Solar Ordinance - Solar Panels Lot Coverage

The China Planning Board has been working diligently to prepare a Draft Solar Ordinance for the Select Board to review and approve to go to the voters in November. Throughout the discussions, one item has emerged as not gaining unanimous support. That issue concerns dimensional standards, specifically lot coverage requirements and how solar panels are counted for lot coverage. There are three potential methods that were looked at during our review. All options count the size of the panel to be determined based on the drip edge at the angle that has the largest area covered.

Option #1. Counting the panels fully as structures This would allow only a 15% or 20% coverage of a lot. The Resource, Stream, and Shoreland Protection Districts allow coverage of 15%, the Rural District allows 20% coverage.

"Solar Arrays shall be considered "structures" for purposes of calculating maximum lot coverage pursuant to Section 5(A)(I) of Chapter 2, the Town of China Land Use Ordinance, based on the drip edge with the panel at its minimum tilt."

Option #2 Not counting panels towards lot coverage. All other structures would count.

The following is language from the Model Solar Ordinance from Grow Smart Maine.

"Lot Coverage. A number of communities use "maximum lot coverage" or "maximum impervious surface" as one of their dimensional standards. While it is clear that such features as driveways or buildings would be included in any calculation of lot coverage, many other features may be more ambiguous depending on how clearly the definition in the Zoning Ordinance is written. Regardless of the definition, it is recommended that solar energy systems with grass or another pervious surface under them be exempted from lot coverage or impervious surface calculations. However, if the area is to be paved or otherwise rendered impervious then this land area should in fact count toward any coverage or impervious surface limit. For the purposes of municipal stormwater regulations, panels could have the effect of altering the volume, velocity, and discharge pattern of stormwater runoff, however, vegetated cover beneath arrays should not be considered fully impervious. Example: Solar energy systems shall not be included in calculations for lot coverage or impervious cover as defined in [Sec. __]."

This is language from the Town of Rockport Solar Ordinance.
"Lot coverage for Ground-mounted Solar Energy Systems shall be calculated on the area of the supporting structure that is in contact with the ground and not the area of the panels as long as the area under the panels remains vegetated."

Option #3. A compromise between the two others by having the solar panels count towards lot coverage, but only at a percentage of what they cover with 50% being proposed. In other words, if a solar panel was 500 square feet in drip edge area, it would only count towards 250 square feet towards lot coverage calculations.

"Solar Arrays shall be considered "structures" for purposes of calculating maximum lot coverage pursuant to Section 5(A)(I) of Chapter 2, the Town of China Land Use Ordinance, based on the drip edge with the panel at its minimum tilt. To determine the lot coverage area of the solar panels only, the drip edge area shall be multiplied by a factor of 0.5."