



VIA EMAIL  
September 7, 2021

Town of Alfred  
Attention: Janice Burdick  
Town Clerk  
Box 230  
6340 Shaw Road  
Alfred Station, NY 14803  
town.alfred@gmail.com

**Re: Request for Additional Information – Special Use Permit and Site Plan Review Application  
Proposed 5568 Jericho Hill Road Solar Farm Project  
Town of Alfred, Allegany County, New York**

Dear Ms. Burdick:

At the Town of Alfred Town Board meeting on Thursday August 8, 2021, and over email prior to the meeting, your reviewing engineer, Labella, requested that we provide additional information to the Town Board on the following topics; photo simulations, landscape screening, location of the array, information on existing trees and dirty electricity. Please reference below and the additional documentation that is attached for our responses.

## **1. Photo Simulations.**

**Response:** During the meeting we discussed our visual simulations and there was a concern voiced that the simulations only represented the summer and spring months since the trees have all of their leaves on. During the changing seasons it is expected that some of these trees will lose their leaves and that the simulations that were completed wouldn't be representative of this condition. We have performed an additional photo simulation from each of the initial viewpoints requested by the Town Board showing the array during a "leaf off" condition which would be present during the fall and winter months. In addition, we have also put together a landscaping plan to further address any visual concerns. The proposed landscaping plan has been incorporated into the revised photosimulations as well. As illustrated by the proposed photosimulations, the project continues to not be visible along Jericho Hill Road. Additionally, there is no significant increase in visibility between leaf-on and leaf-off conditions to the limited number of homes on Snyder Drive, located one-half mile west of the proposed project. Please see the attached visual simulations and landscaping plan for details.

## **2. Location of the Array.**

**Response:** During the meeting we discussed the location of the array and why it was chosen. This location was chosen based on feedback from the landowner. In the current location, he is able to maintain his rotational grazing pattern for his cattle and enables continued agricultural use of the property once construction is completed. As the conversation continued the main question centered around whether the location took into consideration Article 8(G) of the Town of Alfred Solar Code, where "Removal of trees larger than 6 inches in diameter should be minimized to the extent possible". Based on comments about the characteristics of the



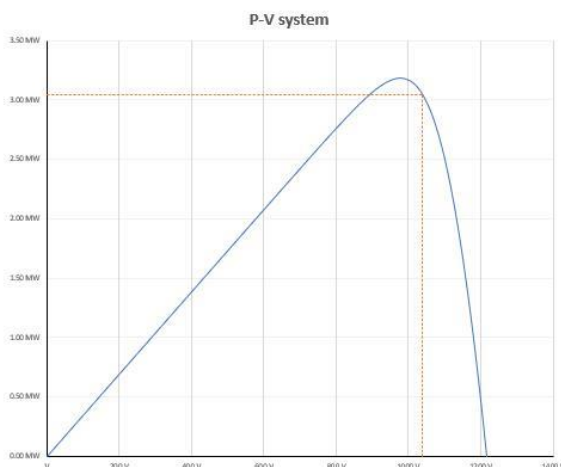
existing trees, we have completed a tree survey of the area where tree clearing is proposed. The Town of Alfred solar Code places greater emphasis on the protection of farmland of statewide importance (i.e. "Tier 3 Solar Energy located on areas that consist of prime farmland or farmland of statewide importance **shall not** exceed 50% of the entire lot"), which we comply with, than the suggested recommendation that "Removal of existing trees larger than 6 inches in diameter **should** be minimized to the extent possible. For these reasons, in combination with the requirements of the landowner to provide the aforementioned land for his continued grazing, the layout is proposed as presented. We have attached the report as well as a memo explaining the results; please reference the attached information for details.

### 3. Dirty Electricity.

**Response:** Dirty Electricity is a generic term and not specific to an individual technical issue, but through our discussion two specific topics arose; harmonics produced by the inverter and concerns about current from the array going into the ground when the array is overproducing. We have discussed these two concerns below:

Harmonics: Inverters go through a stringent approval process in order to receive approval to operate in parallel with the utility grid. One of the pertinent standards that inverters must comply with is IEC 61000-3-4 which governs the amount of total harmonic distortion produced. This standard is created by the International Electronics Committee. Compliance with this standard is listed on the inverter specification sheet. As illustrated in the inverter specification sheet, the proposed inverters will produce a maximum harmonic distortion of <3%. The IEC 61000-3-4 limit for harmonic distortion for electrical equipment like these inverters is <3%. As such, the proposed inverters comply with the governing International Electric Code Statutes. Compliance with these requirements will be the responsibility of the Town of Alfred Code Enforcement Officer once construction is completed. Please refer to the attached specification sheet for reference.

Current Flow During Array Overproduction: There is no current flowing to the ground during operation of the system, even during array overproduction. The inverters work as follows: when the inverter is requested to reduce the active power produced, this control also reduces the DC current being produced from the PV array which increased the DC voltage. This effect is possible thanks to the physical behavior of the PV modules. The operating point will be moving following the PV curve of the system. Because of this, the current can be reduced to zero while the voltage moves to the open circuit level. Please refer to the below graph for details





#### **4. Screening of the Array Using Existing Trees**

**Response:** The question was posed if we could leave some of the existing trees in the area that is proposed to be cleared. Specifically, it was asked if we could leave “strips” of existing trees running North to South in between rows of modules to help screen the array. After discussions with the project engineers, this would not be feasible as it would significantly harm the production of the array, causing significant shading on most of the panels at various times of the day. This system tracks the sun, moving from the East to the West. The position of the trees proposed in reference to the array would shade the array significantly and would have a devastating impact on the production of the array which would cause the project to not be feasible. As mentioned earlier, we have prepared an extensive landscape screening plan as part of this submission package that now includes the installation of rows of evergreen trees behind the dense deciduous forest along Jericho Hill Road, eliminating any additional perceived views into the project site. Additionally, we have proposed evergreen tree plantings along the northern property boundary to provide additional screening to the Pine Hills neighborhood to the north. For the reasons detailed in this letter, the proposed project is not anticipated to have a significant adverse impact to the environment.

As required under Section 604.04, Bergmann has provided the notice of public hearing to all property owners within 200 feet of the subject property by certified mail greater than seven (7) days in advance of the public hearing on September 9, 2021. A list of recipients of the notice along with their certified mail tracking numbers is included in this submission. As of the date of this letter, we have received no additional technical or completeness comments from the Town of Alfred, your reviewing attorney (Knauf Shaw, LLP), your reviewing engineer (LaBella) and/or the Town Code Enforcement Officer. We look forward to continuing the review of the project with the Alfred Town Board and Zoning Board of Appeals at our next meeting on Thursday September 9, 2021.

Please feel free to contact me at 518.588.8270 or via email at [dplante@bergmannpc.com](mailto:dplante@bergmannpc.com) in the event you have questions or need additional information with respect to this Project.

Sincerely,

**David J. Plante, AICP CEP**  
Energy + Environment Practice Leader, BERGMANN

Cc: Peter Dolgos, Alyssa Nielsen, Dan Compitello (DRS – New York, NY)  
Eric Redding, Kathleen Connolly (Bergmann)  
Dwight Kanyuck, Esq. (Knauf Shaw, LLP)  
Sean Grasby (Town of Alfred Code Enforcement Officer)  
Kathy Spencer (LaBella)