

1. **Pitch Submitted By:** The Green Lantern Group
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4. **Pitch Title:** “Preference versus Proximity”
5. **Pitch Summary:**

Act 174 provides Town planners with the opportunity to designate certain sites as “preferred” for renewable energy development, based on environmental, aesthetics and other local criteria. But the 2017 5.100 net metering rules include a definition of a renewable energy “plant” to be one which is not sited within close proximity of another plant. This definition prevents multiple solar arrays from being located on a preferred site, which defeats both the concept of preferred siting and restricts progress on “90 by 2050”. The legislature and the Public Utility Commission should amend 5.100 to permit net metering solar arrays to be sited within close proximity, so long as they are on land designated by the Town as “preferred” for solar siting. This could also help vulnerable Vermont farmers to lease more of their land for solar, generating revenue to promote their financial sustainability and farm viability.

6. **What energy sector(s) does this Pitch apply to? (Check all that apply):**

- Energy Efficiency
- Electricity**
- Transportation
- Thermal Heating &/or Cooling
- All (Total Energy)
- None: Non-energy related carbon reduction proposal

7. **Which criteria category(ies) does it address? (Check all that apply):**

- Economic Activity**
- Affordability
- Vulnerable Vermonters**
- Other

8. **Scale of impact on Vermont’s energy and climate goals:** If this proposal came to fruition, how might it move the needle in helping to meet Vermont’s energy and climate goals by 2025 and/or 2050? Please outline assumptions and, if available, provide calculations.

This is hard to quantify, because Town plans and knowledge of available preferred sites for solar development (number and size) is not known. Under the assumption that most preferred sites for solar will be larger than 4 acres in size, given the nature of the town planning process, it is reasonable to estimate that at least twice as many 150 -500 KW solar arrays could be located in preferred site locations than will be case under current net metering rules. This would all happen before 2025.

9. **Benefits/costs of this proposal for Vermont and Vermonters**: Including, where possible, economic, financial, social, and environmental.

**Benefits:**

Economic: Vulnerable Vermont farmers whose land might be designated as “preferred” for solar siting would have opportunities for multiple land leases. Assuming an approximate lease payment of \$2,500/acre/year for 25 years, a farmer leasing land for two 500 KW arrays (about 8 acres) could generate \$20,000/year for 25 years, or \$500,000. Multiply this by the likely number of farms with preferred sites for solar development, and the economic benefits quickly go into the tens of millions of dollars.

Economic: increasing opportunities for net-metered solar development will increase/maintain employment in the renewable energy industry.

Environmental: if (8) above is a reasonable estimate for scale, then there could be a doubling of greenhouse gas emissions reductions than will be possible under current net metering rules.

Aesthetics: siting more solar arrays in preferred sites will reduce the negative aesthetic impact of solar arrays perceived by some Vermonters, assuming towns consider aesthetics as part of their criteria for designating sites as “preferred”. This will have an additional benefit of reducing general public opposition to solar development as antithetical to VT tourism and scenic landscapes.

Economic: siting multiple arrays in close proximity could generate the scale required to finance 3-phase line extensions, the lack of which are a significant constraining factor on expanded renewable energy generation.

**Costs:**

Financial: Utilities may argue that expanded net metering threatens their ability to keep electricity rates stable, given that the renewable energy attributes of solar generation (RECs) plus a preferred siting designation result in a net metering credit value that is 4 cents/kWh greater than the residential retail cost of electricity. As a potential measure to offset this, solar developers of multiple arrays in a preferred site designation could be required to include battery storage as part of their project, so that renewable energy is discharged during peak electricity demand, reducing utilities’ demand and capacity charges.

10. **Decision-makers necessary for this proposal to be adopted or move forward (e.g., Legislature, Governor, a regulatory agency, a business, organization, media outlet, or financing institution, etc.)**

Legislature, Governor, Public Utility Commission

11. **Strategy and key considerations**: Outline the overall strategy, including gaps, barriers and opportunities for moving this proposal forward.

Barriers: utilities are likely to oppose this proposal, and argue that this promotes a “salami tactic” of dividing up a 1 MW or larger solar array into multiple <500 KW solar arrays, so as to qualify for net metering and benefit from higher net metering rates. This could be prevented by specifying minimum time intervals between project construction, separate ownership and

financing arrangements, etc. Some use of common infrastructure, such as access roads and inter-connections, should be permitted to create economies of scale, reduce land disturbance, and minimize aesthetic impacts.

**12. Timeline:** To meet our 2025 goals, we need some proposals that can be implemented in the next couple of years as well as some “game changers” that will bend the curve even further out. What timeline do you foresee for your proposal to be developed and implemented?

Decision-makers could make this change by June 2018, and with implementation to follow as soon as towns complete their revised town plans (with preferred siting designations) as part of Act 174.