

EXHIBIT E:

Farmland Soil Mitigation Plan

Nutmeg Solar Project
Enfield, Connecticut



FARMLAND SOIL MITIGATION PLAN

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Prepared for:

Nutmeg Solar, LLC

1.0 Introduction

This Farmland Soil Mitigation Plan (Plan) has been prepared on behalf of Nutmeg Solar, LLC (Petitioner) for the proposed installation of a 19.6 MW AC ground-mounted solar photovoltaic (PV) system in the Town of Enfield, Hartford County, Connecticut (Project).

Portions of the proposed Development Area contain soils classified by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) as Prime Farmland and Farmland of Statewide Importance. No Locally Important Farmland Soils have been mapped on the Project Site. These soils series have been determined to have the potential to support agricultural practices by federal, state, and local organizations. To reduce the potential for adverse impacts to these important soils, and assure that their agricultural value is preserved during the construction, operation, and decommissioning of the solar project, Nutmeg Solar has prepared the following Plan as a voluntary measure to mitigate potential impacts to Prime Farmland Soils and Soils of Statewide Importance, as identified by NRCS, within the Development Area.

The Plan identifies construction-period and post-construction measures to protect these soils. The goal of the Plan is to provide the Project construction and operations teams with training for onsite evaluation and management of areas of NRCS classified farmland soils. The construction and operations teams can then ensure that these soils are being managed in accordance with this Plan and best management practices. This Plan has been developed and will be implemented under the oversight of a certified soil scientist and professional member of the Soil Science Society of Southern New England.

2.0 Existing Soil Conditions

NRCS soil data was obtained through the Web Soil Survey portal on the USDA NRCS website (<https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>). The Project Site and vicinity were queried for soil types according to the soil survey maps maintained by NRCS. In addition to the use of existing maps, field efforts were undertaken to confirm the general accuracy of the NRCS mapping. The soil investigation completed for the Project Site determined that NRCS mapping is mostly accurate and the site does contain farmland soil types. There are some small differences in mapped soils versus observed ground conditions, this was verified during a site visit with Kip Kolesinskas and Jason Bowza, both representing the Connecticut Department of Agriculture.

Two soil series considered Prime Farmland by NRCS that are mapped on the Project Site are Haven and Enfield association, and Narragansett (2% to 8% slopes). Two soil series considered Farmland of Statewide Importance by NRCS are Narragansett soils (8% to 15% slopes) and a small pocket of Manchester soils.

Prime Farmland Soils are defined by the USDA NRCS as having the ideal combination of chemical and physical characteristics to support crop production, such as for food, feed, forage, fiber and oil seed crops. These soils are also considered important for pasture land, range land, and forest land.

Farmland of Statewide Importance are soils which do not meet all of the requirements to be considered Prime Farmland Soils, however, they are equally as important in the production of food, feed, forage or fiber crops.

Existing agricultural activities deplete nutrients and minerals from the soil over time. Routine farmland practices typically involve annual plowing or tilling of the top 6 to 8 inches of topsoil. If not rested or cycled and properly managed, long-term tillage can have significant impacts on the production capability of a soil. Crop production support most actively occurs within the top 20 inches of soil, which contain the necessary environmental conditions, biological activity and available nutrients that are required for successful farming.

3.0 Construction-Period Soils Management

During construction, mineral soils occurring within soil series polygons identified as Prime Farmland Soils and Farmland of Statewide Importance soils shall be managed to avoid degradation through the following proper management techniques and construction practices.

3.1 Topsoil Removal Requirements

Removal of topsoil is required in portions of the Development Area where excavation/cutting will occur within the footprint of proposed site roads, equipment pads, collector substation and utility trench construction activities. Removal of topsoil within the NRCS-mapped boundaries of all farmland soils, to a depth greater than 8 inches, will be evaluated based on the following criteria to be observed in the field:

- Availability of 12-inches of mineral material soils; and
- Absence of stones, cobble and boulders

If the above criteria are met, including that the proposed disturbance will be in excess of 8 inches, and the area is mapped as Prime Farmland Soil or Farmland of Statewide Importance, excavated topsoil shall be redistributed as described in Section 3.2 below.

3.2 Topsoil Redistribution, Stabilization, and Baseline Testing

Prime Farmland Soils or Farmland of Statewide Importance Soils that meet the criteria above will be redistributed in a broadcast manner on site and stabilized within the limit of work. Prior to construction, suitable areas will be identified and staked on-site. These areas will be selected based on their underlying soil types and existing topography. Areas suitable for redistribution will generally be level and will not be subject to disturbance or compaction during Project operation. Any temporary stockpiles will be surrounded by silt fencing during construction and prior to redistribution. This temporary stabilization of farmland soils during construction shall be achieved through the use of hydroseeding with a bonded fiber matrix or jute matting to limit erosion. Farmland soils that would be disturbed or altered during the construction of temporary stormwater treatment and control structures will be temporarily stockpiled and stabilized during Project construction. During removal of temporary stormwater structures, the temporary soil stockpiles will be replaced and permanently stabilized under the oversight of qualified personnel.

Soils that would be removed and redistributed will be evaluated prior to excavation to establish baseline soil health and quality criteria. Soil samples will be selected under the direction of a certified soil scientist to be submitted to The Connecticut Agricultural Experiment Station, State Laboratory, to get a better understanding of pre-construction soil health and physical properties. Soil samples would run through a comprehensive fertility analysis, referred to by the State Laboratory as the Morgan Soil Test. This test is an evaluation that includes texture, organic matter, pH, nitrate nitrogen, ammonium nitrogen, phosphorus, potassium, calcium, and magnesium. Testing could also be performed for salts, micronutrients, and contaminants.

Once earth disturbing activities are complete, redistributed farmland soils will be permanently stabilized through use of native seed mix. Following decommissioning of the Project these soils can be regraded for agricultural use.

3.3 Soil Compaction and Minimization

Compaction of soils within designated areas of important soils will be limited during construction. Compaction of the subbase materials will be required in areas of site roads, equipment pads, collector substation and utility trenches to insure proper construction. Long-term compaction outside of those areas identified is not anticipated.

Construction of the solar array will require regular delivery of project components and infrastructure. Deliveries will be made to a designated area within each sub-array. This area will be located outside of the limits of important soils to the maximum extent practicable.

3.4 Restoration

Restoration of disturbed farmland soils will be initiated at the time of decommissioning. These farmland soils will be restored back to pre-determined baseline conditions to the greatest extent practicable. This restoration will be performed under the supervision and guidance of a Connecticut-licensed soil scientist.