Town of Caroline
Planning Board Meeting
January 28th, 2021

Action Items Relating to the Draft Solar Energy Siting Law

Italics is editorializing done while writing this up.

1) The "small-scale" category (already split but without naming it that way) will explicitly be divided into "small" and "medium" and the law re-written to explicitly use small/medium/large categories.

2) Confirmed division between "small" and "medium" at 25 kW
   Changed division between "medium" and "large" to 2.5 acres (decreased from 5 acres)

3) Add a provision that allows capturing new technologies as they appear.

4) Remove solar thermal heating systems from the law.
   I think this was the decision, though some concerns were expressed about possible large solar thermal heating systems for, say, a communal pool. My recollection is that this was thought to not be a very likely scenario so it was OK to drop solar thermal heating from the law.
   Note that a system disturbing 1 acre or more triggers Site Plan review; existing and proposed Site Plan Review Laws could be reviewed to see if we think those are adequate and if not at least add a provision for reviewing "large" solar thermal systems.

5) Regarding non-grid-tied (off-grid or stand-alone) systems:
   a) Decided to check with code officer to find out what, if any, review off-grid systems currently get. If that seems sufficient to safeguard public safety, then at least "small" off-grid systems can be exempted.
   b) If an off-grid system is later connected to the grid, that should trigger some kind of review, specifically to make sure the system meets proper electrical requirements.
      This provision may not be necessary, pending what we learn from the code officer and standard utility practice.
   c) Add an area or other threshold(s) so that a "big" off-grid system would receive some kind of review.

6) Existing systems should be grand-fathered. However, if an existing system is expanded (by some % ?) that should trigger review and bring about any changes required to bring the system in compliance with the siting law.
   We should check with Town lawyer to see if an explicit provision for grand-fathering is needed or if that is the default condition for such regulations.

7) A system that is built under the provisions of this law that later expands should require a new review.
   I do not think we definitively answered whether expansion in area was all we should be concerned about or whether an increase in power should also trigger a review. In other words, if a facility is upgraded in a way that does not change the area covered but does increase the power, should that require review by the Review Board, or just assume (or demand) that the utility verify that the system is electrically OK?

The above comment assumes that a large facility is grid-tied. While that seems likely, Jonathan's point is a good one: we can conceive of a future factory having a large off-grid array to power, say, hydrogen fuel production. In this case, is there a Town concern if the system increases in power but not area covered?

8) Add a provision to prevent segmentation of a large project into a series of smaller projects that receive less scrutiny.

   This will be written with help from the Town lawyer to get it right.

   An observation: even though this is a common technique of corporations, perhaps this is unlikely under the provisions of this law if we just say contiguous properties are one project? Our division between "medium" and "large" is now 2.5 acres. Even a relatively small community solar project of 3 MW requires a minimum of 15 acres with today's technology; that would require six different 2.5 acre sites if the applicant tried to break the project up so as to get each one into the "medium" category. If the sites are scattered, perhaps that's fine because indeed their local impact is small and properly handled by whatever we wind up with as the "medium" level of review. I expect scattering the sites is inefficient, so the developer is likely to want to locate on contiguous plots. Anyone know?

9) We will continue to explore the notion of a set of preferred "habitats"; Bill will create a specific list of what requirements would get "relaxed" for such preferred locations. The preliminary list of preferred habitats is:

   brownfield sites
   defunct industrial sites
   (commercial) roof-tops and parking lots
   young secondary growth forest
   late-stage succession shrubland

   Dave Bonter (Cornell Laboratory of Ornithology) and John Confer (IC prof. emeritus) concur with this set of habitats. In discussion with John Confer, one way to specify the young secondary and late-stage succession habitats might be by canopy height. According to John, a lot of farm land in Caroline stopped being farmed 30 to 60 years ago so there is a lot of young forest of about that age. An average canopy height of 30 to 40 feet is likely appropriate to characterize this, but needs to be looked into a little more. On the young end of the spectrum, late-stage succession shrubland of 15 or more years is probably the right criterion; not sure if we need to write that in terms of a canopy height or if the age characterization is good enough.

10) We will add a provision that medium scale (as well as large scale) facilities must be decommissioned (i.e. will be required to submit a decommissioning plan and to place funds in escrow).

11) Above decisions will be implemented in a "Google Doc" version of the law to facilitate future group editing.