

**TOWN OF HOLDERNESS**  
**Planning Board Meeting Minutes: January 5, 2021**

B. Snelling called the meeting held via Zoom to order at 6:30PM.

**ROLL CALL OF MEMBERS:**

Members Present:

|                             |                               |                             |
|-----------------------------|-------------------------------|-----------------------------|
| Robert Snelling, Chairman   | Angi Francesco, Vice Chairman | Donna Bunnell, Secretary    |
| Carl Lehner, Member         | Ronald Huntoon, Member        | Peter Francesco, Ex-Officio |
| <u>Members Not Present:</u> | Louis Pare, Member            | Janet Cocchiaro, Alternate  |

Staff Present: N. Decoteau, Landuse Board Assistant

Others Present: T. Vansant S. Jones B. Nesheim

B. Snelling stated a quorum was present as six members were logged in for the Zoom meeting.

B. Snelling opened the following Public Hearing at 6:35pm:

**Public Hearing: Proposed Zoning Amendment- Residential Solar**

The Planning Board will hold a Public Hearing to begin drafting language for the regulation of the use of residential solar energy systems. The proposed amendment may address the Authority and Purpose, Definitions and Residential Accessory Solar System Requirements and Exceptions.

B. Snelling stated the goal was to draft language regarding Residential Solar to bring forward to the January 19, 2021 meeting for Board approval.

B. Snelling stated the draft wording was taken from the NH Sustainable Energy Association (now the Clean Energy New Hampshire) Model Solar Zoning Ordinance dated April 2018.

The consensus of the Board was to work on language that will encourage the use of sustainable energy. The Board reviewed the following language:

***Authority and Purpose***

*This solar collection system ordinance is enacted in accordance with RSA 674:17(I)(j) and the purposes outlined in RSA 672:1-III-a as amended. The purpose of this ordinance is to accommodate solar energy collection systems and distributed generation resources in appropriate locations, while protecting the public's health, safety and welfare; preserving natural resources and minimizing visual impact. The Town intends to facilitate the State and National goals of developing clean, safe, renewable energy resources in accordance with the enumerated polices of NH RSA 374-G and 362-F that include national security and economic and environmental sustainability.*

The Board discussion on Authority and Purpose included the following points:

- The use of solar energy should be encouraged by making it reasonable easy /not over regulated
- The language should be broad, keeping in mind changes could be made in the future
- "Minimizing visual impact" can be better communicated by "managing aesthetic impact".

The Board determined to include Authority and Purpose language as follows:

**Authority and Purpose**

The purpose of this ordinance is to accommodate solar energy collection systems and distributed generation resources in appropriate locations, while protecting the public's health, safety and welfare, preserving natural resources and managing aesthetic impact.

The Board reviewed the following definition:

***Rated Nameplate Capacity*** – Maximum rated alternating current ("AC") output of solar collection system based on the design output of the solar system.

The Board discussion on *Rated Nameplate Capacity* included the following points:

- Does (AC) limit the type of systems used?
- Does the language need to include this definition?

The Board determined NOT to include a definition for Rated Nameplate Capacity

The Board reviewed the following definition:

***Solar Land Coverage*** – is defined exclusively for the purposes of calculating the footprint of the land area occupied by the components of a solar array. The Solar Land Coverage is the land area that encompasses all components of the solar collection system including but not limited to mounting equipment, panels and ancillary components of the system. This definition does not include access roads or fencing and is not to be interpreted as a measurement of impervious surface as it may be defined in this ordinance.

The Board discussion on the definition of Solar Land Coverage included the following points:

- The solar land coverage does not count as impervious surfaces.

The Board determined to include the definition of Solar Land Coverage as follows:

**Solar Land Coverage** – is defined exclusively for the purposes of calculating the footprint of the land area occupied by the components of a solar array. The Solar Land Coverage is the land area that encompasses all components of the solar collection system including but not limited to mounting equipment, panels and ancillary components of the system. This definition does not include access roads or fencing and is not to be interpreted as a measurement of impervious surface as it may be defined in this ordinance.

The Board reviewed the following definition:

***Solar Collection System*** - Includes all equipment required to harvest solar energy to generate electricity. The Solar Collection System includes storage devices, power conditioning equipment, transfer equipment, and parts related to the functioning of those items. Solar Collection Systems include only equipment up to (but not including) the stage that connection is made to the utility grid or site service point.

The Board discussion on the definition of Solar Collection system included the following points:

- Some solar collection systems do not harvest solar energy only for the purpose of generating electricity.

The Board determined to include the definition of Solar Collection System as follows:

**Solar Collection System** - Includes all equipment required to harvest solar energy. The Solar Collection System includes storage devices, power conditioning equipment, transfer equipment, and parts related to the functioning of those items. Solar Collection Systems include only equipment up to (but not including) the stage that connection is made to the utility grid or site service point.

The Board reviewed the following definition:

**Roof Mount** – A solar collection system that is structurally mounted to the roof of a building or other permitted structure, including limited accessory equipment associated with system which may be ground mounted. For purposes of calculating ~~array sizes or~~ solar land coverage under the solar definitions in this section, roof mounted portions shall not be included if the system is made up of both roof and ground mounted systems. ~~the roof mounted portions shall also be excluded.~~

The Board discussion on the definition of Roof Mount included the following points:

- The definition may not be necessary
- Roof mounted systems are not relevant to land coverage calculations

The Board determined to include the definition of Roof Mount as follows:

**Roof Mount** – A solar collection system that is structurally mounted to the roof of a building or other permitted structure, including limited accessory equipment associated with system which may be ground mounted. For purposes of calculating solar land coverage under the solar definitions in this section, roof mounted portions shall not be included if the system is made up of both roof and ground mounted systems.

The Board reviewed the following definition:

**Ground Mount** – A solar collection system and associated mounting hardware that is affixed to or placed upon the ground (such as ballasted systems), ~~the ground~~ including but not limited to fixed, passive or active tracking racking systems.

The Board discussion on the definition of Ground Mount included the following points:

- Is the “(such as ballasted systems)” necessary

The Board agreed to include the definition of Ground Mount as follows:

**Ground Mount** – A solar collection system and associated mounting hardware that is affixed to or placed upon the ground, including but not limited to fixed, passive or active tracking racking systems.

The Board reviewed the following definition:

**Carport Mount** – Any solar collection system of any size that is installed on the roof structure of a carport over a parking area.

The Board review of the definition for Carport Mount included the following points:

- Is the definition necessary as a carport is a structure?
- Solar panels on a carport would be the same as a roof mount

The Board determined to NOT include the definition of Carport Mount.

The Board reviewed the following **Use Definitions**:

**Residential Accessory Solar**: Any ground mounted or roof mounted solar collection system primarily for on-site residential use, and consisting of one or more free-standing, ground or roof mounted, solar arrays

or modules, or solar related equipment, intended to ~~primarily~~ reduce on-site consumption of utility power. ~~and with a rated nameplate capacity of 10 kW AC or less and that is less than 500 square feet solar land coverage.~~

The Board review of the definition for **Residential Accessory Solar Use** included the following points:

- Is the word “accessory” necessary
- “primarily for on-site residential use” – is there a limit to how big an array can be constructed
- Is there a limit to how much energy can be sold back to the grid?
- Power generated beyond the need of the residence on the property can be sold back to the power company
- Group net metering allows a couple of residences to draw energy from the same system
- Group net metering could also allow the extra power to be directed to a commercial business
- Group net metering could be addressed as a non-residential use.
- Residential solar is for the purpose of on-site use.
- It is not necessary to note the nameplate capacity or the solar land coverage
- Is there a regulation in place that regulates the size of a net metering installation?
- Currently the NH Coop has a lower payback for excess power when over 1000 KW to encourage homeowners to size solar arrays to match/be close to their consumption
- How is appropriately sized to be defined?

The Board determined to include the Use definition of Residential Accessory Solar as follows:

**Residential Solar: Any ground mounted or roof mounted solar collection system designed for on-site residential use, and consisting of one or more free-standing, ground or roof mounted, solar arrays or modules, or solar related equipment.**

The Board reviewed the following section:

**Specific Residential Accessory Solar System Requirements and Exemptions:**

The Board reviewed the following language:

*Residential Accessory Solar collection systems of any size are permitted in all ~~zones~~ districts by building permit. ~~without a conditional use permit except within a Historic District. District regulations should be amended to appropriately allow solar installations.~~*

The Board determined to include the above statement as follows:

**Residential Solar collection systems of any size are permitted in all districts by building permit.**

The Board reviewed the following language:

*Screening: Ground-mounted residential solar systems must be ~~reasonably~~ screened from abutting properties or roads or shoreland by fencing or a combination of evergreen and deciduous plantings.*

The Board discussion on Screening included the following points:

- Aesthetic impact is subjective and can change over time
- How to define “reasonably” screened
- Can screening be encouraged rather than mandated by changing “must” to “should”

- Will requiring all solar arrays to be fully screened from public view mean that several properties in town will not be able to use solar panels
- It should be encouraged that ground mounted systems be screened
- Should a Variance be required if a ground mounted system cannot be screened
- Consideration could be given to lowering/waiving the Building Permit fee for solar panels.
- Screening may become an enforcement issue

The Board determined to include language on Screening as follows:

**Screening: Ground-mounted residential solar systems must be screened from abutting properties or roads or shoreland by fencing or a combination of evergreen and deciduous plantings.**

**MOTION: “To include the following language: Screening: Ground-mounted residential solar systems must be screened from abutting properties or roads or shoreland by fencing or a combination of evergreen and deciduous plantings.**

Motion: B. Snelling

Second: D. Bunnell

Discussion: A. Francesco suggested amending the motion to replace “must” with “should”.

**MOTION: “To amend the motion as follows: Screening: Ground-mounted residential solar systems should be screened from abutting properties or roads or shoreland by fencing or a combination of evergreen and deciduous plantings.**

Motion: A. Francesco

Second: C. Lehner

Discussion: None

Amendment passes: 6 – YES 0 – No

**MOTION: “To include the following language: Screening: Ground-mounted residential solar systems should be screened from abutting properties or roads or shoreland by fencing or a combination of evergreen and deciduous plantings.**

Motion: B. Snelling

Second: D. Bunnell

Discussion: None

Amendment passes: 5 – YES 1 – No

The Board reviewed the following language:

*Lot Coverage: Ground-mounted residential solar collection systems shall/shall not<sup>8</sup> be considered as part of the maximum ~~required~~ allowed lot coverage. ~~Limitations.~~*

The discussion on Lot Coverage included the following points:

- General Residential is 35%, Rural Residential is 15%
- 500 sq. ft. is about 1/100 of an acre
- It is good to clarify that the solar land area is included in lot coverage calculations
- Change “required” to “allowed”

The Board determined to include language on Lot Coverage as follows:

**Lot Coverage: Ground-mounted residential solar collection systems shall be considered as part of the maximum allowed lot coverage.**

The Board reviewed the following language:

*Impervious Surface: Ground-mounted residential solar systems shall not be considered impervious surface. However, proper storm water control systems must be put in place to ensure that storm water runoff from property, post installation, does not exceed that prior to installation.*

The discussion on Impervious Surface included the following points:

- Installation of ground mounted solar panels will have an effect on stormwater run-off.
- Simple solutions can include a rain garden
- It is expensive to have an engineer design a plan
- The wording only specifies that that storm water runoff from property, post installation, does not exceed that prior to installation

The Board determined to include language on Impervious Surface as follows:

**Impervious Surface: Ground-mounted residential solar systems shall not be considered impervious surface. However proper storm water control systems must be put in place to ensure that storm water runoff from property, post installation, does not exceed that prior to installation.**

The Board reviewed the following language:

*System Height: A ground-mounted residential solar system must not be over 15 (?) feet in height at any point.*

The Board discussion on System Height included the following points:

- An average installation on flat ground would not be higher than 15ft. but if one is installed on steep topography the height 16ft. high
- Solar panels are generally installed to not exceed 15ft to deal with wind issues.

The Board determined to include language on System Height as follows:

**System Height: A ground-mounted residential solar system must not be over 16 feet in height at any point.**

The Board considered the following language:

*A ground-mounted solar array must be position in a way so that is does not create glare or reflection that affects another property or right-of-way.*

The discussion on glare/reflection included the following points:

- It is seldom an issue with residential installations

The Board determined NOT to include language on glare/reflection.

The Board reviewed the following language:

*Building Height: Roof mounted residential solar collection systems shall ~~be exempt from building height limitations~~ include integrated solar panels as the surface layer of the roof structure with no additional apparent change in relief or projection or separate flush-mounted solar panels attached to the roof surface. Separate flush-mounted solar panels installed on a structure with a sloped roof surface shall not project vertically above the peak of the roof to which it is attached, or project vertically more than five (5) feet above a flat roof.*

The discussion on Building Height included the following points:

- A building permit is required whether the panels are integrated as the surface layer of the roof or separate flush-mounted panels attached to the roof.
- If two panels were mounted on a flat roof the increase in height would be more than five feet but less than eight feet
- “shall be exempt from building height limitations” should be removed
- “any size in all zones” refers to units that still meet the setback requirements
- No panel goes above the peak of the roof
- Solar water heating systems are installed differently but will likely not increase the overall height by more than 5 ft.
- having a solar panel end up being higher than 35ft won’t have an impact on health/safety

The Board determined to include the Building Height language as follows:

**Building Height: Roof mounted residential solar collection systems shall include integrated solar panels as the surface layer of the roof structure with no additional apparent change in relief or projection or separate flush-mounted solar panels attached to the roof surface. Separate flush-mounted solar panels installed on a structure with a sloped roof surface shall not project vertically above the peak of the roof to which it is attached, or project vertically more than eight (8) feet above a flat roof.**

The Board reviewed the following language:

*Placement: Ground-mounted residential solar systems must be located in the rear yard ~~or side yard only~~ between the primary structure and ~~rear~~ property line, allowing for required set back from the property lines. Ground mounted systems cannot be placed within the Woodland Buffer (150 feet from reference line) of shoreland property.*

The Board discussion on Placement included the following points:

- The distinction of rear and side yard is problematic
- Solar needs to be facing south
- “should” be in the rear yard rather than “must”

The Board determined to include the Placement language as follows:

**Placement: Ground-mounted residential solar systems should be located in the rear yard or side yard between the primary structure and property line, allowing for required set back from the property lines. Ground mounted systems cannot be placed within the Woodland Buffer (150 feet from reference line) of shoreland property.**

**MOTION: “To include the following language: Placement: Ground-mounted residential solar systems should be located in the rear yard or side yard between the primary structure and property line,**

**allowing for required set back from the property lines. Ground mounted systems cannot be placed within the Woodland Buffer (150 feet from reference line) of shoreland property.”**

Motion: B. Snelling

Second: C. Lehner

Discussion: None

Motion Passes: 6 – YES 0 – NO

B. Snelling asked if the Board had agreed earlier in the discussion to include the fact that Solar Systems are defined as structures that must meet all applicable permitting and zoning requirements.

P. Francesco asked for clarification that B. Snelling was referring to Ground Mount Solar Systems being defined as a structure.

B. Snelling confirmed that the definition for Ground Mount residential solar systems should include the statement that they are defined as structures that must meet all applicable permitting and zoning requirements.

B. Snelling stated the definition of Ground Mount is as follows:

Ground Mount – A solar collection system and associated mounting hardware that is affixed to or placed upon the ground, including but not limited to fixed, passive or active tracking racking systems. Ground-mounted residential solar systems are defined as structures that must meet all applicable permitting and zoning requirements.

The Board determined that a draft copy of the language agreed upon at the meeting will be made available for Board review and duly posted for the Planning Board meeting on January 19, 2021

**ADJOURNMENT:**

At 8:45pm the following motion was made:

**MOTION: “To adjourn.”**

Motion: B. Snelling

Second: A. Francesco

Discussion: None

Motion Passes: 7-yes 0-no 0-abstention 0-absent

Respectfully submitted,

Nancy Decoteau, Land Use Boards Assistant