

To see if the Town will vote to amend the Zoning Bylaw to reduce restrictions on Solar Energy Systems, or act in any other manner in relation thereto.

(Inserted at the request of the Planning Board)

DESCRIPTION:

This article would encourage construction of Solar Energy Systems by providing guidance and establishing standards for permitting, placement, design, construction, operation, monitoring, modification and removal of such installations; while protecting public safety, protecting against undesirable impacts on residential property and neighborhoods, protecting scenic, natural and historic resources and protecting or providing for wildlife corridors.

PROPOSED MOTION:

That the Zoning Bylaw of the Town of Lexington be amended as follows, where ~~struck through~~ text is to be removed and underlined text is to be added:

To see if Lexington Annual Town Meeting will vote to amend the Lexington Zoning Bylaw by amending § 135-3.2.2 Structures on a Building; by adding a new § 135-4.3.1.3; amending the definitions of Site Coverage and Yard in § 135-10; adding new definitions to § 135-10.1 relative to Solar Energy Systems; amend row § 135-O.1.10, in addition to adding three new rows to Table 1; and adding a new § 6.10 as presented within ____.

A. Amend § 135-3.2.2 so that it reads:

3.2.2 Limit on Size of Accessory Uses. An accessory use may not occupy more than 25% of the area of a lot or more than 25% of the gross floor area on a lot. This limitation does not apply to off-street parking, solar energy systems, or to accessory apartments.

B. Add a new § 135-4.3.1.3 as follows:

3. A solar energy system may be located over any paved parking lot.

C. Amend § 135-4.3.2 so that it reads:

4.3.2 Structures on a Building. Structures erected on a building and not used for human occupancy may exceed the maximum height of a building in feet provided no part of the structure is more than 20 feet higher than the upper elevation of the building and the total horizontal coverage of such structures other than solar energy systems on the building does not exceed 25%.

D. In § 135-10.1, amend the definition of SITE COVERAGE so that it reads:

The sum of all parts of a lot that are covered by a principal or accessory building or other structure, other than a solar energy system, such parts of the lot to be delineated by the intersection of the ground with the vertical plane of the outermost walls or projections of a building or structure whether in contact with the ground or projecting over it.

E. In § 135-10.1, amend the definition of YARD so that it reads:

An open space on a lot unoccupied by a building or structure or such parts thereof as covered or uncovered porches, steps, cornices, eaves and other projections; provided however that fences, gates or security stations, yard accessories, ornaments and furniture, solar energy systems, and customary summer awnings are permitted in any yard but shall be subject to height limitations. Yard depth shall be measured from the street or lot line, and not from the middle of any public or private way whether owned pursuant to the derelict fee statute or otherwise, to the nearest point on a building in a line perpendicular or normal to such lot or street line. The minimum required yard shall be a strip of land of uniform depth required by this bylaw measured from the lot or street line and adjacent thereto.

F. In § 135-10.1, add a definition of SOLAR ENERGY SYSTEM so that it reads:

Solar Energy System A device or structural design feature, a substantial purpose of which is to provide for the collection, storage, and distribution of solar energy for space heating or cooling, electrical generation, or water heating.

G. In § 135-10.1, add a definition of LARGE SCALE SOLAR ENERGY SYSTEM so that it reads:

Large scale Solar Energy System A Solar Energy System that is not a Solar Energy System Canopy, Building-mounted Solar Energy System, or Residential Ground-mounted mounted Solar Energy System.

H. In § 135-10.1, add a definition of SOLAR ENERGY SYSTEM CANOPY so that it reads:

Solar Energy System Canopy A Solar Energy System structure that is built to cover a parking lot or other open-air use.

- I. In § 135-10.1, add a definition of BUILDING-MOUNTED SOLAR ENERGY SYSTEM so that it reads:

Building-mounted Solar Energy System A Solar Energy System that is designed to be securely mounted on a roof of a building.

- J. In § 135-10.1, add a definition of RESIDENTIAL GROUND-MOUNTED SOLAR ENERGY SYSTEM so that it reads:

Residential Ground-mounted Solar Energy System A ground-mounted Solar Energy System on a residential lot with a capacity of less than or equal to twenty-five kilowatts (25 kW) of electricity, or equivalent, per dwelling unit.

- K. Amend row § 135-O.1.10, in addition to adding three new rows to Table 1, Permitted Uses and Development Standards, so that it reads:

		GC	RO	RS	RT	CN	CRS	CS	CB	CLO	CRO	CM	CSX
O.1.10	Large-scale Solar Energy System	Y	SP	SP	SP	SP	SP	SP	SP	SP	R	R	SP
O.1.11	Solar Energy System Canopy	Y	SP	SP	SP	R	R	R	R	R	R	R	R
O.1.12	Residential Ground-mounted Solar Energy System	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
O.1.13	Building-mounted Solar Energy System	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

- L. Add a new § 135-6.10 so that it reads:

6.10 Solar Energy Systems.

1. Purpose and Intent

As a Greener Community, Lexington promotes the installation and use of Solar Energy Systems within the community. The purpose of this Solar Energy System By-Law (“By-Law”), is to established standards for permitting, placement, design, construction, operation, monitoring, modification and removal of such installations; while protecting public safety, protecting against undesirable impacts on residential property and neighborhoods, protecting scenic, natural and historic resources and protecting and/or providing for wildlife corridors.

Lexington intends to ensure compliance with promote the creation of Solar Energy Systems in accordance with M.G.L. c.40A, §3 and the Green Communities Act, M.G.L. c.25A, §10, so that Solar Energy System installations do not diminish abutting property values, while meeting sustainability initiatives for a sustainable Lexington.

2. Applicability

1. The construction and operation of all Solar Energy Systems shall be consistent with all applicable Town regulations and by-laws, and state and federal requirements, including but not limited to all applicable safety, construction, electrical, and communications requirements. All buildings and fixtures forming part of a Solar Energy System shall be constructed in accordance with the State Building Code and approved by the Building Commissioner.
2. The construction and operation of all proposed Solar Energy Systems shall be consistent with all applicable local, state and federal requirements, including but not limited to all applicable safety, construction, electrical, communications and aviation requirements.
3. No Building-mounted Solar Energy System or Residential Ground-mounted Solar Energy System shall be erected, constructed, installed or modified without first obtaining a building permit.

3. Design Standards

1. The Planning Board may adopt regulations providing for design standards for Residential Ground-Mounted Solar Energy Systems, Large-scale Ground-mounted Solar Energy Systems, and Solar Energy System Canopies.
2. The Planning Board may adopt regulations providing for the maintenance and eventual removal of Large-scale Ground-mounted Solar Energy Systems, and securing the performance thereof.

and further that non-substantive changes to the numbering of this bylaw be permitted in order that it be in compliance with the numbering format of the Code of the Town of Lexington.

Section 176-11.0 Solar Energy System Regulations

11.1 Solar Energy System Design Requirements

Residential Ground-Mounted Solar Energy Systems, Large-scale Ground-mounted Solar Energy Systems, and Solar Energy System Canopies shall comply with the following design requirements.

1. The design, location, and screening shall minimize the impacts on surrounding properties, maintain safe accessibility, and limit storm water runoff.
2. The inclusion of on-equipment safety and security features shall be favored over fencing and other visible, perimeter safety and security measures.
3. The visual impact of any ground-mounted structure including all accessory structures and appurtenances shall be mitigated. All accessory structures and appurtenances shall be architecturally compatible with each other. Structures shall be shielded from view and/or joined and clustered to avoid adverse visual impacts as deemed necessary by and in the sole opinion of the reviewing authority. Methods such as the use of landscaping, natural features, and opaque fencing shall be utilized.
4. All utility connections from a ground mounted Solar Energy System shall be underground unless specifically permitted otherwise by the applicable permit granting authority. Electrical transformers, inverters, switchgear and metering equipment to enable utility interconnections may be above ground if required by the utility provider.
5. Land clearing, soil erosion and habitat clearing of natural vegetation and trees shall be limited to that which is necessary for the construction, operation, and maintenance of the ground-mounted Solar Energy System or otherwise prescribed by applicable laws, regulations, and by-laws.

11.2 Requirements for a Large-scale Solar Energy System

1. Utility Notification - No Large-scale Solar Energy System shall be constructed until evidence has been given to the Planning Board that the utility company that operates the electrical grid where the installation is to be located has been informed of the owner or operator's intent to install an interconnected customer-owned generator. Proof of a fully executed mutual agreement with the utility company shall be provided to the Planning Board. Off-grid systems shall be exempt from this requirement. If the Large-scale Solar Energy System goes on grid, it shall be required to immediately comply with this requirement, and proof of such compliance shall be provided to the Building Commissioner within seven (7) days.
2. Maintenance - The Large-scale Solar Energy System owner or operator shall maintain

the facility in good condition. Maintenance shall include, but not be limited to, painting, structural repairs, and integrity of security measures. Site access shall be maintained to a level acceptable to the Fire Chief, Police Chief, the Town Engineer, and Planning Board. The owner or operator shall be responsible for the cost of maintaining the solar photovoltaic installation and any access road(s), unless said access road(s) is/are accepted as a public way(s).

3. Emergency Services - The Large-scale Solar Energy System owner and/or operator shall provide a copy of the project summary, electrical schematic, and the approved site plan to the Fire Chief. The owner or operator shall provide an emergency response plan to the Building Department, the Planning Department, Fire Department, Police Department, and the Department of Public Works (DPW). The emergency response plan is subject to the review and approval of the Building Department, the Planning Department, Fire Department, Police Department, and the Department of Public Works (DPW), and shall include at a minimum, explicit instructions on all means of shutting down the Large-scale Solar Energy System, which shall be clearly marked. The owner or operator shall identify a responsible person for public inquiries throughout the life of the installation and immediately notify the aforementioned parties of any change to the responsible person and/or his/her contact information
4. Safety and Security - Safety and measures of security shall be subject to the approval of the Building Department, the Planning Department, Fire Department, Police Department and Department of Public Works. The owner or operator shall be required to provide emergency services with training on all equipment and procedures referenced in the emergency response plan or which might otherwise be necessary for emergency services to operate or perform.

The owner or operator shall be required to provide a Knox Box (a secure, tamper-proof storage box for keys or other access tools) at each locked entrance to the facility and maintain a complete set of all keys or devices required to gain emergency access to all areas, buildings and equipment of the facility in each Knox Box.

11.3 Closure Plans for a Large-scale Solar Energy System

1. Absent notice of a proposed date of decommissioning or written notice of extenuating circumstances, the Large-scale Solar Energy System shall be considered abandoned when it fails to operate for more than one (1) year without having obtained the Planning Board's written consent to so suspend operation. If the owner or operator of the Large-scale Solar Energy System fails to remove the installation in accordance with the requirements of this section within one-hundred and fifty (150) days of abandonment or the proposed date of decommissioning the Town may enter the property and physically remove the installation.
2. All appurtenant structures to Large-scale Solar Energy System shall be subject to Zoning Bylaw dimensional and density regulations, concerning the bulk and height of structures, lot area, setbacks, open space, parking and building coverage requirements. All such appurtenant structures, including but not limited to, equipment shelters, storage facilities, transformers, and substations, shall be architecturally compatible with each other. Whenever reasonable, structures should be shaded from

view by vegetation or other means and/or joined or clustered to avoid adverse visual impacts.

3. Any Large-scale Solar Energy System, which has reached the end of its useful life or has been abandoned, shall be removed. The owner or operator shall physically remove the installation no more than one-hundred and fifty (150) days after the date of abandonment or the proposed date of decommissioning. The owner or operator shall notify the Building Commissioner by certified mail of the proposed date of discontinued operations and plans for removal.
4. Decommissioning shall consist of:
 - i. Physical removal of all Large-scale Solar Energy System, structures, equipment, security barriers and transmission lines from the site.
 - ii. Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.
 - iii. Stabilization or re-vegetation of the site as necessary to minimize erosion. The Building Commissioner may allow the owner or operator to leave landscaping or designated below-grade foundations in order to minimize erosion and disruption to vegetation.

11.4 Large-scale Solar Energy System Financial Security

The owner or operator of a Large-scale Solar Energy System shall provide a non-cancellable surety bond or other form of surety approved by the Planning Board to cover the cost of removal in the event the Town must remove the installation and remediate the landscape. The amount and form of the surety bond or other form of surety shall be determined by the Planning Board, but in no event shall exceed more than one-hundred and twenty-five (125) percent of the cost of removal and compliance with the additional requirements set forth herein, as determined by the Planning Board. The applicant shall submit a fully inclusive estimate of the costs associated with removal, prepared by a qualified professional engineer, licensed in the Commonwealth of Massachusetts. The amount shall include a mechanism for calculating increased removal costs due to inflation.

Before the issuance of any building permits for the Large-scale Solar Energy System, such construction and installation shall be secured in accordance with this By-law and/or any regulations adopted pursuant to this By-law for this purpose.