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Committee on Environmental Conservation
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RE: Solar panels, anti-reflective coating, PFAS and the Precautionary Principle

Dear Committee on Environmental Conservation,

During the November 29, 2021 public hearing on Climate Change Expenditures by State Entities, pollution from existing power plants was discussed, as it results in health concerns for the surrounding community. There was little to no discussion of how utility-scale solar, wind and battery energy storage facilities may negatively impact rural communities where renewable energy resources are being constructed.

This letter draws attention to

- coatings used on commercial-grade solar panels
- the possibility of PFAS in and on solar panels, wiring and batteries
- citizen's requests for use of the precautionary principle to protect soil and groundwater.

The enclosed letters submitted to NYSERDA, the Article 10 Siting Board and to the Town of Duanesburg outline this issue.

Developers are responsible to their investors. Not the town. Not the neighbors. And not the environment. New Yorkers need forward-thinking legislation to address exponential increases in renewable energy equipment and its potential to contaminate soil and ground water on a massive scale both during operation and after decommissioning.

A 8.3-MWdc solar facility may use 22,000 photovoltaic panels and 3,000 linear feet of wire on 35 acres. Panels used at such facilities are coated with anti-reflective and anti-soil coatings, which increase profits by serving to improve productivity and decreasing maintenance costs. These hydrophobic coatings help dirt slough off. They may be similar to the coatings applied at car washes. Some reports show that coatings may degrade as soon as two weeks. Dupont and 3M manufacture coatings that may be re-applied to solar panels in the field.

Hundreds of thousands of feet of buried wire connect panels to inverters, transformers and other components. Industry reports show that plastic coatings on wires may contain PFAS. Lithium-ion batteries for energy storage are documented to contain PFAS. Clearly there are valid concerns about PFAS contamination. At decommissioning, contaminated wires that are left in the ground may continue to leach PFAS into the soil and groundwater. Batteries used for storage are seldom recycled and may require disposal every 10 to 15 years. Placing PSAS-contaminated debris in rural landfills further increases risks to communities.

Protecting our soil and groundwater from contamination should be our foremost concern. Federal and state regulations increasingly restrict the use of PFAS. Contamination lawsuits are being settled for tens of millions of dollars. The Town of Avon recently adopted a solar law prohibiting solar panels that use PFAS.

PFAS contamination is expensive and difficult or impossible to clean up. Small rural towns lack the resources to settle lawsuits over contaminated soils and drinking water.

I request that legislators consider the human and environmental costs of PFAS contamination and implement the following precautionary measures. Developers must be required to

1. Provide documentation that their products do not contain PFAS. If they cannot document that panels are PFAS-free, they must agree to accept liability for potential contamination.
2. Test the site soil and water before and after construction, then provide annual site testing and monitoring of wells and soil on adjoining properties.
3. In the event PFAS contamination occurs, decommission and remove components immediately. Any materials used on the contaminated site must be cross-referenced at once against other sites where those products are used and immediate testing undertaken.

I request that the State maintain for public use a database of PFAS free-solar panels, equipment, and coatings so municipalities and their residents can easily protect their soil and waters.

These precautionary measures would cost nothing to towns or their residents. They would simply protect our soil and water as New York State moves toward its net zero goals.

Thank you for your time and consideration.

Respectfully,
Susan Biggs
Lynne Bruning

Enc: September 23, 2021 Saving Greene to the Siting Board
October 19, 2021 Bruning to Duanesburg Planning Board
November 8, 2021 Bruning to Duanesburg Planning Board
November 9, 2021 PFAS Water Test results for 13388 Duanesburg Road, Delanson NY