

## **Buffer Zone Alternative Analysis**

### **Site Plan Alternatives**

The project has undergone an iterative analysis of site layouts intended to take into account project viability, preservation of existing mature trees, prime soils, allocation of Open Space, land donation, project visibility and numerous environmental resource impacts. The following sections describe the various options that Seaboard analyzed.

### **No-Build Alternative**

The No-Build Alternative serves as a baseline condition to assist in the evaluation of the Project alternatives. Through coordination with, National Grid, the respective utility provider in this location, Seaboard became aware of an opportunity to supplement the existing electric infrastructure by way of the installation of a new ground-mounted photovoltaic solar array. This project provides an opportunity to service National Grid and help them meet their growing energy demands in a responsible and environmentally conscious manner. The Project will also provide New Scotland and its neighbors sustainable energy to aid in fulfilling the town's desires for renewable energy sources. The project not only consists of the construction of a commercial solar array, but also in the allocation of +/- 42 acres of Open Space land with the intention of protecting the land from further development, and with the possibility of allowing for public recreation. At the end of the solar array's lifespan, the project will be decommissioned and the land underneath the Project will be turned into its original state. The remaining land in the Property outside the Project's area will remain undisturbed and preserved as Open Space.

The current property is owned by a private citizen with various uses allowed by right and is periodically deforested for profit. Seaboard, as the new owner of the property, intends on preserving the mature trees and prime soils located outside of the project area and possibly providing public access with the proposed Open Space land. Additionally, the type of structures associated with the solar array and eventual process of decommissioning the project will result in an overall improvement in the state and usability of the prime soils located within the array area. The proposed solar project has been re-designed to minimize the impact on the environment, the abutting residences, and to prioritize preservation of the existing mature trees and prime soils. Seaboard has been coordinating with local Land Trusts and seeking advice for the best way to promote its natural environment, properly allocate the Open Space and create a landscaping design that seeks to mitigate visual impacts of the array.

The property is on the market for sale, and under the no-build scenario, the site would be susceptible to potential future development considerations with no guarantees that the land would be conserved to the same extent or manner in which the project proposes. The current zoning allows for various alternative developments that could considerably disturb the property more than the proposed solar project. If Seaboard does not proceed with the project or the purchase of the property, the mature trees and prime soils would be at risk for further deforestation above and beyond what is proposed in the solar project and there will be no binding restrictions on development of the land to guarantee its preservation.

Leaving the site undeveloped would not provide the benefit of an alternative energy source designed to National Grid's expressed goals of more sustainable electrical services, and leave New York State further from its legislative goals for increased renewable energy sources, as well as limiting New Scotland's ability to locate and utilize alternative energy sources within the town. Although the existing property constraints do limit the maximum development potential of the Site, Seaboard believes the proposed development scenario represents the least impactful development condition while also providing the most benefit to the community and environment through the product of a low impact alternative energy source and the preservation of land and allocation of potential Open Space.

## Alternatives

Several properties were considered prior to having selected the current land assemblage for the proposed solar array. Seaboard assessed these alternative properties to determine if they were feasible to host a ground-mounted commercial solar array and their proximity to the existing electrical grid such that they would be fulfilling the utility provider's needs. Seaboard researched various locations within the New Scotland area to find available electrical infrastructures that had both the need and capacity for a supplemental energy supply source such as the one being provided by this project. Once a suitable area was established, the physical attributes and availability of potential properties were taken into consideration. These attributes included the existing topography; to consist of slopes no greater than twenty (20%) percent, an appropriate amount of developable upland area to accommodate the proposed solar array; which met the underlying zoning requirements and confirmed with the NYSERDA's guidelines for solar installations. Once the site selection process was narrowed and the preferred location initially deemed feasible, a pre-application to the utility provider was submitted to confirm the status of the electrical grid.

Throughout this process, a limited number of properties were identified which met these criteria. National Grid's energy infrastructure within and surrounding the town of New Scotland is largely saturated and therefore it cannot take on additional projects, and where there is capacity available, there is a lack of properties and locations with the appropriate conditions for solar. As it stands, from an interconnection standpoint, the current number and size of projects queued to connect to the existing infrastructure, combined with the exorbitant costs associated with upgrading that infrastructure, essentially prevents solar projects from interconnecting in the town of New Scotland. In our initial application to National Grid, we requested to connect to the 13.2 kV distribution feeder as solar projects normally do, however it was saturated due to the number of projects already connected to this feeder and substation, and the resultant costs of upgrading the equipment made the project infeasible. During our conversations with National Grid, we learned that an abutting property contained 34.5 kV sub-transmission lines that enable us to proceed with the interconnection. This is an extremely rare occurrence and due to the unique set of circumstances required to connect to these lines, we do not believe this is an opportunity available to other projects in and around New Scotland. This alternative interconnection is also less impactful to the community because it is located within the Property and we are not disturbing the 13.2 kV feeder located in the public way. Based on the total projects connected or proposed to be connected in the Town of New Scotland, there is capacity available for a smaller solar project to be developed and we have located the possible final feasible location to site a commercial solar array in the town of New Scotland.

*Figure 1* represents the existing conditions of the property after an on-the-ground survey was performed. Such survey included mature tree locations, wetland evaluations, and off-site evaluation of prime soils for the entirety property. Due to the location of the wetland areas on the southern portions of this parcel, the locations of pre-existing tree clearings, locations of prime soils, and with consideration for neighbor visual impacts, we have designed the solar array to minimize impact on all of these issues, and to maximize the area allocated for open space. *Figure 2* shows the updated project location in avoidance of these issues.



