Appendix A EA Scoping Decision and Revised Scoping Decision

COMMERCE DEPARTMENT

In the Matter of the Applications of Big Bend Wind, LLC for a Certificate of Need and a Large Wind Energy Conversion System Site Permit for the up to 308 MW Big Bend Wind Project in Cottonwood and Watonwan Counties, Minnesota.	Environmental Assessment Scoping Decision Docket No. IP7013/CN-19-408 Docket No. IP7013/WS-19-619
In the Matter of the Applications of Big Bend Wind, LLC for a Route Permit for a 161 kV High Voltage Transmission Line in Cottonwood, Watonwan, and Martin Counties, Minnesota.	Docket No. IP7013/TL-19-621 Docket No. IP7014/CN-19-486 Docket No. IP7014/GS-19-620
In the Matter of the Applications of Red Rock Solar, LLC for a Certificate of Need and Site Permit for the up to 60 MW Red Rock Solar Project in Cottonwood County, Minnesota.	

The above matters are before the commissioner of the Department of Commerce (Department or Commerce) for a decision on the scope of the environmental report (ER) to be prepared for the Big Bend Wind Farm (Big Bend) in Cottonwood and Watonwan Counties, the scope of the environmental assessment (EA) to be prepared for the Big Bend Wind High Voltage Transmission Line (Big Bend HVTL) in Cottonwood, Watonwan, and Martin Counties, and the Red Rock Solar Project (Red Rock) proposed by Red Rock Solar, LLC (Applicant) in Cottonwood County.

The Department will be completing the necessary ER and EAs jointly, and one joint document will be completed to meet the necessary environmental assessment requirements of Big Bend, Big Bend HVTL, and Red Rock. This scoping decision identifies topics that will be analyzed for all three proposed projects and included in the joint EA.

Project Purpose

The proposed Big Bend Wind Project will generate up to 308 MW of electric energy; the Applicant states that the Project will generate renewable power to be offered for sale to wholesale customers, which could include Minnesota utilities and cooperatives that have a need for additional renewable energy sources.[1] The Applicant continues that given the demand for renewable energy, a market exists for independently produced electricity generated from wind and other renewables, including the up to 308 MW to be generated by the Project.[2]

Big Bend is also proposing to build a new 18-mile 161 kV transmission line and associated facilities to connect the Big Bend Wind Farm to the existing Blue Lake-Wilmarth-Interstate Junction 345 kV transmission line in Martin County, Minnesota.

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[1] Big Bend Wind, LLC. Initial Filing – Certificate of Need Application. November 9, 2020 eDocket ID# **202011-168164-03**, **202011-168164-04**, **202011-168164-05** [hereinafter Wind CN Application].

[2] Wind CN Application at Section 3.1

The proposed Red Rock Solar Project will be constructed and operated as part of a hybrid wind/solar renewable project in conjunction with the proposed Big Bend Wind Project. As proposed, Red Rock could generate up to 60 MW of solar electrical energy, which would only be a portion of the total of up to 335 MW from the combined hybrid wind/solar project.[3]

The Applicant asserts that a combined wind/solar hybrid renewable energy project is more attractive from a demand perspective, and development of a solar facility along with a wind energy project is more cost efficient than the development of a stand-alone solar facility.[4] The Applicant anticipates the proposed Red Rock Solar Project will provide renewable solar energy that will be available to utility, commercial, or industrial purchasers to help them meet clean energy goals.[5]

Project Description

The Big Bend Wind Project and Red Rock Solar Project have been proposed as a hybrid renewable energy generation project, which could generate up to a total of 335 MW of electricity. The Big Bend Wind Farm could generate up to 308 MW of electricity, the Red Rock Solar Project would generate up to 60 MW of electricity, and the proposed 18 mile long Big Bend Wind 161 kV HVTL would be utilized to deliver the electricity generated to the grid. Depending on the approval and electricity generated at the Red Rock Solar Project, the total energy generation at the Big Bend Wind Project will be adjusted to not exceed a total of up to 335 MW. This means that if Red Rock Solar Project was permitted to at full 60 MW, the Big Bend Wind Project would be limited to 275 MW. The applicant has indicated that Red Rock Solar Project will not proceed without the construction and operation of the Big Bend Wind Project, as Red Rock would not be feasible as a "stand-alone" generation facility when considering the cost and expenses associated with the construct of the necessary HVTL to connect to the grid.

Big Bend Wind Farm

The Big Bend Wind Farm will be located in portions of Cottonwood and Watonwan counties, Minnesota, with a Project footprint that spans 43,523 acres of land in Delton, Selma, Carson, and Midway Townships (Cottonwood County) and Butterfield Township (Watonwan County). The Project will have up to 308 MW of nameplate wind energy capacity. Big Bend continues to assess its turbine options and is currently evaluating three wind turbine models with rated nameplate power outputs ranging from 5.5 MW to 5.7 MW, which would result in the construction and operation of between 49 and 47 wind turbines, respectively.[6]

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[3] Red Rock Solar, LLC. Initial Filing – Site Permit Application and Appendices. November 9 and 10, 2020. eDocket ID# **202011-168174-02**, **202011-168174-03**, **202011-168174-04**, **202011-168174-05**, **202011-168174-06**, **202011-168174-07**, **202011-168174-08**, **202011-168174-09**, **202011-168174-10**, **202011-168178-01**, **202011-168178-03**, **202011-168178-04** (hereinafter referred to as the Solar SPA)

[4] Solar SPA at Section 1.1

[5] Solar SPA at Section 1.1

[6] Big Bend Wind, LLC. Initial Filing – Site Permit Application and Appendices. November 9, 2020. eDocket ID# **202011-168170-02**, **202011-168170-03**, **202011-168170-04**, **202011-168170-05**, **202011-168170-06**, **202011-168170-07**, **202011-168170-08**, **202011-168170-09**, **202011-168170-10**, **202011-168172-01**, **202011-168172-02**, **202011-68172-03**, **202011-168172-04**, **202011-168172-05**, **202011-168172-06**, **202011-168172-07**, **202011-168172-08**, **202011-168172-09**, **202011-168173-01** [hereinafter Wind SPA]

A number of facilities will be constructed to support the operation of the wind turbines and facilitate the delivery of electricity to consumers. Big Bend is seeking approval from the Commission through the LWECS site permit for the following associated facilities: new gravel access roads, improvements to existing roads, underground and/or aboveground electrical collection and communication lines, operation and maintenance (O&M) building/facility, a Project substation, one permanent meteorological tower, one Sonic Detection and Ranging (SoDAR) or Light Detection and Ranging (LiDAR) unit, a laydown area, up to four Aircraft Detection Lighting Systems (ADLS) radars, and, if needed, a temporary concrete batch plant area.[7]

The applicant anticipates turbine delivery date as early as the second quarter of 2022[8], and an anticipated commercial operation date (COD) in the fourth quarter of 2022.[9]

Big Bend Wind 161 kV HVTL

Big Bend proposes to connect the LWECS project substation and the Red Rock Solar project substation, to the electrical grid through approximately 18 miles of new 161 kV transmission line. The HVTL Project will begin at the new project substations to be constructed in Midway Township of southeastern Cottonwood County; the HVTL will then proceed generally south and east through Midway and Mountain Lake Townships in Cottonwood County, Odin Township Watonwan County, and Cedar Township in Martin County for approximately 18 miles to connect to a proposed Step-up substation in Martin County near the Crandall Switching Station.[10] A less than 1,500 foot 345 kV transmission line segment is proposed to be constructed to connect the proposed Step-up substation to the existing Crandall Switching Station (Point of Interconnection, or POI), which will allow for connection to the electrical grid via the existing Blue Lake-Wilmarth-Interstate Interconnect 345 kV transmission line.[11] A second interconnection opportunity is located approximately two miles southwest of Crandall Switching Station along the Blue Lake-Wilmarth-Interstate 345 kV line. The second interconnection opportunity would be a "net-zero" interconnection, which connects through the existing Great River Energy Lakefield Junction Peaking Plant.[12]

Big Bend indicates that the proposed single-circuit 161 kV HVTL will require a right-of-way (easement width) of 100 to 150 feet. The proposed HVTL right-of-way located parallel to existing road rights-of-way will be 150 feet wide, with 50 feet on the roadside of the alignment and 100 feet on the non-roadside of the alignment. In areas where paralleling existing road rights-of-way, poles would be placed on adjacent private property, within approximately 15 feet of the existing road right-of-way.[13] Sections of the HVTL right-of-way proposed to be located away from existing road rights-of-way will be 100 feet wide, with the exception of three locations along the route where a width of 150 feet rights-of-way will be used to allow for better accommodation of farming practices in those areas.[14]

[7] Wind SPA at Section 4.2
[8] Wind SPA at Section 10.8
[9] Wind SPA at Section 10.8
[10] RPA at Section 2.5
[11] RPA at Section 2.5
[12] RPA at Section 1.0
[13] RPA at Section 2.4
[14] RPA at Section 2.4

Big Bend has requested a 1,000 foot route width for the majority of the proposed route.[15] The Applicant has requested a wider route width, ranging from 1,000 feet to 1.15 miles wide, to allow flexibility in working with landowners on alternate route segments (Alternate Red, Yellow, and Purple route segments) and in northwestern Martin County to allow for flexibility in working with landowners on parcels currently under easement with other entities.[16]

At the time of filing, Big Bend had secured 100 percent of the total necessary private easements on the proposed route and continues to work on acquiring land easements along the alternate segments.[17] If additional property rights are required for the HVTL, Big Bend has stated that it will seek to negotiate a voluntary easement agreement with each affected landowner.

Big Bend proposes to use three types of wood or steel monopole structures: tangent, angle, and dead end.[18] The proposed structures will range in height from approximately 70 feet to 120 feet, with spans of approximately 600 to 800 feet between structures in areas with 100 foot wide right-of way, and the structure spans will be approximately 800 to 1,100 feet where the right-of-way is 150 feet wide.[19]

Big Bend anticipates the HVTL project construction will begin in the second quarter 2022, and that the new line will be in service by the fourth quarter of 2022.[20]

Red Rock Solar Project

The applicant proposes to construct the Red Rock Solar Project on approximately 485 acres of land in Sections 1, 2, 11, 12, 14, 22, and 23 of Midway Township (Township 106 North, Range 34 West) Cottonwood County (see **Figure 1**). Its primary components include photovoltaic (PV) panels affixed to a linear ground-mounted single-axis tracking system, inverters and transformers housed in electrical cabinets, electrical collection system, solar project substation, and supervisory control and data acquisition (SCADA) system and metering equipment.[21] The project also requires fencing, access roads, laydown areas, weather stations, and stormwater drainage basins.[22] If the solar project needs an operation and maintenance (O&M) facility, the Project will share facility space in the O&M facility for the Big Bend Wind Project, which is included in the wind project Site Permit Application.[23]

The Project will connect to the proposed 18 mile long – 161 kilovolt (kV) Big Bend Wind High Voltage Transmission Line (HVTL) through the proposed project substation, and the solar generated electricity will be connected to the Blue Lake-Wilmarth-Interstate Interconnection 345 kV transmission line at the Xcel Energy Crandall Switching Station or as a “net-zero” interconnection at the Great River Energy Lakefield Junction Natural Gas Peaking Plant located approximately two miles southwest of the Xcel Energy Crandall Switching Station.[24]

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[15] RPA at Section 2.2
[16] RPA at Section 2.2
[17] RPA at Section 4.1
[18] RPA at Section 2.3
[19] RPA at Section 2.3
[20] RPA at Section 2.6
[21] Solar SPA at Section 2.2
[22] Solar SPA at Section 2.2
[23] Solar SPA at Section 2.2
[24] Solar SPA at Section 2.1

The Applicant currently holds lease agreements with landowners of all parcels of lands proposed to be utilized for construction and operation of the Red Rock Solar Project.[25] Red Rock plans to purchase and hold title on some of the Project properties if the Site Permit is issued, and project lands to remain under lease will move into the operation terms of the lease agreements.[26] The properties currently under lease, but not utilized for Project construction and operation, will revert to previous land uses. [27]

The Red Rock Solar Project has been proposed to be constructed and operated only in combination with the proposed Big Bend Wind Farm. The Applicant has indicated the proposed projects are intended to function as a hybrid project of wind and solar energy generation. The Big Bend Wind Farm is feasible as a stand alone project or as a hybrid. To be feasible, the Red Rock Solar Project must be part of hybrid generation project.

Regulatory Background

The Projects require five distinct approvals from the Public Utilities Commission (Commission). The Big Bend Wind Farm will need a Certificate of Need (CN) and a LWECS Site Permit, the Big Bend Wind HVTL will need a Route Permit, and the Red Rock Solar Project will need a CN and a LEPGP Site Permit. On November 9, 2020, the Applicants filed separate certificate of need[28, 29], site permits[30, 31], and route permit[32] applications. The Commission met to consider the applications at its February 4, 2021. Per the Commission's March 11, 2021, written order, these applications were deemed substantially complete, indicated the CN applications would reviewed using the informal process, the route and Red Rock Solar site permit application will be handled through the alternative permitting processes, the Big Bend Wind Farm site permit application will be handled through a contested case proceeding, and the Order referred the matters to the Office of Administrative Hearings (OAH) for appointment of an administrative law judge (ALJ) to conduct the necessary proceedings.[33]

The proposed Big Bend Wind Farm CN application was submitted as required under Minn. R. 7849.0220, and a LWECS Site Permit Application was submitted including all the information required under Minn. R. 7854.0500. The proposed Red Rock Solar Project CN application was submitted as required under Minn. R. 7849.0220, and a large electric power generating plant (LEPGP) site permit application was submitted per Minn. R. 7850.3100.

The proposed 161 kV HVTL Project is submitted under the Alternative Permitting Process under Minn. Stat. 216E.04, subd. 2(3) and Minn. R. 7850.2800 to 7850.3900. Minn. R. 7850.3100 requires that an applicant provide one proposed route for the HVTL, and the applicant must describe alternatives considered, but rejected, and the reason the identified alternatives were rejected.

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[25] Solar SPA at Section 2.2
[26] Solar SPA at Section 2.2
[27] Solar SPA at Section 2.2
[28] Wind CN Application
[29] Red Rock Solar, LLC. Initial Filing – Certificate of Need Application and Appendices. November 9, 2020. eDocket ID # **202011-168166-03**, **202011-168166-04**, **202011-168166-05** (hereinafter referred to as the Solar CN Application)
[30] Wind SPA
[31] Solar SPA
[32] RPA
[33] Commission. Order - Order Accepting Applications Complete. March 11, 2021, eDocket ID# **20213-171785-05**.

Environmental Review

Environmental review must be completed prior to the Commission's decisions on the necessary CNs, site permits, and route permits. In this matter, department Energy Environmental Review and Analysis (EERA) staff will conduct environmental review under Minnesota Statutes 216B and 216E and Minn. R. 7849 and 7850. The completion of an Environmental Report (ER) is required for the necessary CN approvals, and the Red Rock Solar Project Site Permit and the Big Bend Wind HVTL Route Permit require the completion of an Environmental Assessment (EA).

Minn. R. 7849.1900 allows for the necessary environmental review to be completed under joint proceedings as the Red Rock Solar Site Permit Application and the Big Bend Wind HVTL Route Permit Application qualify for the alternative review process, and the applications have been submitted to the Commission at the same time as the CN Applications for the Big Bend Wind Farm and the Red Rock Solar Project. Under joint proceedings, an EA can be prepared under Minn. R. 7850.3700 to meet the necessary environmental review for the CNs, site permits, and route permit, in lieu of completing separate ERs and EAs.

An ER contains "information on the human and environmental impacts of the [project] associated with the size, type, and timing of the project, system configurations, and voltage".[34] It also contains information on system alternatives to the project, as well as mitigation measures.

Minnesota Rule 7849.1500, subpart 1, requires an ER include:
A. A general description of the proposed project and associated facilities;
B. A general description of the alternatives to the proposed project that are addressed . . . ;
C. An analysis of the human and environmental impacts of a project of the type proposed and of the alternatives identified;
D. An analysis of the potential impacts that are project specific;
E. An analysis of mitigative measures that could reasonably be implemented to eliminate or minimize any adverse impacts identified for the proposed project and each alternative analyzed;
F. An analysis of the feasibility and availability of each alternative considered;
G. A list of permits required for the project;
H. A discussion of other matters identified by the commissioner [of commerce].

On June 19, 2019, the Applicant requested exemptions from certain CN filing requirements under Minn. R. 7849.[35] Several of these exemption requests concern alternatives to the proposed project that must be discussed in an ER under Minnesota Rule 7849.1500, subpart 1(B). The Commission, in adopting the recommendations of the Department's Division of Energy Resources (DER) through its September 24, 2019, written order, authorized the requested exemptions.[36] As a result, the following system alternatives to the proposed project need not be studied: demand side management, purchased power, facilities using a non-renewable energy source, upgrading existing facilities, and transmission rather than generation.[37]

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[34] Minn. R. 7849.1500.

[35] Big Bend Wind, LLC and Red Rock Solar, LLC. Initial Filing – Request for Exemption from Certain Application Content Requirements and Rule 7829.2550 HVTL Notice Plan. June 19, 2019. EDockets ID # **20196-153717-01**

[36] Public Utilities Commission. Order – Approving Exemptions to Certain Filing Requirements. September 24, 2019. eDockets ID# **20195-152889-01**.

[37] Department of Commerce, Division of Energy Resources. Comments. July 22, 2019. eDockets ID# **20197-154575-01**.

Minnesota Rule 7850.3700, subpart 4, requires an EA include:
A. a general description of the proposed facility;
B. a list of any alternative sites . . . that are addressed;
C. a discussion of the potential impacts of the project and each alternative site . . . on the human and natural environment;
D. a discussion of mitigative measures that could reasonably be implemented to eliminate or minimize any adverse impacts identified for the project and each alternative site . . . analyzed;
E. an analysis of the feasibility of each alternative site . . . considered;
F. a list of permits required for the project; and
G. a discussion of other matters identified in the scoping process.

The Commission authorized the Department to combine the environmental review required for the CNs, Site Permits, and Route Permit; therefore, these applications will be processed jointly using Minnesota Rule 7829.1200 and Minnesota Rule 7850.2800 to 7850.3900.[38] Staff will prepare an EA in lieu of an ER, which means the EA will combine the analysis of issues typically reviewed for a site permit and route permit in an EA and system alternatives otherwise studied in an ER into a single document. This is the only state environmental review document required for the project.

Scoping Process Summary

Scoping is the first step in the environmental review process. Staff use the information gathered during scoping to focus the EA on the most relevant information needed by the Commission to make informed decisions. Scoping includes a public meeting and comment period that provide opportunities for interested persons to help develop the scope of the EA.[39]

On March 17, 2021, the commission and department issued a joint *Notice of Public Information and Environmental Assessment Scoping Meeting* and associated public comment period.[40] Notice was sent to those individuals on the project contact list and to potentially affected landowners.[41] The Applicant published notice in the *Cottonwood County Citizen* (March 17, 2021), the *Fairmont Sentinel (*March 18, 2021, and the *St. James Plaindealer* (March 18, 2021).[42] Additionally, notice was available on the EERA webpage.[43] Minn. R. 7850.3700, subpart 3, requires Commerce to determine the scope of the EA within 10 days after the close of the public comment period.

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[38] Public Utilities Commission. Order – Accepting Applications as Complete. March 11, 2021. EDockets ID# **20213-171785-01**.

[39] Minn. R. 7850.3700, subp. 2.

[40] Public Utilities Commission. Notice – Public Information and Environmental Review Scoping Meeting. March 17, 2021. eDockets ID # **20213-171972-04**.

[41] Public Utilities Commission. Notice – Public Information and Environmental Review Scoping Meeting. March 17, 2021. eDockets ID # **20213-171972-04**.

[42] Public Utilities Commission. Affidavit of Publication – Pub Info Scoping Mtg Affidavitts of Publication. March 31, 2021. eDockets ID # **201911-157657-02**.

[43] Department of Commerce – EERA.
Big Bend Wind Project **https://apps.commerce.state.mn.us/eera/web/project/14153**
Red Rock Solar Project **https://apps.commerce.state.mn.us/eera/web/project/14155**
Big Bend Wind 161 kV Transmission Line **https://apps.commerce.state.mn.us/eera/web/project/14156**

Public Meeting and Comment Period

Commission and EERA staff jointly held the Public Information and Environmental Assessment Scoping meeting virtually, due to the COVID-19 pandemic, on April 1, 2021, as noticed. The purpose of the meeting was to provide information and answer questions about the Projects, CN process, site permitting processes, route permitting process, and gather input regarding potential impacts and mitigative measures that should be studied in the EA. The meeting also provided an opportunity to solicit potential site, route or system alternatives. Commission staff, the Applicant, and EERA staff provided presentations during the public information and scoping meeting, and presentation slides were made available following the meeting.[44] A court reporter was present to document verbal statements.[45]

Approximately 50 individuals were present for the virtual Public Information and Environmental Assessment Scoping Meeting held on April 1, 2021. Some individuals attended through both the Webex visual portal and call-in phone conferencing and others attended only by call-in phone conferencing. Several verbal questions and comments were provided during the Public Information and Environmental Assessment Scoping Meeting. No detailed system alternatives were provided during the meeting. Attendees suggested ideas such as developing only solar energy generation for the project and reducing the number of proposed turbines to be constructed and operated.

The associated public comment period, which ended April 30, 2021, provided an opportunity for interested persons to identify issues, mitigation measures, and site, route or system alternatives for study in the EA. Written comments were received from two State agencies, two intervening parties, and several members of the public. Several site or system alternatives were recommended in the written comments received. No route alternatives or route segment alternatives were recommended for the proposed Big Bend Transmission Line.

Comments Received

Staff received a variety of comments about the proposed projects from State agencies, intervening parties, local County Commissioners, and members of the public. The Minnesota Department of Natural Resources (MN DNR) and Minnesota Department of Transportation (MnDOT) – Office of Land Management provided agency comments in writing during the comment period. The MnDOT – Aviation and Aeronautics Unit contacted EERA staff with a concern from a member of the public about the Big Bend Wind Farm, via email at the end of the Application Completeness Comment Period. EERA thought it was appropriate to include the comments from MnDOT – Aviation and Aeronautics into the PDSP and EA Scoping comments. The Minnesota Historical Society (MNHS), the Upper Sioux Community, and the Lower Sioux Indian Community, both intervening parties in the Contested Case Proceedings for the proposed Big Bend Wind Farm, provided written comments during the comment period. Some of the Commissioners on the Cottonwood County Board provided comments during the Public Information and Scoping Meeting.

All comments received during the PDSP and EA Scoping comment period and during the Public Information and Scoping Meeting are available to view or download on eDockets[46] or the EERA webpage.

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[44] Public Utilities Commission. Handout – Commission-Public Information and Scoping Meeting Presentation. April 7, 2021. eDockets ID # **20214-172659-01**.

[45] DOC-EERA. Public Information and Scoping Meeting Minutes. April 30, 2021. eDockets ID # **20214-173685-03**.

[46] DOC-EERA. Public Information and Scoping Meeting Minutes. April 30, 2021. eDockets ID # **20214-173685-03**.

Agency Comments

The MN DNR provided comments with respect to all aspects of the proposed Projects, the Big Bend Wind Farm, Big Bend Wind HVTL, and the Red Rock Solar facility.[47] They indicate there are known calcareous fens located within five miles of the Project Area, and the Project applicant will need to complete the necessary field review of all wetlands within 500 feet of construction activities to determine if any of the wetlands are calcareous fens. If any calcareous fens are identified within 500 feet of any proposed construction activities a Calcareous Fen Management Plan will need to be developed in consultation with the MN DNR.

Two Henslow's sparrows were identified in the Project Area during pre-construction avian surveys. The Henslow's sparrow is a State endangered species, and MN DNR has indicated that possible construction restrictions may be necessary between May 15 and July 15. Adjustments of construction timing, and the location of construction activities in proximity to potential Henslow's sparrow nesting habitat will be evaluated as possible mitigation measures within the EA.

The Big Bend Wind Farm LWECS Site Permit application specifies that one year of post-construction bird and bat fatality monitoring will be completed for the proposed project, once operations begin. MN DNR's comments recommend a minimum of two years of post-construction fatality monitoring for the Project, which is consistent with the most recently approved LWECS Site Permits issued by the Commission. EERA recommends a minimum of two years of post-construction fatality monitoring be completed at the proposed project, and this language has been revised in the Preliminary Draft Site Permit (PDSP).

MN DNR's comment letter states that the proposed location of Turbine 43 is within a mapped National Wetland Inventory (NWI) wetland basin. The NWI is a useful tool for wetland delineators to assess large project areas for potential wetland areas to investigate further. However, it is important to remember that upon further field investigation some wetland basins on the NWI may be determined to not be wetlands, and not all wetland basins are identified on the NWI. The Project Applicant will conduct a detailed wetland investigation, both desktop and field based, to identify and delineate all wetlands that could potentially be impacted by the proposed projects. All wetland impacts related to the proposed projects will be mitigated for as required by the State of Minnesota Wetland Conservation Act (WCA) and the United States Army Corps of Engineers (USACOE) 404 Wetland Permit program.

The proposed Big Bend HVTL route crossed multiple wetland basins identified on the NWI, the South Fork of the Watonwan River, Cedar Creek, and other water bodies. MN DNR has requested that the Applicant coordinate with their agency on the placement of avian flight diverters on the proposed HVTL at water body crossings to help reduce the potential for avian and HVTL collisions. EERA considers this to be a reasonable mitigation measure, it will be carried forward in the EA Scope, and additional details on this mitigation measure will be included in the EA.

MN DNR provided comments specific to the Red Rock Solar Vegetation Management Plan (VMP), and requested the EA to consider and evaluate the use of diverse native prairie species seed mixes within the solar facility and the importance of establishing pollinator habitat within the project area. The MN DNR recommends Red Rock Solar, LLC use a diverse native prairie species seed mix as indicated in MN Statute

[47] Minnesota Department of Natural Resources. Comments. April 29, 2021. eDocket ID # **20214-173605-01.**

2020, Section 216B.1642, Subdivision 1. MN DNR also recommends the VMP be updated to include additional maps of the NE, NW, SE, and SW units, similar to those provided in the Agricultural Impact Mitigation Plan (AIMP) for the proposed project. EERA considers these recommendations to be reasonable, it will be carried forward in the EA Scope, and additional details on the VMP and AIMP will be included in the EA.

The proposed projects are located between Trunk Highway 60 (TH 60) and Trunk Highway 30 (TH 30), so MnDOT – Office of Land Management acknowledges that TH 60 AND TH 30 will likely provide general transportation access to the projects.[48] However, MnDOT does not anticipate any temporary access roads for project construction or continued use during the life of the projects to be built along TH 60 or TH 30. MnDOT strongly supports the proposed turbine locations utilizing the 1.1 times total turbine heigh setback from public roads trails. MnDOT – Office of Land Management staff does identify potential concerns with the Turbine T-55 shadow flicker that could extend onto a segment of TH 60 that has been the site of numerous crashes. Currently, no collection line locations pose immediate concerns to MnDOT – Office of Land Management staff.

MnDOT – Office of Land Management's comments identified concerns with the proposed Big Bend HVTL route's single perpendicular crossing of TH 60, at the TH 60 and County State Aid Highway 8 (CSAH 8) intersection. At the TH 60 and CSAH 8 intersection, TH 60 expands to a width of 615 feet, so HVTL routing and proper pole placement will need to evaluated and planned appropriately to ensure TH 60 can be spanned safely. MnDOT – Office of Land Management comments indicated that no poles placement will be allowed within site corners or within the median at the intersection of TH 60 and CSAH 8, and there are some possible drainage concerns in the area as well. The Applicant will need to work with MnDOT – Office of Lane Management staff to make sure that safe and permittable pole placement can be planned out.

MnDOT – Office of Land Management did not have any comments or concerns specific to the proposed Red Rock Solar Project at the time of scoping.

All proposed projects may need to acquire MnDOT permits; utility accommodation on trunk highway right of way, oversize/overweight hauling, and other highway access permitting. MnDOT permit reviews can result in additional construction criteria and/or the requests to move portions of the proposed project structures out of given areas of concern. Permit applications submitted to MnDOT – Office of Land Management, as part of the proposed projects, will not be issued until the Commission has issued approved permits for, and authorized construction of, these projects.

The Applicant will need to coordinate with MnDOT on plans to haul oversize loads to the project area to take into account future MnDOT highway construction activities planned for the 2022 construction season:

- Two to four lane expansion of US Highway 14 between Nicollet and New Ulm
- Construction of an RCUT on US Highway 14 in Eagle Lake between CSAH 86 and CSAH 17
- Resurfacing of I-90 eastbound lanes from TH 4 near Sherburn and TH 15 near Fairmont
- Pavement replacement and bridge rehabilitations on eastbound and westbound lanes of TH 60/TH 15 between Madelia and south junction of TH 60
- Resurfacing of US Highway 169 between Winnebago and Vernon Center and between Elmore and Blue Earth

[48] MnDOT. Comments. April 30, 2021. eDocket ID # **20214-173649-01**.

- Bridge replacements on US Highway 169 near St. Peter
- A concrete overlay on both east and west bound I-90 between the South Dakota/Minnesota state line and Beaver Creek

MnDOT's planned construction projects can experience schedule changes, and the Applicant should check on project status on a regular basis.

EERA will remain in contact with MnDOT – Office of Land Management, and we will include our evaluation of proposed pole placement, the proposed route, and the proposed route segments as they could impact transportation safety within the EA. The EA will also further evaluate the shadow flicker concerns specific to the location of turbine T-55.

EERA's Preliminary Draft Site Permit (PDSP) includes conditions specific to project related road use, additional permits needed, and turbine setback distances from public roads and trails.

EERA also received comments from the MnDOT Aviation and Aeronautics unit. The MnDOT, Aviation and Aeronautics Unit were contacted by Mr. Elvin Theissen, who owns land adjacent to the Big Bend Wind Farm project area and currently has an active private airplane runway present on his land.[49] Mr. Theissen indicated to MnDOT Aviation staff that the construction of Turbine T47 in its proposed location would make his private runway unusable.

MnDOT Aviation staff also informed EERA that because the total proposed turbine height is over 500 feet, the turbines are considered obstructions to the safety of flight, and an additional permit issued by MnDOT must be acquired by the project proponent under MN Statute 360.83.

It is EERA's understanding that the Applicant is currently working with Mr. Theissen to identify a method to allow construction and operation of the proposed Turbine T47, while still allowing safe operation of Mr. Theisen's private runway. Additional details on this situation will be included. And this issue will be evaluated, in the EA. The additional MnDOT Aviation permit is covered under the typical LWECS Site Permit condition 5.6.2 Other Permits and Regulations language, which will be maintained in the submitted PDSP. Issuance of any MnDOT Aviation Permits necessary to construct and operate the proposed Big Bend Wind Farm will need to be filed in eDockets, as a pre-construction compliance filing, 14 days prior to the pre-construction meeting.

Local County Board Comments[50]

Two Cottonwood County Commissioners voiced their support for the proposed projects during the Public Information and Scoping Meeting. They stated that the County has received positive feedback on the proposed projects, and they have basically not heard any negative feedback at this time. The Commissioners stated that all County Board votes have been unanimously in support of both the wind facility and the solar facility.

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[49] MnDOT Aeronautics and DOC-EERA. Comments – MnDOT Aeronautics Comments and Email to DOC-EERA. May 24, 2021. eDocket ID # **20215-174410-01.**

[50] DOC-EERA. Minutes – Public Information and Scoping Meeting Minutes – April 1, 2021. April 30, 2021. eDocket ID # **20214-173685-03**.

Intervening Party Comments

Minnesota Historical Society (MNHS) provided comments identifying the potential impacts of the proposed Big Bend Wind Farm on the users of the Jeffers Petroglyphs site located to the northwest of the proposed project.[51] MNHS stated that the preservation and protection of the Jeffers Petroglyphs site is necessary because of the site's historical importance and also to protect the current spiritual use and ceremonial importance of the site to Native American Tribes. MNHS points to the Minnesota Historic Sites Act and Statutory Obligations, MN Statute 138, in particular 138.40 and 138.665, and the responsibility of State departments and agencies to "protect the physical features and historic character" of the designated historic properties in the State. To meet these statute obligations MNHS has recommended that a full independent visual impact analysis (VIA), including standards-based evaluation, and full tribal consultation be completed by EERA and included in the EA.

MNHS has requested that their staff, Tribal community representatives, the Red Rock Ridge Research Group, the State Archaeologist, and the State Historic Preservation Office (SHPO) be involved with the VIA process, Key Observation Point (KOP) selection, and VIA analysis. MNHS has recommended the VIA methodology and the analysis and identification of any potential adverse effects of the proposed project on the Jeffers Petroglyphs site be completed in accordance with the methodology in the National Park Service's *Guide to Evaluating Visual Impact Assessments for Renewable Energy Projects.*[52] MNHS further recommended the VIA evaluate the proposed turbine locations for Big Bend Wind, along with a turbine layout eliminating all proposed turbines within eight miles of the Jeffers Petroglyphs site property boundary, and a turbine layout eliminating all proposed turbines within 10 miles of the Jeffers Petroglyphs site property boundary. In addition to the eight mile and 10 mile "no turbine" buffers, MNHS has recommended that the proposed turbines that remain outside of these buffer zones should be no taller than a total turbine height (ground to tallest blade tip height position) 570 feet and 656 feet, respectively.

MNHS has also indicated they would like their staff involved in selecting the KOPS, lighting quality, and the range of views for photos to be used in the photographic simulations. The MNHS wants the VIA to reflect the expected landscape and proposed project as closely as possible, and the KOPs should reflect the range of views and viewing conditions that users at the Jeffers Petroglyphs will experience with the proposed project.

MNHS recommended three KOP locations to be utilized in the VIA:

- The highest elevation location on the Jeffers Petroglyphs site
    - This location provides a 360 degree view for the user
    - The most common location where tribal ceremonies are conducted
    - All visitors are able to access this location regularly during evening tours
    - Should include a "worst case" scenario and capture a panoramic angle from the east, south, and west
- The first boardwalk located approximately 430 yards east of the Jeffers Petroglyphs visitor center

[51] Minnesota Historical Society. Comments on the Scope of the Environmental Assessment for the Big Bend Wind Project. April 29, 2021. eDocket ID # **20214-173618-02.**

[52] National Park Service. Guide to Evaluating Visual Impact Assessments for Renewable Energy Projects. Natural Resource Report NPS/ARD/NRR. August 2014. https://irma.nps.gov/DataStore/DownloadFile/498939

    - This is the first stop for visitors on tours of the Jeffers Petroglyphs site, and users are asked to look around and reimagine the landscape as it would have looked in the past
    - Large industrial scale turbines would affect a user's ability to reimagine
- The Jeffers Petroglyphs Astronomical Education Facility
    - Used for astronomical activities
    - Turbines could interfere with the locating of celestial bodies and the events conducted at this facility
    - Should depict viewpoints with an angle to the east, south, and west

MNHS comments also directed EERA to conduct full consultation with the 11 federally recognized tribal nations in Minnesota, and the seven federally recognized tribal nations that have been exiled from Minnesota.

Tribal Nations in Minnesota

- Lower Sioux Indian Community
- Upper Sioux Community
- Shakopee Mdewakanton Sioux Community
- Prairie Island Indian Community
- Bois Forte Band of Chippewa
- The Fond du Lac Band of Lake Superior Chippewa
- Grand Portage Band of Chippewa Indians
- Leech Lake Band of Ojibwe
- Mille Lacs Band of Ojibwe
- White Earth Reservation
- Red Lake Band of Chippewa Indians

Tribal Nations Exiled from Minnesota

- Flandreau Santee Sioux Tribe
- Crow Creek Sioux Tribe
- Sisseton-Wahpeton Oyate of the Lake Traverse Reservation
- Yankton Sioux Tribe
- Standing Rock Sioux Tribe
- Spirit Lake Tribe
- Santee Sioux Tribe

MNHS recommends that EERA's tribal consultation should include engaging tribal representatives on VIA methods, KOP selection, identifying potential adverse effects of the proposed project on users of the Jeffers Petroglyph sites, and potential recommended mitigation strategies. The MNHS comments also state that EERA should document all consultation with the SHPO and the Minnesota State Archaeologist regarding actions or mitigation measures that are agreed upon to avoid and mitigate any adverse effects of the proposed project on users of the Jeffers Petroglyphs site.

MNHS has identified the following alternatives to be included in the EA;

- Different turbine locations
- Different turbine heights
- Reduction in the number and density of turbines

- Removal of all wind turbines within 8 miles of the Jeffers Petroglyphs site property boundary, and the remaining turbines be reduced in height to no more than 570 feet (ground to blade tip), as shown in the July 2019 VIA completed by Apex
    - Any energy output lost should be shifted to an increase in solar facility size
- Removal of all wind turbines within 10 miles if the Jeffers Petroglyphs site property boundary, and the remaining turbines be reduced in height to no more than 656 (ground to blade tip)
    - Any energy output lost should be shifted to an increase in solar facility size and output

The Upper Sioux Community indicated that the turbine locations for the proposed Big Bend Wind Project will have a clear negative impact on the viewshed of the Jeffers Petroglyphs State Historic Site and other associated sacred sites located on the Red Rock Ridge.[53] The Upper Sioux Community and its members identify the Jeffers Petroglyphs Site and the Red Rock Ridge as culturally and spiritually significant areas.[54]

The Lower Sioux Indian Community filed comments sharing their significant concern with the proposed projects and their potential impacts to the Jeffers Petroglyphs and the Red Rock Ridge.[55] The Jeffers Petroglyphs and the Red Rock Ridge are considered sacred historic landmarks and sacred active locations used for ceremonies and spiritual engagement of the Lower Sioux Indian Community and numerous other Indian Tribes. Jeffers Petroglyphs site and the Red Rock Ridge are a pivotal component of this State's, and the continent's, history. Individuals of numerous federally recognized Indian tribes travel to the Jeffers Petroglyphs and the Red Rock Ridge to take part in ceremonies, prayer, connecting with their ancestors, and other spiritual activities. An essential component of the Jeffers Petroglyphs site and the Red Rock Ridge is the solitude provided to those that use the sites and participate in ceremonies at the sites. The Lower Sioux Indian Community has concerns that proposed projects will impact the solitude an individual can experience at the Jeffers Petroglyphs site and the Red Rock Ridge, which will substantially jeopardize their ability to practice the ceremonies of their culture. Lower Sioux Indian Community agrees with the MNHS recommendations for a detailed VIA of the proposed Big Bend Wind Farm's potential impacts to the viewshed from the Jeffers Petroglyphs and the Red Rock Ridge. The Lower Sioux Indian Community indicated their desire to be consulted in further assessments of potential viewshed impacts.

The Lower Sioux Indian Community has additional concerns about the potential impact of turbine generated noise on the spiritual experience of the users of the Jeffers Petroglyphs. The Lower Sioux Indian Community is also concerned about the potential impacts of vibrations on the formations and carvings within the Jeffers Petroglyphs site and the Red Rock Ridge. The Lower Sioux Indian Community stated concerns that the public and private funding for management of the Jeffers Petroglyphs and the Red Rock Ridge may be impacted by the construction and operation of the proposed projects.

The Lower Sioux Indian Community stated that the Jeffers Petroglyphs site and the Red Rock Ridge are part of a larger network of sacred sites extending westward into Montana. This larger network of sacred sites is known of and actively used by multiple Indigenous groups throughout the Midwest. The larger network of sacred sites is representative of the Dakota concept of Kopemni, and any impacts to the Jeffers Petroglyphs or the Red Rock Ridge would be considered an impact to the larger network of sacred sites extending to the west. The Lower Sioux Indian Community stated that the proposed

[53] Upper Sioux Community Tribal Historic Preservation Office. Letter. April 1, 2021. eDocket ID # 20214-172506-03
[54] Upper Sioux Community Tribal Historic Preservation Office. Letter. April 1, 2021. eDocket ID # 20214-172506-03
[55] Lower Sioux Indian Community. Comments. April 30, 2021. eDocket ID # 20214-173724-01.

projects have the distinct potential of contributing to the larger national theme of cultural genocide (intentionally or not), by imposing on and impacting the ability of Indian Tribal members' abilities to engage in the ceremonies and spiritual activities essential to their distinct cultural existence.

The Lower Sioux Indian Community stated concerns regarding other potential impacts of the proposed projects that should be evaluated in the EA, including the disturbance of native prairie lands and the impairment of soils, releasing carbon and reduction to the surrounding carbon sink, and the disturbance to other natural habitats and ecosystems - of particular concern are local wetlands. The Lower Sioux Indian Community has concerns that the proposed projects could also interfere with local efforts to rehabilitate and restore the natural environment and habitats within and near the project area. The Lower Sioux Indian Community has particular concerns that the Big Bend Wind Farm will impact resident and migratory wildlife, including inadvertent destruction of birds, bats, and the local eagle population and potential impacts to migratory routes.

The Lower Sioux Indian Community identified potential human impacts of the proposed projects to be evaluated in the EA. Potential impacts specific to the Big Bend Wind Farm include sleeplessness, headaches, stress, hearing problems, heart palpitations, anxiety, depression, and potential socioeconomic impacts. Potential impacts specific to the Red Rock Solar Project include improper disposal of solar panels and potential human health impacts, and the potential human health impacts from the toxic chemicals used to clean the solar panels. The Lower Sioux Indian Community also expressed concerns about the proposed projects as a whole including: long term exposure to electromagnetic fields in and surrounding the project site, property values, impacts to local utilities and infrastructure due to ground disturbance, increased heavy machinery, increased construction traffic, and road closures, and adjustments and maintenance of other utilities, gas, phone, water, and sewer.

The Lower Sioux Indian Community stated they would like all phases of the wind facility and solar facility process considered in the EA;

- Sourcing and transporting raw materials
- Manufacturing and transporting component parts
- Construction and related activities
- Operation, maintenance, recycling, and waste
- Decommissioning and dismantling

In determining the need for the proposed projects the Lower Sioux Indian Community has identified three items to consider in the EA; regional energy needs, statewide and metro-specific energy needs, and the propriety of the high voltage transmission line. The regional energy needs should take into account the numerous local and distant energy sources, including the significant number of existing and soon- to-exist renewable energy sources. Statewide and metro-specific energy needs should look at existing sources of energy, and also projected energy sources approved or likely to be approved by the Commission in the near future. Additionally, trends in small-scale and residential energy production should also be taken into consideration.

The Lower Sioux Indian Community comments stressed the importance for EERA to adhere to Executive Order 19-24 (E.O. 19-24). All interested Indian tribes in Minnesota and other federally recognized tribes with historical or spiritual connections to the Jeffers Petroglyphs and the Red Rock Ridge should be engaged in the EA development process, identifying potential impacts of the proposed projects, mitigation strategies, and alternatives. The Lower Sioux Indian Community recommended that EERA and the Commission follow the United States Environmental Protection Agency's Policy on Environmental

Justice for Working with Federally Recognized Tribes and Indigenous Peoples, to enhance tribal consultation.

The Lower Sioux Indian Community requested that the EA consider if the proposed projects meet the letter and spirit of the following State and Federal environmental, religious preservation, and equal protection laws:

- Minnesota Environmental Rights Act – Minn Stat. Ch. 116B
- Minnesota Environmental Policy Act – Minn Stat. Ch. 116D
- National Historic Preservation Act - 16 U.S.C. 470 et al
- American Indian Religious Freedom Act of 1978 – 42 U.S.C. 1996
- First and Fourteenth Amendments of the United States Constitution
- Article I of the Minnesota Constitution

The Lower Sioux Indian Community has identified the following alternatives to be considered in the EA;

- No build
- Solar Only Project
    - Including additional solar panels and modifications to the high voltage transmission line
- Wind and Solar
    - 8-mile buffer between Jeffers Petroglyphs and Red Rock Ridge and the wind project, and no turbines taller than 570 feet (ground to blade tip)
- Wind and Solar
    - 10-mile buffer between Jeffers Petroglyphs and Red Rock Ridge and the wind project, and no turbines taller than 660 feet (ground to blade tip)
- Wind and Solar
    - 11-mile buffer between Jeffers Petroglyphs and Red Rock Ridge and the wind project, and no turbines taller than 660 feet (ground to blade tip)

The Laborers' International Union of North America (LIUNA) submitted a Petition for Intervention in the contested case for the proposed Projects on July 30, 2021.[56, 57] The Office of Administrative Hearings (OAH) issued an order recognizing LIUNA as an intervening party in the contested case proceedings for the proposed Projects on August 17, 2021.[58] LIUNA submitted comments on the proposed Project during the EA Scoping public comment period, prior to being an intervening party, and those comments have been included in the following section, Public Comments – Comment Period and Public Meeting.

EERA acknowledges the comments from MNHS and Lower Sioux Indian Community with regard to the importance of incorporating and completing consultation with the numerous Tribal Communities that use the Jeffers Petroglyphs and the Red Rock Ridge because of their cultural significance. The Department has been coordinating and communicating with Minnesota Tribal Communities regarding the Big Bend Wind Farm since late 2019, prior to the Initial Site Permit Application. The Department has had numerous meetings engaging Minnesota Tribal Community representatives to provide details on the proposed Big Bend Wind Farm, how to navigate the permitting process, submitting comments, how

[56] LIUNA Minnesota and North Dakota. Intervention – Petition for Intervention Cover Letter. July 30, 2021. eDocket ID # 20217-176628-04

[57] LIUNA Minnesota and North Dakota. Intervention – Petition for Intervention. July 30, 2021. eDocket ID # 20217-176628-09

[58] OAH. Order – Order on Petition to Intervene by the Laborers District Council of Minnesota and North Dakota. August 17, 2021. eDocket ID # 20218-177217-05

to intervene as a party in the permitting process, detailed discussions regarding the Jeffers Petroglyphs, and a site visit at the Jeffers Petroglyphs. It is important to note that Minnesota Historic Sites Act and Statutory Obligations, MN Statute 138, in particular 138.40 and 138.665 is directed specifically at State agencies that are funding or licensing undertakings that will affect designated or listed properties. The Department does not provide funding or license undertakings with respect to the proposed projects, and the Commission will need to specifically address items under MN Statute 138 as the permitting processes proceed. E.O. 19-24 applies to both the Department and the Commission, and as indicated above, the Department has been coordinating and communicating regularly with Tribal Communities when appropriate. The Commission has also communicated with numerous Tribal Communities by sending out notice of comment period on the PDSP and EA scoping. Commission staff and the Commissioners are slightly more restricted on coordinating and communicating directly with Tribal representatives due to ex parte communication issues.

EERA has contracted with an independent consultant to conduct a Visual Impact Assessment (VIA) of the proposed Big Bend Wind Farm on the Jeffers Petroglyphs. EERA and our consultant have conducted a field visit to the Jeffers Petroglyphs with MNHS staff and representatives of the Upper Sioux Community on April 28, 2021. A representative of the Lower Sioux Indian Community was present virtually for a portion of the April 28, 2021 meeting as well. The field visit produced a number of potential Key Observation Points (KOPs) to utilize in the VIA. Additionally, EERA has coordinated with the Red Rock Ridge Research Group and received input on the KOPs within the Jeffers Petroglyphs site and a few locations outside of the Jeffers Petroglyphs property boundaries but on the Red Rock Ridge. The VIA will be utilized by EERA as we complete the EA for the proposed projects, and to provide a visual assessment of system alternatives evaluated in the EA. EERA will not use the VIA to evaluate various turbine models/heights or individual turbine site locations as these items are not being evaluated in the EA specific to the CN approval requested for the proposed Big Bend Wind Project. The VIA document will be made publicly available prior to the public hearing and contested case hearing for the proposed projects anticipated to occur in November 2021.

Public Comments – Comment Period and Public Meeting[59,60]

The public comments received during the comment period ranged from general support for both wind and solar projects including the proposed projects, to support for the MNHS proposed eight-mile buffer and turbine setback from the Jeffers Petroglyphs. Public commentors identified concerns that the proposed Big Bend Wind Farm could potentially impact existing wildlife habitat, disturbance of large tracks of native prairie habitat, increase the spread of invasive species, impact the viewshed of the Jeffers Petroglyphs, impact the viewshed from the native prairie habitat on the Red Rock Ridge, result in wildlife endangerment through turbine strike, and concerns regarding the potential impacts of noise and shadow flicker on homes, businesses, houses of worship, and parks within and adjacent to the project area.

One public commentor identified potential species-specific impact concerns that could be associated with the proposed Big Bend Wind Farm: the long-legged upland sandpiper, Dakota skipper, Henslow's sparrow, burrowing owl, loggerhead shrike, king rail, Poweshiek skipperling, Wilson's phalarope,

[59] DOC-EERA. Public Information and Scoping Meeting Minutes. April 30, 2021. eDockets ID # **20214-173685-03**.

[60] DOC-EERA. Public Comments Received by EERA on PDSP and EA Scoping. May 3, 2021. eDocket ID # **20215-173780-03**.

trumpeter swan, common gallinule, marbled godwit, Bell's vireo, Forster's tern, purple martin, and bald eagles.

One commentor identified the potential concern that the proposed solar panels would introduce additional impervious surface into the Watonwan River Watershed.

One public commentor indicated that the proposed projects should support the restoration and health of the Watonwan River and the work done by Watonwan River One Water One Plan. The commentator recommended the project proponent implement the mitigation measure of wetland basin restoration to create habitat and benefit the Watonwan River. The commentor also identified potential impacts to river health that are included in the watershed management plan; land use change that results in the loss of vegetation cover, lack of recreational access and connectivity, and terrestrial invasive species. The commentor indicated that the Applications don't mention how the project proponent will avoid spreading invasive species during construction, and only mentions management after the fact. The development of the proposed projects will create land easement conflicts, and negatively impact long-term conservation efforts along the Watonwan River, which will ultimately impact the Minnesota and Mississippi Rivers. Specifically, the proposed projects will likely limit any future conservation efforts to restore the large shallow Mountain Lake area. The commentator further stated that industrialization of lands also restricts access and connection to the land and community opportunities for exercise, bird watch, and to botanize.

Some commentors identified concerns with specific turbine locations in the proposed Big Bend Wind Farm. Turbines T43 and T44, as proposed, are within the flight pattern of a State licensed airstrip in Section 19 of Butterfield Township in Cottonwood County. The commentor indicated Turbine T43 is proposed on Joel Penner's Property, and the turbine location could be shifted north, remain on Mr. Penner's Property, and be outside the licensed airstrip's flight pattern. The proposed Turbine T44 location is on Duwayn Falk's Property, and the commentor indicated Turbine T44 can be shifted to another section to the northwest and still be Mr. Falk's Property. Commentators stated that wildlife species that utilize the Watonwan River; ducks, herons, bald eagles, osprey, turkeys, and other raptors and birds will possibly be impacted significantly by Turbines T49 and T16.

One public commentor identified an alternative to the proposed projects, which would be to make the entire project a solar facility with no wind facility. The commentor also cited the reduction in the demand for corn and ethanol, because of less dependence on fossil fuels, as additional supporting evidence that the loss of prime farmland would not be a significant impact if a larger solar facility was constructed. The commentor indicated that the all-solar facility alternative would avoid or minimize the following impacts associated with the wind facility: viewshed impacts (distance of one mile or less), less impacts on neighbors, visitors, and non-participants, and wildlife risks. The commentor indicated increasing the solar facility could include more landowners, not limit the size of the project in anyway, could produce more energy, and more landowners have expressed interest in solar.

One public commentor stated that for the proposed Big Bend Wind HVTL the proposed Alternate Peaking Plant Route – Lakefield Junction POI should not be included in the EA. The commentor's reasons for removal of this alternate POI include the following: it is purely speculative, is not reliable for energy delivery, it is unclear if the alternate POI has been discussed with Great River Energy (GRE) the plant owner, the routes require agreements to cross Odell Wind Farm and Trimont Wind Farm easements, there has been a lack of negotiations with private landowners along the proposed alternate route, and the net zero interconnection is a surplus interconnection service.

One commentor at the Public Information and Scoping Meeting indicated concern about the proposed project's potential impact on local economic development. The commentator stated they has heard from a lot of her neighbors and other families that they will be leaving the area if the proposed projects are constructed, and this will result in local businesses closing and local schools also being negatively impacted. The commentator suggested a study to ask everyone in the project area what they think of the project. The commentor identified the following specific concerns: the need for additional bald eagle nest surveys, potential impacts to livestock (cattle and horses), the large size of the proposed wind turbines, increase in assessed property value and taxes, decreasing property values, and that the generated energy does not remain local.

Another public commentor wanted some clarification on the potential that the project proponent would need to use eminent domain for the proposed Big Bend Wind HVTL. There was additional discussion on this item with the project proponent's legal counsel during the Public Information and Scoping Meeting, and those discussion details are in the Meeting Minutes. The issue of eminent domain is primarily a legal topic, and will be discussed in the EA, but the depth of coverage will be minimal as it is not a factor to evaluate and consider for potential environmental impacts. The commentor also asked for clarification on the solar facility collection line, and if the collection line would be above or below ground as proposed. The commentor raised concerns about the interconnection differences between the proposed Crandell Substation and the Lakefield Junction Station, the project proponent possibly holding site control on 50 acres of land adjacent to the Lakefield Junction Station, and expressed that the alternate route to the Lakefield Junction Station should follow available roadways and avoid cutting through the middle of sections that are entirely agricultural lands. The commentor also asked for clarification on the proposed project's long-term power purchase agreement, which the project proponent specified that the proposed project currently does not have a power purchase agreement and they are considering all options, including the possibility of moving forward as a merchant operator.

Kevin Pranis, representative for Laborers' International Union of North America (LIUNA), suggested two items to be considered for inclusion in the EA Scope – First, looking at the overall economic impacts of the proposed projects, which is not only jobs but also the possible new career opportunities through the registered apprenticeship programs. Mr. Pranis indicated there is information available in the Commission's utility economic recovery docket that may be helpful for use in completing this evaluation in the EA. The second item Mr. Pranis recommended to include in the EA is to look at the potential impacts of the proposed projects through the lens of understanding that the need and push toward increasing the availability of renewable energy development is the direction the country as a whole is going. He acknowledged there are real impacts of renewable energy, but we are going to need to learn to accept those impacts and try to maximize the potential benefits of renewable energy projects as much as we possibly can.

A couple of public commentors identified concerns with the proposed Big Bend Wind HVTL running through an old lake bottom along 600th Avenue, noting there are local conservation efforts that are trying to restore a large wetland area. Another commentor, the owner of the old lakebed, provided additional context to the potential to restore the old lakebed to wetland habitat. The owner indicated that previous surveys determined that restoration of the old lakebed would possibly lead to the back-up of the City of Mountain Lake's drainage resulting in the need for the installation and operation of a lift station for the City of Mountain Lake. The property owner also stated that the old lakebed area is highly productive for agriculture, even with the occasional flooding issues.

Another public commentor wanted to know if their electricity bills would decrease once the proposed projects are constructed and operational, and he also wanted to know how much money the landowners receive when they host a wind turbine on their property. One public commentor indicated there is an island within the old lake bottom, which is where the Island County Park is located and is home to the Mountain Lake National Registered Historic Space, an over 100 BC Native American village. The commentor also indicated that the lake bottom is a culturally significant area to local youth.

EERA is considering the solar facility collection line extending to the project substation to be an underground line and will be reviewed and evaluated that way in the EA. EERA indicated to the public commentor at the Public Information and Scoping Meeting that additional information about the old lake bottom wetland restoration project would be needed to address this adequately in the EA. As of the date of this submittal, EERA has not been provided any additional information or data on the old lake bottom wetland restoration project. With the current landowner indicating he has no intentions to proceed with the old lake bottom restoration project, and with no identified restoration plan, EERA cannot include an evaluation of the old lake bottom restoration project in the EA.

Late Filed Public Comment[61]

On June 11, 2021, Kent Scholl sent late filed comments to EERA and Commission staff via email, including a proposed alternative transmission line route alignment to be considered in the EA. Mr. Scholl's proposed alternative route alignment is specific to the Applicant's Peaking Plant Alternate Route with potential interconnection to the Lakefield Junction Station. Mr. Scholl's proposed alternative route segment would keep the proposed transmission line alignment along the east side of Section 18, T110N, R33W, which is adjacent to 20th Avenue, the alignment would travel south to 220th Street, and then go west adjacent to 220th Street to the proposed step-up substation. Attachment Figure 3 shows the alternative route segment proposed by Mr. Scholl.

Alternatives

The following section specifically addresses system alternatives, route and route segment alternatives, and solar site alternatives that were identified by agencies, intervening parties, and public commentors. If an alternative is identified as not appropriate for inclusion in the EA scope, EERA has provided the reasons for not including the specific alternative and a recommendation as to how, if possible, the issues raised in relation to the proposed alternative can be addressed.

System Alternatives Suggested

MNHS has identified the following alternatives to be included in the EA;

- Removal of all wind turbines within 8 miles of the Jeffers Petroglyphs site property boundary, and the remaining turbines be reduced in height to no more than 570 feet (ground to blade tip),
    - Any energy output lost from turbine removal should be shifted to the solar facility, and additional solar panels should be constructed
- Removal of all wind turbines within 10 miles of the Jeffers Petroglyphs site property boundary, and the remaining turbines be reduced in height to no more than 656 (ground to blade tip)
    - Any energy output lost from turbine removal should be shifted to the solar facility, and additional solar panels should be constructed

[61] Commission (On behalf of Ken Scholl). Public Comment – Received Outside Comment Period – K Scholl. June 15, 2021. eDocket ID # **20216-175099-01**

The Lower Sioux Community has identified the following alternatives to be considered in the EA;

- No build
- Solar Only Project
    - Including additional solar panels and modifications to the high voltage transmission line
- Wind and Solar
    - 8 mile buffer between Jeffers Petroglyphs and Red Rock Ridge and the wind project, and no turbines taller than 570 feet (ground to blade tip)
    - Any energy output lost from turbine removal should be shifted to the solar facility, and additional solar panels should be constructed
- Wind and Solar
    - 10 mile buffer between Jeffers Petroglyphs and Red Rock Ridge and the wind project, and no turbines taller than 660 feet (ground to blade tip)
    - Any energy output lost from turbine removal should be shifted to the solar facility, and additional solar panels should be constructed
- Wind and Solar
    - 11 mile buffer between Jeffers Petroglyphs and Red Rock Ridge and the wind project, and no turbines taller than 660 feet (ground to blade tip)
    - Any energy output lost from turbine removal should be shifted to the solar facility, and additional solar panels should be constructed

Route Alternatives and Route Segment Alternatives Suggested

Mr. Scholl recommended a route segment alternative be considered and evaluated in the EA. The Scholl route segment alternative is specific to a portion of the Applicant's proposed Peaking Plant Alternative Route that extends to the Lakefield Junction Station. Mr. Scholl's proposed alternative route segment would maintain the transmission line going south adjacent to 20th Avenue along the east side of Section 18, T104N, R33W, at 220th Street the alternative route segment would turn west an travel adjacent to 220th Street to the proposed step up substation. Mr. Scholl's proposed alternative route segment is illustrated on Attachment Figure 4.

The Applicant's proposed route and route segment are shown on Attachment Figure 2.

The Commission discussed the Applicant's proposed route, proposed route segments, and the route segment proposed by Mr. Scholl during their regular agenda meeting on Thursday, June 17th. The Commissioners requested that EERA include Mr. Scholl's proposed route segment alternative in the EA being developed for the proposed Projects.

Site Alternatives Suggested

No specific solar site alternatives were recommended during the Public Information and EA Scoping Meeting or during the associated comment period.

Some recommendations were made to increase the size of the Red Rock Solar Project to offset the need for all or a portion of the proposed Big Bend Wind Farm. EERA will evaluate these as system alternatives, as the general location of the proposed projects will still remain similar to what has been proposed.

EERA Staff Alternatives Analysis

The scoping process assists staff to identify "only those potentially significant issues relevant to the project" and alternatives to the project. Staff will not dismiss issues from analysis in the scoping decision. Staff will, however, abbreviate analysis in the EA for certain resource topics that are commonly considered in environmental review, but are determined immaterial to the Commission's decision in these dockets. Abbreviated analysis means that the resource topic will not be discussed in as much detail as the standard analysis.

Abbreviating analysis for certain resource topics will provide for a shorter document that is more relevant and useable. This approach is consistent with Minnesota Statute and Rule, which state the purpose of scoping, in part, is to reduce the scope and bulk of environmental review documents. The decision whether to abbreviate analysis for certain resource topics will be made by EERA staff, and will be based on information from the CN applications, site permit applications, route permit application, field visits, scoping comments received, preliminary environmental analysis, and staff experience with similar projects.

The portion of the EA evaluation related to LWECS need is limited to analyzing and assessing the potential impacts of proposed projects compared broadly to system alternatives. For example, the EA analysis will allow for a comparison of the proposed 335 MW hybrid Big Bend Wind Farm and Red Rock Solar Project to a hypothetical hybrid 335 MW Big Bend Wind Farm and Red Rock Solar Project located such that the applicant's proposed wind turbines within eight miles of the Jeffers Petroglyphs site are removed, and the energy production lost by removing these turbines would result in an increase in the solar energy project and generation to compensate for this lost production.

As such, EERA believes that the proposed system alternatives, listed below, are appropriate for inclusion in the EA Scoping Decision to be evaluated and inform the CN decision:

- a hypothetical 335 MW solar facility (with no wind component),
- a 335 MW hybrid of wind energy and solar energy projects such that no proposed turbines will be placed within 8 miles of the Jeffers Petroglyphs site and the lost generation capacity will be replaced with additional solar,
- a 335 MW hybrid of wind energy and solar energy projects such that no proposed turbines will be placed within 10 miles of the Jeffers Petroglyphs site and the lost generation capacity will be replaced with additional solar, and
- a 335 MW hybrid of wind energy and solar energy projects such that no proposed turbines will be placed within 11 miles of the Jeffers Petroglyphs site and the lost generation capacity will be replaced with additional solar

EERA acknowledges that the MNHS and Lower Sioux Indian Community suggested alternatives included limitation on the total turbine height outside of the no turbine buffer areas around the Jeffers Petroglyphs. However, the turbines that have been proposed by the Applicant have specific characteristics (turbine height, rotor diameter, noise generation level, etc.) that influence numerous setbacks, and the proposed turbine layout and locations are based on those setbacks. Additionally, the turbine height and turbine power output are connected turbine characteristics. Reducing turbine height will reduce the individual turbine power output, which would likely result in the Applicant modifying several proposed wind turbine location and ultimately increasing the overall number of turbines and the

density of turbines outside of the proposed no turbine buffer area around the Jeffers Petroglyphs. The result could be a number of different LWECS sites and configurations. As Minn. R. 7854.0500 Subpart 7 does not contemplate preparation of an environmental document beyond the LWECS site permit application EERA does not believe the EA is the appropriate document to evaluate alternate turbine sites, spacing, heights, or specific LWECS site alternatives with different turbine types and specific turbine layouts to achieve appropriate setbacks. The EA will reference turbine characteristics, but that will primarily be to provide information and context of the proposed project for the EA reviewer.

The Lower Sioux Indian Community and Upper Sioux Community have both indicated their desire to have the proposed project setback from the entire Red Rock Ridge, as opposed to being setback only from the Jeffers Petroglyph site. EERA acknowledges this concern, however the entire Red Rock Ridge is currently not identified under Minnesota Historic Sites Act and Statutory Obligations, MN Statute 138, as the Jeffers Petroglyphs have been identified. Without the protections afforded under MN Statute 138, the lands on the Red Rock Ridge are primarily private property and may have limited or no access availability for Tribal Community members to use these areas for cultural and spiritual activities. EERA is not stating that the Red Rock Ridge, outside of the Jeffers Petroglyph site is less culturally and spiritually significant to various Tribal Communities, but without secured access or ownership of these areas into the foreseeable future the actual cultural and spiritual value of these areas cannot be fully utilized by Tribal members. Due to the unpredictability of access and utilization of other sites on the Red Rock Ridge, the Jeffers Petroglyph site is the most fitting location to utilize for the purposes of establishing turbine setback distances for the various system alternatives.

EERA Staff Recommendations

EERA will include the following system alternatives in our Scoping Decision and EA

- 335 MW solar facility (with no wind component)
- 335 MW hybrid project wind energy and solar energy
    - with no proposed turbines placed within 8 miles of the Jeffers Petroglyphs site
    - lost wind generation capacity will be replaced with additional solar
- 335 MW hybrid project wind energy and solar energy
    - with no proposed turbines placed within 10 miles of the Jeffers Petroglyphs site
    - lost wind generation capacity will be replaced with additional solar
- 335 MW hybrid project wind energy and solar energy
    - with no proposed turbines placed within 11 miles of the Jeffers Petroglyphs site
    - lost wind generation capacity will be replaced with additional solar

EERA will include the following high voltage transmission line route segment alternatives in our Scoping Decision and EA:

- Peaking Plant Alternate Route – Alternate Route Segment 1
    - Maintain the transmission line going south adjacent to 20th Avenue along the east side of Section 18, T104N, R33W, at 220th Street. The alternative route segment would turn west an travel adjacent to 220th Street to the proposed step up substation.

* * * * *

Having reviewed the matter and consulted with department staff, I hereby make the following scoping decision in accordance with Minnesota Rule 7849.1500 and Minnesota Rule 7850.3700:

MATTERS TO BE ADDRESSED

The EA will describe the project and the human and environmental resources of the project area. It will provide information about potential impacts—both positive and negative—concerning the resources outlined in this scoping decision. The EA will describe mitigation measures that could reasonably be implemented to reduce or eliminate identified negative impacts. The EA will identify impacts that cannot be avoided and irreversible and irretrievable commitments of resources.

The EA will include the information that would have otherwise been required in an ER for a certificate of need by Minnesota Rule 7849.1500. This includes evaluating matters of size, type, and timing that would normally be excluded in an EA for a site permit application. The EA will describe and analyze the availability and feasibility of system alternatives, including a no-build alternative.

Data and analyses in the EA will be commensurate with the importance of potential impacts and the relevance of the information to consideration of mitigation measures. EERA staff will consider the relationship between the cost of data and analyses and the relevance and importance of the information in determining the level of detail to provide in the EA. Less important material may be summarized, consolidated, or simply referenced.

The EA will list information sources. If relevant information cannot be obtained within timelines prescribed by statute and rule, the costs of obtaining such information is excessive, or the means to obtain it is unknown, EERA staff will include in the EA a statement that such information is incomplete or unavailable and the relevance of the information in evaluating potential impacts or alternatives.

Staff will abbreviate analysis in the EA for resource topics determined to be of minor importance to the commission's decision in these dockets. *Abbreviated analysis* means that the resource topic will not be discussed in as much detail as the standard analysis. The decision whether to abbreviate analysis for certain resource topics will be made by EERA staff, and will be based on information from the CN applications, site permit applications, field visit(s), comments received, preliminary environmental analysis, and staff experience with similar projects.

The issues outlined below will be analyzed in the EA for the project. This outline is not intended to serve as a table of contents for the document itself.

Project Information

- Purpose
- Description
- Location
- Site Requirements
- Engineering and Design
- Construction
- Operation and Maintenance
- Decommissioning
- Cost

Regulatory Framework

- Certificate of Need
- Site Permit
- Route Permit
- Other Permits or Approvals
- Environmental Review Process

Affected Environment, Potential Impacts, and Mitigative Measures

Human Settlement

- Aesthetics (including visual impacts to Jeffers Petroglyphs and Red Rock Ridge)
- Cultural Values (including visual impacts to Tribal users of Jeffers Petroglyphs site)
- Displacement
- Electronic Interference
- Land Use and Zoning
- Noise
- Public Health and Safety (including EMF, stray voltage)
- Public Services and Infrastructure (including shadow flicker on Highway 60 and transmission line pole placement)
- Recreation
- Socioeconomics (including property values, local and non-local labor)
- Environmental Justice (including impacts to Indian Tribes and impacts to cultural use of the Jeffers Petroglyphs and Red Rock Ridge area)

Land Based Economies

- Agriculture (including access along farm roads)
- Forestry
- Mining
- Tourism

Archaeological and Historic Resources

- Culturally Significant Sites
- Culturally Significant Site Users
- Jeffers Petroglyphs and Red Rock Ridge (including users)

Natural Environment

- Air
- Greenhouse gases and Climate Change
- Geology
- Groundwater
- Surface Water
- Rare and Unique Resources
- Soils
- Vegetation and beneficial habitat planting
- Wetlands
- Wildlife (including deer movement)
- Wildlife Habitat (including beneficial habitat establishment)

Alternatives to the Proposed Hybrid Wind (275 MW) and Solar (60 MW) Project (335 MW combined)

The EA, in accordance with Minnesota Rule 7849.1500, will describe and analyze the feasibility of the following system alternatives, and the human and environmental impacts and potential mitigation measures associated with each.

- 308 MW Wind Facility only (as proposed for Big Bend Wind)
- 60 MW Solar Facility only (as proposed for Red Rock Solar Facility)
- 335 MW Wind and Solar Hybrid Project (Big Bend Wind and Red Rock Solar as proposed)
    - 275 MW Wind Facility and 60 MW Solar facility (as proposed for Big Bend Wind and Red Rock Solar)
- 335 MW Wind and Solar Hybrid Project (8 mile no turbine buffer)
    - Removal of all wind turbines within 8 miles of the Jeffers Petroglyphs site property boundary
    - The solar facility will be expanded to make up the remainder of the necessary MWs to offset the turbines removed within 8 miles of the Jeffers Petroglyphs
- 335 MW Wind and Solar Hybrid Project (10 mile no turbine buffer)
    - Removal of all wind turbines within 10 miles of the Jeffers Petroglyphs site property boundary
    - The solar facility will be expanded to make up the remainder of the necessary MWs to offset the turbines removed within 10 miles of the Jeffers Petroglyphs
- 335 MW Wind and Solar Hybrid Project (11 mile no turbine buffer)
    - Removal of all wind turbines within 11 miles of the Jeffers Petroglyphs site property boundary
    - The solar facility will be expanded to make up the remainder of the necessary MWs to offset the turbines removed within 11 miles of the Jeffers Petroglyphs
- No-build Alternative

The EA will analyze the proposed route, proposed peaking plant alternate route, and the proposed alternate route segments as identified in the Route Permit Application. Additionally, the EA will analyze the Peaking Plant Alternate Route – Alternate Route Segment that was submitted by Mr. Scholl and recommended for consideration by the Commission.

Figures

(1) Map of System – Figure 1. Big Bend Wind LLC. Certificate of Need Application
(2) Project Overview Map – Figure 3.2-1. Big Bend Wind, LLC. Big Bend 161 kV Transmission Line Route Permit Application
(3) Preliminary Project Layout – Figure 3. Red Rock Solar, LLC. Certificate of Need Application
(4) Peaking Plant Alternate Route – Alternate Route Segment 1

General comments such as using different turbine locations, different turbine heights, and a reduction in the number and density of turbines were received by EERA during the PDSP and EA Scoping period. These are not considered system alternatives to be evaluated through the CN process for the proposed wind project, and would be handled through the LWECS Site Permit Process and site alternatives. EERA will evaluate transmission line pole locations, and transmission line spans as they relate to the width of the route right-of-way.

Unavoidable Impacts

The EA will discuss ways to mitigate potential impacts; however, even with mitigation strategies, certain impacts cannot be avoided. These unavoidable impacts will be listed.

Irreversible and Irretrievable Commitments of Resources

Resource commitments are irreversible when it is impossible or very difficult to redirect that resource to a different future use. An irretrievable commitment of resources means the resource is not recoverable for use by future generations. Irreversible and irretrievable commitments of resources will be listed.

ISSUES OUTSIDE THE SCOPE OF THE ENVIRONMENTAL ASSESSMENT

The EA will not consider the following:

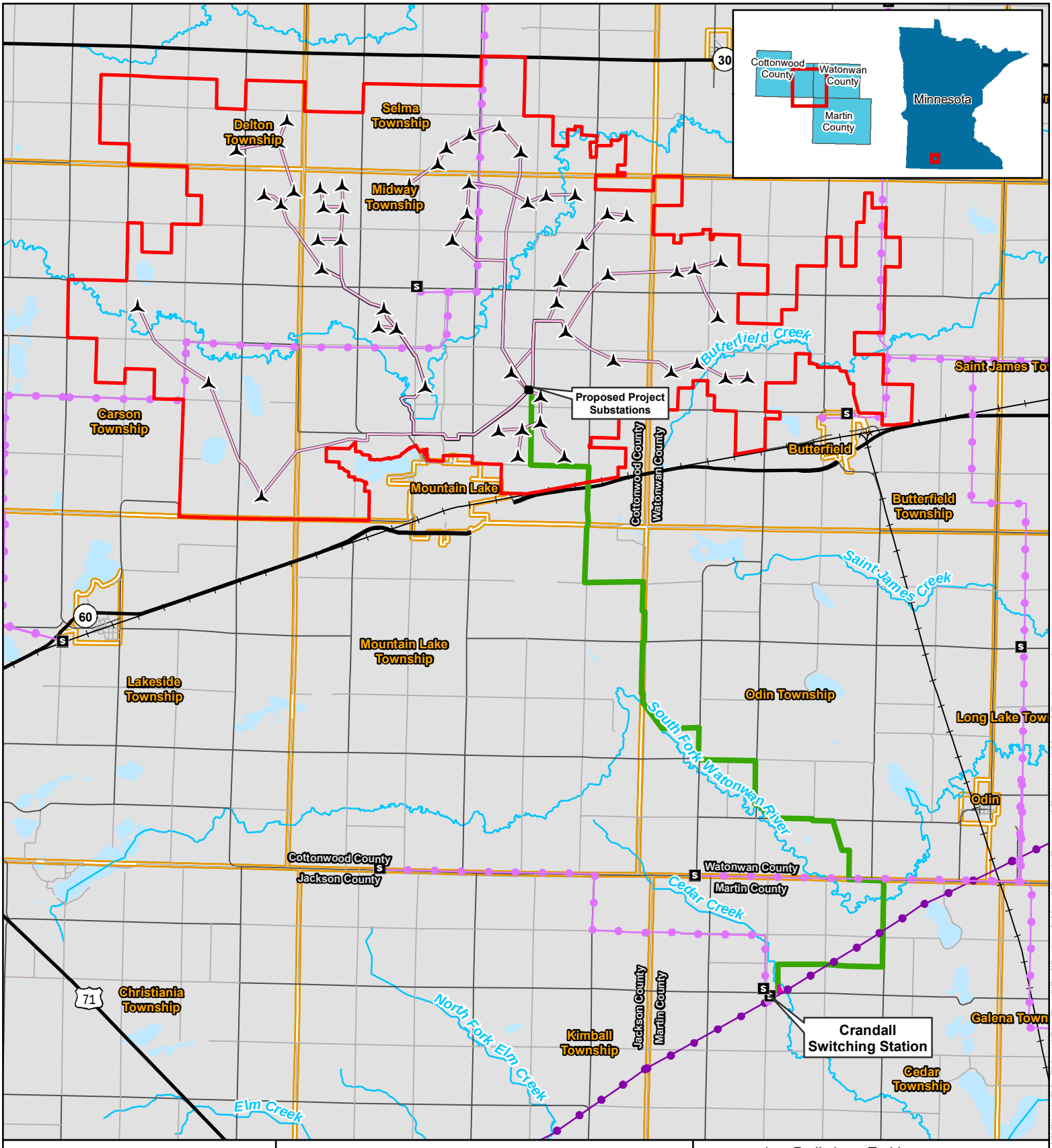
- Any system alternative not specifically identified in this scoping decision, including: demand side management; purchased power; facilities using a non-renewable energy source; upgrading existing facilities; and transmission rather than generation.
- The manner in which landowners are compensated.
- Different turbine heights, turbine layouts, individual turbine locations and spacing
    - These items are handled under the site permit process and Minnesota Rule 7854 framework, which is outside the Department's preparation of this environmental review document or analysis of alternatives.
- Impacts associated with the generation or acquisition of raw materials needed to produce project equipment; i.e. general steel manufacturing, solar panel production
- Impacts associated with the illegal or inappropriate disposal of project components after decommissioning.
    - If project components such as wind turbine blades or solar panels are decommissioned and legally deposited at registered landfills or registered materials handlers the project proponent of the proposed projects cannot be responsible for the actions of the landfill operators or materials handlers once they have been appropriately transferred and disposed of.

SCHEDULE

The EA is anticipated to be complete in October 2021. Upon completion, it will be noticed and made available for review. A public hearing will be held virtually and/or in the project area after the EA has been issued. This hearing will be noticed. Comments on the EA may be submitted into the hearing record.

Signed this 24th day of August, 2021

Katherine Blauvelt, Assistant Commissioner
STATE OF MINNESOTA
DEPARTMENT OF COMMERCE



BIG BEND WIND

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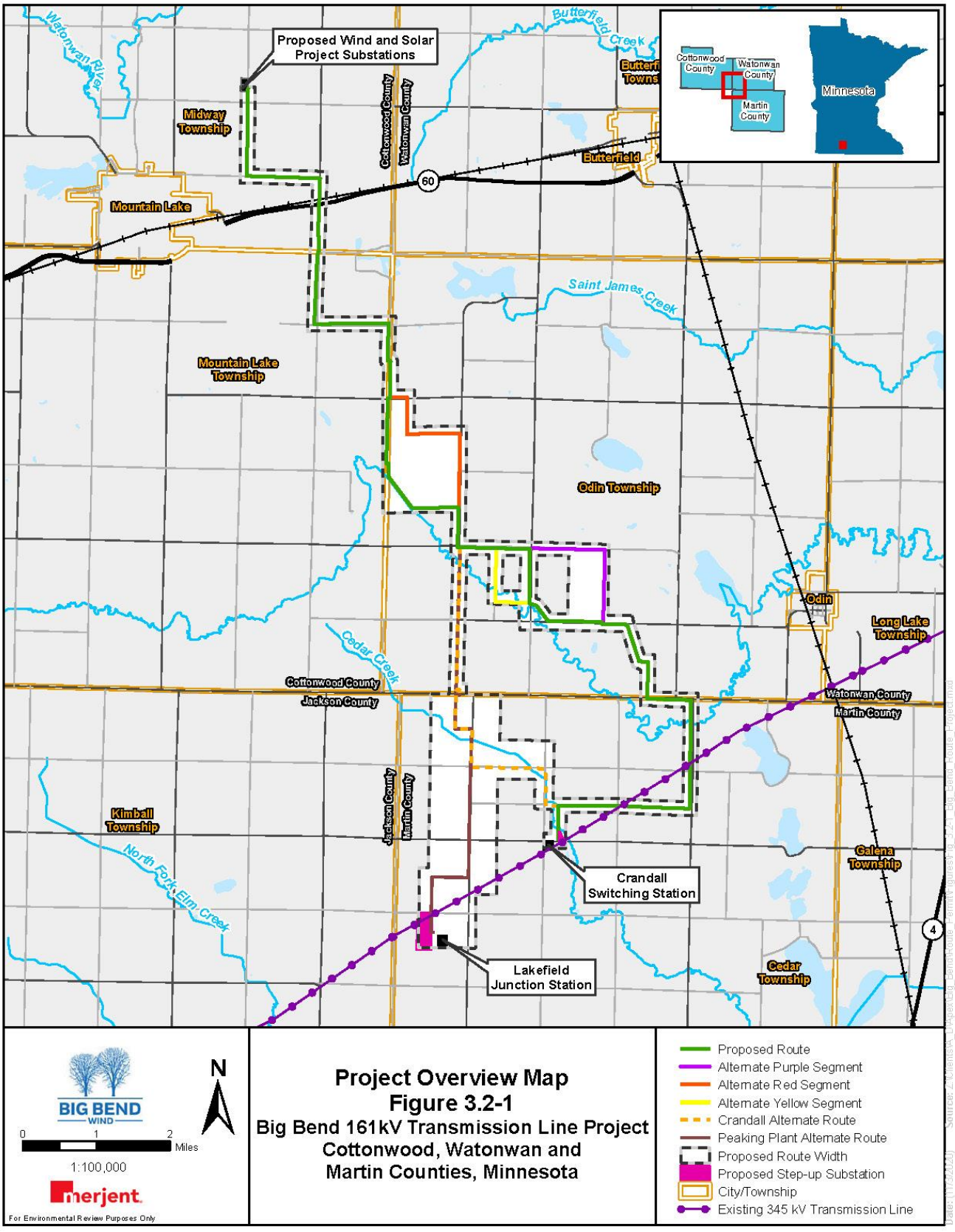
For Environmental Review Purposes Only

Figure 1
Map of System
Big Bend Wind, LLC
Cottonwood, Watonwan and Martin Counties, Minnesota

- Preliminary Turbine
- Exisitng Substation
- Collection Line
- Proposed Route
- Project Area Boundary
- Proposed Step-up Substation
- City/Township
- Existing 345 kV Transmission Line
- Existing 69 kV and 115 kV Transmission Line

Source: \\MJNTSRV010\Clients$\A_DApex\Big_Bend\Certificate_of_Need\Fig_1_Proposed Project and Map of System.mxd

Date: (11/6/2020)


Proposed Wind and Solar Project Substations
Watonwan River
Butterfield Creek
Midway Township
Cottonwood County
Watonwan County
Butterfield
Mountain Lake
60
Saint James Creek
Mountain Lake Township
Odin Township
Odin
Long Lake Township
Cedar Creek
Cottonwood County
Jackson County
Watonwan County
Martin County
Kimball Township
Jackson County
Martin County
North Fork Elm Creek
Crandall Switching Station
Galena Township
Lakefield Junction Station
Cedar Township
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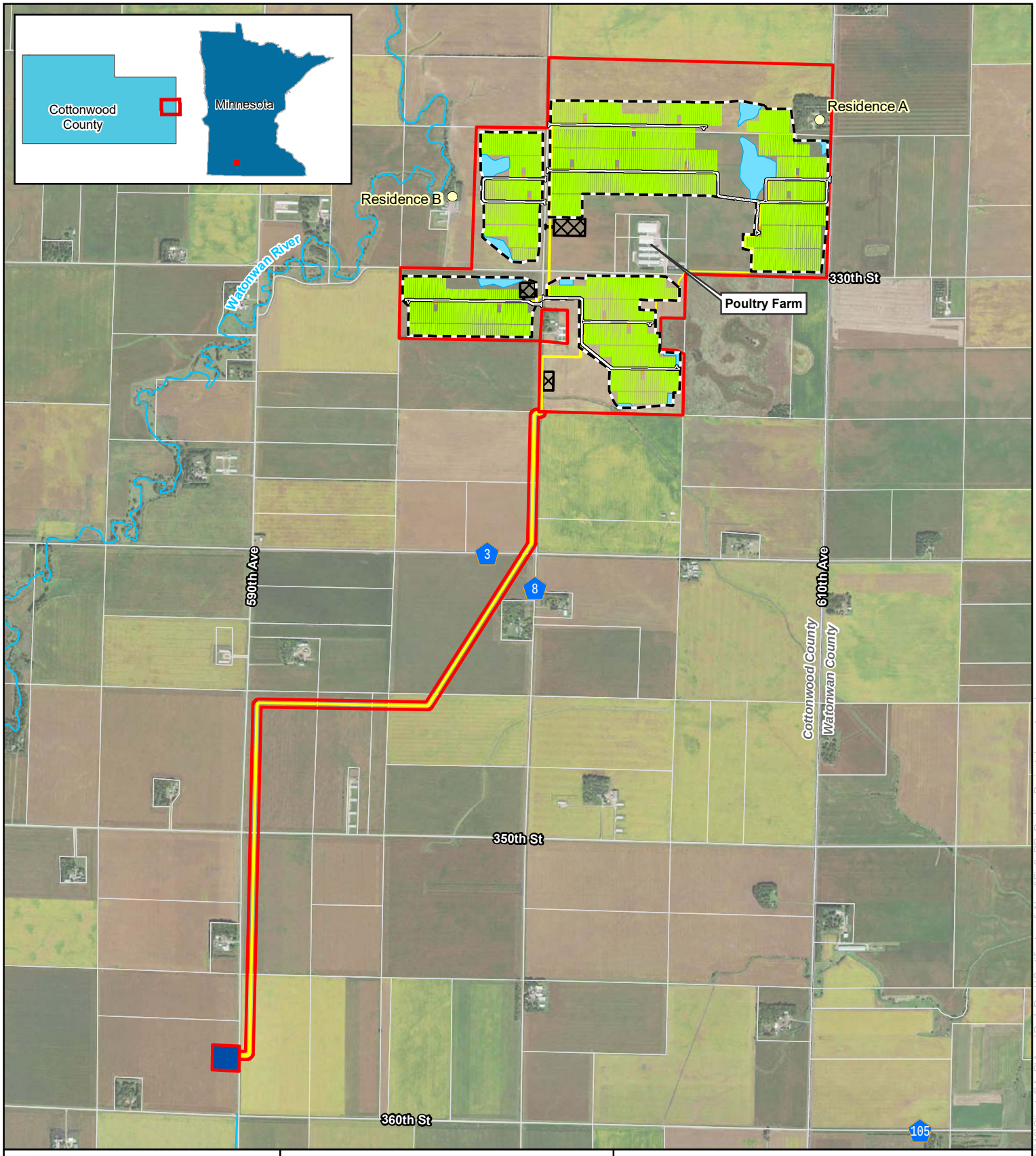
For Environmental Review Purposes Only
Project Overview Map
Figure 3.2-1
Big Bend 161kV Transmission Line Project
Cottonwood, Watonwan and
Martin Counties, Minnesota
Proposed Route
Alternate Purple Segment
Alternate Red Segment
Alternate Yellow Segment
Crandall Alternate Route
Peaking Plant Alternate Route
Proposed Route Width
Proposed Step-up Substation
City/Township
Existing 345 kV Transmission Line



RED ROCK SOLAR

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For Environmental Review Purposes Only

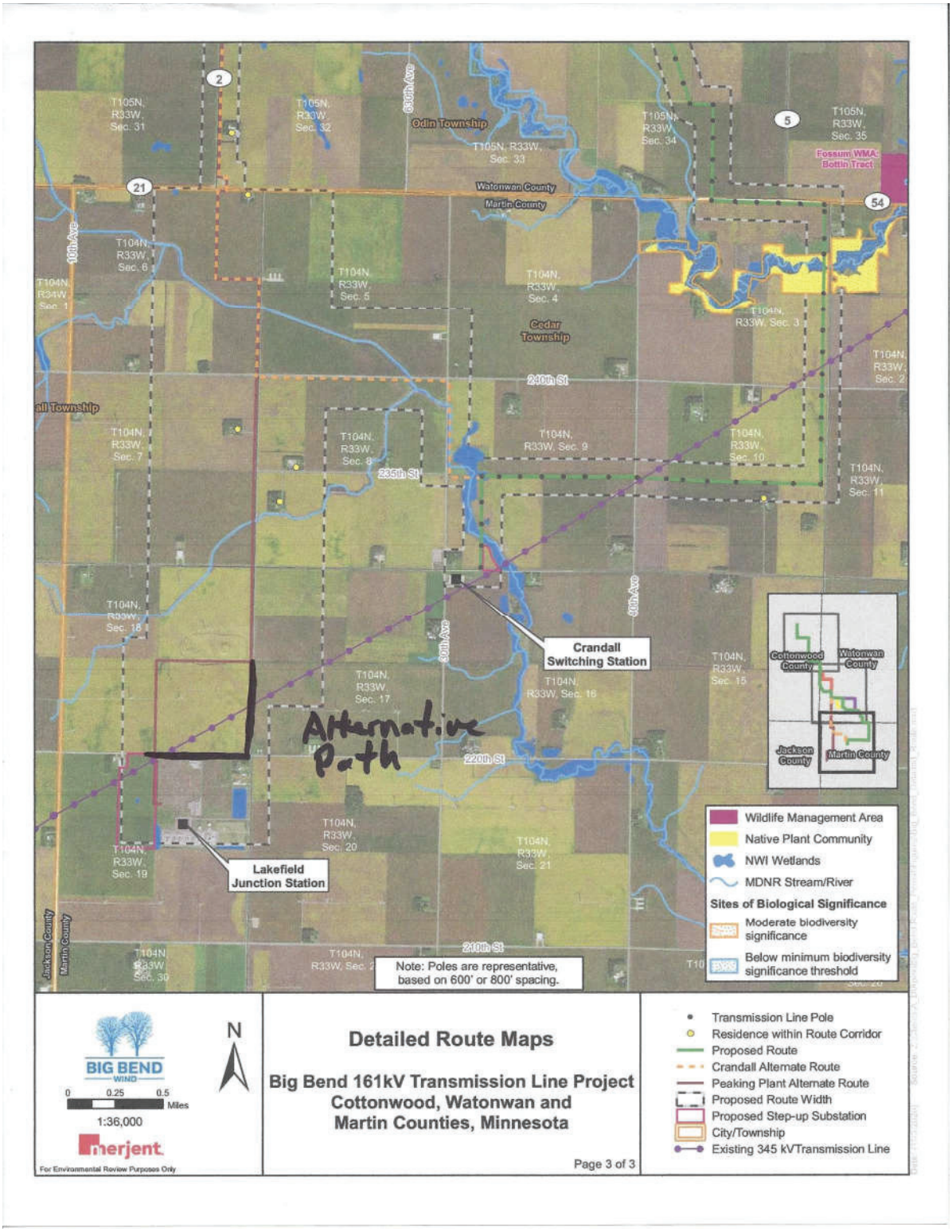
Figure 3
Preliminary Project Layout
Red Rock Solar, LLC
Cottonwood County, Minnesota

- Residence on Solar Development Parcel
- Collection Line
- Project Boundary
- Access Road
- Security Fence
- Inverter
- Solar
- Project Substation
- Laydown
- Stormwater Basin
- Parcel Boundary
- NHD Stream (Perennial)

Source: \\MINTSRV01\Clients$\A_DApex\Red_Rock\Certificate_of_Need\Fig3_RR_Prelim_Project_Layout.mxd

Date: (11/6/2020)

Figure 4 - Peaking Plant Alternate Route - Alternate Route Segment 1



COMMERCE DEPARTMENT

In the Matter of the Applications of Big Bend Wind, LLC for a Certificate of Need and a Large Wind Energy Conversion System Site Permit for the up to 308 MW Big Bend Wind Project in Cottonwood and Watonwan Counties, Minnesota.

In the Matter of the Applications of Big Bend Wind, LLC for a Route Permit for a 161 kV High Voltage Transmission Line in Cottonwood, Watonwan, and Martin Counties, Minnesota.

In the Matter of the Applications of Red Rock Solar, LLC for a Certificate of Need and Site Permit for the up to 60 MW Red Rock Solar Project in Cottonwood County, Minnesota.

Environmental Assessment
Revised Scoping Decision

Docket No. IP7013/CN-19-408
Docket No. IP7013/WS-19-619

Docket No. IP7013/TL-19-621

Docket No. IP7014/CN-19-486
Docket No. IP7014/GS-19-620

The above matters are before the Commissioner of the Department of Commerce (Department or Commerce) for a decision on the scope of the joint Environmental Assessment (EA) to be prepared for the Big Bend Wind Project (Big Bend or Big Bend Wind) in Cottonwood and Watonwan Counties, the Big Bend Wind High Voltage Transmission Line (Big Bend HVTL) in Cottonwood, Watonwan, and Martin Counties, and the Red Rock Solar Project (Red Rock or Red Rock Solar) proposed in Cottonwood County.

Big Bend Wind, LLC filed a Certificate of Need (CN) Application[1] and Site Permit Application (SPA)[2] for Big Bend Wind as well as a Route Permit Application[3] for Big Bend HVTL, on November 9, 2020. Red Rock Solar, LLC filed a CN Application and SPA for the Red Rock Solar Project on November 9, 2020. The Applications were accepted by the Commission on March 11, 2021[4]. The Commissioner of the Department issued a Scoping Decision on August 24, 2021[5].

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[1] Big Bend Wind, LLC. Initial Filing – Certificate of Need Application. November 9, 2020 eDocket ID# 202011-168164-03, 202011-168164-04, 202011-168164-05 [hereinafter Wind CN Application].

[2] Big Bend Wind, LLC. Initial Filing – Site Permit Application and Appendices. November 9, 2020. eDocket ID# 202011-168170-02, 202011-168170-03, 202011-168170-04, 202011-168170-05, 202011-168170-06, 202011-168170-07, 202011-168170-08, 202011-168170-09, 202011-168170-10, 202011-168172-01, 202011-168172-02, 202011-68172-03, 202011-168172-04, 202011-168172-05, 202011-168172-06, 202011-168172-07, 202011-168172-08, 202011-168172-09, 202011-168173-01 [hereinafter Initial Wind SPA]

[3] Big Bend Wind, LLC. Initial Filing – Route Permit Application and Appendices. November 9, 2020. eDocket ID# 202011-168176-02, 202011-168176-03, 202011-168176-04, 202011-168176-05, 202011-168176-06, 202011-168176-07, 202011-168176-10, 202011-168177-01, 202011-168177-02 and updated Appendix F. January 14, 2021 eDocket ID# 20211-169817-04 (hereinafter referred to as the RPA)

[4] Commission. Order - Order Accepting Applications Complete. March 11, 2021, eDocket ID# 20213-171785-05

[5] Department of Commerce. Environmental Assessment Scoping Decision. August 24, 2021. eDocket ID# 20218-177409-04

On September 14, 2021, Big Bend Wind, LLC filed a fully executed Settlement Agreement[6] that was mutually agreed upon by Big Bend Wind, LLC, Red Rock Solar, LLC, Apex Clean Energy Holdings, LLC, Minnesota Historical Society, Lower Sioux Indian Community in the State of Minnesota, and the Upper Sioux Community. As a result of the Settlement Agreement, Big Bend Wind, LLC filed an Amended SPA[7] for the Big Bend Wind Project on September 20, 2021.

The Big Bend Wind Project, as amended, reflects a substantial change when compared with the originally proposed project. The Department determined that the scope of the EA needed for the Project must be re-opened for re-evaluation pursuant to MN Rule 7850.3700, Subp.3.

No amendments were made to the Big Bend Wind CN application, the Big Bend HVTL route permit application, the Red Rock Solar CN application, or the Red Rock Solar SPA as a result of the Settlement Agreement.

Revised Big Bend Wind Project Description

The Amended Big Bend Wind Project will be located in portions of Cottonwood and Watonwan counties, Minnesota, with a Project Area footprint that spans 43,523 acres of land in Delton, Selma, Carson, and Midway Townships (Cottonwood County) and Butterfield Township (Watonwan County).[8] The Project will have up to 300 megawatts (MW) of nameplate wind energy capacity.[9] Big Bend continues to assess its turbine options and is now evaluating three wind turbine models with rated nameplate power outputs ranging from 5.8 MW to 6.0 MW, which would result in the construction and operation of between 47 and 45 wind turbines, respectively.[10]

As indicated in the initial Big Bend Wind SPA, a number of facilities will be constructed to support the operation of the wind turbines and facilitate the delivery of electricity to consumers. There has been no proposed change to these associated facilities.[11]

Below is a list of the project changes identified in the Settlement Agreement[12] and Amended Big Bend Wind SPA[13], refer to attached Figure 1 to see individual turbine location changes:

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[6] Big Bend Wind, LLC. Big Bend Settlement Agreement. September 14, 2021. eDocket ID# 20219-177943-02, 20219-177943-05, 20219-177943-08, 20219-177943-11, 20219-177943-14, 20219-177943-17, 20219-177943-20, 20219-177943-23 (hereinafter referred to as the Settlement Agreement)

[7] Big Bend Wind, LLC. Amended Site Permit Application and Appendices. September 20, 2021. eDocket ID# 20219-178365-02, 20219-178112-03, 20219-178112-04, 20219-178112-05, 20219-178112-06, 20219-178115-01, 20219-178115-02, 20219-178115-03, 20219-178115-04, 20219-178115-05, 20219-178115-06, 20219-178115-07, 20219-178117-01, 20219-178117-02, 20219-178117-03, 20219-178117-04, 20219-178117-05, 20219-178117-06, 20219-178117-07, 20219-178117-08, 20219-178117-09, 20219-178120-01, 20219-178120-02, 20219-178120-03, 20219-178120-04, 20219-178120-05, 20219-178120-06, 20219-178120-07, 20219-178125-07, 20219-178125-08, 20219-178125-09, 20219-178125-10, 20219-178127-01, 20219-178127-02 (hereinafter referred to as the Amended Wind SPA)

[8] Amended Wind SPA at Section 4.2

[9] Amended Wind SPA at Section 4.2

[10] Amended Wind SPA at Section 4.2

[11] Amended Wind SPA at Section 4.2

[12] Settlement Agreement

[13] Amended Wind SPA

- Turbines within seven miles of the Jeffers Petroglyphs site have been excluded. Accordingly, eight of the originally proposed turbine locations, T01, T04, T06, T11, T12, T13, T14, and T18, have been removed from consideration.
- Two of the originally proposed turbine locations, T19 and T20, are proposed to be eliminated, conditional on the Commission permitting two of the alternate turbine locations identified in the Amended SPA
- Five turbine locations, T05, T06, T35, T47, and T56, have been shifted up to 605 feet.
- Turbines T24 and T25 will remain in the same general locations originally proposed, but will be micro-sited to minimize impacts to the viewshed from Jeffers Petroglyphs.
- Six new turbine locations have been added to the site outside the seven-mile buffer (A01, A02, A03, A04, A05, and A06).
- Wind Access Buffer Setback Waivers may be requested by Big Bend Wind, LLC to allow them to use wind rights of the non-participating landowners adjacent to the newly proposed turbine locations, A01, A02, and A03.
- Turbine models identified in the Amended Big Bend Wind SPA are the same turbine models included in the initial Big Bend Wind SPA (Nordex N-163, Vestas V162, and GE-158) but several turbine up ratings are proposed:
    - Turbine nameplate power output is proposed to range from 5.8-6.0 MW rather than the originally proposed 5.5 to 5.7 MW.
    - Minimum turbine component size range (i.e. hub height, bottom of rotor swept area) is higher for turbines proposed in the Amended SPA.
        - Initially proposed turbine hub height ranged 107.4 to 119 meters (353 to 390 feet), amended project turbine hub height ranges 117 to 119 meters (384 to 390 feet).
        - Initially proposed total turbine height ranged from 186.4 to 200 meters (612 to 656 feet), amended total turbine height ranges from 196 to 200 meters (643 to 656 feet).
    - The amended Big Bend Wind Project will generate up to 300 MW of electricity, versus up to 308 MW as originally proposed, with 45 to 47 turbines instead of 47 to 49 turbines.

The applicant anticipates turbine delivery date as early as the third quarter of 2022[14], and an anticipated commercial operation date (COD) by the end of the fourth quarter of 2022.[15]

Comment Period

The Department issued a Notice of Substantial Changes and New Information and Comment Period of the Environmental Assessment Scope on October 15, 2021[16], and the comment period ended on November 1, 2021.

The notice requested comment on the following questions:

[14] Amended Wind SPA at Section 10.8

[15] Amended Wind SPA at Section 10.8

[16] DOC-EERA. Notice of Substantial Changes and New Information and Comment Period of the Environmental Assessment Scope. October 15, 2021. eDocket ID# 202110-178883-05

- What additional potential human and environmental impacts of the proposed project should be considered in the scope of the Environmental Assessment (EA), and/or the draft site permit?
- What are possible methods to minimize, mitigate, or avoid the potential impacts?
- Are there other ways to meet the stated need for the amended project, for example, a different size project or a different type of facility? If so, what system alternatives to the amended project should be studied in the EA?
- Should the Department maintain the system alternatives including turbine exclusion areas from the originally proposed layout of eight (8), ten (10), and eleven (11) miles from the Jeffers Petroglyphs site, as identified in the Department's EA Scoping Decision issued on August 24, 2021?

During the second comment period one comment letter was received by Brad Hutchinson[17], a member of the public, and a comment letter was submitted by the Applicant[18].

Mr. Hutchinson's comments identified concerns with respect to wind turbine impacts on birds and bats that utilize the project area, both through direct strike fatalities, and also the loss of and encroachment of development on wildlife habitat in the area. Mr. Hutchinson did indicate that the seven-mile turbine setback from Jeffers Petroglyphs was a positive change to the project, but shifting the turbines from that portion of the project area into the remainder of the project area would increase the turbine density throughout the remainder of the project area and result in an increase in potential impacts of shadow flicker and noise on the local residents. Mr. Hutchinson requested that a system alternative of only constructing and operating a solar energy generation facility be evaluated to meet the energy need.

The Applicant indicated they believe the human and environmental impacts identified in the previously issued EA Scoping Decision and Draft Site Permit are appropriate to be carried forward for this EA Scoping Decision. Methods for avoiding, minimizing and mitigating potential impacts of the proposed project identified in the previous EA Scoping Decision were also recommended to be carried forward by the Applicant. The Applicant's comments state that the system alternatives including hybrid wind and solar facilities, with wind turbine setbacks from Jeffers Petroglyphs of eight (8), ten (10), and eleven (11) miles, should not be carried forward in the EA scope, because the Settlement Agreement has been reached to address this issue.

EERA Staff Analysis and Recommendation

EERA has determined that Mr. Hutchinson's recommended system alternative of an all solar energy facility to meet the energy need is appropriate to carry forward into the EA. Additionally, EERA agrees with the project applicant that the previously proposed hybrid wind and solar facilities, with wind turbine setbacks from Jeffers Petroglyphs of eight (8), ten (10), and eleven (11) miles, are not appropriate to be carried forward in the EA Scope, because the Settlement Agreement has been reached to address this issue and an Amended Wind SPA has been submitted to reflect the agreed upon turbine layout modifications.

[17] DOC-EERA. Comments – Public Comments Received from Brad Hutchinson. November 3, 2021. eDockets ID# 202111-179472-02

[18] Big Bend Wind, LLC and Red Rock Solar, LLC. Comments – BBRR Scoping Comments. November 1, 2021. eDockets ID# 202111-179402-04

As such, EERA believes that the proposed system alternatives, listed below, are appropriate for inclusion in the EA Scoping Decision to be evaluated and inform the CN decision:

- a hypothetical 335 MW solar facility (with no wind component),
- a hypothetical 335 MW wind energy and solar facility hybrid, located elsewhere in the State,
- a hypothetical 335 MW solar facility with battery storage, located elsewhere in the State

* * * * *

Having reviewed the matter and consulted with department staff, I hereby make the following scoping decision in accordance with Minnesota Rule 7849.1500 and Minnesota Rule 7850.3700:

MATTERS TO BE ADDRESSED

The EA will study the project in a manner consistent with the August 24, 2021, Scoping Decision.

Project Information

The EA will describe the revised project as identified in the August 24, 2021, Scoping Decision.

Regulatory Framework

The EA will provide information on the regulatory framework as described in the August 24, 2021, Scoping Decision.

Affected Environment, Potential Impacts, and Mitigative Measures

The EA will discuss the affected environment, potential impacts, mitigative measures associated with the revised project as described in the August 24, 2021, Scoping Decision.

Alternatives to the Proposed Hybrid Wind and Solar Project

The EA, in accordance with Minnesota Rule 7849.1500, will describe and analyze the feasibility of the following system alternatives, and the human and environmental impacts and potential mitigation measures associated with each.

- 335 MW Wind and Solar Hybrid Project (Amended Big Bend Wind and Red Rock Solar as proposed)
- a hypothetical 335 MW solar facility (with no wind component),
- 335 MW Wind and Solar Hybrid Project sited elsewhere in the State
- 335 MW solar facility with battery storage, located elsewhere in the State
- No-build Alternative

The EA will analyze the proposed route, proposed peaking plant alternate route, and the proposed alternate route segments as identified in the Route Permit Application (Figure 3). Additionally, the EA will analyze the Peaking Plant Alternate Route – Alternate Route Segment that was submitted by Mr. Scholl and recommended for consideration by the Commission (Figure 4).

Figures

(1) Summary of Turbine Layout Changes – Figure 19. Big Bend Wind, LLC Revised Layout Summary
(2) Preliminary Project Layout – Figure 3. Red Rock Solar, LLC. Certificate of Need Application
(3) Project Overview Map – Figure 3.2-1. Big Bend Wind, LLC. Big Bend 161 kV Transmission Line Route Permit Application
(4) Peaking Plant Alternate Route – Alternate Route Segment 1

Unavoidable Impacts

The EA will discuss unavoidable impacts of the revised project as described in the August 24, 2021, Scoping Decision.

Irreversible and Irretrievable Commitments of Resources

The EA will discuss irreversible and irretrievable resource commitments of the revised project as described in the August 24, 2021, Scoping Decision.

Issues Outside the Scope of the Environmental Assessment

The EA will not consider the issues identified as outside of scope in the August 24, 2021, Scoping Decision.

Schedule

The EA is now anticipated to be complete in January 2022. Upon completion, it will be noticed and made available for review. A public hearing will be held virtually and/or in the project area after the EA has been issued. This hearing will be noticed. Comments on the EA may be submitted into the hearing record.

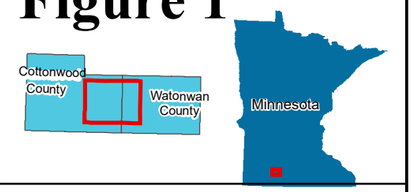
Signed this 5th day of November, 2021

Katherine Blauvelt, Assistant Commissioner

DEPARTMENT OF COMMERCE

EXHIBIT 1

Figure 1



0 1 2
Miles
1:80,000

N

Data Source: Apex Energy, US Census, MDOT, MDNR

- Proposed Turbine - No Change
- Proposed Turbine - Shifted up to 605 feet
- Proposed Turbine - New
- Removed Turbine
- Residential Structure (within 1 mile of Project Area Boundary)
- Existing Substation
- Access Road
- Collection Line
- Crane Path
- Existing Transmission Line
- Existing Pipeline
- Snowmobile Trail
- Laydown
- Wind Project Substation
- O&M Area
- Wind Access Buffer
- Project Area Boundary
- Public Water Basin
- Public Water Watercourse
- Participating Parcel
- Pending Participating Parcel
- Shoreland Management Area
- Setbacks
- City/Township
- County Boundary

*Turbines not to scale

Figure 19
Summary of Turbine Layout Changes

Big Bend Wind Project

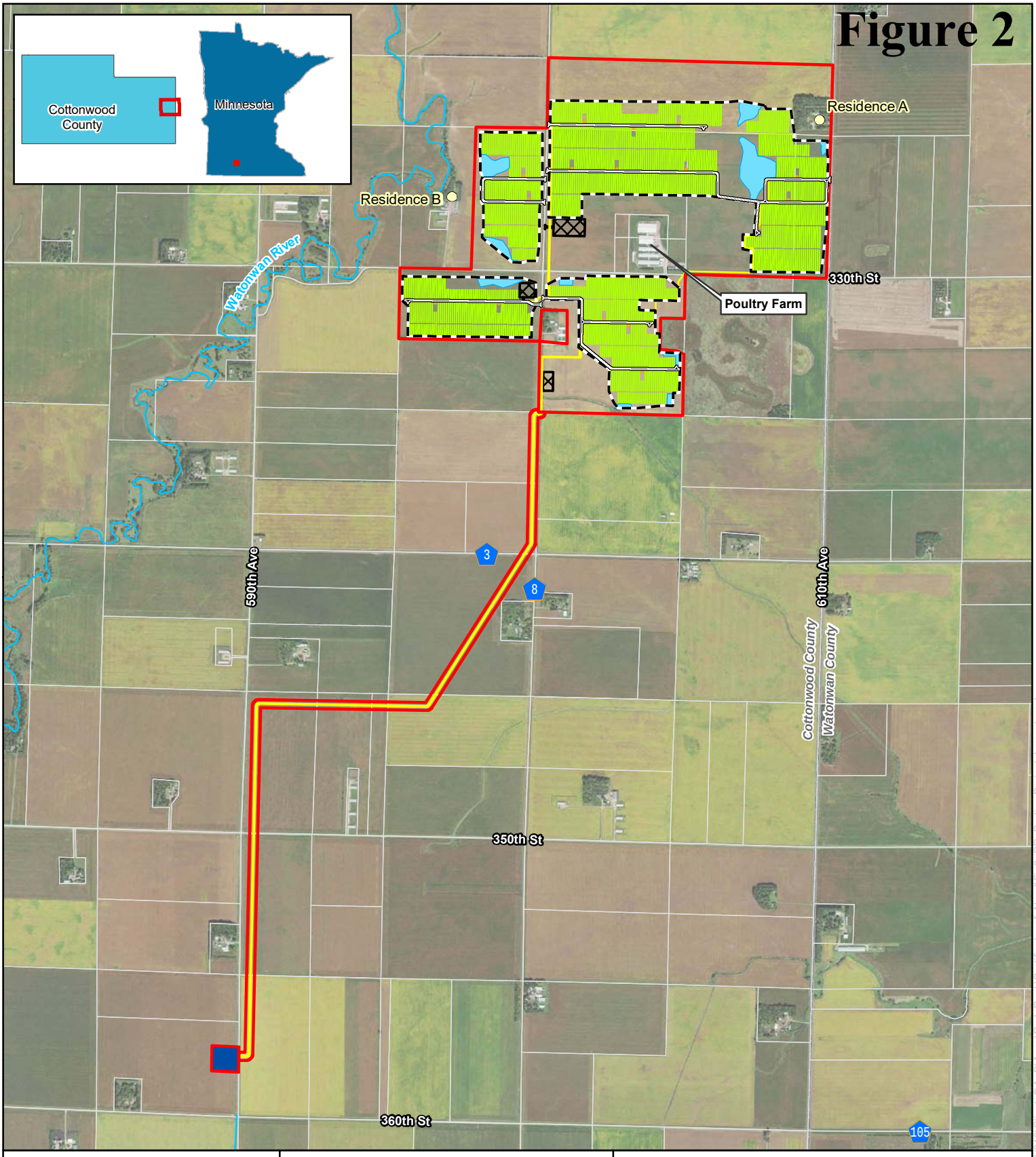
Cottonwood and Watonwan Counties, Minnesota

BIG BEND WIND

merjent

For Environmental Review Purposes Only

Source: Z:\Clients\A_D\Apex\Big_Bend\Site_Permit\Figures\Fig19_BB_Turbine_Layout_Changes.mxd
Date: (9/20/2021)



RED ROCK SOLAR

N

0 0.3 0.6 Miles

1:29,000

merjent

For Environmental Review Purposes Only

Figure 3
Preliminary Project Layout
Red Rock Solar, LLC
Cottonwood County, Minnesota

- Residence on Solar Development Parcel
- Collection Line
- Project Boundary
- Access Road
- Security Fence
- Inverter
- Solar
- Project Substation
- Laydown
- Stormwater Basin
- Parcel Boundary
- NHD Stream (Perennial)

Source: \\MINTSRV01\Clients$\A_DApex\Red_Rock\Certificate_of_Need\Fig3_RR_Prelim_Project_Layout.mxd

Date: (11/6/2020)

Figure 3

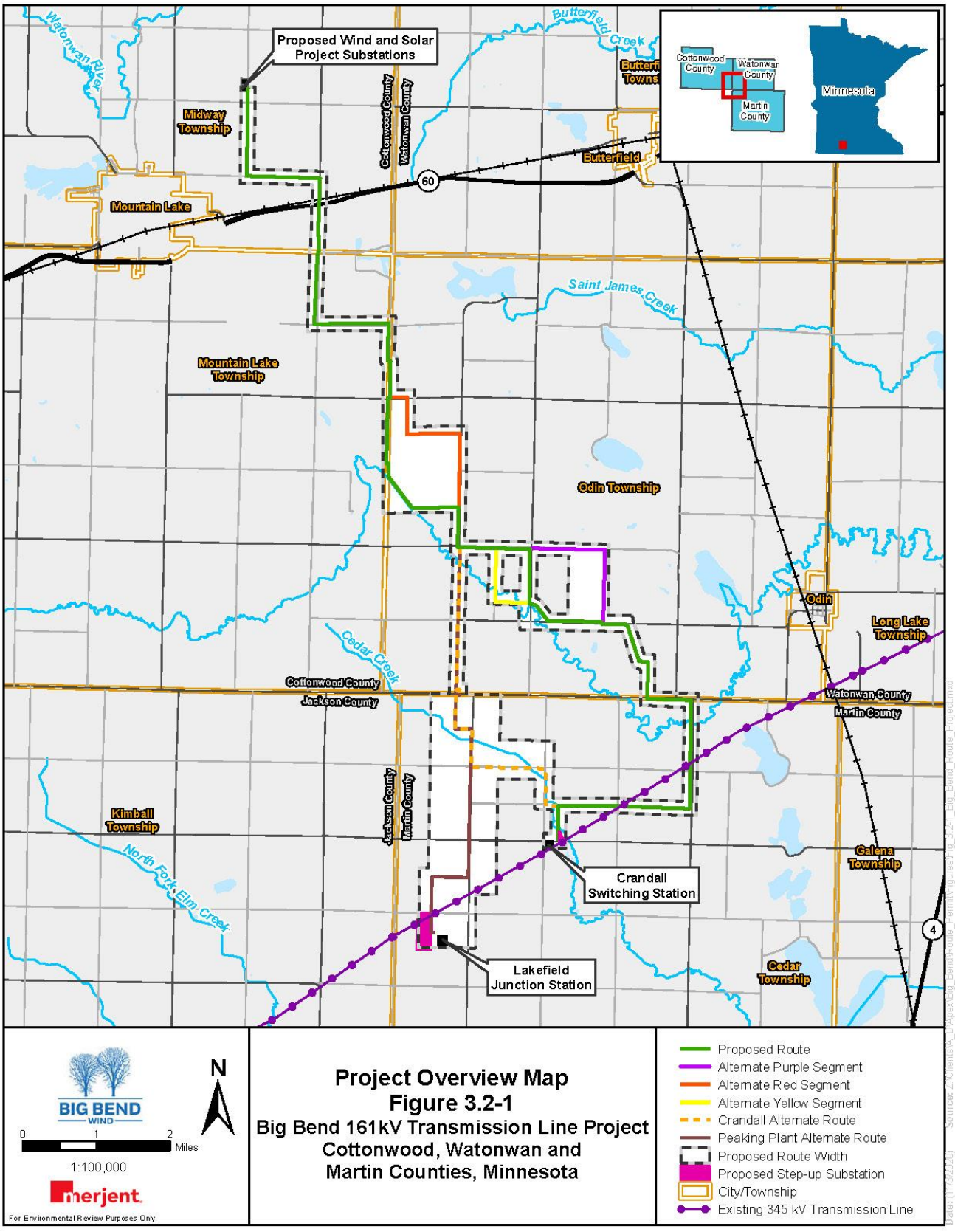

Proposed Wind and Solar Project Substations
Watonwan River
Butterfield Creek
Midway Township
Cottonwood County
Watonwan County
Butterfield
60
Mountain Lake
Saint James Creek
Mountain Lake Township
Odin Township
Odin
Long Lake Township
Cedar Creek
Cottonwood County
Jackson County
Watonwan County
Martin County
Kimball Township
Jackson County
Martin County
North Fork Elm Creek
Crandall Switching Station
Galena Township
Lakefield Junction Station
Cedar Township
4
Cottonwood County
Watonwan County
Martin County
Minnesota
BIG BEND WIND
0 1 2 Miles
1:100,000
N
merjent
For Environmental Review Purposes Only
Project Overview Map
Figure 3.2-1
Big Bend 161kV Transmission Line Project
Cottonwood, Watonwan and
Martin Counties, Minnesota
Proposed Route
Alternate Purple Segment
Alternate Red Segment
Alternate Yellow Segment
Crandall Alternate Route
Peaking Plant Alternate Route
Proposed Route Width
Proposed Step-up Substation
City/Township
Existing 345 kV Transmission Line

Figure 4

Figure 4 - Peaking Plant Alternate Route - Alternate Route Segment 1