

Small and Medium-Scale Ground Mounted Solar Arrays

Warrant Committee Open Hearing
March 18, 2024

Definitions

- Ground-Mounted Solar Arrays (GMSA) are mounted on the ground directly or on a pole; they are not on a building roof
- GMSAs are considered structures and accessory use per Zoning bylaws so they must comply with our setbacks and height restrictions
- Three recognized categories:

Size of Solar Array	Maximum Rated Nameplate Capacity	Approximate Square Feet
Small-scale	<10KW DC	<1,750
Medium-scale	>10KW DC-250KW DC	1,751-40,000
Large-scale	>250KW DC	>40,000

Why do we need a Small and Medium-Scale Solar Bylaw?

- Zoning Bylaw Ch. 146.3 Large-Scale Ground-Mounted Array approved at the 2016 Town meeting:
 - Installation of a commercial array by the Transfer Station in an overlay district
 - Includes specific Site Plan Review criteria
- Recent application for an array just slightly smaller than large-scale indicated need for definitions and review criteria for smaller systems

Enhanced Site Plan Review Criteria

- Purpose is to establish standards for permitting, design, operation and modifications while protecting public safety, natural resources, wildlife corridors, and residential property and neighborhoods
- Public Safety:
 - Fire safety requires access to array and other electrical components
 - Fences, signage
- Abutters/Neighborhood
 - Placement: glare, shadows, noise
 - Screening to minimize visual impacts
- Natural Resources
 - Wildlife corridors
 - Stormwater Management: runoff and lot disturbance

Proposed Bylaw composition

Ch. 185-10 Table of Use Amended

- Small and Medium-Scale GMSAs allowed in all zoning districts (R, R-1, R-2, O, B, M, M-P, R-M) with Site Plan Review except Conservancy (C)
- Ch. 184.46.4 (new) will define small and medium GMSAs and establish a review process through regulations that support the bylaw
- Other than limiting arrays in the Conservancy District, THIS BYLAW WILL NOT IN ANY WAY PROHIBIT INSTALLATION. 2
 - It will clarify review criteria and application requirements for the applicant.
 - It will provide a more comprehensive Site Plan Review that addresses the unique aspects of a GMSA installation



Voting Implications

Passes by 2/3	Fails to pass by 2/3
Installation of small and medium arrays will be prohibited in the Conservancy District	Small and medium arrays will be allowed throughout Dover
Allows for additional Site Plan Review Regulations that address specific solar array installation Best Management Practices	Standard Site Plan Review criteria will be used which limits a comprehensive approach