GCSEnergy

Exhibit 2

Impacts to Agriculture, Prime Soils, and Stormwater Runoff

With the recent push for renewable energy in New York State, the siting of solar projects on agricultural land has become a much more common occurrence. This overlap is common primarily because many of the criteria that make a site viable for solar are the same criteria that make an ideal site for agriculture, such as flat, clear land, southern exposure, and limited flooding concerns and wetlands.

As the overlap between solar development and agricultural land has become more common, the impacts of the solar projects to the agricultural soils on the project properties, as well as the impacts to the stormwater runoff to adjacent properties, have become more closely analyzed. By following specific best practices, solar developers can avoid negative impacts to agricultural land, while effectively preserving quality farmland for the long-term.

Impacts to Agriculture and Prime Soil

Construction Impacts

Standard construction practices for solar projects generally have limited impacts to agriculture and prime soils. While a significant area may be taken out of agricultural use where the solar project is installed, the projects involve minimal short-term impacts and no long-term impacts to the underlying agricultural resource. Solar panel racking systems are designed to follow the grade of whatever land they're built over, and therefore minimal grading and soil disturbance is required for a solar project. The posts for the solar racks, which make up the bulk of the acreage of a solar project, are either driven or screwed into the ground leaving the topsoil largely undisturbed. The only areas where excavation is typically required are the gravel access roads, electrical trenches, and equipment pads, which comprise approximately two percent of the total solar project area.

During construction the project will follow best practices to minimize impacts on agricultural soils. For example, in areas where excavation is required in an area of prime soils, the topsoil is stripped from the work area prior to excavation and set aside during construction. For electrical trenches, the soil is returned to the area from where it was stripped once the excavation has been closed. In the case of access roads and equipment, the topsoil is stockpiled and stabilized on the project site for the project's lifetime so that it can be returned to place when the project is decommissioned. No soil is to be removed from the site as part of the project construction.

For the Hawthorn Solar project, approximately 110 acres of agricultural land will be occupied by the solar project. Of the 110 acres of agricultural land being impacted, the majority will be impacted only by the driving of steel posts which will not significantly disturb the soils of

Building a Cleaner Future



the site. Less than 2 percent of the site is expected to be occupied by the gravel access roads, trenching, and equipment pads where the stripping and piling of topsoil will be required. It's clear given the construction best practices and physical layout of the access roads and equipment pads that the construction of this project will have a small impact on agricultural land.

Long Term Impacts

During the operation of the solar project, there will be no impacts to the soil. All maintenance vehicles will drive along access roads and no soil disturbance or excavation will be required.

Again, during project decommissioning, we will follow best practices for decommissioning a solar system to minimize impacts to agricultural soils and to ensure agriculture can return to the site after the solar project has been fully removed. When the project is decommissioned, the equipment pads, electrical conductors, and racking posts will be removed such that tilling and planting where the project once was will be feasible, and compacted soils within the project area can be tilled or de-compacted. The project's access roads within and outside the project area will be removed or will remain in place depending on the needs and desires of the landowner that may be returning the property to agricultural production.

As an additional measure to mitigate any potential negative impacts of the solar project to agriculture or prime soils, we will explore opportunities to co-utilize the site with agricultural uses. Combinations of sheep grazing and pollinator friendly planting, with or without on-site beekeeping, can serve to keep the site in agricultural use, and best efforts will be made to maintain the site using those methods.

Impacts to Storm Water Runoff

Solar projects have naturally low impact on stormwater run-off. As the projects don't require significant regrading, the projects don't significantly impact the natural flow of water over the property. The only significant change to the flow of water over a solar site is therefore the addition of any impervious area, which includes only site access roads and equipment pads approximately two percent of the entire project area. This minimal addition of impervious acres will not materially change the existing stormwater run-off at the site.

Even though there will be minimal impact to stormwater runoff, the project will perform a detailed stormwater engineering analysis and install stormwater controls to guarantee the flow of stormwater will be the same or better than the existing conditions. The details of these proposed stormwater controls will be designed by a licensed New York State engineer and will be included with the projects Stormwater Pollution Prevention Plan (SWPPP), which will be provided to the Town of Hoosick prior to the Building Permit.

When the project is decommissioned, the impervious surfaces that had been installed will be removed to return the site to its previous condition. As the decommission of the project will

Building a Cleaner Future



naturally require some soil disturbance, a SWPPP will be prepared at the time of the decommissioning and will similarly need to be approved by the NYDEC, ensuring that at no phase of the project will there be a significant increase to stormwater runoff leaving the site.

Building a Cleaner Future