

August 10, 2017

Tricia DeBleekere, Commission Staff
Minnesota Public Utilities Commission
121 7th Place East
Suite 350
Saint Paul, MN 55101-2147
(Via E-Filing)

RE: Response to topics open to comment on Aurora Distributed Solar, LLC Site Permit, PUC Docket Nos. IP6928/GS-14-515

Dear Ms. Debleekere:

The Minnesota Department of Agriculture (MDA) respectfully submits the following responses to the topics currently open for comment.

1. "Is the Agricultural Impact Mitigation Plan and Vegetation Management Plan sufficient or should it be modified?"

We believe the measures in the AIMP need to be revised to allow for establishment of vegetation through the operational life of the project and to allow a successful return to agricultural use after decommissioning. Specifically:

- a. A robust personnel training program is needed. The current AIMP mentions training as a responsibility of the Environmental Monitor (EM) before construction begins, but does not address training of personnel involved in restoration or operation and maintenance phases, and doesn't provide a sufficient level of detail. The training should be comprehensive in covering environmental and agricultural concerns, and should be provided to all contractor and sub-contractor personnel whose work or presence on a site may impact such resources. Training should be developed or approved by the Agricultural Monitor (AM), and administered by the AM, the EM, or other party who is fluent in the requirements of the AIMP/VMP. It should probably be separate from and in addition to the regular safety training personnel receives, and should be of sufficient length, to ensure adequate time and attention is given. Additional training sessions should be provided as personnel replacement occurs.
- b. There should be a minimum standard of qualifications for individuals serving in the EM role. The AIMP/VMP includes the roles and responsibilities for the EM role, but no specific education or experience requirements. At a minimum, knowledge, skills, and abilities for this role should include stormwater erosion and sediment control, knowledge of agriculture fields and drain tiles, environmental monitoring of heavy construction activities, implementation of construction best management practices (BMPs), familiarity with vegetation being established, and restoration of construction sites.

625 Robert St. N., St. Paul, MN 55155-2538 • 651-201-6000 or 1-800-967-2474 • www.mda.state.mn.us

In accordance with the Americans with Disabilities Act, this information is available in alternative forms of communication upon request by calling 651/201-6000. TTY users can call the Minnesota Relay Service at 711 or 1-800-627-3529. The MDA is an equal opportunity employer and provider.

- c. There should be provision for independent monitoring post-construction and post-restoration. There does not appear to be provision for independent monitoring for successful establishment of vegetation for the years after construction and restoration, or for any future repair or maintenance activities that could damage vegetation, soils, or drain tiles. This should be clarified.
- d. Provisions for operation and maintenance should include compliance with the AIMP construction and restoration provisions as necessary. During the operation and maintenance phase, there may be repair or maintenance activities that could damage vegetation, soils, or drain tiles, and so compliance with the AIMP construction and restoration provisions should be required as applicable.
- e. References to landowners in the AIMP should be reexamined and adjusted appropriately. This issue was also raised in Enel Green Power's filing of 6/21/2017. The AIMP provisions were in large part modeled on previous AIMPs for pipelines and transmission lines. Pipelines and transmission lines are in rights-of-way over private land, and for the most part, farmers and landowners continue to be able to use the land above the pipelines and between towers. Many of the provisions for the AIMPs for those types of projects were designed to provide for landowners to have land restored to their requirements or to be compensated for damages. However, in the case of solar projects, the solar facility operator controls land use across the site, whether the site is owned or leased by the solar facility operator. Consequently, references to landowners may have limited relevance and should be reexamined and adjusted as appropriate; for example, in Section 4.3:
 - i. Procedures for Determination of Damages and Compensation should probably be oriented mainly to adjoining/nearby affected landowners.
 - ii. Damages to drain tile under Agricultural Drain Tile need to be repaired regardless of ownership. References to landowners should again probably be oriented mainly to adjoining/nearby affected landowners.
 - iii. In Soil Compaction and Rutting, emphasis should be on how compaction is to be avoided, how wet conditions are to be addressed, and how compaction is to be mitigated, rather than determining damages and compensation to landowners, since the purpose is to ensure that land is suitable for establishment of vegetation during the life of the facility, and can be restored to productive agricultural use after decommissioning.
- f. There should be more detail regarding establishment of vegetation in the years following construction and restoration. There may be a need for metrics and benchmarks for successful establishment, possibly including soil testing for organic matter and other soil components, and mitigation measures, such as bringing new topsoil onto sites. It is our understanding that there are locations where topsoil has been lost through erosion or mixing, and successful establishment of vegetation may be very difficult.
- g. Drain tile may need to be properly located and repaired during restoration. From the 6/21/2017 Enel filing and other communications, it is our understanding that in many instances drain tile was not accurately located, and tile damage may have resulted. Unfortunately, the effects of tile damage may not show up for years after the damage occurred. Restoration may be the most opportune time to anticipate future problems by accurately locating drain tile systems in the relation to below-ground disturbance (such as piles driven for solar panels), inspecting suspect drain tile locations for damage, and making repairs.

August 10, 2017

Page 3

2. "Should the Commission modify the site permit to contract for inspection services as part of the terms and conditions of the Site Permit in accordance with Minn. Rule 7854.1300?"

An independent inspector may be beneficial. It is our understanding that there have been instances of non-compliance with site permit requirements that were beyond the scope of the AIMP/VMP and the roles of the AM or EM. An independent monitor would help fill those gaps.

3. "Should the Commission amend the permit to limit the sites to the 16 which proceeded with construction?"

We have no recommendation at this time.

4. "Should the Commission take any other action in accordance with Minn. Rule 7854.1300, including other amendments or revocation of the Aurora Site Permit?"

We have no recommendation at this time.

Thank you for the opportunity to comment.

Sincerely,



Robert Patton, AICP
Supervisor, Energy and Environment Section
Agricultural Marketing and Development Division
Bob.Patton@state.mn.us
651-201-6226