

## TOWN GREEN February 2025

After the Truro Select Board's unanimous vote on December 17, 2024 to adopt the Truro Municipal Decarbonization Roadmap, the Energy Committee and the Climate Action Committee (CAC) are quickly following up with specific plans to move Truro from dependence on fossil fuels to clean energy self-sufficiency.<sup>1</sup> The Truro Municipal Decarbonization Roadmap establishes baselines for measuring progress towards decarbonization goals and the ways to implement energy efficiency and electrification measures. In their January 28, 2025 presentation to the Select Board, the two committees focused on solar energy and specifically, "The Role of Solar Microgrids: Keys to Cost Savings, Resilience, and Energy Self-sufficiency."

Although a whopping 75% of the Town's energy use in the last decade came from propane, oil, gasoline or diesel, this presentation clarified how Truro can make significant progress towards decarbonization and spend fewer energy dollars by relying on solar electricity and more specifically, on solar microgrid technology.

According to the [Center for Climate and Energy Solutions](#), microgrids "are relatively small, controllable power systems composed of one or more generation units connected to nearby users that can be operated with, or independently from, the local bulk (i.e. high-voltage) transmission system, sometimes referred to as the 'macrogrid.' Since the energy (power and heat) are created close to where they are used, microgrids are a form of distributed generation."<sup>2</sup> In other words, if Truro installed solar arrays at strategic locations at or near town facilities, the electricity generated, either connected to the Eversource grid or stored in onsite batteries, would power town buildings and equipment. In both cases, solar electricity means reduced energy costs. Using onsite batteries, especially in case of Eversource outages, advances the Town's energy resilience and self-sufficiency.

In their plan, the Energy Committee and the CAC propose five strategic sites for installing solar microgrids. These Resilience Hubs would be on the landfill at the Recycling and Transfer Station (RTS), Town Hall Hill, Truro Central School/the Walsh Property, the Public Safety Facility (PSF), and the Community Center/Library. Each of these sites lies near the Route 6 main electric grid trunk line, facilitating future grid interconnection. At each site, solar panels would be installed as best suited the location, whether ground-mounted, as a solar canopy above parking areas, or on a rooftop. The current proposal recommends both ground-mounted and canopy panels at the RTS; and rooftop and canopy panels at Town Hall Hill, Truro Central School/Walsh, the Public Safety Facility, and the Community Center/Library. Given their space

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<sup>1</sup> The Truro Municipal Decarbonization Roadmap is attached to [the Select Board agenda packet for December 17, 2024](#), Item 7E. Information is also available in three podcasts, [Amy & Ian Explore Truro's Decarbonization Roadmap](#).

<sup>2</sup> See also the January 2024 [Microgrid Overview](#) from the U.S. Department of Energy Grid Deployment Office.

limitations, to make up the full amount of electricity required at the RTS, the School, and the PSF, additional panels would be installed at the landfill to provide electricity through the Route 6 grid. Each location would include electric vehicle charging stations, which would also generate future revenue.

And what about the price tag? The Energy Committee and the CAC have calculated costs that demonstrate the huge financial advantage of going solar. Focusing on a possible first phase of installing a solar system at the landfill, and using cost information from the [Massachusetts Clean Energy Center](#) and the consultants, ICF International, Inc., the Energy Committee is estimating the initial outlay for the Town on this site. This cost lessens if the 30% solar tax credit offered by the 2022 Inflation Reduction Act (IRA) remains in effect through 2032. In this case, the electricity generated is anticipated to pay back the cost of construction in 7 to 8 years and then generate revenue for the Town. Even if the IRA were to stop paying solar credits, the Town is expected to still recuperate its initial outlay within 10 years and earn enough revenue to fund the next phase of the project.

In Truro's [Local Comprehensive Plan](#) from October 2023, the LCP Committee notes that "In 2022, Truro's Climate Action and Energy Committees adopted a Whole Government Approach to recognize that effective climate leadership requires the integration of climate change mitigation and adaptation into daily operations, decision-making, and planning for the municipality. This approach focuses in three areas: governance, education, and community preparation" (p. 59). With their proposal for Solar Microgrids, the Energy Committee and the CAC are launching efforts in all three areas. They plan to proceed with estimating costs for the first phase of the solar electricity generation system, work with town staff, ask for Select Board approval, and prepare a warrant authorizing the funding for Annual Town Meeting in May. During March and April, they plan to engage the community in learning more about the environmental and economic benefits of converting Truro from dependence on fossil fuels to energy resilience and self-sufficiency.

-Elaine Beilin