

Exhibit W

Drainage Tile Assessment and Construction Impact Report



Drainage Tile Assessment and Construction Impact Report Scioto Farms Solar Project

INTRODUCTION

Scioto Farms Solar Project, LLC (Scioto Farms Solar) is proposing to construct the Scioto Farms Solar Project (Project) on approximately 1,070 acres of land in Pickaway County within Wayne Township. The Project is almost exclusively sited on land used for row-crop agriculture. The Project would have a generating capacity of up to 110 megawatts alternating current and would include photovoltaic (PV) solar panels (modules) mounted on a single-axis horizontal tracker racking system to maximize solar energy capture and electric generation of the array. In such systems, electricity generated by the modules is sent to inverters located throughout the array that convert the electricity from direct current to alternating current. Underground medium voltage lines would transmit the electricity from the inverters to the medium voltage collector and Project substation. The power generated by the Project would be stepped-up at the Project substation and delivered to the new American Electric Power (AEP) switchyard via an approximately 500-foot, 138 kV gen-tie line. AEP's switchyard would connect to the existing Biers Run – Circleville 138 kV transmission line. The area with Project infrastructure will comprise a smaller portion of the overall Project Area, totaling approximately 750 acres. The racks will be installed on piles with an impact pile driver to a depth of between approximately five to seven feet below the ground surface. Installation of the piles and underground collection cables have the potential to damage the drainage tiles that have been installed in the agricultural fields in which the Project is located.

Drainage in and around the proposed Project is paramount to productivity of agricultural land in this rural area. Drainage is also a major factor in the usability and value of land classifications including commercial, residential, and agricultural. Drainage systems in this area can date back into the early 1900s with clay and concrete subsurface drainage. Plastic, corrugated drainage tile was introduced into the area in the early to mid-1970s. Contour or spot drainage installed by hand or other means is also prevalent in the area. Additionally, agricultural land inside of the Project area and surrounding vicinity have many acres which have been installed in a pattern or systematic design to maximize farmland productivity. Clay tile can range in size from 3 inch to 24 inch in the area. Common plastic tile sizes begin at 4 inches in diameter and can extend up to 36 inches in diameter in the appropriate location.

Through the design of the Project, Scioto Farms Solar's goal is to protect and maintain major drainage pathways or main drain tile lines to reduce the negative impact in the Project area and surrounding areas. The subsequent sections of this plan outline the methodology used to identify the drain tile locations and the process that Scioto Farms Solar will utilize to repair any drainage tiles that are damaged as part of the Project construction.

METHODOLOGY

To identify the location of drain tiles, a three-step process is implemented. The first step is to engage landowners and obtain their input on any drain tile location information and the second step is to use

publicly available mapping to identify and digitize the location of the drain tiles using geographic information system (GIS) tools. The final step is to document drain tile locations as part of a field ground-truthing effort.

Landowner Input

Scioto Farms Solar and their drain tile consultant engaged with landowners and the farmer/tenants in the Project area to gain information on the location of subsurface drainage. At this stage, landowners were also asked to sign a release of information waiver that allows access to drainage information that may be on file in the Pickaway County Soil and Water Conservation District Office.

Aerial Identification

Using high resolution aerial imagery available for the Project area, analysts reviewed mapping looking for signatures consistent with drainage tile and manually digitized the approximate location of the drain tiles. Multiple years of historic aerial imagery were reviewed to minimize the limitations of seasonal and annual moisture variability that can affect the identification of the drainage patterns. The drain tile signatures include long straight lines within the field that are lighter than the surrounding vegetation or soil as the area immediately surrounding the installed drain tile dries out faster than the surrounding soil. All available data that can be gathered will be used to identify likely or known subsurface.

Ground Truthing

Using the above-mentioned drainage tile locating process, field crews may begin probing and excavating in the search for drain tile. Once a main tile has been discovered a tile tracking device can be installed in the tile and used to accurately track the location and depth of the pipe. After the locating process has been completed a GPS rover can be used to record the tile coordinates and map the exact location. Potential changes to the location of the panels and the necessary pilings can be made to mitigate damage to the drainage system. As appropriate, relocation of the drainage pipe can occur to maintain drainage as it affects the Project area and the adjacent farms and properties.

RESULTS

Once the project layout is further refined, additional investigations will be initiated. Based off the first two steps of the identification process, preliminary potential drain tile locations were identified, as depicted in Figure 1. In areas where drain tile was installed, the identified lateral drain tiles were generally spaced at approximately 50 foot intervals. It should be noted that the location of the drain tile is approximate as the resolution and scale of mapping with the GIS tools does not allow for precision mapping at this stage.

As the Project development progresses and the site layout is refined, the ground truthing effort will be employed to more accurately confirm the locations of drain tiles in the Project area.

DRAINAGE TILE REPAIR AND INSTALLATION

The site design has been developed to avoid, where possible, placement of solar module racks where installation of the posts via pile driving could damage drain tiles and result in saturated soils or areas of ponding onsite. If during construction drain tiles are damaged, Scioto Farms Solar will have in place a procedure to document the location and notification process to ensure that a contractor is engaged to repair the damaged drainage tiles as part of construction and site restoration efforts. The stormwater and erosion controls in place for the Project during construction will also serve to mitigate any offsite water flow that may result from broken drain tiles. Construction and operations and maintenance staff will be

trained to identify potential problems with sub surface drainage by recognizing blowouts, suck holes, and suddenly occurring areas of wetness. When discovered, the repairs can be made by using a variety of fittings and connectors to fix tile of all sizes and styles. Any repairs to the drainage tile will be conducted in a manner consistent with industry standards and recommendations from the soil and water conservation district. A local drain tile maintenance contractor will conduct necessary repairs, as required.

FIGURES

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Commission of Ohio Docketing Information System on**

12/13/2021 2:41:09 PM

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Case No(s). 21-0868-EL-BGN

Summary: Application Exhibit W - Drain Tile Assessment electronically filed by
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