

Candlewood Solar – Potential Environmental Effects Summary

The Project was selected, sited, developed and designed to minimize any environmental impacts and to maximize environmental benefits. In support of this Petition, a detailed Environmental Assessment (“EA”) was prepared by Amec Foster Wheeler, environmental consultants to the Petitioner. Provided below is a brief summary of the findings of the EA. Details and further explanation and information can be found in the EA.

Air Emissions And Water Consumption/Discharge

The Project will emit no air emissions. During construction, there will be some temporary emissions from a small number of construction vehicles working at the site. The Project will consume no water during its operation, and have no water discharges of any kind during its operational lifetime. Storm water will be managed on-site during construction and operation to prevent pollution to air, water and land. Construction and operation of the site will not have any significant air emissions, and will not result in any direct effect on water supplies or the water quality at the site.

Flooding

From the available mapping information, it cannot be determined which of the identified floodplain categories is mapped at and proximate to the Site. However, topography within the

small portion of the proposed tree clearing area associated with the solar array that is mapped as a floodplain category would not be significantly altered, and therefore no adverse effect to FEMA floodplain is anticipated from the project.

FAA Determination

The Project is located approximately one-half mile east of the Candlelight Airport, which is a grass strip for small planes. A glare analysis has been conducted by the Petitioner using the Solar Glare Hazard Analysis Tool (“SGHAT”) developed by Sandia National Laboratory. The analysis shows that the glare hazard is minimal and at acceptable levels for safe airport operation. The petitioner has filed a form 7460 notification of proposed construction to FAA, and is awaiting response. The form 7460 submittal documentation and SGHAT outputs are included as an attachment to the EA.

Tree Clearing

Total forest clearing for the Project, including the solar array and the interconnection route is estimated at 72.8 acres. For the Facility, the current design calls for the clearing of approximately 57.1 acres of second growth forest for the array itself and 11.4 acres to prevent shading. For the interconnection route, significant stretches are to be sited along an existing paved access road on FirstLight property, and thus would only require some tree trimming. Total estimated tree clearing for the interconnection route is 4.3 acres.

DEEP (NDDDB) and SHPO Correspondence

Letters to DEEP and the state historic preservation office (“SHPO”) requesting input on federally listed species and/or cultural resources at the Site were sent on April 17, 2017. The Petitioner’s environmental consultant, Amec Foster Wheeler, has as of this writing provided additional information to DEEP regarding the location of the vernal pool and wetlands at the site. No formal response has been received from DEEP or SHPO as of this date.

Wetlands and Vernal Pools

There are several wetland areas at the Site that have been surveyed by Pietras Environmental Group, LLC. In the vicinity of the Facility, no activities are planned within any wetland areas, and the Project would use less than 25% of the area within a 750 foot radius of the vernal pool, as well as maintaining a 100 foot no disturb area around the vernal pool. The project will avoid any adverse effect on the Tier 1 vernal pool at the Site by adhering to recommended practices prescribed by Calhoun and Klemens (2002) as applicable. Along the interconnection route, some limited tree clearing and maintenance will occur within less than 2,500 sf of wetland area. The Petitioner is filing an application for the project with the town of New Milford Inland Wetlands and Watercourses Commission and will comply with local requirements. A self-verification form for coverage under the U.S. Army Corps of Engineers Connecticut General Permits will also be filed.

Carbon Debt Analysis

The Project is an emissions free, non-fossil fuel power plant. As such, the project will generate significant environmental benefits by offsetting greenhouse gas emissions. Based on the EPA greenhouse gas equivalencies calculator, the project will displace in its first year almost 24,000 metric tons of CO₂, which is the equivalent of the carbon sequestered in one year by over 22,000 acres of us forests. It is also the equivalent of over 25 million lbs of coal burned in one year. Over a 20-year lifetime, the system would displace over 450,000 metric tons of CO₂.

Visual Impacts

The Project has been sited on an elevated area that is surrounded by a tree buffer and away from major roads or developments. The detailed view-shed analysis conducted and documented in the EA demonstrates that the Project is virtually invisible from most viewpoints, and only marginally visible from two locations in winter. In terms of siting of a solar PV project, it would be difficult to find a more advantageous location in terms of lack of visibility to nearby areas.

Storm Water, Drainage And Erosion Control

Construction-period erosion and sediment controls will be implemented to prevent erosion of soils during construction and sedimentation impacts to downgradient resources. The goal of the design is to control post-development peak runoff rates to corresponding pre-development peak runoff rates. Groundwater recharge will also be maintained under post-development conditions. Implementation of erosion and sediment control measures and best management practices would reduce any potential impacts to surface water quality on and in the vicinity of the project area. Therefore, no significant impacts to water quality are expected as a result of project construction

or operation. Detailed analysis of pre-and post-construction site conditions with regard to storm water runoff are provided in the EA

Noise

Noise generated during the construction of the Project will be short term in nature (6 months total, but 2-3 months for clearing and site preparation), removed from residential areas and mitigated by BMPs, including adherence to daily work hour limits in New Milford. Therefore, noise impacts during construction will be temporary and not significant. The town of New Milford does not have a noise ordinance.

The only equipment at the site that will generate noise during the Project's operation will be the inverters. The inverters will run during the day when ambient noise levels are at their highest and will not be active at night when the sun is not shining. Based on the project's location, distance to the nearest sensitive receptor, and forested buffer areas that will remain on the subject property (atmospheric absorption), the Project will not result in any significant adverse noise impacts to surrounding area.