

Memo

Date: May 22, 2020

To: Will Seuffert – Minnesota Public Utilities Commission

From: Suzanne Steinhauer – Energy Environmental Review and Analysis

Subject: EERA Reply Comments on Review of Solar and Wind Decommissioning Plans (Commission Docket Number E999/M-17-123)

Background

On March 16, 2020, the Department of Commerce (Department) Energy Environmental Review and Analysis (EERA) staff provided recommendations to the Commission on the content and proposed review process for decommissioning plans. These recommendations include a proposed schedule for implementing a regular 5-year review of all decommissioning plans (eDocket ID: [20203-161292-01](#)).

On April 10, 2020, the Commission issued a notice requesting comments on EERA's March 16, 2020, recommendations. The Commission specifically requested comments on the following topics:

- Describe any concerns or suggestions about the proposed order and timeline for reviewing open wind and solar docket.
- Describe any concerns or suggestions for procedures for reviewing decommissioning plans.
- Are there any other topics that should be addressed in a decommissioning plan?

Six comments were filed with the Commission during the initial comment period:

- **Avangrid Renewables, LLC (Avangrid)** (eDocket ID: [20205-163042-01](#)) provided recommendations on decommissioning plan content and requested the Commission begin its comprehensive review of operating projects in 2021 to better accommodate project owners' budgeting timelines.
- **Minnesota Department of Natural Resources (DNR)** (eDocket ID: [20205-163051-01](#)) emphasized the importance of agency coordination leading up to decommissioning and during the decommissioning process. DNR staff also pointed out that the Buffalo Ridge Project was omitted from the list of projects.
- **Minnesota Pollution Control (PCA)** (eDocket ID: [20205-163119-01](#)) emphasized the importance of clear expectations from the outset of project development to ensure decommissioning is well-planned, fully funded, and environmentally sound.

- **Minnesota Power** (eDocket ID: [20205-163047-01](#)) expressed support for the proposed order and timeline for reviewing open wind and solar docket, as well as procedures for reviewing decommissioning plans.
- **Xcel Energy (Xcel)** (eDocket ID: [20205-163036-01](#)) recommended that decommissioning plans for regulated utilities be handled differently and requested that decommissioning plans for all Xcel-owned facilities be reviewed at the same time.
- **Jane Youngkrantz** (eDocket ID: [20205-163036-01](#)) provided a local government perspective on decommissioning. Although Ms. Youngkrantz's comment is focused on locally-permitted solar and wind facilities, the comments on the importance of proper removal and disposal of potentially hazardous materials, the potential for premature project retirement due to weather events, and the pressure on local landfills to dispose of large volumes of waste are also relevant to larger facilities. Ms. Youngkrantz supports the implementation of standards requiring project developers or utilities to take full responsibility for disposal of project components, including intermediate storage if recycling or waste sites are not immediately available.

EERA staff offers the following responses to the afore-mentioned comments

Proposed Timeline for Reviewing Open Dockets

Avangrid requests the Commission postpone the start of operating project reviews timeline from 2020 to 2021 to allow time for project owners to budget for the development of updated decommissioning plans. Avangrid maintains requiring new plans in 2020 would present a financial hardship because of the long lead-time for operating budget requests. Because Avangrid was the only commenter requesting additional time to budget for decommissioning plans, EERA staff assumes the lead-time is specific to Avangrid's operating procedures.

Xcel Energy noted that, as a regulated utility, it is required to file information on dismantling of its generating assets every five years. Xcel requested decommissioning plan review for all Xcel-owned wind farms be coordinated with the five-year decommissioning study.

Response: EERA staff appreciates the comments of Avangrid and Xcel on the proposed review schedule. With respect to review scheduling, EERA staff's primary interest is ensuring a predictable schedule that supports preparation of detailed decommissioning plans on the part of permittees as well as review capacity of staff from the Commission, Department, state, and local agencies.

While EERA staff supports Xcel's request to consolidate review of all Xcel-owned facilities in theory, it is unclear what the timeframe would be. Xcel indicated its intent to file its *2020 Review of Remaining Lives and Five-Year Depreciation and Net Salvage Study Petition* (herein after *Five-Year Depreciation Study*) in Docket No. E,G002/D-19-723 on May 18, 2020. However, on May 15, 2020, Xcel requested an extension of at least three months to file its *Five-Year Depreciation Study*.¹ EERA staff has shifted the proposed review schedule for all Xcel-owned facilities to 2020.² Regardless of the review timeline, EERA staff recommends that Xcel file a copy of the most recent *Five-Year Depreciation Study* in the siting docket for each Xcel-owned wind or solar generation facility.

¹ Xcel Energy, eDocket ID: [20205-163228-01](#)

² At the time of this filing Blazing Star I, Blazing Star II, Wapsipinicon, Nobles Wind, Pleasant Valley Wind are in operation, while Freeborn Wind and Nobles 2 Wind are under construction

EERA staff also supports consolidating review of decommissioning plans for all Avangrid-owned facilities in 2021. Consistent with the Commission’s order approving repowering of the Trimont facility, Avangrid updated its decommissioning plan in March 2020 prior to operation (eDocket ID: [20203-161195-01](#)). EERA staff supports review of all remaining Avangrid-owned facilities (Elm Creek I, Elm Creek II, MinnDakota Wind, Moraine Wind I, Moranie Wind II) in 2021.

Table 1 summarizes proposed modifications (changes are shown with strikethrough and underline) to the review schedule based on review comments.

Table 1. Modified Proposed Review Schedule

Review Year	Count	Projects
2020	18	Big Blue Wind, Blazing Star I Wind, Blazing Star II Wind, <u>Buffalo Ridge Wind</u> , Chanarambie Wind, Community Wind North, Fenton Wind, Freeborn Wind, Grant County Wind, Jeffers Wind, Lake Benton I Wind, Lake Benton II Wind, Lakota Ridge Wind, MinnDakota Wind , Moraine Wind , Mower County Wind, Nobles 2 Wind, <u>Pleasant Valley Wind</u> , Shaokatan Hills Wind, Trimont Wind
2021	7	Elm Creek Wind I, Elm Creek Wind II, <u>MinnDakota Wind</u> , <u>Moraine Wind I</u> , Moraine Wind II , Prairie Rose Wind, Prairie Star Wind, Ridgewood Wind, Taconite Ridge Wind
2022	5	Bent Tree Wind, Lakefield Wind, Lakeswind, Nobles Wind, Wapsipinicon Wind
2023	4	Community Wind South, Oak Glen Wind, Palmer’s Creek Wind, Red Pine Wind
2024	8	Aurora Solar, Black Oak Wind, Getty Wind, Marshall Solar, North Star Solar, Odell Wind, Pleasant Valley Wind , Stoneray Wind,

Procedures for Reviewing Decommissioning Plans

Xcel expressed concerns about the potential duplication of efforts and confusion resulting from the requirement for all regulated utilities to file updated decommissioning plans every five years and the decommissioning plan requirement required in each site permit.

Response: While acknowledging the potential for overlap between the two plans and duplication of some material, EERA staff continues to support its earlier recommendation that a decommissioning plan for each project be filed as a stand-alone document in the appropriate siting docket. Although related, the remaining lives/depreciation and decommissioning requirements serve different purposes, address different audiences, and are reviewed by different staff at the Commission and Department.

Minnesota Statutes 216B.11 requires the Commission to determine proper rates and methods of depreciation for public utilities to ensure continued adequate and reliable electric service at a reasonable cost to ratepayers. The Commission’s determination of appropriate depreciation of utility assets is an iterative review process requiring several filings, making that information difficult to assess without expertise in issues related to generating asset depreciation across a regulated utility’s generating portfolio.

The intent of the decommissioning plan is to ensure that, consistent with Minnesota Statutes, section 216F.05, subdivision 5, each site is restored at the end of the energy facility's useful life, with the costs of the restoration borne by the permittee. The majority of permittees for LWECs site permits issued by the Commission, including those currently operated by Xcel, are separate LLCs that exist for each project. While a parent company, such as Xcel, may own multiple LLCs, each individual LLC is responsible for meeting the conditions of its site permit.

Decommissioning plans should be accessible documents containing sufficient information for any reader, including, but not limited to, local government representatives, to understand basic information about the generation facility and how it will be decommissioned. It is particularly important that specific decommissioning information on each facility be accessible to local governments, who often serve as financial surety beneficiaries.

As noted in its comments on the review timeframe above, EERA staff recommends that Xcel file a copy of the most recent *Five-Year Depreciation Study* in the siting docket for each Xcel-owned wind or solar generation facility. EERA staff also recommends that individual plans decommissioning plans reference the Five-Year Depreciation Study where applicable.

Other Decommissioning Plan Topics

Corrections and Clarifications

DNR comments pointed out the omission of Next Era's Buffalo Ridge Project. Avangrid requested clarification on the type of acreage requested in decommissioning plans.

Response: EERA staff appreciates DNR pointing out this inadvertent omission; EERA has corrected this omission in Table 1.

With respect to clarification on acreage, EERA staff recommends that permittees provide the acreage corresponding to the area for which the permittee, or its affiliate, exerts some type of site control, whether through easements, lease, or ownership.

Generation Output and Power Purchase Agreement (PPA)

Avangrid questioned the relevancy of providing information on generation output and PPA terms in the decommissioning agreement, maintaining that PPAs are not relevant to financial surety.

Response: EERA staff respectfully disagrees with Avangrid's assertion that information on generation output is irrelevant to the financial surety. EERA acknowledges that detailed generation output and PPA information is often trade secret, which is why EERA recommended the project owner provide general information on the output of the power (e.g. sold under a PPA, part of a utility generation portfolio, sold directly into the MISO market). EERA further recommended the general information include the expiration date of any PPA(s).

Permittees are not required to file regular updates of operating costs but, based on discussion of the working group and nature of the mechanical wear and tear on the hardware (at least for wind turbines), operating costs are expected to increase as projects age. While not privy to the details of PPAs, it is EERA staff's understanding that the general nature of the contract is to exchange a predictable generation supply from the generator for a predictable revenue stream from the purchaser over a set period of

time. The termination of a PPA, or the sale directly into MISO, would seem to increase the uncertainty of the revenue stream at the same time that operating costs are increasing, potentially to the extreme of financial default and project abandonment. With the increased financial uncertainty in this type of situation, EERA staff believes it is appropriate for the Commission to consider, in individual dockets, whether full funding of the financial surety at some earlier date in a project's lifespan is appropriate.

Agency Coordination

Both DNR and PCA recommended agency coordination, both in terms of notification and coordination with agencies prior to commencement of decommissioning activities and review of the decommissioning plans. Amongst other items, PCA noted that abandonment of any portion of a structure (including turbine foundations, fence footings, etc.) constitutes disposal of a solid waste requiring a permit from the Agency.

Response: EERA supports inter-agency coordination both in development of decommissioning plans and coordination prior to commencement of decommissioning activities. As noted in both DNR and PCA comments, coordination with both state and local agencies is useful in ensuring a predictable decommissioning process. Consistent with the Working Group's recommendation that decommissioning plans be detailed, EERA staff believes that the addition of a table identifying anticipated permits to the decommissioning plan, similar to what is included in site permit applications, would be a useful planning tool for project owners, contractors, and agencies.

Recycling and Reclamation

PCA and Ms. Youngkrantz noted the environmental impacts that may result from the decommissioning and disposal of wind and solar components. Ms. Youngkrantz also noted the likelihood of future hybrid generation-storage projects, which would add large battery disposal to the mix. The PCA comments made a number of recommendations to address environmental concerns. Ms. Youngkrantz supports the implementation of standards requiring project developers or utilities to take full responsibility for disposal of project components, including intermediate storage if recycling or waste sites are not immediately available.

PCA recommends that a "facility design and end of life environment and sustainability checklist" be included in each decommissioning plan.

PCA recommends permittees be encouraged to incorporate reusable and recyclable materials, preferably materials with environmental certifications in project design.

Response: EERA staff agrees with PCA and Ms. Youngkrantz that the issue of component disposal is an important matter, and plans should emphasize reclamation and recycling to minimize the burdens on waste facilities. At this point, however, EERA staff is hesitant to recommend specific treatment of various components, as buy-back, reclamation, and recycling technologies and markets continue to evolve. As noted in its March 16, 2020, recommendations, EERA will file an annual summary of decommissioning activity in Docket E999-M-17-123. EERA anticipates this filing will include a summary of the status of decommissioning plans for Minnesota wind and solar projects as well as developments in decommissioning best practices. EERA staff believes the updates on the evolving markets and technologies supporting component reclamation and recycling would be a useful addition to the annual update envisioned and will work with PCA staff to include updated information in the update.

EERA staff notes PCA's recommendations on use of environmentally sustainable project materials and encourages PCA to file those comments during the permit review process.

Amount of Financial Assurance:

Avangrid maintains that PPAs are not relevant to financial surety and note that landowner wind leases and easements provide a contractual requirement for the project owner to decommission and restore land to previous conditions. Avangrid recommends the amount of financial surety be based on net costs (total costs minus salvage value) and implemented in a step-wise manner.

PCA recommends estimated salvage value not be allowed to offset decommission funding, noting the volatility and unpredictability of salvage value. PCA asserts that salvage value be considered a bonus for a well-executed decommissioning plan.

Response: The Working Group did not make recommendations on the inclusion of salvage value to calculate financial surety, but recommended periodic review of the decommissioning plans to address the anticipated changes in cost and best practices over the course of a 30-year permit. EERA staff shares PCA staff's concerns regarding the volatility and unpredictability of salvage value and acknowledges the potential incentive for some project owners to rely on optimistic salvage value to minimize the amount of set-aside funds. On the other hand, regulated utilities do include estimated salvage value in the Five-Year Depreciation Studies reviewed by the Commission. EERA staff respectfully requests guidance from the Commission on the level to which salvage values should be included in the cost, and surety, calculations.

Types of Financial Assurance

Avangrid recommends the Commission allow flexibility in the type of financial assurance mechanism to include letters of credit and parent/corporate guarantees from creditworthy companies. Avangrid further recommends the beneficiary of the financial assurance mechanism be a government entity (e.g. county or the Commission) to ensure all landowners have an equal opportunity to obtain the necessary proceeds to restore their property in the event of default.

Xcel noted that the Commission periodically reviews decommissioning costs for regulated utilities and allows recovery of decommissioning costs in rates set by the Commission. Xcel recommended that, given the level of existing oversight by the Commission, no additional financial surety be required for projects owned by regulated utilities. If the Commission believes that additional financial surety be required, beyond that provided through rate approvals, Xcel requests the Commission provide permittees flexibility in the type of financial assurance. Xcel cited the variety of options for solid waste facilities identified in Minn. Rule 7035.2705 to 7035.2751, as an example of the types of financial assurance mechanisms that would address a variety of ownership situations.

Response: EERA staff supports the recommendations of Avangrid and Xcel that permittees be allowed flexibility in financial assurance mechanisms and the designation of a government entity as the beneficiary of a financial assurance, as originally recommended by the Working Group.

EERA staff defers to the Commission as to whether additional financial surety beyond that provided through the Commission's determination of rates should be required for regulated utilities.

Final Report

PCA recommends permittees file a final report with the Commission following completion of decommissioning activities. As described by PCA, the final report would: describe ways in which final decommissioning activities varied from the decommissioning plan filed with the Commission; identify the final destination of project material; and make recommendations for improving the decommissioning planning process and implementation.

Response: EERA supports PCA's recommendation of a "capstone report" summarizing the permittee's decommissioning.