

## **SOLAR ENERGY SYSTEMS SECTION OF THE ZONING BYLAW 12212016**

Proposed deletions to the bylaw language are shown in ~~strikethrough~~ text and additions are shown in ***bolded italic text***.

### 13.6 Solar Energy Systems.

13.6.1 Purpose The purpose of this Solar Energy System By-Law is to encourage investment in Solar Energy Systems in the Town of Lincoln, while providing guidelines for the installation of those systems that are consistent with the character of the Town and are necessary to protect the public health, safety and general welfare.

#### 13.6.2 Definitions

Building-Integrated Solar Energy System - A Solar Energy System that is an integral part of a principal or accessory building replacing or substituting for an architectural or structural component of the building. Building-Integrated Solar Energy Systems include but are not limited to Photovoltaic, hot air, or hot water solar systems that are contained within roofing materials, walls, windows, or skylights.

Photovoltaic (PV) - The technology that uses a semi-conductor material to convert light directly into electricity.

Solar Collector Panel -Any part of a Solar Energy System that absorbs solar energy for use in the system's energy transformation process. The Solar Collector Panel does not include frames, supports, or mounting hardware.

Solar Energy System – A device or structural design feature, a substantial purpose of which is to provide for the collection, storage, and distribution of solar energy for space heating or cooling, electrical generation, or water heating.

#### 13.6.3 General Standards

(a) A Solar Energy System shall provide power for the principal use and /or accessory use of the property on which the Solar Energy System is located and shall not be used for the generation of power for the sale of energy to other users, although this provision shall not prohibit the sale of excess power generated to the local utility company.

(b) Whenever practical, all Solar Energy Systems shall be installed on an existing dwelling or building. All other systems shall require site plan review under Section 17.7.

(c) A Solar Energy System shall not be used to display advertising, including but not limited to signage.

(d) Solar Energy Systems shall be placed and arranged such that reflected solar glare shall not be directed onto adjacent buildings, properties or roadways.

~~(e) Roof-mounted Solar Energy Systems shall be set back a minimum of 1 foot from all roof edges (eaves, gutterline, ridge) of the roof surface.~~

(f-e) Appurtenant electric, piping, wiring or equipment for Solar Energy Systems shall be allowed to extend beyond the perimeter of the building on a side or rear yard exposure.

#### 13.6.4 Design Standards in Residential Districts

##### (a) Building-Mounted Solar Energy Systems

Building-mounted Solar Energy Systems are permitted in the following locations:

- i. On the roofs of principal and accessory structures, and/or
- ii. On side and rear building facades

***The Planning Board may waive strict compliance and allow a building mounted Solar Energy System and/or appurtenant electric, piping, wiring or equipment for such Solar Energy System on the front façade of the building where it determines such action to be consistent with the purpose and intent of the zoning bylaw and otherwise in the public interest.***

- iii. Building-Integrated Solar Energy Systems are also permitted on front or corner building facades

All Solar Energy System appurtenances such as, but not limited to, plumbing, water tanks, mounting structures, and support equipment shall be screened to the maximum extent possible without compromising the effectiveness of the Solar Collector Panels.

##### (b) Roof-Mounted Solar Energy Systems

All roof-mounted Solar Collector Panels on a sloped roof will be subject to the following height limitations:

- i. The top surface of any Solar Collector Panel mounted on a south-facing sloped roof shall not exceed 12 inches above the adjacent finished roof surface
- ii. The top surface of any Solar Collector Panel mounted on a north -, east-, or west-facing sloped roof shall not exceed 24 inches above the adjacent finished roof surface
- iii. The top most point of any Solar Collector Panel mounted on a flat roof (1/2 inch or less per foot slope) shall not exceed 30 inches above the adjacent finished roof surface on flat roofs with or without parapets

The Planning Board may waive strict compliance of these height limitations and allow a roof-mounted solar energy system to exceed such height limitations where it determines such action to be consistent with the purpose and intent of the zoning bylaw and otherwise in the public interest.

***The Planning Board may waive strict compliance and allow appurtenant electric, piping, wiring or equipment for roof mounted Solar Energy Systems on the front façade of the building where it determines such action to be consistent with the purpose and intent of the zoning bylaw and otherwise in the public interest.***

##### (c) Ground-Mounted Solar Energy Systems

Ground mounted Solar Energy Systems shall be treated as an accessory structure and require site plan review under Section 17.7.

Ground-mounted Solar Energy Systems shall comply with all minimum setback requirements. Ground-mounted Solar Energy Systems shall not be located within the front yard, defined as the area between the front façade of the dwelling extended to the side property lines and extending to the street line (corner lots have two (2) front facades).

***The Planning Board may waive strict compliance and allow a ground mounted Solar Energy System to be located within the front yard where it determines such action to be consistent with the purpose and intent of the zoning bylaw and otherwise in the public interest.***

Ground- or pole-mounted Solar Energy Systems shall not exceed the maximum height of ~~ten~~ **twelve** feet. The Planning Board may waive strict compliance and allow a ground- or pole-mounted Solar Energy System to exceed such height limitation where it determines such action to be consistent with the purpose and intent of the zoning bylaw and otherwise in the public interest.

#### 13.6.5 Design Standards in Non-Residential Districts

##### (a) Building-Mounted Solar Energy Systems

Building-mounted Solar Energy Systems are permitted in the following locations:

- i. On the roofs of principal and accessory structures, and/or
- ii. On side and rear building facades

***The Planning Board may waive strict compliance and allow a building mounted Solar Energy System and/or appurtenant electric, piping, wiring or equipment for such Solar Energy System on the front façade of the building where it determines such action to be consistent with the purpose and intent of the zoning bylaw and otherwise in the public interest.***

- iii. In addition, Building-Integrated Solar Energy Systems are permitted on front or corner building facades

All Solar Energy System appurtenances such as, but not limited to, plumbing, water tanks, mounting structures, and support equipment shall be screened to the maximum extent possible without compromising the effectiveness of the Solar Collector Panels.

##### (b) Roof-Mounted Solar Energy Systems

All roof-mounted Solar Collector Panels on a sloped roof will be subject to the following height limitations:

- i. The top surface of any Solar Collector Panel mounted on a south-facing sloped roof shall not exceed 12 inches above the adjacent finished roof surface
- ii. The top surface of any Solar Collector Panel mounted on a north -, east-, or west-facing sloped roof shall not exceed 24 inches above the adjacent finished roof surface
- iii. The top most point of any Solar Collector Panel mounted on a flat roof (1/2 inch or less per foot slope) shall not exceed 30 inches above the adjacent finished roof surface on flat roofs with or without parapets

The Planning Board may waive strict compliance of these height limitations and allow roof-mounted Solar Energy Systems to exceed such height limitations where it determines such action

to be consistent with the purpose and intent of the zoning bylaw and otherwise in the public interest.

***The Planning Board may waive strict compliance and allow appurtenant electric, piping, wiring or equipment for roof mounted Solar Energy Systems on the front façade of the building where it determines such action to be consistent with the purpose and intent of the zoning bylaw and otherwise in the public interest.***

(c) Ground-Mounted Solar Energy Systems

Ground-mounted Solar Energy Systems shall be treated as an accessory structure and require site plan review under Sections 17.1-17.6.

Ground-mounted Solar Energy Systems shall comply with all minimum setback requirements. Ground-mounted Solar Energy Systems shall not be located within the front yard, defined as the area between the front façade of the main building (or structure) extended to the side property lines and extending to the street line (corner lots have two (2) front facades).

***The Planning Board may waive strict compliance and allow a ground mounted Solar Energy System to be located within the front yard where it determines such action to be consistent with the purpose and intent of the zoning bylaw and otherwise in the public interest.***

A ground- or pole-mounted Solar Energy System shall not exceed the maximum height of ~~ten~~ **twelve** feet. The Planning Board may waive strict compliance of this height limitation and exceed such height limitation where it determines such action to be consistent with the purpose and intent of the zoning bylaw and otherwise in the public interest.