

## **South Dakota Infrastructure Rider 2021 Project List and Descriptions**

### **Existing Rider Projects**

The following projects were approved for recovery by the Commission in the Company's Infrastructure Rider in Docket No. EL14-058, and re-affirmed for cost recovery most recently in Docket No. EL19-035:

- MNGP Extended Power Uprate (Monticello LCM/EPU) (w/o 10245258)<sup>1</sup>
- PI-9 TN-40 Casks (Prairie Island Casks #39-47) (w/o 11101522)
- PI-Relicense ISFSI (Prairie Island ISFSI Relicensing) (w/o 10798851)
- PI U2 Generator Replacement (w/o 11808202)
- PI U2 GSU Transformer Replacement (w/o 11808219)
- MNGP EDG Tornado Missile Protection (w/o 11946062)
- MNGP Fukushima Modifications (w/o 11503439)
- PI LR Ph II-U2 MRP-227A Implementation (w/o 11812440)
- PI-NFPA 805 Fire Model (w/o 11044898)
- PI U2 HDTP Speed Control Upgrade (w/o 11230621)
- BRD0C Border Wind ND (w/o 11551351)
- PLV0C Pleasant Valley Wind (w/o 11869600)
- SHC1C U1 Couton Bottom Replacement (w/o 10935185)
- BDS0C Install Package Boiler (w/o 11345791)
- SHC3C Motor Control Sys PL (w/o 11487734)
- Midtown 115kV line (w/os 11219377 and 11627836)
- NSM0953 Galloping Mitigation (w/o 11892875)
- GIST-III Computer Software (w/o 11465739)
- Hiawatha Dam Interconnect Substation (w/o 11083245)
- Scott County 345 kV Expansion, Substation (w/o 11806389)
- BS-Fcst-BD-SW-CM-M (w/o 11218029)
- PI-Repl Instrument Air Compressor (w/o 10799550)

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<sup>1</sup> To implement a provision of the Settlement, cost recovery for the Monticello LCM/EPU project did not roll into base rates, but rather remained in the Infrastructure Rider.

The following projects were approved for recovery by the Commission in the Company's Infrastructure Rider in Docket No. EL15-038, and re-affirmed for cost recovery most recently in Docket No. EL19-035:

- Prairie 3rd 230/115 kV tra (w/o 11491534)
- PI Emerg Resp Equipment FLEX (w/o 11634222)
- PI U1 HDTP Speed Control U (w/o 11101124)
- SHC2 U2 DCS Controls Repl (w/o 11648818)
- SHC2C U2 Turbine EHC Ctrls (w/o 11488127)
- Dynamic EMS Environment Phase (w/o 10818773)
- Work and Asset Ph 1 SW MN (w/o 11491932)
- MNGP Security Physical Upgrade (w/o 12076265)
- PI Sfgds CL Pump Redesign (w/o 12075477)
- 760-Red Wing to Wabasha (w/o 11776427)
- NSM0953 Galloping Mitigation (w/o 12077207& 12051340)
- HBC7C U7 HGP/Combustion Inspec (w/o 10785655)
- SHC1C U1 DCS Controls Repl PH (w/o 11350867)
- MNGP Rplc IMUX Front End Proce (w/o 11366818)
- GIST-II Computer SoftwareNSPM (w/o 11434783)
- MNGP Cyber Security 08-09 (w/o 11468481)
- Purch EMS DEMS Ph2 HW MN (w/o 11584375)
- PI Fan Coil Unit Face Repl (w/o 11812451)
- PI NFPA 805 -08 Fire Detection (w/o 11825933)
- MNGP EDG Fuel Oil Train Separa (w/o 11926489)
- PI FLEX Storage Building (w/o 12035378)
- CRT0C Courtenay Wind Farm Construct (w/o 12173639)
- RIV9C-U9 HGP Inspection No 1 (w/o 11215945)

The following projects were approved for recovery by the Commission in the Company's Infrastructure Rider in Docket No. EL16-032, and re-affirmed for cost recovery most recently in Docket No. EL19-035:

- PI-Screenhouse Cl Header P (w/o 11100514)
- SHC 3 Turbine EHC Controls (w/o 11487740)
- SHC3 Boiler Intermediate and Finishing Superheater replacement (A.0001574.147)
- PI Reactor Coolant Pump Rebuild (A.0000035.211)
- MT TSTF-523 Vent Installation (A.0000029.015)
- MT EDG Fuel Oil Pump Mtr Rplc 1R28 (A.0000017.116)
- MT KM 480VAC Cubicle Rplc (A.0000029.018)

The following projects were approved for recovery by the Commission in the Company's Infrastructure Rider in Docket No. EL17-039, and re-affirmed for cost recovery most recently in Docket No. EL19-035:

- MNGP Hardened Vents & Filt (11871747 / A.0000043.005)
- PI 2M 2RS 2RX Transformer (11503758 / A.0000035.170)
- PI U1 Generator Replacemnt (11808178 / A.0000037.003)
- MNGP DAS & PPCS Rplc (A.0000017.003)
- MNGP 2018 Dry Fuel Storage Loa (A.0000060.001)
- PI 4.16 KV Bus Modifications (A.0000040.016 )
- NSPM Tline ELR 2016 69kV Line (A.0000504.025)

The following projects were approved for recovery by the Commission in the Company's Infrastructure Rider in Docket No. EL18-040, and re-affirmed for cost recovery most recently in Docket No. EL19-035:

- PI 1R Transformer Replacement (11503753)
- G100-Blazing Star I Wind Farm (A.0001701.001, A0001701.002, A0001701.003, A0001701.004, A0001701.005)
- FOX G100-Foxtail Wind Farm (A.0001703.001, A.0001703.002, A.0001703.003, A.0001703.004)
- G100-Crowned Ridge BOT Wind Farm (A0001705.001)
- G100-Lake Benton BOT Wind Farm (A0001706.001)
- Benson Biomass PPA Termination Costs
- Laurentian Biomass PPA Termination Costs
- Pine Bend Landfill Gas PPA Termination Costs

The following projects were approved for recovery by the Commission in the Company's Infrastructure Rider in Docket No. EL19-035:

- Sherco Unit 3 Unit Protection PLC
- Blazing Star II Wind Project (A.0001702.001, A0001702.002, A0001702.003, A0001702.004, A0001701.005)
- Freeborn Wind Project (A.0001704.001, A0001702.002, A0001702.003, A0001702.004, A0001702.005)

### **New Proposed Rider Projects**

Per the Settlement Stipulation in Docket No. GE17-003 approved by the Commission on July 18, 2018, the Company is allowed to seek recovery through the Infrastructure Rider of new wind generation projects and the costs of terminating certain biomass power purchase agreements – subject to the Commission granting the Company’s request for deferred accounting for those costs in Docket No. EL18-027. The Commission issued its Order approving the Company’s request for deferred accounting in Docket No. EL18-027 on June 28, 2018. As such, the Company seeks eligibility determination for the following new wind projects:

#### **Dakota Range I&II**

The Dakota Range I and II project is a 302.4 MW self-build wind project located on an approximately 40,000 acre site 20 miles north of Watertown, South Dakota. The Commission granted a permit to construct the wind facility on July 23, 2018 in Docket No. EL18-003 and granted our motion to transfer the permit to Northern States Power Company - Minnesota on March 9, 2020. The expected in-service date of the project is December 2021. The project was originally proposed by Apex Clean Energy during our Request for Proposals (RFP) process conducted in late 2016. Dakota Range was considered, but ultimately not included, in the Company’s 1,550 MW portfolio of wind generation selected as part of that RFP process. We later determined to proceed with the Dakota Range project once the price and transmission certainty of the project significantly improved after the conclusion of the Wind Portfolio RFP process.

The Dakota Range project, scheduled to be placed in-service in 2021, was originally expected to qualify for production tax credits (PTCs) at the 80 percent level. The economic analysis of the Dakota Range project assuming an 80 percent PTCs is included as Attachment 9A. However, in response to the COVID-19 pandemic and industry-wide supply chain and construction challenges, the Internal Revenue Service (IRS) modified its guidance regarding project qualifications for the PTCs. In essence, the IRS extended the period within which projects need to reach commercial operation in order to obtain 100 percent qualification for the PTC. Given the new guidance, the Company undertook efforts to determine whether Dakota Range could be converted into a 100 percent PTC project. To that end, the Company identified wind turbine equipment that could be deployed to the project that would make it qualify for PTCs at the 100 percent level.

Given the sheer size of the wind portfolio Xcel Energy is developing – across NSPM and our other operating companies – we maintain an inventory that allows some flexibility in directing components to the various projects under development. In this case, we were able to direct certain turbine components – originally intended for another project – for use on the Dakota Range I and II project while also not adversely affecting the timelines for projects in other jurisdictions. As a result, we expect to have met the PTC requirements for starting physical work of a significant nature during 2016. This – combined with recent IRS guidance on continuous construction parameters and extending project development timeline allowances – enables us to qualify the project for 100 percent PTCs when the capacity comes online in 2021.<sup>2</sup> We expect these efforts to provide an additional \$80-90 million<sup>3</sup> of savings over the life of the project; and, while the Dakota Range project faces cost pressure from COVID-19 related supply chain delays, we expect our PTC efforts to yield benefits that vastly outweigh any increases related not only to that project, but all of our self-build projects.

### **Jeffers Wind and Community Wind North**

Jeffers Wind is located in Cottonwood County, Minnesota. The facility, initially established as a Community-Based Energy Development (C-BED) project, consists of twenty 2.5 MW Clipper C-96 wind turbines and achieved commercial operation on October 10, 2008. Community Wind North is located in Lincoln County, Minnesota. The facility, also originally established as a C-BED project, consists of twelve 2.5 MW Clipper C-96 wind turbines and achieved commercial operation in May 2012. Longroad Energy, the owner of Jeffers Wind and Community Wind North, informed the Company of its intent to refurbish components of both facilities in early 2016. Costs for these PPAs are currently being recovered from South Dakota customers through the Fuel Clause.

In connection with these refurbishment projects, the Company negotiated amendments to the REPAs that will lower the cost of energy purchased under the agreements. In the course of these negotiations, we recognized the Company could further benefit customers by purchasing, owning, and operating the refurbished facilities. As a result, the Company negotiated and exercised an option to acquire both Jeffers Wind and Community Wind North and also negotiated purchase and sales agreements.

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<sup>2</sup> We have received an outside tax opinion supporting this pathway to achieving 100 percent PTCs.

<sup>3</sup> Undiscounted. Net present value savings expected is approximately \$45-55 million.

Under the terms of the refurbishing project, Community Wind North's retrofit will result in a new Committed Nameplate Capacity of 13.2 MW for each project (North Wind Turbines and North Community Turbines) and a new Committed Renewable Energy volume of 50,000 MWh per year for each project. Historically, North Wind Turbines has averaged about 49,700 MWh annually since 2012, and has achieved a one-year maximum output of 53,057 MWh. North Community Turbines has averaged about 49,700 MWh annually since 2012, and has achieved a one-year maximum output of 52,983 MWh. Similarly, Jeffers Wind has agreed to a new Committed Renewable Energy volume of 175,300 MWh per year. This is a reduction from the current volume of 184,000 MWh per year, and historically, Jeffers Wind has averaged 164,200 MWh per year, and achieved a one-year maximum output of 174,721 MWh per year.

The transaction for both facilities is expected to close, and they are expected to be placed in-service, in November 2020.

See Attachment 9B and for a cost-benefit analysis of the Jeffers Wind and Community Wind North projects.

### **Mower Wind**

The Mower Wind project is located in Mower County, Minnesota. The facility currently consists of 43 Siemens 2.3 MW MKII WTGs. The Company originally entered into a Renewable Energy Purchase Agreement (REPA) with FPL Energy Mower County, LLC, which is ultimately owned by NextEra Energy, Inc., on November 18, 2005, the result of negotiations subsequent to an all-source bidding process.

In late 2018, Next Era approached the Company regarding its interest in repowering the Mower County Wind Facility and selling the project to the Company. The repowered project is expected to qualify for 100 percent of the existing federal Production Tax Credits (PTCs) given its expected commercial operation date in December 2020. Next Era plans to repower each of the existing 43 2.3 MW WTGs. Some existing components, such as towers, concrete platforms, and other balance of plant (BOP) infrastructure, will continue to be utilized going forward. The repowering will allow for more efficient energy generation, and extend the useful life of the facility for an additional 25 years. We note that our 25-year useful life expectation for the repowered Project is consistent with industry and Company experience.

See Attachment 9C for a cost-benefit analysis of the Mower Wind project.