TO: Christian Nadler

FROM: Daniel Bennett

DATE: August 22, 2016

RE: Proposed "**New York State Model Solar Energy Law**", May 2016
By Sustainable CUNY and Supported by the PACE Law School

As per your request, during the last Planning Board meeting, I have attached my comments and thoughts regarding the NYS Model Solar Energy Law.

The Zoning for Solar Energy Law can be adopted into Town Law **or** the Town could Amend the current law "Article VI: Regulations Governing Special Permit Uses" to include Solar Energy Systems.

3. Definitions

While the definitions are correct, it should be noted that the size of a Large Scale Solar Energy System is variable: from as small as 200kW occupying less than 1 acre to as large as 10MW or more occupying over 40 acres. The industry further defines Large Scale Systems as Smaller "Solar Gardens", 200kW to 2MWAC occupying up to 10 acres and Larger "Solar Farms", over 2MWAC to 10MWAC or more occupying over 10 acres to more than 40 acres.

The New York State Community Solar distributed generation maximum allowed interconnection to the grid for net metering is currently limited to 2MWAC which limits the practical Solar Energy System to the Smaller "Solar Garden" with a maximum output of 2MWAC and occupying no more than 10 acres.

The town may want to consider modifying the definitions to include more specific size regulations for each type of system: The "Smaller" Large Scale Solar Energy Systems (Solar Garden) of 200kW to 2MWAC and for "Larger" Large Scale Solar Energy Systems (Solar Farm) of over 2MWAC.

The Smaller "Solar Garden", which can be as small as 200kW and 1 acre up to 2MWAC and 10 acres, may fit easily into the community landscape and be less restrictive.

6. Approval Standards for Large-Scale Solar Systems as a Special Use

While the existing Town law "Article VI: Regulations Governing Special Permit Uses" is good, the Large-Scale Solar Energy Systems requirements should be added as suggested by the Model Solar Law as follows:

A. Permitted locations: Again, as per the Definition of Large-Scale Solar Energy Systems, the definition could be modified to distinguish between the "Smaller Solar Gardens" and the "Larger Solar Gardens" to allow the "Smaller Solar Gardens" in more restrictive AR zoning districts, Commercial, and Industrial districts while "Larger Solar Gardens" would only be allowed in less restrictive Commercial and Industrial districts. – and recommend to avoid "Prime Farmland" agricultural locations.

B. Special Use Permit Application Requirements: All should be added.

C. Special Use Standards:
2) Lot Size: The minimum lot size is dependent on the size of the system. For "Smaller Solar Gardens", 200kW to 2MWAC occupying 1 acre up to 10 acres, the minimum lot size would need to be over 1 acre to provide proper setbacks and buffer while for "Larger Solar Gardens", over 2MWAC to 10MWAC or more occupying over 10 acres to more than 40 acres the minimum lot size would be larger and over 10 acres.
3) Lot Coverage: The Lot Coverage Percentage should not exceed 40%. For example each row of typical double stack modules at 25 degree tilt covers approximately 12 ft of horizontal surface and there should remain approximately 18 ft of green space in between (12'/30'=0.4)
4) Fencing: may not be required by NEC code if the back of the modules have attached guards. The 2014 National Electric Code 690.31 (A) states "Where PV source and output circuits operating at maximum system voltages greater than 30 volts are installed in **readily accessible locations**, circuit conductors shall be **guarded** or installed in a raceway."
Since most systems will be over 30 volts and most PV modules do not have means for attaching raceways, these circuits may have to be made "not readily accessible" by use of physical barriers such as wire screening. This may be accomplished by installing guards over the exposed wiring and not require fencing around the entire array. The NEC does not specify the height and construction of a fence if used as a physical barrier. It makes practical sense to provide a fence with locking gates around the main electrical equipment. The requirement of a fence around the entire array may be required for safety if located near public access or it may be left to the owner's decision to provide a fence for additional security with Town review and approval on a case to case basis.

7. Abandonment and Decommissioning

The time period may want to be as little as 3 months or as long as 6 months. In Decommissioning and Removal, the materials removed are over 90% recyclable (in most cases)

and the cost for removal may not exceed the surplus value therefore the cost to restore the site with grading, seeding, and plantings may be the only major costs.

Please consider this review and comments in finalizing the New Solar Law for Solar Energy Systems.

Your and the Board's time and efforts in removing barriers and supporting the use of renewable energy is appreciated and should be commended. Supporting Solar Energy and Community Shared Solar programs demonstrates support of local sustainability plans and efforts while improving the health and wellbeing of the community by making the community a cleaner, greener, more pleasant, attractive place for businesses and individuals to live, work and play.

Please let me know if I can be of any assistance.

Respectfully submitted by:

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