



Wild Grains Solar Project

Exhibit E

Tile Maintenance Plan

Case No. 21-0823-EL-BGN

Wild Grains Solar Project

Tile Maintenance Plan

Prepared for:



Wild Grains
SOLAR PROJECT

Avangrid Renewables, LLC
on behalf of Wild Grains Solar, LLC
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1. INTRODUCTION

1.1. PROJECT DESCRIPTION

Wild Grains Solar, LLC ("Wild Grains Solar"), a wholly owned subsidiary of Avangrid Renewables, LLC ("Avangrid"), proposes to construct and operate the Wild Grains Solar Project ("Project") in Van Wert County, Ohio. The Project would consist of an up to 150-megawatt (MW) commercial photovoltaic (PV) energy system located approximately 2 miles northeast of the city of Van Wert. Wild Grains Solar has approximately 2,350 acres of land leased for the Project ("Project Area"); however, the footprint of the proposed Project components within the Project Area will be approximately 1,000 acres.

Proposed Project components will include:

- PV panels and inverters
- access roads
- buried electrical collection
- overhead transmission line
- construction staging/laydown areas
- collection substation

Project construction is expected to begin in 2022 and is expected to take approximately one year to complete. The In-Service target for the Project is 2023. Wild Grains Solar expects the Project to operate for approximately 30 to 40 years before being decommissioned.

1.2. PLAN PURPOSE AND GOALS

Wild Grains Solar has developed this Tile Maintenance Plan to describe the steps to be taken to identify tile locations and establish procedures that Wild Grains Solar and its contractors will implement to avoid, minimize, and remediate potential impacts to drain tile that could result from the construction of the Project.

Over the last 15 years, Avangrid has had extensive experience designing, constructing, and operating Midwestern wind projects, including the Blue Creek Wind Farm in Van Wert County, Ohio. Through that experience, Avangrid has accumulated a wealth of knowledge concerning the identification of, design coordination with, repair of, and eventual restoration of drain tiles. The plan outlined below incorporates this in-depth experience into a plan tailored for the Project. This plan provides information on the measures Avangrid has taken to identify known locations of drain tile, avoid or minimize impact to drain tile, and mitigate and/or repair impacts to tile.

2. IDENTIFICATION OF DRAIN TILES

2.1. COORDINATION WITH TILE REPAIR CONTRACTOR/LANDOWNERS

Avangrid has learned, through past experience, that detailed identification and location of drain tile systems obtained early in the design process can help mitigate and reduce the incidence of interference and/or potential damage to drain tiles. However, past experience has also shown that availability and accuracy of these drain tile locations and routings are variable in quality and accuracy. Avangrid has contracted with a local Tile Repair Contractor to help locate, identify, and document drain tile systems within privately owned and leased parcels

in the Project Area. The Tile Repair Contractor will work with local landowners and stakeholders, and use their experience and expertise in this field to produce maps of known drain tile mains locations that will be considered in the final design of the Project. A preliminary map of main drainage systems in the Project Area is included as Figure 1.

2.2. CONSULTATION WITH LOCAL AGENCIES

In addition to drain tile systems located within the privately-owned land leased for the Project, the Project Area also includes drain tile systems located within public Right of Ways. To locate and minimize impacts to these systems, Avangrid, as well as the above referenced Tile Repair Contractor, will work with County and Township officials to obtain these locations and document them for potential future inspection or post-construction repair requirements.

2.3. DRAIN TILE MAPS

After the coordination work between Avangrid, the Tile Repair Contractor, County, Township, landowners, and stakeholders has been substantially completed, the Tile Repair Contractor will produce maps that indicate approximate locations of drain tiles that will be considered in the design of the system. A preliminary map, showing main drainage systems in the Project Area, is included as Figure 1. While Avangrid has made efforts to identify all known locations of drain tile, the locations identified on the map will contain some degree of inherent error as there is not survey-level detailed information available on these systems. Therefore, there may be drain tiles encountered during Project construction that were not identified through consultations described above.

3. IMPACTS TO DRAIN TILES

While identification and location of existing drain tile systems can aid in minimizing impacts, impacts cannot feasibly be ruled out. If broken drain tiles are visible or otherwise become known during construction, drain tile components that are damaged will be identified with flags or stakes until evaluation of damage and permanent repairs, if needed for drainage to support operation of the Project, are completed. In addition, the location of damaged drain tile systems will be recorded using Global Positioning System (GPS) technology. Damage to drain tile during certain aspects of Project construction (installation of PV panel racking) may not be visible or readily apparent at the time of impact. Although this damage may not be immediately apparent, it may become more apparent over time. Upwelling of water during high flow periods or holes in the ground above drain tiles during low flow periods are potential indicators of potential drain tile damage.

4. RESTORATION/REPAIRS TO DRAIN TILES

Avangrid is committed towards promoting the primary land use (agriculture) in the area hosting the Project. However, unlike a wind project (where individual parcels hosting wind turbines remain active for this primary land use), on a solar project the land used for a solar project is largely removed from production for the duration of the project.

As such, for this Project, Avangrid plans to utilize two approaches to identify the need for repair to drain tiles:

1. Repair of tile lateral drain systems
2. Repair of tile main drain systems

These approaches are summarized in the following sections.

4.1. TILE LATERAL DRAIN SYSTEM

A tile lateral drain system is a drain tile system that is localized to the individual parcel on which it is located. Damage to such tile systems would have no upstream or downstream drainage impacts to neighboring parcels. Avangrid will keep record of any damages to lateral drain systems that were identified during construction of the Project. Wherever feasible, the standard of repair to these drain tile systems will be to repair the lateral drain tile systems to the extent that the drain tile system is sufficient to support the operation of the Project for the duration of its useful life. In some instances, such as damage from installation of PV panel piles, repairs to drain tiles will not be feasible, as the repair could impact the structural integrity of the Project. Once the Project is decommissioned, any tile lateral drain system that was damaged during construction will be restored to its pre-Project condition in order to support the future agricultural production. Avangrid will be responsible for correcting or paying for the correction of the tile repairs. Avangrid will not be responsible for drain tile repairs performed by the landowner.

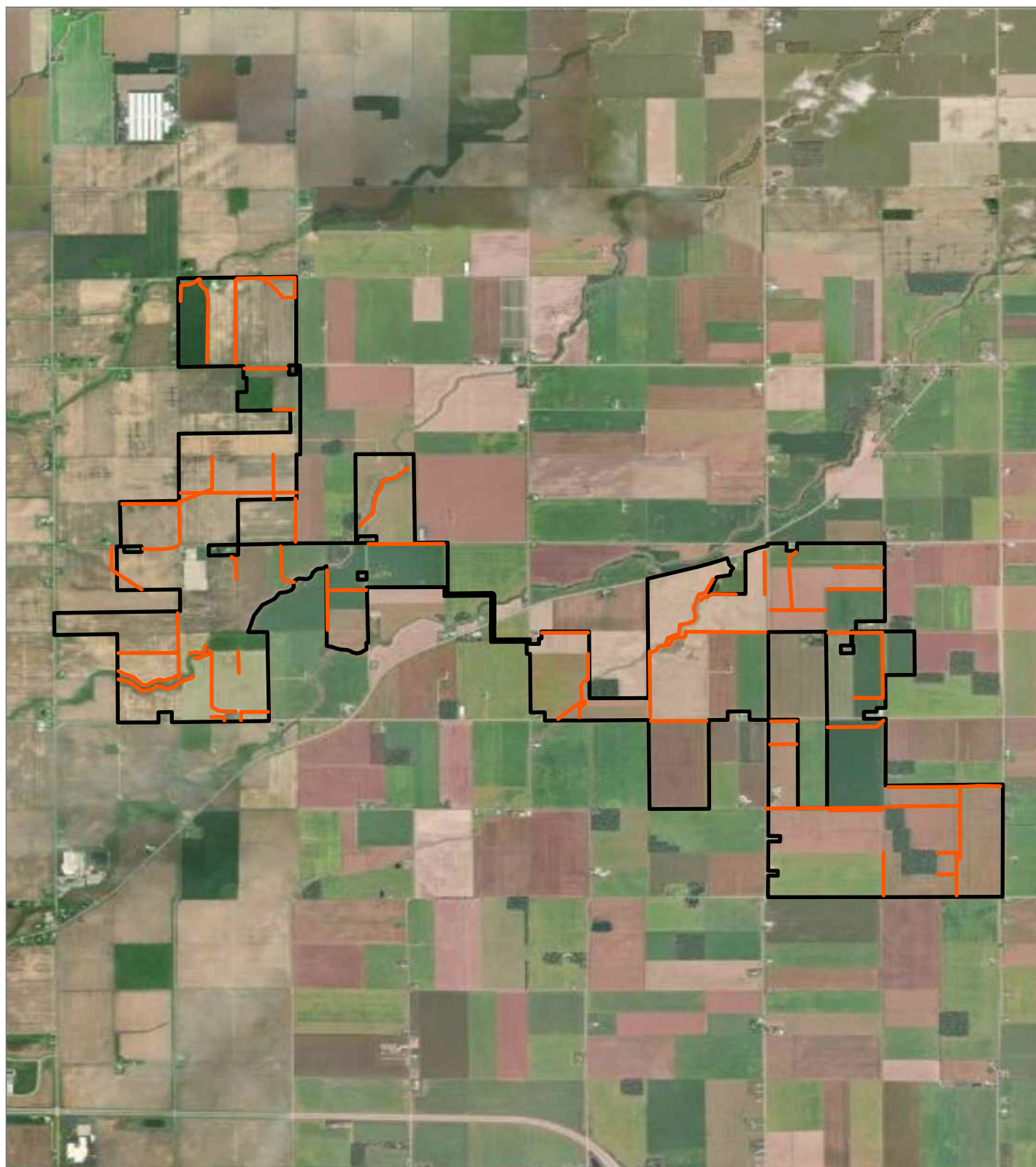
4.2. TILE MAIN DRAIN SYSTEM

A tile main drain system is a drain tile system that traverses the host parcel and is connected (upstream and/or downstream) to neighboring parcels. The identification of, and standard of repair for, these drain tile systems will be to repair any damages as soon as reasonably practicable after the damage occurs.

Avangrid will perform repairs to damaged tile main drain systems as described below;

1. If water is flowing through the damaged tile line to be repaired, Avangrid will utilize reasonably practicable efforts to immediately and temporarily repair the tile line until such time that Avangrid can make permanent repairs. If the damage was a result of open excavation, it will be clear if water is flowing. To determine if water is flowing in a drain tile damaged as a result of a puncture due to a pile insertion, water flow will be restricted. If water appears in the subject parcel or the upstream parcel, it will be assumed that the drain tile was damaged. If the damaged tile line to be repaired is dry, temporary repairs are not needed, and Avangrid will use reasonably practicable efforts to complete repairs within two weeks, weather and soil conditions permitting, of the time said damage occurred. Any temporarily exposed tile lines will be screened or otherwise protected to prevent the entry of foreign materials or animals into the tile lines.
2. Facility construction will include the installation of underground electric cables. To the extent reasonably practicable, there will be a minimum of one foot of separation between the tile line and the underground cable, whether the underground cable passes over or under the tile line. If a tile line becomes damaged as part of the excavation for installation of the underground cable, the underground cable will be installed with the above-referenced clearance below or above the tile line to be repaired to the extent reasonably practicable.
3. Commercially reasonable efforts shall be made to maintain the tile line to its original alignment and gradient.
4. Prior to construction, Avangrid will work with landowners to document the condition of drain tiles, to the extent the condition is known. As part of Project decommissioning, Avangrid will utilize commercially reasonable efforts to restore the drainage in the area, from BOTH tile lateral and tile main drain systems, to the condition it was in prior to the commencement of Project construction.

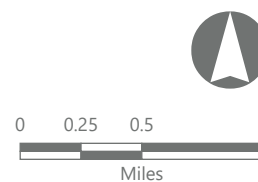
Figure 1. Main Drainage Systems



Wild Grains Solar

Hoaglin Township, Van Wert County, Ohio

- Main Drainage System
- Project Area



**This foregoing document was electronically filed with the Public Utilities
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Summary: Application Exhibit E - Tile Maintenance Plan electronically filed by
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