

Town of Granby
PLANNING BOARD
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**TOWN OF GRANBY
PLANNING BOARD ZONING BYLAW AMENDMENT**

**REPORT & RECOMMENDATION
FOR ANNUAL TOWN MEETING
MAY 14, 2012**

Dear Town Meeting Members:

The Massachusetts General Laws, pursuant to Chapter 40A, Section 5 requires that the Planning Board prepare and submit to Town Meeting a report with recommendations regarding any proposed Zoning Bylaw or amendment thereto before any vote to adopt shall be taken by that body.

The following report of the Planning Board pertains to one (1) article on the Warrant for the May 14, 2012 Annual Town Meeting. The article, proposed by the Planning Board, involves four (4) amendments to the Zoning Bylaw.

Article 12, proposed by the Planning Board, amends in the Zoning Bylaw Section 1, subsection 1.2 Definitions by adding a definition for "Large-Scale Ground Mounted Solar Photovoltaic Installation (LSGMSPI)", "On Site Solar Photovoltaic Installation". "Rated Nameplate Capacity" and "Solar Photovoltaic Array", amends Section III Table 1: Schedule of Use Regulations by adding new Bylaw Number 3.088 regarding Large-Scale Ground Mounted Solar Photovoltaic Installation, amends Section V by adding new subsection 5.99 Large-Scale Ground Mounted Solar Photovoltaic Installation, and amending Section VI, subsections 6.33 Required Site Plan Content with reference to additional requirements for LSGMSPI. Details of this Article follow.

This Report is the result of public input at recent meetings of the Planning Board and the April 9, 2012 Public Hearing and reflects the Board's summary review and analysis of the proposed changes, and presents the proposed language to be incorporated into the Town's Zoning Bylaw if the proposed amendments pass.

Sincerely,
Charles Maheu, Chairman
Granby Planning Board

TOWN MEETING - MAY 14, 2012

PLANNING BOARD REPORT & RECOMMENDATION FOR ZONING BYLAW ARTICLE 12

REPORT: As part of the Town's efforts to qualify for Massachusetts eligibility for Green Communities certification the Town adopted, among other things, certain zoning bylaw provisions regarding renewable or alternative energy measures at the May 9, 2011 Annual Town Meeting. Now, in order to satisfy the Green Communities as-of-right zoning requirement, the Town's zoning must allow solar photovoltaic installations that utilize ground-mounted systems which individually have a rated name plate capacity of 250 kw(DC) or more. The approximate size of a solar photovoltaic array with a rated nameplate capacity of 250kw (DC) occupies approximately one (1) acre of land.

Regarding smaller installations (under 250 kw (DC) this zoning bylaw amendment for qualification as a Green Community is not intended to discourage construction of solar photovoltaic installations that are smaller than 250kw, but rather to ensure that in designated locations local regulatory barriers that may adversely affect large-scale ground-mounted projects are minimized.

The Planning Board conducted the required Public Hearing on April 9, 2012 at which there was no opposition expressed regarding this proposed zoning bylaw amendment as set forth below.

This Article 12 proposed to amend the Town of Granby's Zoning Bylaws as follows:

Amend Section 1.2 "Definitions" of the town zoning bylaws to include :

"Large-Scale Ground Mounted Solar Photovoltaic Installation (LSGMSPI) - A solar photovoltaic system that is structurally mounted on the ground and is not roof-mounted, and has a minimum nameplate capacity of 250kwDC".

"On Site Solar Photovoltaic Installation - A Solar Photovoltaic Installation that is constructed at a location where other uses of the underlying property occur".

"Rated Nameplate Capacity - The maximum rated output of electric power production of the photovoltaic system in Direct Current (DC)".

"Solar Photovoltaic Array - An arrangement of solar photovoltaic panels".

Amend Section III Table 1: Schedule of Use Regulations in the town zoning bylaws and insert a new Land Use Classification as follows:

BYLAW NUMBER	LAND USE CLASSIFICATION	STANDARDS & CONDITIONS	ZONING DISTRICTS									
			RS	RM	GB	GB-2	I	I-2	MD	FWD	WSP	AP
3.088	Large Scale Ground Mounted Solar Photovoltaic Installation (LSGMSPI)	Subject to Section 6.2 & 6.3 Special Permit Planning Board with Site Plan Approval (SP/PB-SPA) and Section 5.99 (LSGMSVI)	SP/PB-SPA	N	N	N	SPA	SPA	SPA	N	SP/PB SPA	SP/PB SPA

Amend Section V following Subsection 5.98.6 with a new Subsection 5.99 as follows:

5.99 Large-Scale Ground Mounted Solar Photovoltaic Installation

- 5.99.1 Purpose
 - 5.99.1.a Site Plan Review Authority
 - 5.99.1.b Zoning Enforcement Authority
- 5.99.2 Applicability
- 5.99.3 General Siting Standards
- 5.99.4 General Requirements for all Large -Scale Ground Mounted Solar Photovoltaic Installations
 - 5.99.4.a Compliance with Laws, Ordinances and Regulations
 - 5.99.4.b Building Permits and Building Inspections
 - 5.99.4.c Fees
- 5.99.5 Site Plan Review
 - 5.99.5.a General
 - 5.99.5.b Required Documents
- 5.99.6 Site Control
- 5.99.7 Operation & Maintenance Plan
- 5.99.8 Utility Notification
- 5.99.9 Design Standards
 - 5.99.9.a Lighting
 - 5.99.9.b Signage
 - 5.99.9.c Utility connections
 - 5.99.9.d Land Clearing, Soil Erosion and Habitat Impacts
 - 5.99.9.e Facility Access and Conditions
 - 5.99.9.f Appurtenant Structures
- 5.99.10 Safety and Environmental Standards
 - 5.99.10.a Emergency Services
- 5.99.11 Monitoring and Maintenance
 - 5.99.11.a Solar Photovoltaic Installation Conditions
- 5.99.12 Abandonment or Decommissioning
 - 5.99.12.a Removal Requirements
 - 5.99.12.b Abandonment
 - 5.99.12.c Financial Surety

Amend Section VI Administration and Enforcement, Subsection 6.3 Site Plan Approval, subsection 6.33 Required Site Plan Content as follows:

In the first paragraph following “simple circumstances” insert “and see also Section 5.99.5.b for additional requirements for LSGMSPI”.

All as set forth in the attached Report & Recommendation of the Planning Board dated April 23, 2012, which is incorporated herein and available at the Office of the Select Board, or take and other action relative thereto.

RECOMMENDATION: Following the Public Hearing on April 9, 2012 the Planning Board voted to recommend that Town Meeting approve this article.

ARTICLE 12 To see if the Town will vote to amend the Bylaws of the Town of Granby, Volume III, Chapter XXI Zoning Bylaws as follows:

Amend Section 1.2 “Definitions” of the town zoning bylaws to include :

“Large-Scale Ground Mounted Solar Photovoltaic Installation (LSGMSPI) - A solar photovoltaic system that is structurally mounted on the ground and is not roof-mounted, and has a minimum nameplate capacity of 250kWDC”.

“On Site Solar Photovoltaic Installation - A Solar Photovoltaic Installation that is constructed at a location where other uses of the underlying property occur”.

“Rated Nameplate Capacity - The maximum rated output of electric power production of the photovoltaic system in Direct Current (DC)”.

“Solar Photovoltaic Array - An arrangement of solar photovoltaic panels”.

Amend Section III Table 1: Schedule of Use Regulations in the town zoning bylaws and insert a new Land Use Classification as follows:

BYLAW NUMBER	LAND USE CLASSIFICATION	STANDARDS & CONDITIONS	ZONING DISTRICTS								
			RS	RM	GB	GB-2	I	I-2	MD	FWD	WSP
3.088 SP/PB SPA	Large Scale Ground	Subject to Section	SP/PB-SPA	N	N	N	SPA	SPA	SPA	N	SP/PB
	Mounted Solar	6.2 & 6.3 Special									SPA
	Photovoltaic Installation (LSGMSPI)	Permit Planning Board with Site Plan Approval (SP/PB-SPA) and Section 5.99 (LSGMSVI)									

Amend Section V following Subsection 5.98.6 with a new Subsection 5.99 as follows:

5.99 Large-Scale Ground Mounted Solar Photovoltaic Installation

- 5.99.1 Purpose
 - 5.99.1.a Site Plan Review Authority
 - 5.99.1.b Zoning Enforcement Authority
- 5.99.2 Applicability
- 5.99.3 General Siting Standards
- 5.99.4 General Requirements for all Large -Scale Ground Mounted Solar Photovoltaic Installations
 - 5.99.4.a Compliance with Laws, Ordinances and Regulations
 - 5.99.4.b Building Permits and Building Inspections
 - 5.99.4.c Fees
- 5.99.5 Site Plan Review
 - 5.99.5.a General
 - 5.99.5.b Required Documents
- 5.99.6 Site Control

- 5.99.7 Operation & Maintenance Plan
- 5.99.8 Utility Notification
- 5.99.9 Design Standards
 - 5.99.9.a Lighting
 - 5.99.9.b Signage
 - 5.99.9.c Utility connections
 - 5.99.9.d Land Clearing, Soil Erosion and Habitat Impacts
 - 5.99.9.e Facility Access and Conditions
 - 5.99.9.f Appurtenant Structures
- 5.99.10 Safety and Environmental Standards
 - 5.99.10.a Emergency Services
- 5.99.11 Monitoring and Maintenance
 - 5.99.11.a Solar Photovoltaic Installation Conditions
- 5.99.12 Abandonment or Decommissioning
 - 5.99.12.a Removal Requirements
 - 5.99.12.b Abandonment
 - 5.99.12.c Financial Surety

Amend Section VI Administration and Enforcement, Subsection 6.3 Site Plan Approval, subsection 6.33 Required Site Plan Content as follows:

In the first paragraph following “simple circumstances” insert “and see also Section 5.99.5.b for additional requirements for LSGMSPI”.

All as set forth in the attached Report and Recommendation of the Planning Board dated April 23 2012, which is incorporated herein and available at the Office of the Select Board, or take and other action relative thereto.

5.99 Large-Scale, Ground-Mounted Solar Photovoltaic Installations

5.99.1 Purpose

The purpose of this bylaw is to promote the creation of new large-scale ground-mounted solar photovoltaic installations by providing standards for the placement, design, construction, operation, monitoring, modification and removal of such installations that address public safety, minimize impacts on scenic, natural and historic resources and to provide adequate financial assurance for the eventual decommissioning of such installations.

The provisions set forth in this section shall apply to the construction, operation, and/or repair of large-scale ground-mounted solar photovoltaic installations.

5.99.1.a **Site Plan Review Authority:** For purposes of this bylaw, Site Plan Review Authority refers to the Granby Planning Board.

5.99.1.b **Zoning Enforcement Authority:** For the purposes of this bylaw, Zoning Enforcement Authority refers to the Granby Building Inspector.

5.99.2 Applicability

This section applies to large-scale ground-mounted solar photovoltaic installations proposed to be constructed after the effective date of this section. This section also pertains to physical modifications that materially alter the type, configuration, or size of these installations or related equipment, throughout the useful life of the system or where alterations may impact abutters.

5.99.3 General Siting Standards

3.a Lot Requirements

Large-Scale Ground-Mounted Solar Photovoltaic Installations shall be permitted on parcels larger than two (2) acres located within the Residential Single Family (RS), Industrial (I) & (I-2) and Municipal (MD) Zoning Districts.

3.b Setbacks

See Section III – Use Regulations-Table of Dimensional and Density Regulations.

3.c All appurtenant structures shall abide by setbacks as stated within Section III-Table of Dimensional and Density Regulations.

5.99.4 General Requirements for all Large Scale Solar Power Generation Installations

The following requirements are common to all solar photovoltaic installations to be sited in designated locations.

5.99.4.a Compliance with Laws, Ordinances and Regulations

The construction and operation of all large scale solar photovoltaic installations shall be consistent with all applicable local, 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 photovoltaic installation shall be constructed in accordance with the State Building Code.

5.99.4.b Building Permit and Building Inspection

No large scale photovoltaic installation shall be constructed, installed or modified as provided in this section without first obtaining a building permit.

5.99.4.c Fees

The application for a building permit for a large scale solar photovoltaic installation must be accompanied by the fee required for a building permit.

5.99.5 Site Plan Review

Ground-mounted large scale solar photovoltaic installations with 250 kW or larger of rated nameplate capacity shall undergo site plan review by the Site Plan Review Authority prior to construction, installation or modification as provided in this section.

5.99.5.a General

All plans and maps shall be prepared, stamped and signed by a Professional Engineer licensed to practice in Massachusetts.

5.99.5.b Required Documents

Pursuant to the site plan review process, the project proponent shall provide the following documents:

(1) A site plan showing:

- (i) Proposed lines and physical features, including roads, for the project site;
- (ii) Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, screening vegetation or structures;
- (iii) Blueprints or drawings of the solar photovoltaic installation signed by a Professional Engineer licensed to practice in the Commonwealth of Massachusetts showing the proposed layout of the system and any potential shading from nearby structures

- (iv) One or three line electrical diagram detailing the solar photovoltaic installation, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and overcurrent devices;
 - (v) Documentation of the major system components to be used, including the PV panels, mounting system, and inverter;
 - (vi) Name, address, and contact information for proposed system installer;
 - (vii) Name, address, phone number and signature of the project proponent, as well as all co-proponents or property owners, if any;
 - (viii) The name, contact information and signature of any agents representing the project proponents; and
- (2) Documentation of actual or prospective access and control of the project site (see also Section 3.99.6)
 - (3) An operation and maintenance plan (see also Section 3.99.7)
 - (4) Zoning district designation for the parcel(s) of land comprising the project site (submission of a copy of a zoning map with the parcel(s) identified is suitable for this purpose);
 - (5) Proof of liability insurance, and
 - (6) Description of financial surety that satisfies Section 5.99.12.c.
 - (7) Any portion of Section 5.99.5 may be waived if in the opinion of the Planning Board, the materials submitted are sufficient for the Planning Board to make a decision.
 - (8) All material modifications to a solar photovoltaic installation made after final approval shall require approval by the Planning Board.

5.99.6 Site Control

The project proponent shall submit documentation of actual or prospective access and control of the project site sufficient to allow for construction and operation of the proposed solar photovoltaic installation.

5.99.7 Operation & Maintenance Plan

The project proponent shall submit a plan for the operation and maintenance of the large-scale ground-mounted solar photovoltaic installation, which shall include measures for maintaining safe access to the installation, storm water controls, as well as general procedures for operational maintenance of the installation.

5.99.8 Utility Notification

No large-scale ground-mounted solar photovoltaic installation shall be constructed until evidence has been given to the Site Plan Review Authority that the utility company that operates the electrical grid where the installation is to be located has been informed of the

solar photovoltaic installation owner or operator's intent to install an interconnected customer-owned generator. Off-grid systems shall be exempt from this requirement.

5.99.9 Design Standards

5.99.9.a Lighting

Lighting of solar photovoltaic installations shall be consistent with local, state and federal law. Lighting of other parts of the installation, such as appurtenant structures, shall be limited to that required for safety and operational purposes, and shall be reasonably shielded from abutting properties. Where feasible, lighting of the solar photovoltaic installation shall be directed downward and shall incorporate full cut-off fixtures to reduce light pollution.

5.99.9.b Signage

Signs on large-scale ground-mounted solar photovoltaic installations shall comply with a municipality's sign bylaw. A sign consistent with a municipality's sign bylaw shall be required to identify the owner and provide a 24-hour emergency contact phone number.

Solar photovoltaic installation shall not be used for displaying any advertising except for reasonable identification of the manufacturer or operator of the solar photovoltaic installation.

5.99.9.c Utility Connections

Reasonable efforts, as determined by the Site Plan Review Authority, shall be made to place all utility connections from the solar photovoltaic installation underground, depending on appropriate soil conditions, shape, and topography of the site and any requirements of the utility provider. Electrical transformers for utility interconnections may be above ground if required by the utility provider.

5.99.9.d Land Clearing, Soil Erosion and Habitat Impacts

Clearing of natural vegetation shall be limited to what is necessary for the construction, operation and maintenance of the large-scale, ground-mounted solar photovoltaic installation or otherwise prescribed by applicable laws, regulations, and bylaws.

5.99.9.e Facility Access and Conditions

The large-scale, ground-mounted solar photovoltaic installation 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 local Fire Chief and Emergency Medical Services.

The owner or operator shall be responsible for the cost of maintaining the solar photovoltaic installation and any access road(s), unless accepted as a public way.

5.99.9.f Appurtenant Structures

All appurtenant structures to large-scale, ground-mounted solar photovoltaic installations shall be subject to reasonable 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 and/or joined or clustered to avoid adverse visual impacts.

5.99.10 Safety and Environmental Standards

5.99.10.a Emergency Services

The large scale solar photovoltaic installation owner or operator shall provide a copy of the project summary, electrical schematic, and site plan to the local fire chief. Upon request the owner or operator shall cooperates with local emergency services in developing an emergency response plan. All means of shutting down the solar photovoltaic installation shall be clearly marked. The owner or operator shall identify a responsible person for public inquires throughout the life of the installation.

5.99.11 Monitoring and Maintenance

5.99.11.a Solar Photovoltaic Installation Conditions

The large-scale ground-mounted solar photovoltaic installation 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 local Fire Chief and Emergency Medical Services. The owner or operator shall be responsible for the cost of maintaining the solar photovoltaic installation and any access road(s), unless accepted as a public way.

5.99.12 Abandonment or Decommissioning

5.99.12.a Removal Requirements

Any large-scale ground-mounted solar photovoltaic installation which has reached the end of its useful life or has been abandoned consistent with Section 3.12.2 of this bylaw shall be removed. The owner or operator shall physically remove the installation no more than 150 days after the date of discontinued operations. The owner or operator shall notify the Site Plan Review Authority by certified mail of the proposed date of discontinued operations and plans for removal. Decommissioning shall consist of:

- (1) Physical removal of all large-scale ground-mounted solar photovoltaic installations, structures, equipment, security barriers and transmission lines from the site.
- (2) Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.
- (3) Stabilization or re-vegetation of the site as necessary to minimize erosion. The Site Plan Review Authority may allow the owner or operator to leave landscaping or designated below-grade foundations in order to minimize erosion and disruption to vegetation.

5.99.12.b Abandonment

Absent notice of a proposed date of decommissioning or written notice of extenuating circumstances, the solar photovoltaic installation shall be considered abandoned when it fails to operate for more than one year without the written consent of the Site Plan Review Authority. If the owner or operator of the large-scale ground-mounted solar photovoltaic installation fails to remove the installation in accordance with the requirements of this section within 150 days of abandonment or the proposed date of decommissioning, the town may enter the property and physically remove the installation.

5.99.12.c Financial Surety

Proponents of large-scale ground-mounted solar photovoltaic projects shall provide a form of surety, either through escrow account, bond or otherwise, to cover the cost of removal in the event the town must remove the installation and remediate the landscape, in an amount and form determined to be reasonable by the Site Plan Review Authority, but in no event to exceed more than 125 percent of the cost of removal and compliance with the additional requirements set forth herein, as determined by the project proponent. Such surety will not be required for municipally- or state-owned facilities. The project proponent shall submit a fully inclusive estimate of the costs associated with removal, prepared by a qualified engineer. The amount shall include a mechanism for calculating increased removal costs due to inflation.