

25 April 2018

Members of the Planning Board –

The proposed changes in Article II: Definitions, includes the definition for **Solar Energy System** as:

A structure and the related components used to transform solar energy into thermal, chemical, or electrical energy.

This is a general term that refers to widely differing solar energy conversion technologies, including that related to solar hot water system (i.e., conversion to thermal energy), photoelectrochemical cells (i.e., conversion to chemical energy), and photovoltaic cells (i.e., conversion to electrical energy).

However, it appears that the term “Solar Energy System” as used throughout the proposed ordinance is referring strictly to photovoltaic cell technology, as for instance in the proposed changes to Article XX where the maximum allowed rated nameplate capacity is given as 30 kiloWatts DC and, more explicitly, in the corresponding footnote #1 which refers to the size of photovoltaic systems. That is, it does not address the permissible “size” of solar hot water systems which may also be roof mounted or free standing.

To remedy the inconsistency, one either needs to replace the term “Solar Energy System” throughout the document with the technology-specific term “Solar Photovoltaic System” (though this would eliminate any reference to the commonly used solar hot water systems); or, one needs to specify the size of the “Solar Energy System” in perhaps geometric terms, like the surface area of the proposed structure; or, come up with a different metric for sizing each type of “Solar Energy System.”

Lastly, it is my impression (through a quick google search) that the inclusion of solar to chemical energy conversion technology (i.e., photoelectrochemical cells) within the generic term “Solar Energy System” may be premature in that it appears that the technology is still in its developmental stages and it’s not clear (to me) what such a system would involve.

Regards,

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