



Testimony before the Joint Standing Committee on Agriculture, Conservation and Forestry  
By Chelsea Gazillo, American Farmland Trust, New England Policy Manager

April 10, 2023

Dear Senator Ingwersen, Representative Pluecker, and members of the Joint Standing Committee on Agriculture, Conservation, and Forestry:

I appreciate this opportunity to testify in **support of LD 1227 - An Act to Balance Renewable Energy Development with Natural and Working Lands Conservation.**

My name is Chelsea Gazillo, and I am American Farmland Trust's New England Policy Manager. American Farmland Trust (AFT) is the only national conservation organization dedicated to protecting farmland, promoting sound farming practices, and keeping farmers on the land. AFT is a national leader in promoting Smart Solar Siting on farmland to support clean energy capacity while protecting our most viable agricultural lands from development pressures. AFT has a long history of working in Maine, stemming back to our role in supporting the first farmland protection projects undertaken through the Land for Maine's Future program. Building off our New England Smart Solar initiative, AFT participated in the Agricultural Solar Stakeholder Group convened in 2021 by the Governor's Energy Office (GEO) and the Department of Agricultural, Conservation, and Forestry (DACF).<sup>1</sup>

AFT supports LD 1227 as it advances critical recommendations of the Agricultural Solar Stakeholder Group, including planning the creation of the dual-use pilot program, creating a centralized database of energy projects and their key characteristics, and increasing participation of agricultural stakeholders in solar energy working groups. These are all essential steps toward a more balanced and transparent solar energy future in Maine. We also support amendments to LD 1227 that were put forth by the bill's lead sponsor, Representative Pluecker.

As Maine moves to capture the environmental, economic, and energy benefits of clean and renewable energy, we must also minimize impacts on Maine's agriculture by protecting production on the state's best farmland. Well-sited and thoughtfully designed dual-use solar energy installations provide an opportunity to simultaneously protect farmland, advance clean energy generation, and support farmers through income diversification.

In the summer of 2022, AFT released "Farms Under Threat 2040," which estimates that between 2016-2040, 6.2 million acres in the US will be converted to urban and highly developed land uses such as commercial buildings, industrial sites, and moderate-to-high-density residential development. The remainder, 12.2 million acres, will be converted to low-density residential areas, which range from large-lot subdivisions to rural areas with a proliferation of scattered houses. Furthermore, according to AFT's "Farms Under Threat 2020" report, it is estimated that from 2001-2016, Maine lost roughly

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<sup>1</sup> <https://farmland.org/project/smart-solar-for-new-england/>

17,700 acres of land to urban development or highly developed land use and low-density residential land use<sup>2</sup>. According to "AFT's Farms Under Threat 2040" report, if recent trends continue, 53,4000 acres of Maine's farmland will be paved over, fragmented, or converted to uses that jeopardize agriculture. This is equivalent to 5% of the state's farmland, which is enough to generate \$32 million in annual revenue."<sup>3</sup> In short, Maine cannot afford to lose anymore farmland to development.

AFT recognizes that deployment of solar energy is essential to meeting Maine's renewable energy requirements (100% renewable energy grid by 2050) as well as to national and global goals for mitigating climate change. A rapid expansion of solar in all its forms and scales is needed – solar installed for on-farm energy, on most residential and commercial rooftops, parking lot canopies, as well as on landfills, brownfields, and highway corridors. In addition, a substantial area of land will still be needed for utility scale solar and community solar in Maine. Solar development in Maine is accelerating and the Solar Energy Industries Association projects that Maine will double its installed solar capacity (1,196 MW)<sup>4</sup> over the next five years. By implementing recommendations from the Governor's Agricultural Solar Stakeholder Group, Maine can be a regional leader in advancing agriculturally compatible solar (agrivoltaics) and Smart Solar strategies that protect farms and farmland needed for local food production.

AFT supports the amendment that encourages a more substantial allocation of generating capacity - at least 60 MW for a dual-use pilot program. Building on lessons learned with the dual-use solar program in Massachusetts and other states such as New Jersey and New York, passing LD 1227 and creating an agrivoltaic pilot program and incubator initiatives will put Maine at the forefront of clean energy innovations that directly support the state's farmers.

A robust dual-use pilot program provides the opportunity to research production systems and project designs most compatible with Maine's agricultural landscape and economy. Dual-use solar installations have been reported to improve important soil metrics on site, including:

- Increased moisture retention in soil and plants in times of high heat and low precipitation;
- Increased in pasture grass biomass under arrays during summer months compared to areas in full sun;
- Reduced heat stress in livestock by providing added shade in summer and;
- Increased yields for some vegetables under dual-use arrays (including potatoes, celery, kale, and others)

While dual-use solar installation and crop production compatibility is often cited as a cause for concern, a dual-use pilot program that collects and evaluates Maine-specific crop, soil, and climate impact data is key to addressing such concerns.

Since 2013 farmers have been facing nearly a 50% drop in net farm income and continue to struggle to meet increases in farm production expenses. This economic crisis has seriously impacted farm viability and farmers' well-being, thus threatening farmland security. As climate impacts ravage growing seasons, and with the recent devastating discovery of PFAS contaminating our regions' soils, the livelihood of Maine's farmers has never been at greater risk. Dual-use solar installations can diversify income and improve income stability, leading to increased viability, security, and farmland

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<sup>2</sup> [https://storage.googleapis.com/csp-fut.appspot.com/reports/spatial/Maine\\_spatial.pdf](https://storage.googleapis.com/csp-fut.appspot.com/reports/spatial/Maine_spatial.pdf)

<sup>3</sup> <https://farmlandinfo.org/publications/farms-under-threat-2040/>

<sup>4</sup> <https://www.seia.org/>

protection. Agricultural stakeholders must be represented in solar policy and program development conversations, including participating in the GEO's distributed generation working group.

AFT is confident that this piece of legislation will provide mechanisms that support the State of Maine's renewable energy goals, increase agricultural representation during solar policy conversations, and improve solar energy project data transparency to better understand the potential impact that solar energy has on Maine's farmland and Maine's family farms.

Thank you for the opportunity to submit testimony. Please feel free to contact me at [cgazillo@farmland.org](mailto:cgazillo@farmland.org) or my colleagues at American Farmland Trust if you have any questions about this testimony on LD 1227.

With sincerity,



Chelsea Gazillo  
New England Policy Manager  
American Farmland Trust

*American Farmland Trust is an agricultural non-profit organization with a mission to save the land that sustains us by protecting farmland, promoting sound farming practices, and keeping farmers on the land. AFT is the only national agricultural organization that approaches its work in this comprehensive, holistic manner. We recognize the connection between the land, forward-looking farming practices, and the farmers who do the work.*