25% by 2025.[28] The Legislature also set interim milestones for both as detailed in Table 3.

Table 3: Minnesota Renewable Energy Standard Milestone Schedule

Year	Xcel Energy	Other Utilities
2010	15%	7% (goal)
2012	18%	12%
2016	25%	17%
2020	30% (at least 24% wind)	20%
2025	30% (at least 24% wind)	25%

In its January 14, 2013 report to the Minnesota Legislature on RES compliance, the Division of Energy Resources ("DER") reported that utilities complied with their 2011 obligations and were on track to comply with their 2012 obligations.[29] Utilities have until May of the following year to retire sufficient RECs for the previous compliance year and thus the DER analyzed unretired REC balances for each utility available and eligible for the 2012 compliance year.[30] The 2011 Minnesota Biennial Transmission Projects Report also determined that utilities had made substantial progress toward meeting future RES

[25] Basin Electric Power Cooperative, Central Minnesota Municipal Power Agency, Dairyland Power Cooperative, East River Electric Cooperative, Great River Energy, Heartland Consumer Power District, Interstate Power and Light, L&O Power Cooperative, Minnkota Power Cooperative, Minnesota Municipal Power Agency, Minnesota Power, Missouri River Energy Services, Northwestern Wisconsin Electric Company, Ottertail Power Company, and Southern Minnesota Municipal Power Agency.

[26] Minn. Stat. § 216B.1691, subd. 2a.

[27] Minn. Stat. § 216B.1691, subd. 2a(b).

[28] Minn. Stat. § 216B.1691, subd. 2a(a).

[29] Minnesota Department of Commerce, Division of Energy Resources, Report to the Minnesota Legislature: Progress on Compliance by Electric Utilities with the Minnesota Renewable Energy Objective and the Renewable Energy Standard, at 7-8 (Jan. 14, 2013) ("RES Compliance Report"), *available at* http://mn.gov/commerce/energy/images/2013RESLegReport.pdf.

[30] *Id.* at 8.

milestones and concluded that the utilities are generally also on course to meet the RES milestones for 2016.[31]

While utilities appear well positioned to comply with the near-term RES requirements and a number of them are even ahead of their immediate targets,[32] utilities have considerably higher requirements in the not too distant future that will require substantial new generation and transmission assets.[33] Xcel Energy, for example, has to achieve compliance with its 30% requirement in just seven years. Utilities continue to list transmission constraints and the expiration of the federal PTC as the key obstacles to meeting those requirements.[34] In light of these concerns and the fact that the PTC was recently extended for another year, Xcel Energy recently issued a request for proposals for 200 MW of new wind. Minnesota Power and other utilities outside Minnesota have issued similar solicitations in order to take advantage of the PTC in the near-term and position themselves well for future RES requirements with affordable eligible energy.[35]

The 2011 Biennial Transmission Report mentioned above estimated that 2,257 MW of net new renewable energy capacity is still needed to meet the 2025 goals, with just under half of that amount needed by 2020.[36] While utilities have clearly made substantial progress in drawing that number down from over 3,300 MW in the last Biennial Report, the new renewable capacity needed to comply with Minnesota's requirements alone is still considerable.

[Remainder of Page Intentionally Left Blank]

[31] Minnesota Electric Transmission Planning, 2011 Minnesota Biennial Transmission Projects Report, at 3 (Nov. 1, 2011), *available at* http://www.minnelectrans.com/documents/2011_Biennial_Report/2011_Biennial_Report.pdf.

[32] *See, e.g.*, Minnesota Power 2013 Resource Plan, *supra* note 24, at 9.

[33] 2011 Minnesota Biennial Transmission Projects Report, *supra* note 31, at 97 ("The utilities recognize that additional transmission and generation will be necessary for 2020 and beyond in Minnesota, and that other demands for renewable energy will impact Minnesota's compliance status.").

[34] RES Compliance Report, *supra* note 29, at 9.

[35] Minnesota Power 2013 Resource Plan, *supra* note 24, at 59-60.

[36] 2011 Minnesota Biennial Transmission Projects Report, *supra* note 31, at 102 (Table 2) (Nov. 1, 2011), *available at* http://www.minnelectrans.com/documents/2011_Biennial_Report/html/Ch_8_Renewable_Energy_Standards.htm.

Table 4: Estimates of Renewable Energy Needed for Minnesota RES Compliance[37]

RES Capacity Acquired & Net MN RES Capacity Need (MW)*								
Utility	**2012**		**2016**		**2020**		**2025**	
	RES Cap Acq.	**MN RES Net**	**RES Cap Acq.**	**MN RES Net**	**RES Cap Acq.**	**MN RES Net**	**RES Cap Acq.**	**MN RES Net**
Basin Electric**	589.9	0	738.3	0	738.3	0	731	0
CMMPA	33.1	0	27.1	0	27.1	0	20.8	0
Dairyland	129.1	-110	200.1	-167	236.3	-194	310.3	-260
GRE	511	0	507	0	489	99	486	314
Heartland	36	0	36	0	36	0	36	0
IPL	26	13	26	24	24	36	22	56
Minnkota	359	-300	359	-269	359	-245	359	-195
MN Power	454	-85	636	-98	636	10	636	196
MRES	85.3	-41.3	121.4	-42.4	121.4	-11.4	121.4	19.6
SMMPA	125.6	0	125.6	0	125.6	105	125.6	200
Otter Tail	196.6	0	196.6	0	196.6	0	196.6	0
RPU	12.5	0	12.5	0	12.5	0	12.5	0
Xcel Energy	1,973	-59	1,973	414	1,839	1,226	1,551	1,927
Total***	4,531	-582.3	4,958.6	-138.4	4,840.8	1,020.4	4,608.2	2,257

*Capacity factor assumptions established by each utility
**Basin Electric response includes East River Electric and L&O
***Some utilities with less than sufficient capacity to meet the MN RES need may use renewable energy credits to fulfill their requirement

Note that the column in Table 4 labeled "MN RES Net" represents the additional RES capacity that is presently identified to meet RES need (a negative value means the utility has a surplus of RES capacity). The shortfall, or "gap," between MN RES need and the additional RES capacity identified points to the need for some utilities to seek additional renewable capacity and when they need to do so. Alternatively, some utilities may use renewable energy credits to fulfill their RES requirements.

(c) Increasing Demand for Renewable Electricity in the Region and Beyond.

Although Minnesota has one of the most ambitious renewable energy targets in the nation, many surrounding states have also set legislative targets for renewable energy. Both North Dakota[38] and South

[37] *Id.*

Dakota[39] have a voluntary 10% Renewable and Recycled Energy Objective by 2015. Wisconsin[40] and Michigan[41] both have 10% by 2015 renewable energy standards. Illinois has a 25% renewable energy requirement by 2025.[42] Minnesota reporting utilities alone have described a need for an additional 1,556 MW of new renewable capacity by 2025 to meet their RES requirements in surrounding states.[43] Together this accounts for nearly 4,000 MW of renewable generation capacity still needed to be installed in less than 12 years.

More broadly in the region, the renewable energy standards or goals in 12 of the 13 states in the Midwest ISO footprint (see Figure 3 below) represent an estimated 23,500 MW of renewable energy generation.[44]

[Remainder of Page Intentionally Left Blank]

(. . . continued)

[38] N.D. Cent. Code § 49-02-28 (2007), *available at* http://www.legis.nd.gov/cencode/t49c02.pdf.

[39] S.D. Codified Laws § 49-34A-101 (2009), *available at* http://legis.state.sd.us/statutes/DisplayStatute.aspx?Type=Statute&Statute=49-34A-101.

[40] Wis. Stat. § 196.378 (2009), *available at* http://legis.wisconsin.gov/statutes/Stat0196.pdf.

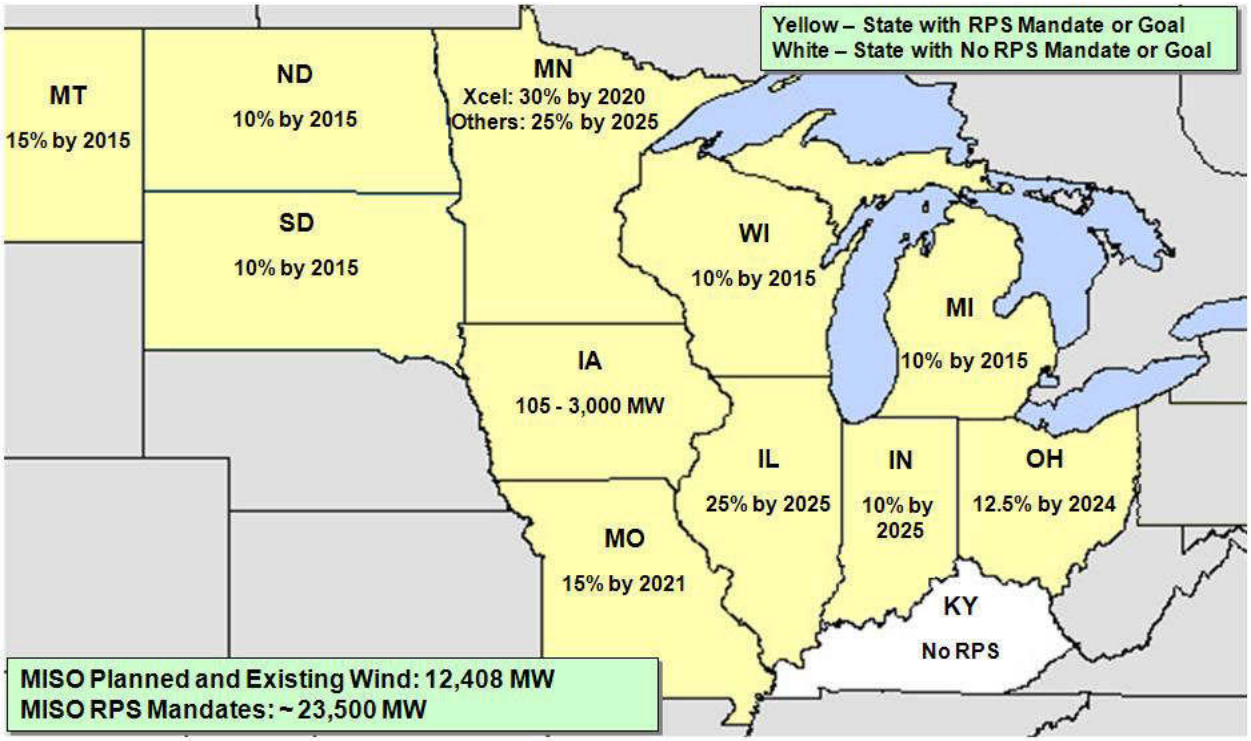
[41] Mich. Comp. Laws § 460.1021 (2008), *available at* http://www.legislature.mi.gov/(S(jffajaf55katx3atl1p2jdvc))/mileg.aspx?page=getObject&objectName=mcl-460-1021 (Consumers Energy and Detroit Edison both have additional specific MW requirements by statute).

[42] 20 Ill. Comp. Stat. 3855/1-75 (2007), *available at* http://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=2934&ChapterID=5.

[43] 2011 Minnesota Biennial Transmission Projects Report, *supra* note 31, at 99 (Table 1).

[44] Midwest ISO, MISO Transmission Expansion Plan, at 42-43 (2011) ("MTEP 11"), *available at* https://www.midwestiso.org/Library/Repository/Study/MTEP/MTEP11/MTEP11%20Report.pdf.

Figure 3: Renewable Energy Requirements in Midwest ISO Footprint[45]



Nationally, 29 states plus Washington, D.C., have renewable energy standards, while eight states have renewable energy goals.[46]

(d) Baseload Diversification Efforts and Plant Retirements

In addition to the projected growth in electrical demand (albeit somewhat slower than previous estimates) and the still substantial new generation requirements to meet state and regional RES standards, state and regional entities are also analyzing the impact of future generation retirements in the region. The Commission, for example, is directing Minnesota utilities to complete baseload diversification studies and report back on retirement analysis for coal-fired units subject to increasing regulation. Xcel Energy,[47]

[45] *Id*. at 44.

[46] *See* Database of State Incentives for Renewables & Efficiency, Renewable Portfolio Standard Policies (Mar. 2013), *available at* http://www.dsireusa.org/documents/summarymaps/RPS_map.pdf.

[47] Xcel plans to retire Units 3 and 4 at the Black Dog Generating Station, and is considering whether to update or retire Sherco Units 1 and 2. *See, e.g.*, Order Establishing Procedural Schedules and Filing Requirements, In the Matter of Xcel Energy's 2011-2025 Integrated Resource Plan, Minnesota Public Utilities Commission Docket No. E-002/RP-10-825 (Nov. 30, 2012), *available at* https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPoup&documentId={1567E012-69F2-4A85-B4B7-350B8172D88F}&documentTitle=201211-81221-01.

Ottertail Power and Minnesota Power[48] have all recently planned for coal-unit retirement and are continuing to study and plan for potential future retirements. Xcel Energy, for example, is currently examining the feasibility and cost-effectiveness of continuing to operate, retrofitting, or retiring the two oldest generators at its largest power plant.[49] While growth in energy demand and policy drivers for renewable energy are important considerations to assess need, so too are potentially significant changes in existing capacity or supply.

Similarly MISO is increasingly studying the impact of new Environmental Protection Agency ("EPA") regulations that require compliance by 2015 and future carbon reduction requirements on future transmission needs.[50] Under two of the four future generation resources scenarios analyzed by the MISO for its 2011 Report well over 20,000 MW of capacity was projected to be retired between 2011 and 2026.[51] In that same report, the two business as usual scenarios did not include retirements. In MISO's subsequent 2012 Report, all scenarios projected at least 12,668 MW of retirement with the combined energy policy scenario still projecting well over 20,000 MW (see Figure 4).[52] For 2013 MISO Transmission Expansion Planning analysis, there will be five scenarios modeled all of which include at least 12,600 MW of coal unit retirements and two of the five with substantially more.[53]

[Remainder of Page Intentionally Left Blank]

[48] Minnesota Power plans to retire a unit at the Laskin Energy Center and another at the Taconite Harbor Energy Center. The Laskin Energy Center unit will be converted to a gas peaking station while the Taconite Harbor unit will be simply retired. Minnesota Power 2013 Resource Plan, *supra* note 24, at 76.

[49] Order Establishing Procedural Schedules and Filing Requirements, *supra* note 47.

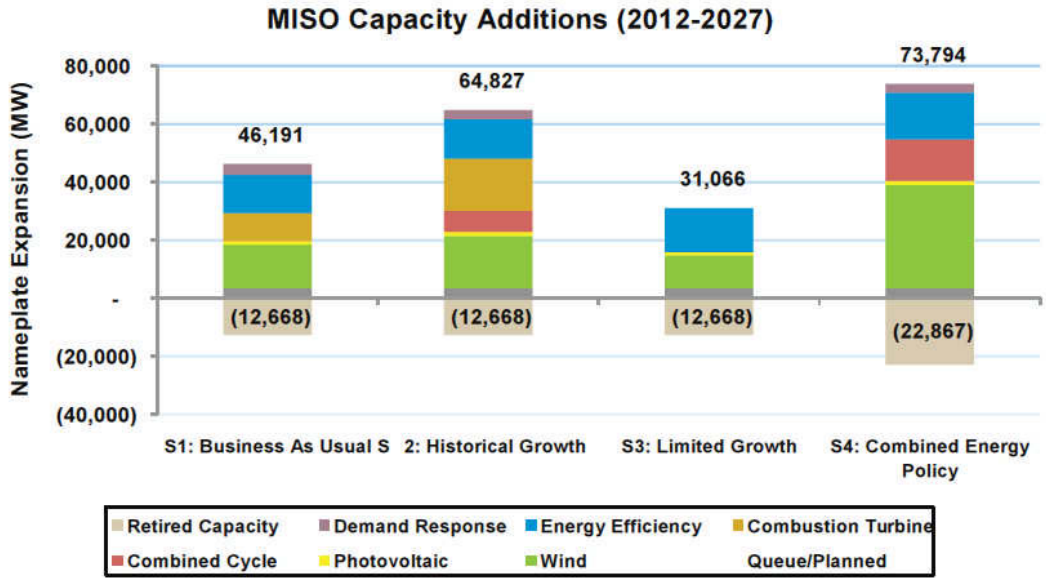
[50] *See, e.g.*, MTEP 11, *supra* note 44, at 9 ("A survey of the current fleet within MISO revealed 298 generation units will be affected by the four proposed regulations. The capacity of the units at risk for retirement is 12.7 GW, based on the assumptions surrounding the cost of environmental regulation compliance.").

[51] *Id.* at 5.

[52] Midwest ISO, MISO Transmission Expansion Plan, at 10 (2012) ("MTEP 12"), *available at* https://www.midwestiso.org/Library/Repository/Study/MTEP/MTEP12/MTEP12%20Report.pdf.

[53] MISO, MTEP 13 Futures Development Recap, Planning Advisory Committee (Feb. 27, 2013), *available at* https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/PAC/2013/20130227/20130227%20PAC%20Item%2004%20MTEP13%20Futures%20Development%20Recap.pdf.

Figure 4: MISO Capacity Additions (2012-2027)[54]



(e) Granting a CON for Stoneray Will Have a Beneficial Impact on the Future Adequacy, Reliability and Efficiency of the Energy Supply to the People of Minnesota and Neighboring States.

While demand for electricity is expected to continue at a perhaps slower but steady growth rate over the coming years, Minnesota and surrounding states have set forth by statute specific demands for renewable energy. As a result, there is a robust market for independently produced renewable-energy-generated electricity in the Midwest, including the output from the proposed Project. Because current facilities are insufficient to satisfy the growth in electricity demand as well as renewable energy requirements in Minnesota and the region, there is demonstrated need for the Project in the state, as well as in the surrounding region. It will also be a prudent resource addition at a time when utilities in Minnesota and surrounding states contemplate the future of their existing coal fleet.

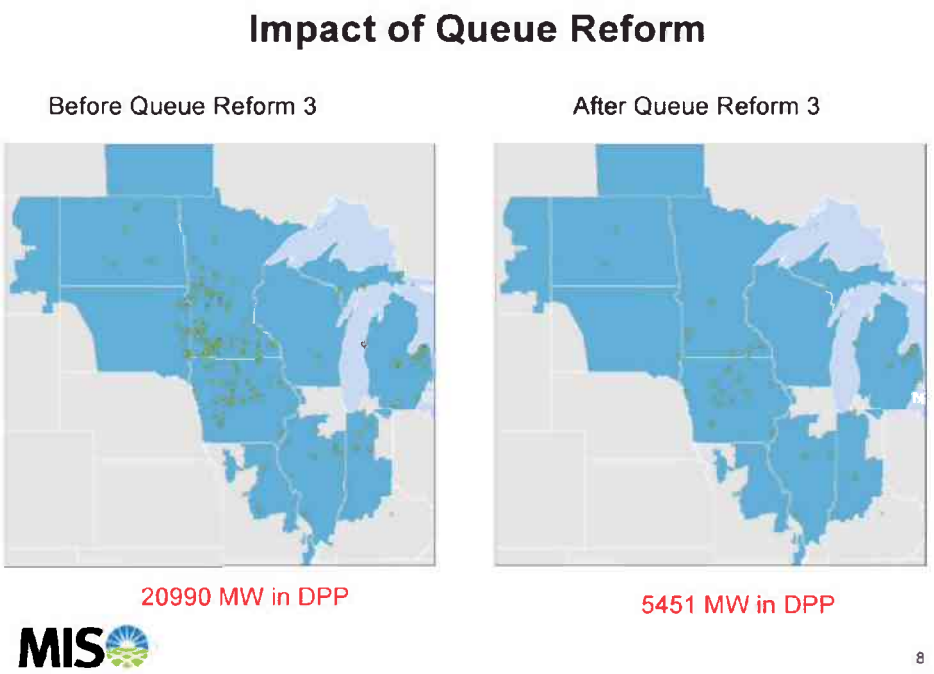
Stoneray understands that there are other wind projects proposed in the region, as demonstrated by other CON applications for wind projects in Minnesota, planned smaller projects that do not require a CON, and other wind projects in the MISO interconnection queue. Although smaller facilities that do not require a CON will contribute renewable electricity over time, many larger facilities, including the Project, that take advantage of economies of scale will ultimately be needed to reliably and affordably satisfy the ambitious renewable targets in Minnesota and the region. Additionally, among those larger

[54] MTEP 12, *supra* note 52, at 10.

facilities filing for a CON, there is not a precise match between wind projects seeking CONs in Minnesota and RES needs. Some wind projects will sell power or RECs into neighboring states, and some projects from neighboring states will sell into Minnesota. More importantly, however, not all projects with CONs will be completed.

Further, the MISO queue backlog had long been cited as a risk to developers in getting projects completed and for utilities seeking to meet their RES requirements. The last phase of queue reform, however, reduced the number of project megawatts in the definitive planning phase to roughly one quarter of the former total (see Figure 5).[55] Many projects exited the queue altogether, while many others parked in the System Planning and Analysis phase in order to avoid new cash-at-risk milestone payments. The result was a dramatic reduction in the number of projects indicating a readiness to move forward to completion in the region.

Figure 5: Impact of MISO Queue Reform 3[56]



[55] *See, e.g.*, Midwest ISO, Queue Reform 3 Project Update, IPTF, at 8 (July 31, 2012), *available at* https://www.midwestiso.org/Library/Repository/Meeting%20Material/Stakeholder/IPTF/2012/20120731/20120731%20IPTF%20Item%2002%20Queue%20Status.pdf (showing nearly 21,000 MW in the DPP prior to queue reform and only 5,451 MW in the DPP post queue reform).

[56] *Id.*

The Project remains ready to move forward, has already successfully completed its required studies and viability milestones and has a fully executed LGIA. In addition, Stoneray has already begun making payments to meet milestones under the LGIA for the required upgrades and anticipates completion to these upgrades by the end of 2014. In addition, two of the Multi-Value (transmission) Projects critical to this Project have been approved by MISO and are moving forward.[57]

Stoneray also is proceeding with the Project on schedule to begin initial phases of construction before the end of 2013 in order to take advantage of the expiring federal PTC and position the Project well to sell low-cost renewable electricity. For the same reason, Stoneray will be in a favorable position to respond to utility solicitations seeking to take advantage of low-cost RES-eligible electricity before the PTC expires. Stoneray has submitted bids in response to multiple utility requests for proposals and continues to pursue a variety of power sales opportunities. The Project is well positioned to bring affordable wind power to Minnesota at a time when the wind industry has faced significant contraction and substantially fewer developers are in a position to begin construction by the end of the year. In addition, any impacts on reliability of the electric grid were fully addressed in the MISO interconnection study process.

2.2.2 No More Reasonable and Prudent Alternative to the Stoneray Wind Project Has Been Demonstrated

The Project is the best alternative for meeting renewable energy targets. Minn. R. 7849.0120(B) directs applicants for CONs to assess project alternatives so that the Commission may determine whether a more reasonable and prudent alternative exists. Because the Project is intended to help satisfy state and regional renewable energy needs, non-renewable generation sources are not reasonable alternatives to the Project and are not examined here.

(a) Timing. As described in Section 2.2.1, the demand for electricity is projected to continue growing at a steady rate, and utilities in the state and region are actively issuing solicitations for low-cost renewable energy projects in the near term to satisfy longer-term statutory requirements. The Project already has a signed LGIA with Northern States Power, is paying for the necessary interconnection upgrades and is well positioned to begin construction by the end of 2013. This will allow the Project to take advantage of the PTC and provide economical renewable energy that will help utilities affordably meet their statutory requirements and keep electrical prices down for consumers.

[57] Brookings to Twin Cities 345kV and New Pleasant Prairie to Zion Energy Center 345kV.

(b) Size. Composed of up to 55 wind turbines, the Project will have a nameplate capacity of up to 105 MW. As an LWECS, the Project is sized to take advantage of economies of scale.

(c) Technology and Location. The Project's location is well situated for a wind project of this size. First, the Project is located in the southwestern corner of the state where there is excellent wind resource. Second, the Project will benefit from the completion of two 345 kV Multi-Value Project transmission lines that are broadly cost-shared based on being identified as serving multiple economic, reliability, and policy purposes for the MISO region. Third, any other renewable energy generation option would be less appropriate because it would be more costly and less suited to the resources available in southwestern Minnesota. Wind energy is the lowest-cost new renewable energy resource generally and is particularly so in places like Pipestone and Murray Counties, where the wind resources are excellent.

(d) Reliability. Wind energy is sometimes criticized for being intermittent, which may be confused with reliability. While the wind resource itself may be intermittent or variable, wind turbine technology has become quite advanced and very reliable. The Project will be available to generate electricity approximately 95% of the time, consistent with other utility-scale wind projects. Furthermore, the Project will be designed such that each wind turbine can run independently, meaning that if one turbine encounters a problem the other turbines will still be operational. This is in contrast to other forms of generation where a problem with one unit could significantly impact the facility's entire production.

(e) Cost. The Project is the best renewable energy alternative in terms of price for three primary reasons. First, wind energy is generally the most affordable source of new renewable electricity. Second, the Project is carefully sited to take advantage of an excellent wind resource, making it even more efficient. Third, the Project timing takes advantage of federal incentives and low prices in the power purchase agreement market, together reducing the ultimate cost to the utility and its customers.

(f) Effects on the Natural and Socioeconomic Environment. Although there is no environmentally perfect means to produce and consume electricity, wind-generated electricity avoids many of the environmental problems associated with other forms of generation. The Project will not release any air pollutants that can affect the local (*e.g.*, particulate matter), regional (*e.g.*, mercury), or global (*e.g.*, carbon dioxide) environment. It will not require the use of valuable water resources, nor will it discharge into any water body. Although many acres of land are leased for a project of this size, less than 1% will actually be occupied by turbines or related facilities. Most current uses for the land will be able to continue. Because of its renewable nature, there is no extraction, processing, or combustion of

fossil fuels. Stoneray also is working with environmental consultants to design the turbine layout, access roads, substation, interconnection facilities, and laydown areas to minimize the impact on birds, bats, and wildlife habitat.

The Project already includes approximately 11,350 acres of land under contract. Stoneray is negotiating with landowners to enter additional land agreements to allow for more optimal turbine and electrical system layout. Landowners in the Project area will receive payments in exchange for leasing their land for the Project. As such, landowners in the area will acquire a valuable new revenue stream without having to take much acreage out of production. More details on the economic and tax benefits to the surrounding community are described in Section 2.2.3.

2.2.3 The Project Will Benefit Society in a Manner Compatible with the Natural and Socioeconomic Environments (Minn. R. 7849.0120(C))

Minn. R. 7849.0120(C) requires CON applicants to address whether a project will benefit society in a manner compatible with the natural and socioeconomic environments, including human health. The electricity produced by the Project will have significant, numerous, and varied societal benefits.

(a) Overall State Energy Needs. As discussed in Section 2.2.1, the Project will provide electricity both to meet general future energy needs and to meet RES requirements in Minnesota.

(b) Impact on Natural and Socioeconomic Environments Compared to No-Build Alternative. As described in Section 2.2.2, wind energy has limited impact on the natural environment. The Project will produce little or no emission of greenhouse gases (*e.g.*, carbon dioxide), criteria pollutants (sulfur dioxide, nitrogen oxides, carbon monoxide, mercury, lead, ozone, or particulate matter), hazardous air pollutants, or volatile organic compounds. No water is required in the power generation process, nor will there be any discharge of wastewater containing heat or chemicals. Since the fuel is wind, no extraction, processing, transportation, or combustion of fossil fuels will be required for power generation. Approximately 31 acres in the Project footprint will be permanently taken out of agricultural production. Both the Project and the individual turbines are being sited so as to minimize impact on local and migratory wildlife and wildlife habitat.

Stoneray anticipates only minor negative impacts and significant positive impacts on the socioeconomic environment of Pipestone and Murray Counties from the Project. As discussed above, approximately 31 acres will be taken out of agricultural production. Other land in the Project footprint will remain available for farming or other uses. Project construction will not negatively impact leading industries within the Project area.

The Project will benefit the local economy in southwestern Minnesota by creating between 150-200 temporary construction jobs, some of which will be filled by local contractors using locally sourced materials and services whenever possible and economical. Wages and fees paid to local workers, contractors, and service providers will boost local income that will circulate in the local economy. The 5-15 permanent jobs anticipated to be created for long-term operations and maintenance of the Project will continue these benefits over the life of the Project. Local landowners whose land is utilized for construction or placement of the facility will be compensated with lease payments. The lease payments are long-term commitments to participating landowners. The Project also will expand the local tax base through payments of wind energy production taxes. At a rate of $0.0012 per kilowatt-hour of wind-generated electricity produced, Stoneray will pay approximately **[TRADE SECRET** [redacted] **]** per year in production taxes that the state will redistribute local units of government.

Not building the Project would result in no physical impact on local environment in Pipestone and Murray Counties. However, the no-build alternative also would result in Pipestone and Murray Counties forgoing significant economic benefits in the form of new jobs, new income streams for landowners, and production tax payments. Not building the Project also would forgo a source of clean, renewable electricity that would have minimal environmental impacts and contribute to Minnesota's renewable development goals.

(c) Effects of the Proposed Facility on Inducing Future Development. The Project is not expected to directly affect development in Pipestone and Murray Counties, but it will provide significant benefits to participating landowners, the local economy, and the local tax base.

(d) Socially Beneficial Uses of the Output. The Project will efficiently provide renewable energy that will help meet the Minnesota RES and general energy demand. The Project's 105 MW of nameplate capacity is sufficient to serve the energy needs of up to 33,000 average American households.

2.2.4 The Stoneray Project Is Consistent with Federal, State, and Local Rules and Policies

(a) The Project Is Consistent with Minnesota Energy Policy.

The Project will produce a significant amount of renewable energy, which is consistent with Minnesota policy and surrounding state policies to promote increased renewable energy. Minnesota favors renewable energy in a variety of ways, including through the RES discussed above and through the CON statute itself. The Commission may not issue CONs to applicants for nonrenewable energy

projection without demonstrating that it is less expensive (including environmental costs) than a renewable energy alternative.[58] In addition, Minnesota law prohibits the Commission from approving nonrenewable energy facilities in utility integrated resources plans or for rate recovery unless a utility demonstrates that a renewable energy facility is not in the public interest.[59] Minnesota also supports wind energy with a variety of incentives, including, for example, exemption from sales tax for materials used to manufacture, construct, install, and maintain wind projects.[60] The Project is consistent with Minnesota's policy preferences and support for renewable energy.

(b) The Project Is Consistent with Federal Energy Policy.

The Project also is consistent with federal energy policy, which provides significant support for wind energy development. For example, the federal government has supported wind energy for nearly 20 years with the PTC, which is available during the first 10 years of a wind project's operations. Most recently the PTC was extended as part of the American Taxpayer Relief Act of 2012 and applies to projects that begin construction before January 1, 2014.[61] In addition, the Modified Accelerated Cost Recovery System allows wind energy investments to be recovered through depreciation.

(c) The Project Complies with Federal, State, and Local Environmental Regulations.

The Project will meet or exceed the requirements of all federal, state, and local environmental laws and regulations, including the governmental approvals listed on Table 8.

2.3 Project Relationship to Socioeconomic Considerations (Minn. R. 7849.0240)

2.3.1 Socially Beneficial Uses of Energy Output (Minn. R. 7849.0240, subp. 2(A))

The energy produced by the Project will provide numerous social benefits. The Project will provide a large amount of renewable energy with minimal environmental impact and serve to diversify the region's energy resources. Farmers and rural landowners leasing land to Stoneray for the Project will have a new source of income that will provide a boost to the local economy in southwestern Minnesota. And since only a small portion of the total acres leased for the Project will be used for turbines, roads, and

[58] *See* Minn. Stat. § 216B.243, subd. 3a.

[59] *See* Minn. Stat. § 216B.2422, subd. 4.

[60] *See* Minn. Stat. § 272.02, subd. 22.

[61] American Taxpayer Relief Act of 2012 (H.R. 8), *available at* http://www.gpo.gov/fdsys/pkg/BILLS-112hr8enr/pdf/BILLS-112hr8enr.pdf.

other associated facilities, most of the Project footprint will remain available for farming or other local land uses.

2.3.2 Promotional Activities Giving Rise to Demand (Minn. R. 7849.0240, subp. 2(B))

Stoneray requested an exemption from this data requirement. Stoneray has not engaged in promotional activities that could have given rise to the need for the electricity to be generated by the Project.

2.3.3 Effects of Facility in Inducing Future Development

Stoneray does not anticipate a large direct impact on future development in Pipestone and Murray Counties. The main direct impact of the Project will be in creating approximately 150 to 200 temporary construction jobs and five to 15 full-time operations and maintenance jobs. Indirect impacts on future development include wind energy production taxes that will be paid to local governments and landowner rent payments. Stoneray intends to use local contractors and materials whenever it is possible and economical to do so.

3. DESCRIPTION OF PROJECT AND ALTERNATIVES (MINN. R. 7849.0250)

3.1 Proposed Project (Minn. R. 7849.0250(A))

The Project will be located in Pipestone and Murray Counties in southwest Minnesota near the community of Woodstock. The Project footprint encompasses approximately 40,900 acres and is located within Rock and Burke Townships in Pipestone County and Chanarambie and Cameron Townships in Murray County. Stoneray intends to site wind turbines and related facilities on agricultural land within the Project's boundaries. There are several other wind projects in the area, including the adjacent Chanarambie Wind Farm, which also is owned and operated by EDF-RE. Approximately 11,350 acres of land are currently under agreement, which represents about 80% of the total land under contract needed to operate the facility. Additional agreements are currently being pursued to optimize the turbine and electrical system layout. A Project vicinity map is included as Figure 1, and a map showing preliminary locations for turbines and Project facilities is included as Figure 2 (assuming use of 50 turbines). Stoneray anticipates constructing up to 55 wind turbines with a total nameplate capacity of up to 105 MW. Final turbine selection will be made based on optimization of wind resources, availability, and cost efficiency.

The wind turbines will be interconnected by communication and electric power collection cables within the Project footprint. Electrical collector lines, junction boxes, and feeder lines will be required to

deliver electricity to the interconnection point. The intended point of interconnection is the Chanarambie Substation. The Project will require construction of up to approximately 14 miles of gravel roads for access to the wind turbines and other Project facilities. Drainage systems, other access roads, storage areas, and operations and maintenance facilities will be installed as needed to accommodate construction and operations.

The electricity generated by the Project will be offered for sale in the region, including to Minnesota utilities that have issued solicitations for wind energy or otherwise forecast a need for additional renewable energy to comply with the Minnesota RES or other future renewable requirements. Stoneray anticipates construction and commissioning of the Project in 2014.

3.1.1 Nominal Generating Capability and Effect of Economies of Scale

The Project will have a nameplate capacity of up to 105 MW. Larger wind installations such as the Project take advantage of economies of scale by spreading fixed transaction, construction, operation, and maintenance costs over the entire Project. The result is a lower cost of production for electricity.

3.1.2 Anticipated Operating Cycle and Annual Capacity Factor

Stoneray anticipates a net capacity factor of approximately **[TRADE SECRET** [redacted] for the Project, with projected average annual output of approximately **[TRADE SECRET** [redacted]**]**.

3.1.3 Fuel

The Project's wind turbines will be fueled by wind.

3.1.4 Anticipated Heat Rate

Heat rates are not applicable to a wind energy project.

3.1.5 Facility Location

The Project will be located in southwestern Minnesota in Pipestone and Murray Counties. The Project's approximately 40,900-acre footprint encompasses the city of Woodstock and the northwest corner of Hatfield. The footprint is within Rock and Burke Townships in Pipestone County and Chanarambie and Cameron Townships in Murray County. The direct use of land for wind turbine and other Project facilities will be approximately 31 acres. The Project will be located on agricultural land in a rural landscape with limited development or housing. The site was selected due to its excellent wind resources.

3.2 Availability of Alternatives (Minn. R. 7849.0250(B))

3.2.1 Objectives Used to Evaluate Alternatives

Stoneray requested a partial exemption from the requirement to discuss alternatives to the proposed Project and proposed to limit its discussion of alternatives to other projects that would contribute to satisfying renewable energy requirements. The following discussion of such potential alternatives includes analysis of commercial availability, cost, scale, suitability for the Project site or for Minnesota, environmental considerations, and eligibility to meet RES requirements. Only those alternatives that are eligible technologies under the Minnesota RES are addressed in detail.

3.2.2 Description and Environmental Information for Alternatives Considered

(a) Purchased Power Alternative. Stoneray requested an exemption from discussing purchased power alternatives.

(b) Alternative of Performing Upgrades to Existing Resources. Stoneray requested an exemption from discussing efficiency alternatives.

(c) New Transmission Alternative. Stoneray requested an exemption from discussing new transmission alternatives.

(d) No Facility Alternative. Stoneray requested an exemption from Minn. R. 7849.0340, which requires an applicant to submit data for the alternative of "no facility." Instead, Stoneray proposed to discuss the consequences to the region of not building the facility.

Given that the proposed Project is designed to increase the amount of energy available for purchase and to satisfy statutory renewable energy requirements in Minnesota and surrounding states, not building the facility is not a viable alternative. Not building the facility would result in no new renewable energy and no opportunity for utilities to purchase the Project's output to satisfy the RES. As a result, the no-facility alternative is contrary to Stoneray's objectives for the Project and would not satisfy state and regional demand for energy or statutory requirements for renewable energy.

(e) Solar Power. Although Minnesota has decent solar resources and solar technologies have been commercially available for decades, solar power technologies have not yet seen wide-scale adoption within the state. More important, the wind resource is generally superior to the solar resource in the location planned for the Project. At an even more general level, the cost and reliability of wind power continue to be more favorable than for solar power despite recent substantial decreases on cost for solar.

Wind has long been more cost-effective than solar-powered electricity and remains the lowest-cost new source of renewable energy even with the recent declines in solar prices. Prices for wind power in the EIA's Annual Energy Outlook 2012 were $96/MWh compared with $152.7/MWh for solar PV or $242/MWh for solar thermal.[62]

Furthermore, solar projects in Minnesota to date have typically been several orders of magnitude smaller in size than the proposed Project. For example, the total installed solar electric capacity in the state of Minnesota is approximately 13 MW.[63] The Project, by comparison, will be roughly 8 times the size (on a nameplate basis) of the entire solar fleet in Minnesota. Likewise, Ecos Energy recently commissioned the largest solar project in Minnesota outside of Slayton, and it is substantially smaller in scale than the Project with an installed capacity of 2 MW. For reasons primarily of location, scale and cost, solar power is not a viable alternative to the Project.

(f) Hydropower. Generation from small hydroelectric facilities, with a capacity of 105 MW and under, can be used to comply with the Minnesota RES.[64] Existing hydro-generation facilities, and possibly new hydro generation, may also be relatively competitive with wind on a cost basis.[65]

However, hydroelectric generation requires a dependable supply of moving water in a location suitable for building a generation facility, something that is not available in the near vicinity of the Project site. More generally, there are few, if any, sites in Minnesota suitable for a new hydropower project at an equivalent scale. Minnesota currently has just under 200 MW of total hydroelectric generation located within the state, and the U.S. Department of Energy previously estimated a potential for 137 MW of hydroelectric development (split among 40 different sites).[66] While there may be the potential for small affordable hydroelectric applications that could also be used to comply with Minnesota's RES, they are small in number and generally limited in size. In order to provide as much renewable energy electricity as the Project with hydroelectric generation, several or many hydropower projects would likely have to be developed at multiple sites.

---

[62] U.S. Energy Information Administration, Levelized Cost of New Generation Resources in the Annual Energy Outlook 2012 (July 2012), *available at* http://www.eia.gov/forecasts/aeo/pdf/electricity_generation.pdf.

[63] Minnesota Department of Commerce, News Release: Minnesota solar electric installations achieve strong growth (Jan. 15, 2013), *available at* http://mn.gov/commerce/energy/media/newsdetail.jsp?id=207-52969.

[64] Minn. Stat. § 216B.1691, subd. 1(a)(3).

[65] Levelized Cost of New Generation Resources, *supra* note 64 (listing average prices for hydro at just under $89/MWh and those for wind at approximately $96/MWh).

[66] 2008 Quad Report, *supra* note 20, at 29.

The environmental impact of a hydroelectric facility is highly dependent on the location, the topography, impacted aquatic and terrestrial species, the scale, and the generation method. While the Minnesota RES and current industry trends are toward smaller-scale and often run-of-the-river technologies, historically large hydroelectric facilities have had massive scale impacts on the surrounding ecology. The relatively flat topography in southwestern Minnesota would suggest that even for a project with relatively low hydraulic head, there could be large tracts of land impacted. That said, the environmental impacts of a hydroelectric facility are site and technology specific and therefore difficult to compare.

(g) Biomass. Renewable energy can be produced by using many different biomass feedstocks in many different technological applications, many of which are eligible under the Minnesota RES. While new biomass technologies continue to become commercially available, the most basic technology is perhaps the oldest form of energy generation (combusting wood). In general, Minnesota has rich biomass feedstock resources and the state legislature has long made the development of biomass energy technologies a priority.[67] Although according to the EIA some biomass applications may be on a relatively comparable cost basis with wind generated electricity ($115.4/MWh for biomass; 96$/MWh for wind),[68] pricing is highly dependent on technology and a suitable, reliable, and affordable source of feedstock supply. Experience in Minnesota also suggests that biomass power facilities are generally smaller in scale than wind facilities.[69]

The gases created by the anaerobic digestion of animal manures or mixed waste, or when landfill solid waste decays, can also be captured and used to turn a turbine to produce power. Such electric power is also eligible under Minnesota's RES. While this can be a useful way to create energy and reduce waste at relatively low cost, the facilities are typically much smaller in scale. At the time the 2008 Quad Report was assembled, there was a total of 26 MW of landfill gas projects and an estimated total capacity of 45 MW.[70] The Project is larger in scale than the sum total of the landfill gas projects in the state.

Biomass power facilities, in general, are not a suitable alternative to a wind power facility due to the great differences in environmental impacts. Biomass electric generation facilities, unlike wind

[67] *See, e.g.*, Minn. Stat. § 216B.1691, subd. 1(a)(5) (includes biomass in the RES); Minn. Stat. § 216B.2424 (biomass power mandate).

[68] Levelized Cost of New Generation Resources, *supra* note 64.

[69] *See* 2008 Quad Report, *supra* note 20, at 25-27.

[70] *See id.* at 27.

facilities, have water use and disposal issues and pollutant air emissions to take into consideration. Depending on the feedstock, there may be ongoing associated environmental considerations at the landscape level, benefits or detriments to farmers and landowners involved in feedstock production or collection, and potential environmental or safety concerns associated with transport of the feedstock to the plant. The Project will be able to provide renewable energy more cost-effectively at scale, with fewer environmental impacts to the Project site and the region.

(h) Emerging Technologies Alternatives. Because the Project aims to help meet Minnesota's statutory renewable energy requirements and those of surrounding states, the analysis under this section is largely focused on other technologies that would be eligible to do the same. Although there is ongoing research and development on technologies in many of the categories discussed previously, the better analogues to the current proposed Project are those technologies that are in more wide-scale use and have better cost parity with wind. As such, this section will not address emerging technologies in resource areas previously discussed (*i.e.*, solar, hydro, and biomass).

Electricity produced from hydrogen is eligible to help meet Minnesota's RES.[71] After January 1, 2010 the hydrogen must be generated from any of the renewable resources listed above in order to be eligible. Hydrogen is an energy carrier or a way of storing, for later or different use, the electricity generated by solar, wind, biomass, or hydropower resources.[72] Fuel cells, by contrast, do produce electricity by taking advantage of the energy released when hydrogen and oxygen molecules bond. Electricity produced from fuel cells that use renewably produced hydrogen could eventually provide high-quality, dispatchable power with almost zero associated pollution. While at times considerable research dollars have been directed to hydrogen and fuel cell technology specifically because of this promise, fuel cells are still not widely available or cost-competitive, and more recently even hydrogen research has slowed.

There is also promising research and development on, as well as some commercial-scale deployments of, new emerging energy storage technologies. While fly-wheels, pumped storage, compressed air, and advanced battery technologies might all be promising technologies to store or make more dispatchable any of the renewable energy resources listed in the previous sections, they would be

[71] Minn. Stat. § 216B.1691, subd. 1(a)(4) ("hydrogen, provided that after January 1, 2010, the hydrogen must be generated from the resources listed in this paragraph").

[72] In these instances the electrical current from the renewable generation would be used to split water molecules into their hydrogen and oxygen component parts.

more properly assessed as complements than alternatives to an electrical generation facility. Likewise only renewable electricity generation is eligible to meet the state RES requirements.

(i) Combinations (Minn. R. 7849.0250(B)(5)). No combinations of the alternatives discussed above would be appropriate because they would not facilitate Minnesota utilities meeting RES requirements more cost-effectively, or at all, and would have greater impacts on the region and the environment.

3.2.3 Economic Comparison

The EIA estimates that wind is the lowest or nearly the lowest cost alternative among the renewable energy options described in Section 3.2.2. The following EIA table (Figure 6) provides cost information for the construction, operations and maintenance, and other factors for new renewable and other new electricity generation resources.

[Remainder of Page Intentionally Left Blank]

Figure 6: Levelized Cost of New Generation Resources

		U.S. Average Levelized Costs (2010 $/megawatthour) for Plants Entering Service in 2017				
Plant Type	Capacity Factor (%)	Levelized Capital Cost	Fixed O&M	Variable O&M (including fuel)	Transmission Investment	Total System Levelized Cost
Dispatchable Technologies						
Conventional Coal	85	64.9	4.0	27.5	1.2	97.7
Advanced Coal	85	74.1	6.6	29.1	1.2	110.9
Advanced Coal with CCS	85	91.8	9.3	36.4	1.2	138.8
Natural Gas-fired						
Conventional Combined Cycle	87	17.2	1.9	45.8	1.2	66.1
Advanced Combined Cycle	87	17.5	1.9	42.4	1.2	63.1
Advanced CC with CCS	87	34.3	4.0	50.6	1.2	90.1
Conventional Combustion Turbine	30	45.3	2.7	76.4	3.6	127.9
Advanced Combustion Turbine	30	31.0	2.6	64.7	3.6	101.8
Advanced Nuclear	90	87.5	11.3	11.6	1.1	111.4
Geothermal	91	75.1	11.9	9.6	1.5	98.2
Biomass	83	56.0	13.8	44.3	1.3	115.4
Non-Dispatchable Technologies						
Wind	33	82.5	9.8	0.0	3.8	96.0
Solar PV[1]	25	140.7	7.7	0.0	4.3	152.7
Solar Thermal	20	195.6	40.1	0.0	6.3	242.0
Hydro[2]	53	76.9	4.0	6.0	2.1	88.9

[1] Costs are expressed in terms of net AC power available to the grid for the installed capacity.
[2] As modeled, hydro is assumed to have seasonal storage so that it can be dispatched within a season, but overall operation is limited by resources available by site and season.
Note: These results do not include targeted tax credits such as the production or investment tax credit available for some technologies, which could significantly affect the levelized cost estimate. For example, new solar thermal and PV plants are eligible to receive a 30-percent investment tax credit on capital expenditures if placed in service before the end of 2016, and 10 percent thereafter. New wind, geothermal, biomass, hydroelectric, and landfill gas plants are eligible to receive either: (1) a $22 per MWh ($11 per MWh for technologies other than wind, geothermal and closed-loop biomass) inflation-adjusted production tax credit over the plant's first ten years of service or (2) a 30 percent investment tax credit, if placed in service before the end of 2013 (or 2012, for wind only).
Source: U.S. Energy Information Administration, Annual Energy Outlook 2012, June 2012, DOE/EIA-0383(2012)

3.2.4 Alternative Summary

In summary, none of the alternatives discussed above is a viable alternative to the Project on its own or in combination because it does not meet the objectives of the Project, does not meet the Project's site criteria, is less cost-effective than the Project, or would have a greater environmental impact than the Project, or because of some combination of the preceding factors. With the exception of environmental impacts that were discussed in detail in each section above, Table 5 below summarizes these comparisons.

Table 5: Comparison of Alternatives to the Stoneray Wind Project

Alternatives Considered	Eligible for the MN RES?	Compatible with Project site?	Available at similar scale?	EIA Average Levelized Cost[73]	Analysis waived?
Wind	**Yes**	**Yes**	**Yes**	**$96/MWh[74]**	**No**
Purchased Power	NA	NA	NA	NA	Yes
Upgrades to Existing Resources	NA	NA	NA	NA	Yes
New Transmission	NA	NA	NA	NA	Yes
No Facility	No	NA	NA	NA	Yes
Solar Power (photovoltaic)	Yes	No	No	$152.7/MWh	No
Hydropower	Yes	No	Possibly	$88.9/MWh	No
Biomass	Yes	No	Possibly for some technologies	$115.4/MWh	No
Emerging Technologies					
Hydrogen and Fuel Cells	Yes (Renewable H_2)	Possibly	No	NA	No
Energy Storage Options	No	Uncertain (generally no)	No	NA	No
Combinations	No	NA	Possibly	NA	No

3.3 Discussion of Proposed Facility and Alternatives (Minn. R. 7849.0250(C))

As discussed in Section 3.2 above, none of the alternatives considered meets the objectives of the Project. Other renewable energy technologies that could satisfy RES requirements (including solar, small hydroelectric, biomass, and certain emerging technologies) have higher costs, greater environmental impacts, and/or are less suited to the Project's site in southwestern Minnesota.

3.3.1 Capacity Cost Is Dollars per Kilowatt

Wind energy projects do not have costs attributable to capacity, and therefore costs for wind energy facilities are typically not expressed in terms of capacity costs. The Project will deliver energy to utilities on an as-generated basis and will receive payment for energy generated. Stoneray estimates that the capital cost for the Project is estimated to be between **[TRADE SECRET** [redacted] **]**. On an installed basis, the anticipated total capital cost per kilowatt (in current dollars) is **[TRADE SECRET** [redacted] **]**. The largest component of that cost will be the wind turbines.

[73] Figures are in 2010 dollars per megawatt-hour for plants entering service in 2017. See the full EIA table in Figure 6.

[74] EIA's levelized cost estimates for wind exceed the anticipated costs of the Project.

The Project's price per kilowatt hour will be determined by Stoneray's negotiations with potential purchasing utilities or the MISO market. Stoneray expects pricing to be competitive with other large wind energy projects in the region.

3.3.2 Service Life

Stoneray estimates that the Project's service life will be 30 years with proper maintenance and service. This estimate is based on Stoneray's and its parent EDF-RE's extensive experience in the ownership and operation of this type of facility. Stoneray is confident that its planned maintenance program will sustain the Project for at least its estimated service life.

3.3.3 Estimated Average Annual Availability

Stoneray estimates that the Project will be available at least approximately **95%** of the year, which is consistent with industry standards for wind projects.

3.3.4 Fuel Costs

The Project will have no fuel costs because wind is free. Stoneray will pay landowners for the wind rights easements on the land on which the Project will be located. Nominal purchases of electricity also will be required to operate the Project, with Stoneray ultimately selling the Project's net output.

3.3.5 Variable Operating and Maintenance Costs

Stoneray estimates that variable maintenance costs over the life of the Project will average approximately **[TRADE SECRET** [redacted] **]** annually. Operating costs include site and facility maintenance, and taxes and fees. Based on estimates for the Project's output, Stoneray estimates that the variable operating and maintenance costs for the Project will be **[TRADE SECRET** [redacted] per kilowatt-hour.

Wind facilities typically do not have to go entirely offline for maintenance. Rather, individual turbines can be shut down as necessary for service, while the rest of the facility continues to generate power.

3.3.6 Total Cost

Stoneray estimates the Project's total capital cost to be **[TRADE SECRET** [redacted] (or **[TRADE SECRET** [redacted] **]** per kilowatt) depending on final turbine selection and other factors. The actual price for which the Project will sell energy has not been determined and is subject to negotiations with potential purchasing utilities

or the MISO market price. Stoneray has not entered into any definitive energy sales agreements, but expects pricing to be competitive with other large wind energy projects in the region.

3.3.7 Estimate of Facility's or Alternative's Effect on Rates

Minn. R. 7849.0250(C)(7) requires CON applicants to estimate a proposed project's "effect on rates system-wide and in Minnesota, assuming a test year beginning with the proposed in-service date." Stoneray requested an exemption from this data requirement and, in the alternative, proposed to address the Project's impact on state or regional wholesale electricity prices. The Project's energy production will be modest relative to the energy consumption of Minnesota and the region. Therefore, the price of the Project's output will have minimal impact on electricity rates. However, since the Project has no fuel costs, it could serve to help stabilize or lower electricity prices in the state and the region, as compared to energy resources with more volatile pricing.

3.3.8 Efficiency

Because no fuel is burned in the production of energy at the Project, this data requirement is not applicable to a wind energy project.

3.3.9 Assumptions (Minn. R. 7849.0250(C)(9))

The cost information provided in this CON application assumes a net capacity factor of approximately **[TRADE SECRET** [redacted]**]** and assumes that operations and maintenance costs will escalate at rates consistent with the rest of the economy. More specifically Stoneray used a **[TRADE SECRET** [redacted]**]** escalation rate to estimate the operating and maintenance costs. Stoneray anticipates that construction will take approximately six to eight months including: approximately four months for the construction of roads, turbine foundations and the electrical collection system; and two months for the erection of the turbines. The Project will begin construction in 2013 and be operational in 2014.

3.4 Map of System (Minn. R. 7849.0250(D))

The Commission has granted Stoneray an exemption from the requirement to provide a map showing the applicant's system. As an alternative, Stoneray proposed to provide a map of the Project and its location relative to power grid infrastructure. Such maps are included as Figures 1 and 2. More detailed preliminary turbine layout maps will be provided with Stoneray's LWECS Site Permit application.

4. ENVIRONMENTAL INFORMATION (MINN. R. 7849.0310 AND MINN R. 7849.0320)

4.1 Environmental Information for the Proposed Project and Alternatives (Minn. R. 7849.0310)

The following is a summary of available environmental impact information for the proposed Project. Environmental information for potential alternatives to the Project is discussed in Section 3.2, but none of those alternatives was determined to be a viable alternative to the Project. More detailed environmental information for the Project also will be provided in the Project's LWECS site permit application.

4.1.1 Impacts to Visual Resources

The Project area is visually dominated by agricultural production: farm fields, farmsteads, and large open vistas. The area can be classified as rural open space with a gently rolling topography. Local vegetation in the area is predominantly agricultural including pasture, grains, and forage crops creating a low uniform cover. Currently, the only prominent vertical components of the visual landscape in the Project area are trees and manmade structures, including existing wind turbines. Structures within the Project area primarily include residences and farm outbuildings with some dating back to the late nineteenth or early twentieth century. There are already several wind projects in the area. The Project will be located adjacent to the west side of the Chanarambie Wind Farm.

Stoneray will work to avoid or minimize visual impacts into the final design and siting of the Project and will work with landowners to identify and address concerns related to Project aesthetics. Stoneray proposes the following mitigative measures:

- Wind turbines and turbine access roads will avoid Nature Conservancy Land, State Wildlife Management Areas, or Scientific and Natural Areas.
- Turbines will avoid biologically sensitive areas such as wetlands or remnant prairies.
- Existing roads will be used for construction and maintenance where possible. Road construction will be minimized.
- Access roads created for the wind power plant will be located on gentle grades to minimize visible cuts and fills.
- Temporarily disturbed areas will be reseeded with native vegetation to blend in with existing vegetation.

Consultants for Stoneray performed a worst-case analysis of "shadow flicker" at the proposed Stoneray wind farm so that Stoneray can be best equipped to mitigate even the worst scenario. Stoneray has made efforts to minimize shadow flicker by careful siting and utilizing setbacks from residences. Other mitigative measures may include planting trees or installing screens, blinds, or curtains.

4.1.2 Impacts to Land Use

Specific impacts to agricultural lands will be determined once turbine and road placement and substation/O&M facility locations have been finalized. The loss of agricultural land to the construction of the wind farm will reduce the amount of land that can be cultivated. However, only a very small portion of the Project area will be converted to nonagricultural land use, and this will not significantly alter crop production in the Project area or Pipestone and Murray Counties. To the extent practicable, temporary staging areas will be placed in previously disturbed locations to minimize the impact to agricultural production. Turbine and facility siting will include discussions with property owners to identify features on their property, including drain tile, that should be avoided. Stoneray does not anticipate any impact on woodlots or mining.

Only land for the turbines, certain electrical equipment, and access roads will be taken out of crop production. Once the wind turbines are constructed, all land surrounding the turbines and access roads may still be farmed. In the event that there is damage to the drain tile as a result of construction activities or operation of the LWECS, the applicant will work with affected property owners to repair the damaged drain tile in accordance with the agreement between the Project owner and the owner of any damaged tile. If Conservation Reserve Program ("CRP") land is impacted, Stoneray will work with the landowner to remove the impacted portion of the parcel from the CRP program. However, it is unlikely that the Project will impact CRP lands.

4.1.3 Impacts to Wildlife

The overall impact of the proposed Project on wildlife is expected to be minimal because turbines and access roads will be placed on agricultural lands. Grasslands, forested areas, shrublands, streams/drainages, and wetlands will be avoided whenever possible. Operation of the wind farm will not change adjacent land uses, and a relatively small portion of the Project area will be affected by construction activities. Stoneray will implement the following measures, to the extent practicable, to help avoid potential impacts to wildlife in the Project area during selection of the turbine locations and subsequent Project development and operation:

- Identify established wildlife management, recreation and scientific and natural areas and remove them from consideration for wind turbine locations, access roads or electrical/transmission line placement;

- Avoid or minimize disturbance of individual wetlands or drainage systems during construction of the Project;

- Avoid or minimize placement of turbines in high-quality native prairie tracts;

- Protect existing trees and shrubs that are important to the wildlife present in the area;

- Conduct a field habitat assessment for sensitive habitat areas that cannot be avoided in the Project design;

- Develop and implement a Bird and Bat Conservation Strategy plan that would be completed before operation of the Project.

- One (1) field season of post construction fatality monitoring for avian and bat species using survey protocol developed by the Minnesota Department of Natural Resources ("MDNR") for low-risk sites.

4.2 Facility Information for Proposed Project and Alternatives Involving Construction of a LEGF (Minn. R. 7849.0320)

The following is a discussion of land requirements, traffic, water, waste, noise, and other facility information for the proposed Project. Certain facility information is discussed for potential alternatives in Section 3.2, but none of these alternatives was determined to be a viable alternative to the Project.

4.2.1 Land Requirements

The Project footprint is approximately 40,900 acres. Of this land, approximately 31 acres will be used for wind turbines and associated facilities. The land is zoned for agricultural use and has little existing development or housing. No relocation of people or businesses will be required for the Project. Anticipated impacts to local lands from the Project are described in Section 4.1.2.

(a) Land Requirements for Water Storage. The Project will not require any land for water storage.

(b) Land Requirements for Cooling System. The Project will not require any land for a cooling system.

(c) Land Requirements for Solid Waste Storage. The Project will require minimal space in the operations and maintenance facility for the storage of used oils, spare parts, and tools. More information about solid waste is provided in Section 4.2.7.

4.2.2 Traffic

There are two primary traffic routes through the Project area: Minnesota State Highway 30 is a two lane paved highway running east/west and Pipestone County Highway 18 is a two lane paved highway running north/south. Murray County Highway 25 is a two lane paved highway running north/south on the east border of the Project. Minor roads in the area include other county and township roads ranging from two lane paved to gravel and unpaved minimum maintenance roads.

Construction of the Project will require modification to the existing roads as well as construction of new access roads. Modifications include widening and improving the surface, improving durability, and installing drainage features. Impacts of local roads will be primarily during construction of new or modified roads and during the wind turbine construction process when roads will be experiencing wear and tear from construction vehicles.

The Project will require approximately 14 miles of gravel access roads, depending on the size of turbine selected and final design. In addition, during operation of the Project, the access roads will be used by operation and maintenance crews while inspecting and servicing the wind turbines. The access roads will be between towers. The initial roads will be wide enough for construction traffic but the permanent condition will be a 16-foot-wide all-weather road. Roads will have a low profile to allow cross travel by farm equipment when necessary. Stoneray will work closely with the landowners to locate these access roads to minimize land-use disruptions.

Construction traffic will use the existing county and state roadway system to access the Project area and deliver construction materials and personnel. Since the current traffic levels on the roadways in the Project area are well below roadway capacities, construction traffic will be perceptible but similar to seasonal variations in traffic, such as autumn harvest. Traffic control measures and coordination with local authorities will be implemented to ensure public health and safety are protected with respect to the Project. Construction is not anticipated to result in adverse traffic impacts. Operation and maintenance activities will not noticeably increase traffic in the Project area.

4.2.3 Information Pertaining to Fossil-Fueled Facilities

(a) Fuel. The Project is not a fossil-fueled facility.

(b) Emissions. The Project will not release any emissions from the power generation process.

4.2.4 Water Usage for Alternate Cooling Systems

The turbines will utilize self-contained, internal cooling systems that will not require water storage. The Project's water requirements during operation will be limited to potable water for the operations and maintenance facility, which may be obtained from a well or municipal source. All applicable regulations will be followed.

4.2.5 Water Discharges

The Project will not discharge water during operation beyond sanitary systems for the operations and maintenance structure. Some limited water discharge may be necessary during construction. Stoneray will apply for and comply with the terms of any National Pollution Discharge Elimination System ("NPDES") or other permits required by law. A full list of federal, state, and local permits anticipated to be required for the Project is included in Table 8.

4.2.6 Radioactive Releases

The Project will not produce any radioactive releases.

4.2.7 Solid Waste

The Project is not expected to generate significant quantities of solid waste during its operations. The Project will require use of certain petroleum products such as gear box oil, hydraulic fluid, and gear grease (likely less than three tons per year). When disposal is necessary, these materials will be recycled or otherwise stored and disposed of according to state and federal regulations. In addition, a small amount of office and maintenance materials waste will be produced at the operations and maintenance facility (likely less than two tons per year). These materials will also be stored, recycled, and/or disposed of according to applicable local, state, and federal regulations.

Ordinary solid waste produced at the operations and maintenance facility or at individual turbines during maintenance operations will be disposed of according to local, state, and federal regulations.

4.2.8 Noise

The Minnesota Pollution Control Agency ("MPCA") has a statewide noise standard (Minn. R. 7030.0040) that specifies daytime and nighttime noise levels that cannot be exceeded by any source. These standards are consistent with speech, sleep, annoyance, and hearing conservation requirements for receivers within areas grouped according to land activities by the noise area classification ("NAC"). The NAC for household units (including farm houses) is identified as NAC 1. The daytime standards state that a sound level of 60 dB(A) may not be exceeded for more than 50% of the time for a one-hour survey, and a sound level of 65 dB(A) may not be exceeded for more than 10% of the time for a one-hour survey. The nighttime standards state that 50 dB(A) many not be exceeded for more than 50% of a one-hour survey, and 55 dB(A) may not be exceeded for more than 10% of a one-hour survey. Table 6 presents the regulated noise levels from the MPCA rules. The L50 is the noise level exceeded for 50% of the time during any measurement duration and represents the median sound level. The L10 is the sound level exceeded for 10% of the time during any measurement duration.

Table 6: State of Minnesota Noise Standards [dB(A)]*

Noise Area Classification (as Identified in Minn. R. 7030.0040)	**Daytime** L_{50}	**Daytime** L_{10}	**Nighttime** L_{50}	**Nighttime** L_{10}
1	60	65	50	55
2	65	70	65	70
3	75	80	75	80

* *A-weighted decibels*
Source: Minn. R. 7030.0040

The operation of wind turbines will contribute to sound levels in the area. The sound associated with the wind farm will vary based on wind speed, distance from the turbines, number of turbines in operation, weather, and topography of the area. On relatively windy days, turbines generally produce more sound; however, the ambient natural wind sound levels also increase.

A model was developed considering Vestas V100 wind turbines, with the nacelle mounted to the tower at a hub height of 95 meters. Hub heights and acoustical emissions were input into the model, as well as the transformer's physical and acoustical parameters. The sound-power levels for the turbines were provided by the manufacturer. Sound emission data was calculated for the substation based on typical sound levels from similar substations. Expected sound levels for the turbines and substation are displayed in Table 7 below.

Table 7: New Equipment Sound Power Levels

Equipment	dB at Octave Band Frequency (Hz)									Total Sound Power Level (dBA)
	31.5	63	125	250	500	1000	2000	4000	8000	
Vestas V100	80	88.2	92.8	95.7	98	100.6	99.4	99.7	93.3	106.5
Transformer	94.1	100.1	102.1	97.1	97.1	91.1	86.1	81.1	74.1	106.1

The highest-predicted sound level at any residential receiver was predicted to be 44.6 dB(A). The Project was conservatively modeled with all sources operating at maximum power output simultaneously in a downwind direction, whereas in a real-world situation, the residence would not likely receive full sound levels from each of the turbines. It is therefore determined that there would be no exceedances of the MPCA rules at any of the residential receivers. Additionally, no residences were predicted to experience sound levels in excess of the National Association of Regulatory Commissioners recommended level of 45 dB(A). Of the 132 residences analyzed, there are 31 residences predicted to experience worst-case sound levels over 40 dB(A), but less than 45 dB(A).[75]

4.2.9 Work Force for Construction and Operation

Stoneray will hire balance of plant contractors to construct the Project. Throughout the construction period, Stoneray estimates that the Project will create up to approximately 150-200 temporary construction jobs. The Project will employ local contractors and use locally sourced materials and services when possible and economical.

After construction is complete, Stoneray estimates that five to 15 full-time employees will be required to operate and maintain the Project.

4.2.10 Number and Size of Transmission Facilities

The electricity generated by each turbine will be stepped up by a transformer (either at the base of each turbine or housed in the nacelle) to the power collection line voltage of 34.5 kV. The electric energy

[75] Hessler, David. Best Practices Guidelines for Assessing Sound Emissions from Proposed Wind Farms and Measuring the Performance of Completed Projects, 2011, *available at* http://www.naruc.org/Grants/Documents/Final%20full%20MN%20SERCAT%20rep%20with%20NARUC%20cover%20Hessler.pdf.

collected at the turbines will be transmitted to the Project substation via underground lines trenched to a depth of approximately 36 inches or greater. The exact location of the Project substation has yet to be determined, but it is the Applicant's intent to construct the Project substation adjacent to the existing Chanarambie substation, which is the point of interconnection. Transmission lines will be constructed to connect the Project substation to the Chanarambie substation. The power will transformed from 34.5 kV to 115 kV at the Chanarambie substation, via a new transformer installed as part of the Project, for delivery to the transmission grid. The power will be transmitted from the Chanarambie substation via an existing 115 kV overhead transmission line owned by Northern States Power.

4.3 Facility Information for Alternatives Involving Construction of a LHVTL (Minn. R. 7849.0330)

Stoneray requested an exemption from this requirement to provide information regarding large high-voltage transmission line alternatives ("LHVTL").

5. OTHER FILINGS AND PERMITS

5.1 Exemption Request

On March 15, 2013, Stoneray requested an exemption from several of the informational requirements included in Chapter 7849 of the Minnesota Rules. These exemptions are referenced where appropriate in this CON application. At the same time, Stoneray requested a variance from Minn. R. 7849.0200, subp. 6, which normally requires CON applicants to wait 45 days between filing an exemption request and filing a CON application. On April 25, 2013, the Commission granted each of Stoneray's exemption and variance requests.

5.2 Environmental Report

The Commission rules require the Minnesota Department of Commerce to provide an Environmental Report for any large energy facility for which a CON must be obtained. Minn. R. 7849.1200.

5.3 Site Permit

The Project will require an LWECS site permit, pursuant to Minn. Stat. § 216F.04. Stoneray anticipates submitting an LWECS Site Permit application in the next several weeks under Docket No. IP-6646/WS-13-216. Stoneray requests that the CON application and site permit application processes be combined and coordinated to the extent possible.

[Remainder of Page Intentionally Left Blank]

5.4 Other Project Permits

Table 8 below provides a list of regulatory approvals, licenses, and permits likely to be required to construct and operate the Project.

Table 8: Project Permits and Approvals

Agency	Permit/Approval	Need for Permit/Approval
Federal		
U.S. Army Corps of Engineers (USACE)	Review and Approval of Wetland Delineations	Required to determine extent of USACE jurisdiction, quantify impacts, or document avoidance.
	Jurisdictional Determination	The Project may be eligible for a Letter of No Jurisdiction if wetlands are avoided or impacts are limited to isolated wetlands.
	Federal Clean Water Act Section 404 Permit(s)	Project may require a USACE Regional General Permit or an Ind. Permit depending on amount and type of wetland impact proposed. Permit from USACE required if wetlands are jurisdictional and not avoidable.
Environmental Protection Agency (Region 5) (EPA) in coordination with the Minnesota Pollution Control Agency (MPCA)	Spill Prevention Control and Countermeasure Plan	May be required if turbine commissioning or construction activities will require oil storage in excess of 1320 gallons. May be required for O&M facility or if an oil storage tank is planned for this Project.
Lead Federal Agency	Federal Section 106 Review	Section 106 of the National Historic Preservation Act (NHPA) may be invoked by a Federal Agency if the Project requires federal land, funding, or permits.
Federal Aviation Administration (FAA)	Form 7460-1 Notice of Proposed Construction or Alteration (Determination of No Hazard)	Determination of No Hazard to Air Navigation needed for each structure over 200 feet tall via form 7460-1.
	Notice of Actual Construction or Alteration (Form 7460-2)	Notify FAA of construction via Form 7460-2.
Federal Communications Commission	Non-Federally Licensed Microwave Study	May be required for LWECS Site Permit compliance
	NTIA Comm. Study	May be required for LWECS Site Permit compliance
	Communication Study	May be required for LWECS Site Permit compliance
	Signal strength assessment	May be required for LWECS Site Permit compliance
	Onsite Signal strength assessment	May be required for LWECS Site Permit compliance

Agency	Permit/Approval	Need for Permit/Approval
State		
Minnesota Public Utilities Commission (MPUC)	Large Wind Energy Conversion System (LWECS) Site Permit	Required under for a LWECS that generates 5 MW or more of electricity.
	Certificate of Need (CON)	A CON is required under Minn. Stat. § 216B.243 because the Project is a Large Energy Facility as defined in Minn. Stat. § 216B.2421, subd. 2(1).
Minnesota State Historic Preservation Office (SHPO)	Class I Literature Review / Class III Cultural Field Survey. Cultural and Historic Resources Review and Review of State and National Register of Historic Sites and Archeological Survey	May be required for LWECS Site Permit compliance. Consultation with SHPO is recommended. Should Section 106 of the National Historic Preservation Act (NHPA) be triggered, consultation will be mandatory.
Minnesota Pollution Control Agency (MPCA)	Section 401 Water Quality Certification	Individual Section 401 Water Quality Certification or Waiver is required under the Federal Clean Water Act (CWA) for projects that require an Individual Section 404 Permit from the USACE to ensure that authorized activities do not violate state water quality standards.
	National Pollutant Discharge Elimination System Permit (NPDES) — MPCA General Storm water Permit for Construction Activity (MN) R100001)	Coverage under the MPCA General Storm water Permit for Construction Activity is required for projects that disturb more than one acre of land.
Minnesota Department of Transportation (MNDOT)	Utility Agreements and Permits	Minn. Stat. Chap. 161 requires a permit to place utility facilities on trunk highway rights-of-way.
	Oversize/Overweight Permit for State Highways	Under Minn. Stat. Chap. 169, a permit is required for hauling construction equipment and materials that exceed height and weight limits on U.S., Interstate, and state highways through Minnesota.
Minnesota Department of Transportation (continued)	Access Driveway Permits for MNDOT Roads (TP1721)	Permit for temporary or permanent accesses and temporary widening of access points.
Minnesota Department of Natural Resources (MDNR)	License for crossing Public Lands and Waters (Minn. Stat. § 84.415)	Required for wind farm facilities that cross or locate on state-administered public lands or waters
	Public Waters Work Permit (Minn. Stat. Chap. 103G)	Any construction activities that impact waterways, including Wetlands, applies to public waters that are identified on MDNR public waters maps

Agency	Permit/Approval	Need for Permit/Approval
Other		
Pipestone County Murray County	Building Permit	County requests building permit for access roads, turbines, & project substation

6. PEAK DEMAND AND ANNUAL CONSUMPTION FORECAST (MINN. R. 7849.0270)

Stoneray requested exemption from this data requirement, which requires an applicant to provide information regarding its system peak demand and annual energy consumption. As an alternative, Stoneray proposed to submit regional demand, consumption, and capacity data to demonstrate the need for the Project. Such information is provided in Section 2.2.1.

7. SYSTEM CAPACITY (MINN. R. 7849.0280)

Stoneray requested a partial exemption from this data requirement, which requires applicants to "describe the ability of its existing system to meet the demand for electrical energy forecast" in response to Minn. R. 7849.0270, and "the extent to which the proposed facility will increase this capability." Minn. R. 7849.0280. As an alternative, Stoneray proposed to submit regional demand, consumption, and capacity data to demonstrate the need for the Project. Such information is provided in Section 2.2.1.

8. CONSERVATION PROGRAMS (MINN. R. 7849.0290)

Stoneray requested an exemption from this data requirement, which requires an applicant to describe its energy and conservation plans.

9. CONSEQUENCES OF DELAY (MINN. R. 7849.0300)

Stoneray requested a partial exemption from this data requirement, which requires the CON applicant to discuss the "anticipated consequences to its system, neighboring systems, and the power pool should the proposed facility be delayed one, two, and three years, or postponed indefinitely." Minn. R. 7849.0300. Instead, Stoneray proposed to submit data on the consequences of delay to its potential customers and to the region.

In order to qualify for the PTC or the Investment Tax Credit, the Project must begin construction before January 1, 2014. This is a short timeline, and delay would mean the Project would not be eligible for these important federal tax incentives, which would significantly raise the cost of power production to Stoneray and its customers. Since Stoneray's intended customers are utilities meeting renewable energy requirements, the cost impact of delay would ultimately be passed to utility customers. In addition, delay could impact the ability of utilities to meet their RES requirements in the future. A delay of even one

year would also have significant impact on the Project's ability to meet the commercial operation date required by Stoneray's LGIA. Similar to missing the PTC deadline, missing the LGIA deadline could have a significant impact on the Project's cost and viability. This, in turn, would have a significant impact on the ability of utilities to meet their RES requirements in a cost-efficient and timely manner. For all of these reasons, Stoneray is taking the steps necessary, including submitting this Application, to prepare the Project to begin construction in 2013.

73545285.7 0041428-00146

CERTIFICATE OF SERVICE

I, Sarah Johnson Phillips, hereby certify that I have this day, served a true and correct copy of the following document to all persons at the addresses indicated below or on the attached list by electronic filing, electronic mail, courier, interoffice mail or by depositing the same enveloped with postage paid in the United States mail at Minneapolis, Minnesota.

Application of Stoneray Power Partners, LLC for a Certificate of Need for a 105 MW Wind Project in Pipestone and Murray Counties, Minnesota

Docket No. IP-6646/CN-13-193

Dated this 26th day of April, 2013

/s/ Sarah Johnson Phillips

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134	Electronic Service	Yes	OFF_SL_13-193_CN-13-193
Katie	Clark Sieben	katie.clark.sieben@state.mn.us	DEED	500 Metro Square Bldg 121 E Seventh Pl Saint Paul, MN 55101	Electronic Service	No	OFF_SL_13-193_CN-13-193
Randall	Doneen	randall.doneen@state.mn.us	Department of Natural Resources	500 Lafayette Rd, PO Box 25 Saint Paul, MN 55155	Electronic Service	No	OFF_SL_13-193_CN-13-193
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_13-193_CN-13-193
Travis	Germundson	travis.germundson@state.mn.us		Board of Water & Soil Resources 520 Lafayette Rd Saint Paul, MN 55155	Electronic Service	No	OFF_SL_13-193_CN-13-193
Burl W.	Haar	burl.haar@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 551012147	Electronic Service	Yes	OFF_SL_13-193_CN-13-193
Leah	Hedman	Leah.Hedman@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St Saint Paul, MN 55101	Electronic Service	No	OFF_SL_13-193_CN-13-193
Sarah	Johnson Phillips	sjphillips@stoel.com	Stoel Rives LLP	33 South Sixth Street Suite 4200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_13-193_CN-13-193
Ray	Kirsch	Raymond.Kirsch@state.mn.us	Department of Commerce	85 7th Place E Ste 500 St. Paul, MN 55101	Electronic Service	No	OFF_SL_13-193_CN-13-193
Karen	Kromar	karen.kromar@state.mn.us	MN Pollution Control Agency	520 Lafayette Rd Saint Paul, MN 55155	Electronic Service	No	OFF_SL_13-193_CN-13-193

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
John	Lindell	agorud.ecf@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes	OFF_SL_13-193_CN-13-193
Susan	Medhaug	Susan.medhaug@state.mn.us	Office of Energy Security	Suite 500, 85 Seventh Place East St. Paul, MN 551012198	Electronic Service	No	OFF_SL_13-193_CN-13-193
Bob	Patton	bob.patton@state.mn.us	MN Department of Agriculture	625 Robert St N Saint Paul, MN 55155-2538	Electronic Service	No	OFF_SL_13-193_CN-13-193
Michele	Ross	michele.ross@state.mn.us	Department of Health	625 N Robert St Saint Paul, MN 55101	Electronic Service	No	OFF_SL_13-193_CN-13-193