

## **VI. Decision Options**

### **A. Reviewing Decommissioning Plans earlier in the Permitting Process**

1. Encourage DOC EERA to advise applicants to file a plan at the time they file their application, as recommended by DOC EERA, DNR, MPCA.
2. Take no action.
3. Take some other action determined appropriate.

### **B. Content of a Decommissioning Plan**

1. *Standalone Document*
  - a) Amend the sample wind and solar site permits to require that decommissioning plans be a stand-alone document and publicly efiled into the associated docket as recommended by DOC EERA and the MPCA.
  - b) Take no action.
  - c) Take some other action deemed appropriate.
2. *More Detailed Content*
  - a) Amend the sample wind and solar site permits to include the requirement that decommission plans provide the detail described in DOC EERA's March 16, 2020 Recommendations (Table 1).
  - b) Take no action.
  - c) Take some other action deemed appropriate.
3. *Financial Surety Instruments and Funding Timeline*
  - a) Amend the sample wind and solar site permits to include language allowing for a wide range of financial assurance mechanisms, as recommended by the Avangrid Renewables, CGA, DWG, Xcel Energy, and the MPCA.
  - b) Amend the sample wind and solar site permits to include language requiring permittees to adopt a financial assurance mechanism that is defined in Minnesota Administrative Rules 7035.2705 to 7035.2751, as suggested by Xcel Energy.

c) Amend the sample wind and solar site permits to include language requiring permittees with a 20 year or greater PPA to indicate the type of financial surety that will be used in funding decommissioning, to begin funding the financial surety at year 10 of operation, who the beneficiary will be, the amount of the financial surety and to have the financial surety fully funded by the end of the term of the PPA, as recommended by DOC EERA.

d) Take no action.

e) Take some action deemed appropriate.

4. *Without a Power Purchase Agreements*

a) Amend the sample wind and solar site permits to include language requiring facilities operating without a power purchase agreement to have the financial surety fully funded by year 15 or 20, as recommended by DOC EERA.

b) Amend the sample wind and solar site permits to include requiring facilities operating without a power purchase agreement to have the financial surety fully funded by a date deemed appropriate by the Commission.

c) Take no action.

d) Take some other action deemed appropriate.

5. *Scrap/Salvage Value*

a) Amend the sample wind and solar site permits to include language that requires decommissioning cost estimates include both total and net costs (total minus estimated scrap value), including the assumptions for the cost estimates, and allow financial surety calculations to be based on net costs as recommended by Avangrid Renewables, CGA, Xcel Energy.

b) Amend the sample wind and solar site permits to include language that requires decommissioning cost estimates used in a decommissioning plan include both total and net costs (total minus estimated scrap value), including the assumptions for the cost estimates and allow financial surety calculations to be based on total costs, as recommended by MPCA.

c) Provide guidance on the level of salvage value that should be included in the cost and surety calculations, as requested by DOC EERA.

d) Take no action.

e) Take some other action deemed appropriate.

6. *Third Party Estimates*

a) Amend the sample wind and solar site permits to include language that requires decommissioning cost estimates be prepared by a knowledgeable independent third party, as recommended by CGA, DOC EERA, the DWG, MPCA, and Xcel Energy.

b) Take no action.

c) Take some other action deemed appropriate.

7. *Beneficiary*

a) Amend the sample wind and solar site permits to include language designating the Minnesota Public Utilities Commission as the beneficiary of a permittee's financial surety, as suggested by DOC EERA.

b) Amend the sample wind and solar site permits to include language designating a local government unit (like a city or county) to be the beneficiary of the financial surety, as recommended by CGA, the DWG, and Avangrid Renewables.

c) Amend the sample wind and solar site permits to include language requiring some other entity to administer the financial surety.

d) Take no action.

e) Take some other action deemed appropriate.

8. *Recycling and Reclamation*

a) Amend the sample wind and solar site permits requiring permittees to include waste disposal and recycling tasks in decommissioning plans, as recommended by DOC EERA.

- b) Amend the sample wind and solar site permits to include language requiring decommissioning plans to maximize recycling and minimize use of landfills or incineration for disposal, as recommended by the MPCA.
- c) Amend the sample wind and solar site permits to include language requiring permittees to take a “no-waste” or “no-landfill” approach to decommissioning, as recommended by the MPCA.
- d) Amend the sample wind and solar site permits to include language requiring permittees to recycle all solar panels, electrical/electronic components, racking, and other physical infrastructure, as recommended by the MPCA.
- e) Amend the sample wind and solar site permits to include language requiring the permittee to give a more detailed evaluation by the permittee of reuse/repurpose and recycling options for facility components, as recommended by the MPCA.
- f) Amend the sample wind and solar site permits to include language requiring the permittee disclose the hazardous waste status of solar panels to relevant regulators (PUC, Commerce, MPCA), as recommended by the MPCA.
- g) Request DOC EERA develop a 'facility design and end of life environment and sustainability checklist' for permittees to be included in 'decommissioning tasks and timing' and in the 'detailed cost estimate,' as recommended by the MPCA.
- h) Amend the sample wind and solar site permits to include a condition that would require permittees to report waste generated and materials recycled during installation phase, operational phase (intermittent generation of panels or invertors) and decommissioning phase, as recommended by the MPCA.
- i) Take no action.
- j) Take some other action(s) deemed appropriate.

## **C. Rate Regulated Utilities**

1. Amend the sample wind and solar site permits to include language requiring rate regulated utilities to file a standalone decommissioning plan with the same information as other permittees, except for:

(a) Rate regulated utilities would not be required to have a financial surety in addition to that included in the most recent Five-Year Depreciation Study.

2. Amend the sample wind and solar site permits to include language requiring rate regulated utilities to comply with the same requirements as other wind and solar permittees, as recommended by DOC EERA.
3. Amend the sample wind and solar site permits to include to require rate regulated utilities to file the most recent version of the Five-Year Depreciation Study into each rate regulated utility owned solar and wind generation asset docket, as recommended by DOC EERA.
4. Amend the sample wind and solar site permits to include to require rate regulated utilities to file a standalone decommissioning plan, as recommended by DOC EERA.
5. Amend the sample wind and solar site permits to include language stating rate regulated are not required to have a financial surety in addition to that included in the most recent Five-Year Depreciation Study, as recommended by Xcel Energy.
6. Take no action.
7. Take some other action deemed appropriate.

#### **D. Permit Review Procedures and Schedule**

1. *Periodic Five-Year Reviews*
  - a) Request DOC EERA process the review of decommissioning plans as compliance filings, not requiring the entire permit to be reopened, as recommended by DOC EERA.
  - b) Instruct Commission staff to request and initiate a decommissioning plan review from permittees with permits not containing the five-year review decommissioning plan review language, as suggested may be needed by DOC EERA.
  - c) Request DOC EERA staff request and initiate a decommissioning plan review from permittees with permits not containing the five-year review decommissioning plan review language.

d) Amend the sample wind and solar site permits to include language clarifying that five-year decommissioning plan reviews will be performed as compliance filings by DOC EERA.

e) Take no action.

f) Take some other action deemed appropriate.

2. *Other Triggers for Decommissioning Plan Review*

a) Amend the sample wind and solar site permits to initiate a decommissioning plan review during: the permit transfer process, the permit amendment process, and repowering requests, as recommended by DOC EERA.

b) Amend the sample wind and solar site permits to include language allowing staff to initiate a decommissioning plan review during: the permit transfer process, the permit amendment process, and repowering requests, as deemed necessary.

c) Take no action.

d) Take some other action deemed appropriate.

3. *How to Review Plans*

a) Request DOC EERA review solar and wind generation facilities in the order proposed in its October 29, 2020 Comments (Table 3 in briefing paper), as recommended by DOC EERA.

b) Request DOC EERA to issue written requests for an updated decommissioning plan from the permittees with facilities currently in operation, review updated efiled decommissioning plans as a compliance filing, then file a review letter identifying any issues necessitating possible Commission review and action, as recommended by DOC EERA.

c) Instruct Commission staff to request and initiate a decommissioning plan review from permittees with permits not containing the five-year review decommissioning plan review language, as suggested may be needed by DOC EERA.

d) Request DOC EERA to file a summary of the status of wind and solar decommissioning plan activities and developments in decommissioning best practices in Docket No. E999-M-17-123, as recommended by DOC EERA.

e) Take no action.

f) Take some other action deemed appropriate.

#### **E. Agency Coordination**

1. Request DOC EERA to develop a table identifying anticipated permits needed for decommissioning activities, as suggested would be useful by DOC EERA.
2. Amend the sample wind and solar site permits to include the table of anticipated permits needed for decommissioning activities.
3. Amend the sample wind and solar site permits to include language requiring the permittee to describe how it will notify state regulatory agencies of upcoming decommissioning plans (this could be added to the Table 1 recommendations from DOC EERA).
4. Take no action.
5. Take some other action deemed appropriate.

#### **F. Decommissioning Completion Report**

1. Amend the sample wind and solar site permits requiring permittees to file a report describing decommissioning activities and how they varied from the plan filed with the Commission, identify final destinations for project materials, specifically identifying the management method and destination of photovoltaic (PV) recyclable components, and make recommendations for improving the decommissioning planning process and implementation, as recommended by the MPCA.
2. Take no action.
3. Take some other action deemed appropriate.

#### **G. Miscellaneous Items**

1. *Other Types of Systems*
  - a) Request DOC EERA investigate the feasibility of requiring decommissioning plans for Independent Power Producer owned gas-fired power plants and high voltage transmission lines.

b) Take no action.

c) Take some other action deemed appropriate.

2. *Solar Panel Management Recs Coming*

a) No action needed.

3. *Community Base Energy Development Projects*

a) Request DOC EERA to investigate the status of C-BED projects in Minnesota and provide further recommendations.

b) Take no action.

c) Take some other action deemed appropriate.

4. *Facility Design*

a) Request DOC EERA to encourage permit applicants to design facilities with materials that will be reusable and recyclable at the time of decommissioning during the pre-application process, as recommended by the MPCA.

b) Request DOC EERA to encourage permit applicants to specify components that have environmental certifications, as recommended by the MPCA.

c) Take no action.

d) Take some other action deemed appropriate.

5. *Enforcement Language*

a) Amend the sample wind and solar site permits requiring decommissioning plans to include general or specific enforcement language for decommissioning plan compliance violations.

b) Take no action.

c) Take some other action deemed appropriate



6. *Other*

- a) Amend the sample wind and solar site permits requiring decommissioning plans include maps of areas likely to be disturbed during decommissioning, as recommended by the DNR.
- b) Amend the sample wind and solar site permits requiring third party monitors during the decommissioning process that report to state agencies, as recommended by MDA.
- c) Take no action.
- d) Take some other action deemed appropriate.

7. Authorize Commission staff to modify the sample wind and solar site permits to correct typographic and formatting errors, improve consistency, and ensure agreement with the Commission's final order in the matter.

**Staff Recommendations:** A1 (Earlier Plan Review, p. 5); B1a (Stand Alone Public Document, p. 6); B2a (Detailed Content, p. 7); B3a, c (Financial Surety and Funding Timeline, p. 11); B4a (Without Power Purchase Agreements, p. 12); B5c (Scrap/Salvage Value, p. 12); B6a (Third Party Estimates, p. 14); B7c (Beneficiary, p. 15); B8a-b (Recycling and Waste Disposal, p. 15); C1 (Regulated Utilities, p. 17); D1b (Five Year Reviews, p. 18); D2a (Other Review Triggers, p. 19); D3a-d, ~~f, g~~ (How to Review Plans, p. 19); E1-3 (Agency Coordination, p. 23); F1 (Decommissioning Report, p. 23); G1a (Other Systems, p. 24); G3a (C-BED Projects, p. 24); G4a-b (Facility Design, p. 25); G5b (Enforcement Language, p. 25); G6c (Other, p. 25), G7 (Allowing Staff Corrections)