

April 25, 2018

Dear Members of the Durham Planning Board,

I would like to thank the subcommittee of the Energy Committee and the Energy Committee for their time and effort grappling with the difficult task of drafting a Solar Ordinance. As a resident of Packers Falls Road, I am daily reminded of the need for such an ordinance.

Many people are drawn to Durham because of the scenic quality and rural character that the town has made great efforts to preserve. Please recall that the facilitator of our Future Land Use Chapter Forum reported that this is one area where nearly all Durham residents agree. This is evidenced throughout our Master Plans over the years. That is why I was pleased to see in the Purpose statement of the proposed Solar Ordinance:

“to promote environmental sustainability while protecting the character of rural and scenic lands and the use of productive agricultural lands.”

Given how strongly Durham residents feel about protecting rural character and scenic vistas, I see this Purpose statement as being critical to crafting an ordinance that is balanced and accepted by the community. I would like to address “protecting the character of rural and scenic lands,” in terms of three elements: Placement, Height, and Scale.

Placement

Front Yard Placement

I’ve spoke with dozens of residents last summer who were dismayed when a large solar tracker was installed along a particularly pastoral stretch of Packers Falls Road, a Designated Scenic Road, without even an opportunity for a public conversation. I heard from passersby as far away as Northwood and Portsmouth who said, “What was Durham thinking?” I even spoke with Peter Loughlin, “the father of NH zoning,” who was quite certain when Durham drafted its ordinance, this was not a desired or imagined outcome.

Accordingly, it makes good sense to not allow freestanding solar systems in front yards, yet as you know, some front yards are hidden in the woods, or at the end of long private road, or in the back yard relative to the road. So it makes sense to use the vehicle of Special Exception to allow each request to be viewed by the Zoning Board on a case by case basis. But why throw in the caveat “that the system need not be set back further than 100 feet from the front property line”? On what basis was 100 feet deemed an appropriate distance? Do the drafters believe that a permitted 35-foot tall structure will not appear imposing or disrupt a scenic vista 100 feet from the road? One hundred feet is closer to the road than one would think.

I also want to point out that my next door neighbor’s property along our particular scenic stretch of Packers Falls Road is 185 or 190 feet deep. Thus because of this arbitrary caveat, under the current regulations, he could place a 35-foot tall tracker plunk in the middle of his front yard. Actually he could place 5 or 6 solar trackers in his front yard. This is barely an improvement from what occurred previously.

The 100-foot caveat must be removed as it does not meet the Purpose statement of the Ordinance.

Side Yard Placement

I understand the rationale that freestanding solar systems may be placed in side yards no further front than the front facing of the house. In theory, that would be less offensive to neighbors and passersby. Yet here again, one size does not fit all.

Along some of our historic/scenic roads, homes were built very close to the road. In the two mile stretch from my house on Packers Falls Road to Mill Road, along our Designated Scenic Road, there are 12 properties built fairly close to the road that have extensive side yards or fields that extend along the road. (Two properties were actually built with a portion of the house in the road right-of-way.) Picture the property of former PB member Julian Smith. His house is perhaps 30 feet back from the road and had an extensive side yard and scenic vista to the point where he even built a scenic lookout at the edge of his side yard.

Based on the current language in the Ordinance, one could place 5 or 6 35-foot tall solar trackers in the side yard of a single family property or 120 ground-mounted panels along our historic/scenic road within close proximity to the road. Even if required to meet setbacks, our setback for a Collector Street is 30 feet. Here again, it would make more sense to have each property evaluated on a case by case basis for side yard placements as some side yards might be concealed by woods or at the end of a long private driveway.

In order to meet the Purpose statement, side yard placements for freestanding solar systems should be approved by Special Exception and should require extensive buffering.

Placement in Undeveloped Fields Along Designated Scenic Roads

According to this current draft, the scenic meadow next to my house along a Designated Scenic Road qualifies for an Enterprise System by Special Exception. There are no limits to how many trackers or ground-mounted panels are allowed within 30 feet from the road! This is unreasonable in a residential neighborhood unless *completely screened* from the road and neighboring properties.

While buffering is required for a Shared System or Enterprise system, the current definition of this term falls short in terms of protecting scenic vistas:

BUFFERING – The use of landscaping (other than grass on flat terrain), or the use of landscaping along with berms, walls or decorative fences that at least **partially and periodically obstructs the view** (emphasis added).

This definition needs to be strengthened. I look to our neighbors in Hampton who have had a solar ordinance in place since 2009 and who define buffering as “**fully screened.**” (By the way, Hampton does not allow freestanding systems in front yards at all. If placed in side or back yards, freestanding systems shall be no more than 8 feet above the ground and fully screened from adjacent properties.)

If approved by SE, freestanding Multiunit, Nonresidential, Shared or Enterprise Systems should require extensive, complete screening from the road and neighboring properties.

Placement Within View Along Gateways

Over the decades, Durham has worked hard to protect our gateways. Unlike many other NH communities, we have not permitted commercial sprawl along our gateways. Discussions about protecting our rural character, as seen from our gateways, has been part of every Master Plan conversation and came across very clearly in last year's Future Land Use Master Plan Forum as something we all agreed upon.

Interestingly, parts of many of our Gateways are also are zoned commercial. Take Mast Road, (Rt. 155A) for instance. The portion that remains undeveloped is one of Durham's pastoral entryways into town, with this gateway bordered by expansive fields on both sides of the road. A large freestanding system, whether Multiunit, Nonresidential, or Enterprise, is permitted with *500 kw or greater system placed along a rural gateway*. If in the Rural Zone, by SE, but if in one of our Commercial Gateway Zones Permitted by Right. This is not right! Again, since one size does not fit all, these systems should all be permitted by Special Exception, not permitted by right as is currently the case.

In order to meet the Purpose statement of the Solar Ordinance, any large freestanding system along a Gateway or Designated Scenic Road should be permitted by Special Exception and require extensive screening from the road and neighboring properties.

Setbacks and Height

Setbacks are determined by street classification. Arterial Streets, otherwise known as our Gateways (Mast Road, Rt. 155A, Rt. 155, Rt. 4, Rt. 108, and Madbury Road—as noted in the definition section of our ZO) run through various zones and have different setback requirements. ORLI (Mast Road) and Durham Business Park (Rt. 4) have only a 50-foot setback. Permitted heights for these districts are 40-50 feet. Does it really make sense to allow 40-50-foot tall trackers only 50 feet back from these scenic Gateways?

I would like to point out that in OR-108, freestanding systems are allowed to be 50-75 feet tall with Planning Board approval! Even if only 50 feet is approved, that is the height of 9-11 Madbury Road, this makes no sense.

Rather than fall back on existing height limits of buildings in each of our zones, we should establish *reasonable limits that actually can be screened from the road*.

Scale

I understand that single family use of solar energy falls between 5-8 kw. That is the equivalent of one or two sizeable solar trackers. So why are we permitting up to 30 kw? That is the equivalent of 5-6 trackers or 120 ground-mounted solar panels! This is totally inappropriate in the front yards (even 100 feet back from the road) or side yards of residential neighborhoods.

For single family/duplex use, we should allow a maximum of 10 kw, an amount nearly double the typical residential use.

For shared systems in residential neighborhoods, the permitted amount is 500 kw by SE. This translates to 80 trackers or 2000 ground-mounted panels! Along Newmarket Road, the town spent \$140,000 to protect the Mill Pond Center scenic vista. On the adjacent property, also part of the scenic vista, there is narrow swath of land that is a separate lot of record that was recently

purchased by the Mill Pond Center. With a lot line adjustment, this ordinance as written would permit up to 80 trackers or 2000 ground-mounted panels by Special Exception only 40 feet from the road and with required buffering only “partially and periodically.”

Special Exception does not provide adequate protections when it comes to large systems that will significantly impact our gateways, Designated Scenic Roads, or abutting neighbors. Our language around required buffers needs to be beefed up.

Summary

For the proposed Solar Ordinance to meet its stated and critical dual Purpose, which includes protecting scenic vistas and farmland, and in accordance with desires of residents made clear during the Future Land Use Chapter Forum, there needs to be more thought regarding the *actual visual impact*, particularly along our Designated Scenic Roads and Gateways. I suggest some simple revisions:

- **Freestanding Solar Systems for Single-Family or Duplex Use should be permitted by Special Exemption in front and side yards. Delete 100-foot caveat which targets scenic vistas. Scale and height should be reduced to appropriate sizes and dimensions.**
- **Larger systems for shared, multiunit or commercial use should be revisited for reasonable scale, height and setback criteria.**
- **A definition of buffering should be included in the Ordinance and should include language such as “fully screened” rather than the existing ZO “partially and periodically.” Language about buffers should be included in all 3 uses, not just large systems as even one tracker can be offensive in a residential neighborhood if not adequately screened.**

Special Exception for all freestanding systems will allow for a case by case review, a set of objective criteria, and a chance for a public conversation. All freestanding systems should be permitted by Special Exception only. This is critical given sentiments expressed by at the Future Land Use Forum.

As Councilor Welsh stated at the last PB meeting, let’s zone for what we want to see.

Respectfully Submitted,

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