

Fall Special Town Meeting 2020-2
Article 13, Solar Energy Systems
10.02.2020

Summary

The Solar Energy System Bylaw has significantly evolved from its introduction in November of 2019 to its present state. Article 13, Solar Energy Systems, aims to remove all solar installations barriers while increasing sustainable practice recognition. In a 2018 presentation to the Town, it was estimated that residential homes produce 55 percent of Lexington's emissions, while commercial both labs/office buildings account for 34 percent of Lexington's emissions.¹ By reducing such emission for both residential and commercial sectors, Lexington can move towards Net Zero Emissions. Although solar is only one option that will help Lexington achieve its goal, it is an easy installation over existing impervious surfaces that often sit idle.

State Regulation

According to Massachusetts General Law (M.G.L.) c. 40a, §3, regarding solar installations

No zoning ordinance or by-law shall prohibit or unreasonably regulate the installation of solar energy systems or the building of structures that facilitate the collection of solar energy, except where necessary to protect the public health, safety, or welfare.

Existing Barriers

- Ground Mounted Solar Energy installations are only permitted in the GC, CRO, and CM Zoning Districts
- Limitations on lot coverage area for solar/impervious surfaces

Why this change

- Compliance with State Law, previously noted
- Provide options to meet Lexington's Zero Net Energy goals and Historic District Commission (HDC) Alternative Energy Guidelines

Highlights

- Allow the use of existing impervious surfaces, such as parking lots, rooftops, parking garages, etc. for power generation.
- The new §135-6.10, Solar Energy Systems, will increase Lexington's support for sustainable energy options while providing a clear permitting path.
- Removal of barriers that limited solar installations (for example, lot coverage in some places is limited to 25%)
- Review and adoption by the Planning Board of draft Solar Energy System Regulations (that include Design Standards, and specific Requirements for Large-scale Solar Energy Systems (Utility notification, Maintenance of system, Emergency services, Closure Plans, Financial Security)).
- Amend the Table of Use to allow the four types of Solar Energy Systems in all zoning districts. Solar Energy Systems require a building permit in all districts for physical and electrical safety.

¹ Reference: Getting to Net Zero Emissions Roadmap and Recommendations, presented by Integral Group, Sustainable Performance Institute, and Net Zero Lexington, dated May 10, 2018

Ground-mounted Solar Energy Systems will require Site Plan Review by the Planning Office or Planning Board.

Types of Solar Energy System

<i>Type</i>	<i>Definition</i>
<i>Building Mounted²</i>	A Solar Energy System that is designed to be securely mounted on a building
<i>Canopy³</i>	A Solar Energy System structure that is built to cover a parking lot or other open-air use that is not a Building-mounted Solar Energy System
<i>Large Scale⁴</i>	A Solar Energy System is not a Building-mounted Solar Energy System, Canopy Solar Energy System, or Small-scale Solar Energy System
<i>Small Scale⁵</i>	A Solar Energy System that is not a Building-mounted Solar Energy System or Canopy Solar Energy System where the total lot area covered by all solar energy systems on the lot is less than or equal to 1500 square feet



² Photo Reference: Bushong, Steven. REC Solar. Solar Power World. Retrieved on October 2, 2020, captured from <https://www.solarpowerworldonline.com/2014/02/rec-solar-focus-exclusively-commercial-market/>

³ Photo Source: UMass Amherst, Sustainable UMass. Solar Energy. Retrieved on October 2, 2020, captured from <https://www.umass.edu/sustainability/climate-change-energy/solar>

⁴ Photo Reference: Syliva, Tim. PV Magazine. Retrieved on October 2, 2020, captured from <https://pv-magazine-usa.com/2019/02/08/is-large-scale-solar-feasible-in-the-northeast/>

⁵ Photo Source: Solar Washington. Solar Photovoltaics (PV). Retrieved on October 2, 2020, captured from https://www.solarwa.org/solar_pv

