

October 10, 2018

Durham Planning Board  
c/o Michael Behrendt  
Town of Durham  
8 Newmarket Road  
Durham, NH 03824

Dear Planning Board members,

My name is Chris Skoglund. I live at 283 Packers Falls Rd, a road now infamous in solar history. I am one of perhaps a handful of people in town whose home is capable of hosting a solar array, which has no shading and which is invisible. To that end, I have three separate roof mounted solar-energy systems and I am here to again speak on behalf of those with fewer solar resources than my family.

I spoke at the last meeting of the Planning Board in support of adopting a solar amendment to the Zoning Ordinance that would preserve Durham residents' solar rights to the greatest degree. By solar rights, I refer to protections of property owners' right to invest in solar energy systems in order to manage their energy costs and to fight global warming and climate change.

The importance of this right was highlighted this week as the United Nations Intergovernmental Panel on Climate Change ('the IPCC'), which is the foremost scientific body on climate change, released a special report on the impacts of global warming of 1.5 °C (2.7 °F) above pre-industrial levels and the related global greenhouse-gas emissions pathways necessary to limit warming.<sup>1</sup> The report noted that the Earth has already experienced 1°C (1.8 °F) and that limiting global warming to 1.5°C would **require rapid, far-reaching and unprecedented changes in all aspects of society**. Such a transition would need to occur through changes in land use, and within the energy, industrial, buildings, and transportation sectors. Global net human-caused emissions of carbon dioxide (CO<sub>2</sub>), the principle cause of global warming, would need to fall by about 45 percent from 2010 levels by 2030; equivalent to a 49 percent reduction below 2017 levels. The global economy will need to reach "net zero" around 2050, with fossil-fuel energy use being virtually eliminated. Successfully making a transition of this magnitude within a generation's time will not be done by technology alone; **it will require significant changes in individual and collective behavior and expectation**.

The impacts of a 1.5 C world will be significant. Sea-level rise will inundate cities around the globe and changes in temperature and precipitation will render areas uninhabitable likely causing mass migration. For every increment of warming above 1.5°C, the impacts grow more dire locally, regionally and globally. As noted in the IPCC report,

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<sup>1</sup> IPCC (2018). Global Warming of 1.5°C. UN Intergovernmental Panel on Climate Change, <https://www.ipcc.ch/report/sr15/>, (Accessed October 9, 2018).

*“Every extra bit of warming matters, especially since warming of 1.5°C or higher increases the risk associated with long-lasting or irreversible changes, such as the loss of some ecosystems”*

As I noted in my remarks on September 26<sup>th</sup>, these changes will likely impact the NH Seacoast as sea-level rise threatens the Isle of Shoals, the NH Seacoast, and Great Bay, while precipitation changes will affect our rivers and streams, and warming temperatures will alter our forests and other ecosystems.

The good news is that some solutions to global warming exist now and are accelerating in their deployment compared to recent past. But they will need to accelerate even further, if we are to get on track for the mid-century decarbonization of the economy.

Solar energy is one such solution. However, as noted at the Planning Board meeting on September 26<sup>th</sup>, solar electricity, on its own, is insufficient to the task of addressing climate change. The key terms in that acknowledgement are *“on its own.”* While the sun doesn’t shine at night, and shines less brightly during winter, technology is rapidly emerging that will allow renewable electricity generation to be paired with cost-effective energy storage systems. This includes stand-alone battery systems, as well as electric vehicles, each capable of storing renewable energy as it is produced for utilization later in time. Changes in the how utilities operate and how we are billed for electricity will play a role in supporting the deployment of these systems. Massive investments in energy efficiency and other renewable technologies will be needed, but solar has a clear role to play.

At the last Planning Board hearing, I was asked what specific suggestions I would make to the ordinance amendment. Candidly, I have nothing granular in nature to offer and that is a matter of my perspective. My perception is that the intent of this amendment is not to protect residents’ solar rights, but instead it is about protecting the status and privilege of certain Durham residents to maintain possession of a subjective value: beauty. When I reviewed the other stakeholders’ comments on the September 12<sup>th</sup>, I observed that while the September 12<sup>th</sup> draft would limit solar installations, the suggestions pushed to make those restrictions deeper and further reduce the number of residents who could invest in solar. The restrictions occur through limiting the size of the systems that can be installed, and by restricting the areas of a property, on which systems could be placed. Such comments are problematic as very few buildings have a roof that perfectly faces the sun, and that has adequate shape, size, and strength to handle an array. For those without the appropriate buildings, the property itself can be an issue as not all properties have the adequately sized or unshaded backyard.

To have a chance to address climate change, we need to begin the changes now and not in 2030. By 2030, we need to have made up for lost time having completed the work that should have begun in the 1990s. As I noted in my last remarks, the micromanaging of solar on the landscape and buildings is the first effort I am aware of where Durham residents have fought the solutions to a problem. A contrast to Save Our Shores and numerous preservation initiatives. While I truly appreciate the natural beauty of Durham as is, it is my view that the best way to conserve the environmental health of the landscape is in fact to utilize its solar resources to capture the sun energy to the greatest degree possible. This admittedly will entail sacrifice as it would require many residents to adjust their expectations of how Durham will

look. But as noted above, global warming and climate change will change Durham's ecosystems and appearance in the coming decades anyway.

To exclude solar energy so broadly from the landscape in the name of subjective values is a truly selfish act. It benefits the aesthetics, and pushes the costs of climate change onto future generations. As you drive around Durham, there are numerous symbols that suggest we are an open and supporting community, whether they be "*Durham is a Welcoming Community*" or "*Black Lives Matter*" signs or the "*Pride*" flag. But in a progressive town like Durham, there is no cost to show these symbols, no social or political backlash; they are part of the scenery. Perhaps that is because these symbols are small or temporary or cosmetic. Perhaps our true colors are seen through the disapproval and disparagement exhibited when specific residents went beyond the symbolic and opted to utilize their resources to make an actual difference by investing their time, money, and property in a long-term solution. A solution with individual and societal benefits. Its flaw is that was an investment that tested a "welcoming community's" scope of vision.

In protecting the subjective ephemeral asset of beauty, the town would deflect the responsibility for global warming and climate change. It is easy to put up signs attacking power lines and pipelines, but the fight against global warming and climate change will be anything but easy. It will take all hands to reach the GHG-emissions levels that the scientific community has been communicating to us for nearly three decades and affirmed on Monday. I therefore encourage the Planning Board to step back and ask what is the intent of the ordinance and what will be its outcome? What are its benefits and costs to current and future generations?

Other communities are watching this process. The decisions made here about this solar amendment will demonstrate that Durham will lead by making hard sacrifices future generations depend on or gives them cover to adopt their own ordinances to excludes solutions and protect their wealth and privilege.

I appreciate your consideration

Thank you for your consideration,

Chris and Erica Skoglund  
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