



September 26, 2019
Comments to the Department of Energy Resources
SMART Program

I am writing on behalf of the Northampton Area League of Women Voters with comments on the SMART Program. First, I will comment on the proposed program. Then I will add comments on the need for a 10-year state plan to drastically reduce carbon emissions, which will place the DOER in the epicenter of providing renewable energy under the guidelines of a 10-year plan.

Thank you for expanding solar energy production within the SMART Program. In western Massachusetts there is growing demand for solar power that meets our unique needs. Our comments are pertinent to all parts of the state, but we want to highlight concerns that are important to our rural areas, farms, and towns.

The size, siting, and environmental impacts of solar projects are major issues.

Our understanding of the need to preserve our forests and agricultural land has been strengthened by three major scientific reports in 2019 – the IPCC report on the importance of land use in mitigating climate change, the biodiversity report on the potential loss of 1 million species by 2100, and the Sept. 2019 report by Harvard Forest, Harvard University: “The siting and impact of photovoltaic systems in Franklin, Hampshire, and Hampden counties.” The scientific message is clear: Do not destroy trees. Plant trees. The oldest trees sequester the most carbon. Maintaining forest habitat maintains biodiversity. Adopt agricultural practices that sequester carbon. It is time to change energy policy so that our programs are based on the new scientific findings.

The Harvard study reports that solar projects within these three counties have “become an increasing threat to farmland and forests.” In the study, aerial photos of current land cover were compared to records of earlier land cover, allowing them to determine the types of land that were used to install PV systems. A 2018 aerial study of PV systems found that 37% were installed on previously forested land.

The scientists who conducted the Harvard study recommend that municipalities create master plans, including maps of their land cover. The maps could be used to determine the amount of prime agricultural soil, state-designated wildlife habitat, and potential drinking water supply areas affected by the conversion of undeveloped land to photovoltaic systems.

In western Massachusetts we are keenly aware of the value of ecosystem services provided by forests and their essential role in protecting biodiversity. Many of us are advocating for the passage of H.897, a bill to protect all public lands in the state, including prohibiting logging. “Harvard University Research Professor Emeritus, Dr. Edward O. Wilson — one of the world’s

most prominent biologists— wrote in a February 19, 2019 letter that he backs this legislation because of his concerns about biodiversity. He wrote:

“Many decades of research have convinced me and many other conservation scientists that we must save at least half of the Earth from industrial exploitation if we hope to avoid catastrophic plant and animal extinctions. A bill introduced into this Massachusetts legislative session, [H. 897], would make us the first state to give this protection to all of its public lands. I strongly support this bill, which would permanently protect 13 percent of the Massachusetts land area, reaching from the Berkshires to the Atlantic Coast.

THIS IS THE SINGLE MOST IMPORTANT ACTION THE PEOPLE OF THE STATE CAN TAKE TO PRESERVE OUR NATURAL HERITAGE.

As it has many times in the past, Massachusetts can provide leadership on this issue, inspiring other states across the country to take similar bold action.” Dr. E.O. Wilson,
www.savemassforests.com

Based on the climate science, and the growing need for solar power in western MA, we urge the DOER to include the following conditions in the SMART Program:

- **Improve the financial incentives for small projects.** Rural municipalities are adopting net-zero stretch energy codes, planning to install solar panels on homes and municipal buildings, and collaborate on community solar installations – all small to mid-size operations.

“The current incentive program makes it more profitable for large installations. “This has had a devastating effect on our local solar companies, many of whom focus on smaller or mid-range projects, because the SMART program’s capacity for incentives is quickly taken up by the larger projects. In fact, the solar industry in MA has shed thousands of jobs in the last few years because of this. The updated regs attempt to address this, but fall shy of making any significant change to the status quo.” Representative Lindsay Sabadosa, “Fresh energy helping power climate agenda,” *Hampshire Gazette*, 9/20/19.

- **Provide incentives to ensure that the vast majority of solar installations are built on developed land:** rooftops, brownfields, parking lots, shopping malls.
- **A maximum of one acre of forest land may be cleared for solar installation.** Projects like the one in Shutesbury that deforested 33 acres must be prohibited.
- **Energy companies may NEVER over-ride municipal restrictions on land use changes for new energy installation.** The desire expressed by a director of Bright Lite Energy LLC, who told a reporter of the *Hampshire Gazette*, 9/23/19, that he “would like to see restrictions that some communities have imposed lifted on cutting down woodlands for solar installations,” must never be permitted.

- **Immediate ban on new biomass plants, including the Palmer Plant in Springfield. Science drives this decision.**

Next, I want to comment on the transition to 100% renewable energy in Massachusetts, at least by 2035. The League of Women Voters, those of us in western MA, and across the state, are excited by a vision of building a booming green energy economy in Massachusetts. We are working with our legislators, municipal leaders, students, and academic experts to define the changes needed to reach our goal. Here are some ideas that we have generated:

- Develop a 10-year road map, with built in times to assess progress in reaching emissions reduction targets, and the ability to make adjustments based on technological advances and lower prices.
The SMART Program should operate in 2-year cycles, giving it the ability to adjust to new technology and demand.
- **Absent any action in Washington, Massachusetts will lead the country in the race for global dominance in developing and manufacturing green technology: other states will follow. America will take the leadership from China.**
The Chinese government is spending \$ billions on R&D of green technology. They dominate global production and exportation of solar and wind infrastructure. Massachusetts should make massive investments in R&D of green technology, including battery storage and infrastructure for improving the electric grid.
- Massachusetts must develop sufficient incentives to attract companies that build green infrastructure. Let's bring a company that manufactures solar panels to a western MA city, like Pittsfield or Greenfield. **All solar panels installed in MA must be made in the U.S. Chinese solar panels are prohibited – This requirement should be written in the SMART Program.**
- **All solar and wind installation will be done by American companies. This requirement should be written in the SMART Program. We do not want foreign solar companies taking green jobs away from Massachusetts workers.**
- The 10-year plan will dictate when, where, and how quickly electric utilities modernize the grid, with adequate battery storage, and assimilate rapidly increasing amounts of renewable energy. The state must provide the necessary funds. We cannot afford not to adequately fund these projects.
- **Include the public in the decision making, at the local and state level.** We, the public, would like to participate as members of an advisory board, or some other group to provide input to the DOER. Include students. They want to participate in making change – big, systemic change. We would welcome fact sheets for the general public that describe the SMART program and other programs of the DOER.

The move to a carbon-free energy economy may stimulate huge economic growth in Massachusetts. Reaching our goal will be extremely difficult, challenging, and rewarding, if we

take the right actions. Our passionate student activists won't let us forget, for a minute, that we have no other options.

Thank you for reading and considering our comments.

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