



Planning Board Frequently Asked Questions

2021/2022

Stormwater Management. What is the plan for the treatment and management of storm water?

Response: Stormwater management shall be accomplished by a series of vegetated swales and stone berm level spreaders located within the shade management areas that will revert collected runoff back to sheet flow as it leaves the development and is received by the forested uplands and resource protection areas. Peak flows shall be attenuated for all storm events to be less than existing conditions.

Soil Survey. What kind of Soils are on the property?

Response: The topography of a project site ranges widely in slope, but soils generally range from gravelly sandy loam to very fine sandy loam in the uplands, with silt loams and peats in some of the more hydric wetlands near the resource protection areas. Hydrologic soil groups also vary with slope, ranging from HSG A to HSG C on the uplands as they run from steep to slight, respectively. Wetlands range from HSG C to D and range from somewhat poorly drained to poorly drained.

Surface Water Drainage. What provisions have been made for surface drainage so that removal of surface waters will not adversely affect neighboring properties, down-stream conditions, or the public storm drainage system? What treatment shall be provided to mitigate potential impacts to receiving wetlands and water bodies from pollutants, excess nutrients and elevated temperatures in storm water runoff from developed areas?

Response: Changes to existing drainageways are not anticipated as a result of a project. The post-developed condition will match the pre-developed condition, as all disturbed areas are being reverted back to meadow, which acts as a treatment buffer for stormwater and is considered by Maine DEP to be self-treating.

Water Supply; Wastewater Disposal. What provisions have been made for water supply and wastewater disposal in accordance with state standards?

Response: Water and wastewater disposal are not applicable for a solar project.

Material & Waste Storage/Disposal. What if any raw, finished or waste materials will be stored outside and any stored materials of a hazardous nature?

Response: After construction, no material, raw, finished, or hazardous will be stored on the site. Construction debris (Solid waste) will be disposed of at a licensed disposal facility by a licensed hauler. No on-site generation or collection or waste storage facilities are proposed for this project.

Water Supply. Is there evidence of water supply sufficient in quantity and quality for normal domestic use, use as process water for industrial operations and use for fire protection?

Response: No water supply installation is proposed. The solar array will be accessed over an access drive. The access drive will be improved by expansion to an overall 20' width that will accommodate construction period access, fire and emergency vehicles, and future maintenance access (typically 2-3 times a year). Spacing between



panels will provide a 12 to 17-foot wide path and a 15-foot wide perimeter path is also provided inside the fence line. A 10-foot wide, vegetated area around the outside of the perimeter fence will be maintained for fire/emergency access and a Knox-Box™ will be added to the entry gate so the fire department has access to the array. No buildings are existing or proposed, and an adequate access route and hammerhead turnaround is provided.

Right, Title or Interest. Is there evidence of the applicant's right, title or interest in the project site?

Response: The applicant has an executed long-term lease agreement with the current or future owner.

What is the Decommissioning Plan and Bond process?

New Hampshire Solar Garden prepares a Decommissioning Plan for all its solar array facilities prior to performing the activities. The Plan is developed under the supervision of a professional engineer and all permits are obtained before beginning work. Our lease agreement with the landowner requires us to completely remove the array and all its associated facilities (i.e., concrete pads). Below is a summary of the typical decommissioning tasks:

*Remove Rack Wiring
Remove Cable
Remove Panels
Dismantle Racks
Remove and Load Racks
Remove Electrical Equipment
Breakup and Remove Concrete Pads and Ballasts
Remove Power Poles
Remove Fence
Grading and
Hydroseed and Restore Vegetated surfaces.*

An estimate of probable cost for decommissioning is \$25,000 per megawatt MW/Ac and the project can provide a form of surety to support the decommissioning plan. As of October 18, 2021, Maine law requires developers of solar power projects that occupy 3 or more acres to have an approved decommissioning plan and accompanying financial assurance sufficient to cover the cost decommissioning as outlined in the plan. More information can be found here (<https://www.maine.gov/dep/land/solar-decommissioning/index.html>)

Preservation of Landscape: How will the project ensure the landscape shall be preserved in its natural state, insofar as practicable, by minimizing tree and soil removal, retaining existing vegetation where desirable, support local habitat, and keeping any grade changes in character with the general appearance of neighboring areas.

Response: The proposed development mostly preserves the natural state of the land; however, treeremoval is required to build most solar arrays. The installation of solar panels involves driving panel posts of utilizing an earth screw into the ground and requires very little site disturbance. Underground electrical is installed using a small machine with an attached backhoe, similar to a ditch witch. All disturbed areas will be revegetated and converted back to the existing meadow condition. The array will be surrounded by either an 8-foot knot wire fence or 7-foot chain-link fence depending on the natural surroundings. As compared to a standard chain-link fence, the



knot wire fence has wooden posts and larger diameter spacing in the wire to allow smaller wildlife to freely enter and exit the array. This fencing is popular with orchard owners & farmers.

Parking and Circulation. Is there a parking plan or pedestrian plan for a solar project?

Response: there is no proposed parking associated with this project. Within the fenced area, 12- 15-foot wide, vegetated accessaisles around the array and between panel rows will be maintained for maintenance purposes. A 10-foot wide, vegetated area around the outside of the perimeter fence will also be maintained for fire/emergency access.

How will the ingress and egress impact traffic?

Response: The existing entrance or new entrance to the site will be utilized and it is assumed that no impacts to traffic will occur as a result of this project.

Exterior Lighting. What is the lighting plan for this project?

Response: No lighting is proposed.

Emergency Vehicle Access. Will there be convenient and safe emergency vehicle access to the structures at all times?

Response: The access will provide safe emergency vehicle access at all times. A hammerhead turnaround will be constructed to accommodate all vehicular traffic. In addition, a 10-foot wide, vegetated area around the outside of the perimeter fence will be maintained for fire/emergency access and a knox-box will be added to the entry gate so the fire department has access to the array, if necessary. Please refer to the enclosed site plans.

Site Conditions. During construction, will the site be maintained and left each day in a safe and sanitary manner?

Response: Construction equipment will be inspected daily for oil and grease drips and spills. Fueling and maintenance of vehicles will be performed in accordance with Maine DEP Best Management Practices to avoid and minimize drips and spills. Any release will be managed immediately and in accordance with requirements set forth by the Maine DEP. Dust control by application of water will occur as necessary.

Solar Equipment. Do solar panels or solar inverters leak any hazardous material? And what about the transformers provided by the local utility company?

Response: Solar panels are constructed with materials that may be listed as hazardous, similar to household appliance, but unless the panels are ground up and completely dissolved, there is little to no impact to the environment. If the event of catastrophic damage to the solar array, the panels would be disposed of in a manner that ensure none of these components are left on site or impact the local environment. At this time, the industry has responded to these concerns and many solar panel & equipment recyclers are operating around the country to mitigate these concerns. The solar inverters are made from plastics, metal, copper and other electrical components found in electrical systems at homes, schools and businesses. These components would also be recycled according to local, State & Federal regulations. The transformers used on solar projects at this scale are



similar to the transformer placed at a medium to large school and are required to follow the strict safety policies put forth by the local utilities for the benefit of the public safety.

Do solar panels or solar inverters create any glare, sound or smell?

Response: Solar panels meant to absorb as much light as possible to convert the sunlight into electricity. They are constructed with materials such as anti-glare glass that makes up 98% of the surface area. Any glare would come from the aluminum frame and per FAA guidelines, do not pose a concern for neighbors, planes or other activities around the solar array. The panels, inverters and transformers do not emit any smell and the only sound is a light hum of the transformer, which can not be heard from more than 20-30ft away. The inverters do not have any moving parts to create sound.

What other benefits to the community can the solar project provide?

Response: The solar project is required to upgrade the electrical lines coming to the site. These upgrades impact the community in a positive manner because the aging electric grid is slow to upgrade itself and these upgrades create a more resilient power system. Solar project in Maine can pay up to a \$2,000 per MW/Ac PILOT payment for any increased assessed value to the underlying property. Finally, the solar projects are developed to provide community energy savings to Towns, Schools, businesses, non-profits and residences in the same service are of the local utility. These savings typically range from 10-15% of their current electric rates.