

Principals:
Archie D. Fellenzer Jr., P.E.
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Eric D. Fellenzer, P.E.

January 22, 2016

Town of Chester Planning Board
1786 Kings Highway
Chester, NY 10918

Attention: Mr. Donald Serotta, Chairman

Subject: Johnson Farm Photovoltaic Array
121 Johnson Road, Chester, NY
Fellenzer Engineering Project 15-255

Dear Mr. Serotta,

In response to the comments from Fusco Engineering and Land Surveying, PC dated January 6, 2016, we offer the following comments. Our comments are shown in *italics as "FE Comment:"* below each of Mr. Fusco's comments.

1. Show wetland delineation on plan as indicated in wetland report.

FE Comment: The wetland delineation was performed by Michael Nowicki of Ecological Solutions and an area of Federal Wetlands is now shown on the plans in the drainage ditch to the east of the array. No disturbance to wetlands is proposed. See drawing C-101.

2. Show details of electrical connection to utility system.

FE Comment: The proposed electrical connection to the utility system is now shown. Orange & Rockland will be constructing a new 3-phase, 13.2kV primary electric line on the east side of Johnson Road. New pole locations for the above-ground electric line on the Johnson Farm have been identified as well as the point of common coupling at the turn in Johnson Road. See drawing C-101 and details on drawings C-904 and C-905.

3. The County suggested that green stormwater technology be utilized for the increased runoff due to the area of disturbance. A SWPPP should be prepared to handle any increase runoff using green technology, i.e. bio swale, etc.

FE Comment: Since the proposed solar array will disturb less than an acre and we are not adding impervious surfaces that will increase stormwater runoff, water quality and water quantity controls are not required and a SWPPP is attached which includes an Erosion and Sediment Control Plan.

4. Show compliance with landscape architect Karen Arent.

FE Comment: A site visit with KALA was conducted on November 9, 2015. It was discussed that due to the location of the proposed array and the existing landscape features surrounding the

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site, no additional screening is proposed. Line of Sight photographs taken from NYS Route 94 have been provided for reference. See drawing C-102.

5. Beneficial use- prepare submittal for review, i.e. education, demonstration, pilot, etc.

FE Comment: See attached letter from Siemens proposing involvement with the school district for developing STEM (Science, Technology, Engineering, Math) curriculum and assisting the Town with their own possible solar project.

6. Need stamped signed construction drawings.

FE Comment: The drawings will be stamped and signed for approval.

7. Board comments.

FE Comment: No comment.

In response to the advisory comments from Orange County Department of Planning dated December 30, 2015, we offer the following comments. Our comments are shown in *italics as "FE Comment:"* below the County comments.

Professional Review: The proposed project has been reviewed for aesthetics and visual impact by the landscape architect for the Town of Chester Planning Board, Karen Arent. We would appreciate it if the Planning Board would include a copy of her report or letter for our file.

FE Comment: Since Karen Arent presented her findings at a previous planning board meeting, the Town has offered to send a copy of the meeting minutes that include her comments.

Environmental Impact: Although the proposed solar array will have no direct impact to the onsite federal wetlands or endangered or threatened species, according to the Habitat Suitability Assessment and Wetland Report prepared for this project by Ecological Solutions LLC, the removal of trees at the north end of the forested area may potentially increase surface runoff during storm events, thereby increasing soil erosion and siltation of nearby waterbodies. Additionally, the proposed solar array will cover approximately 10 acres that currently have no impervious surface. We therefore advise the Town to require green infrastructure/runoff reduction techniques for stormwater management on this project.

FE Comment: The layout of the proposed array has been modified to avoid the clearing of existing trees on the site. See drawing C-101. Although the total area of the panels covers approximately 10 acres, the area of disturbance is much less than one acre, with the only disturbance being the installation of fence posts and driven piles for the solar panel racking system. The panels are not impervious surfaces as they are open to the ground below which will be covered with a slow growth grass. A SWPPP will be provided and includes an Erosion and Sediment Control Plan to prevent erosion and siltation during construction.

Solar Facility Regulations: The Town of Chester does not at this time include regulations for solar energy facilities in its zoning code. We encourage the Town to contact our office for resources, including model code language, if they choose to update their zoning code to include regulations for solar energy production.

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FE Comment: No comment.

In response to the comments made during the Public Hearing dated January 6, 2016, we offer the following comments. Our comments are shown in *italics* as “FE Comment:” below the comments that were raised.

1. Overhead Lines VS Underground Installation:

FE Comment: Overhead electrical lines on wooden utility poles are currently proposed for interconnection with Orange and Rockland. The poles will be standard utility poles, 40’-45’ in height prior to placement, and will be spaced in 150’ intervals. Overhead lines were chosen over buried underground lines as they best meet the needs of the project and budget at this time. Underground lines can provide greater reliability in areas where overhead lines are subject to outages due to short circuits from fallen trees and branches but underground lines have the disadvantage of being more costly. As the area where we are proposing the new poles is devoid of trees, the increased cost of the underground cable outweighs the benefit.

That being said, the applicant reserves the right to install the primary cable underground if the project scope and budget allows for it in the future and if risks from damage by farm equipment can be mitigated.

2. Tax Exemption and Benefits to the Town:

FE Comment: Although the proposed action is tax exempt, Siemens has proposed other benefits to the Town, such as assisting in the creation of STEM (Science, Technology, Engineering, Math) curriculum for K-12 Chester students. Siemens has been in contact with the Superintendent of the Chester School District to begin preparing a submittal with the Board of Education. See the attached letter from Siemens regarding the proposed benefits for the Town of Chester.

3. Downstream Flooding:

FE Comment: Since the proposed solar array will not be increasing impervious surfaces, additional stormwater runoff will not be generated and will not contribute to any existing flooding occurring downstream in the residential subdivision. The proposed array will be located outside of the 100-year floodplain. In addition, during construction, erosion and sediment control measures will be in place to prevent sediment from clogging existing drainageways that could prevent upstream flooding.

4. Bonding

FE Comment: Upon decommissioning, the land shall be returned to its pre-development state. On or before the tenth (10th) year of operations, Owner shall provide to Town evidence of decommissioning and removal bond in an amount that will cover removal costs, which amount shall not be less than Thirty Thousand Dollars (\$30,000.00) per megawatt of installed capacity. The bond will provide for decommissioning and removal of the solar array, in the event the system is not removed by the system Owner after fulfilling its useful life and or abandonment in excess of twelve (12) months. The bond will be maintained from year 10 throughout the project’s remaining years of operation. Upon request, Owner will provide evidence of said bond.

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Sincerely,

Amador C. Laput
Project Manager

cc: Fusco Engineering