



City of Leominster

Office of the City Clerk

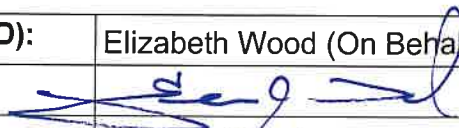
25 West Street, Room 5
Leominster, MA 01453
Tel (978) 534-7500 ext. 1175

LEOMINSTER CITY CLERK
2020 NOV 18 PM 8:18

**To the Honorable City Council:
The Undersigned Petition your Honorable Body to**

Amend the zoning ordinance pertaining to Solar.
See attached letter.



PETITIONER'S NAME (PRINTED):	Elizabeth Wood (On Behalf of Planning Board)
PETITIONER'S SIGNATURE:	
ADDRESS:	25 West Street
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John Souza, Chair

Carol Vittoriosio, Vice Chair

Elizabeth Wood, Director

Office of The Planning Board

City of Leominster, Massachusetts

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November 18, 2020

Katelyn Huffman
City Clerk
25 West Street
Leominster, MA 01453

RE: Amend Article III Table of Uses re: Solar Use and Article XV Section 22-104 Solar Ordinance

The Leominster Planning Board wishes petition to amend the Zoning Ordinance, specifically to amend Article III Table of Uses pertaining to Solar Use and Article XV Section 22-22-104.

The Board wishes to Amend Article II Table of Uses as follows:

Residential Uses	RR	RA	RB	RC	BA	BB	C	I	MU1	MU2	V
Onsite Roof Mounted Solar	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Onsite Solar System	SPPB	SPPB	SPPB	SPPB	SPPB	SPPB	SPPB	SPPB	SPPB	SPPB	SPPB
	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA	SPA
Offsite Solar System	SPPB	N	N	N	N	N	N	SPPB	N	N	N
	SPA							SPA			

The Board wish to amend Article XV Section 22-104 Solar Ordinance by deleting it in its entirety and inserting the following:

Highlighted sections need to be amended to reflect the appropriate sections referenced, once the language is agreed upon by the Council.

Section 22-104. Solar Ordinance

1. Purpose
 - a. Provide standards for the placement, design, construction, operation, monitoring, modification, and removal of solar facilities that address public safety and minimize impacts on scenic, natural and historic resources.
 - b. Provide adequate financial assurance for the eventual decommissioning of non-residential solar facilities.
2. Definitions

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- a. Solar Energy: Radiant energy received from the sun that can be collected in the form of heat or light by a solar collector.
 - b. Solar Energy System: A device or structural design feature, a substantial purpose of which is to provide daylight for interior lighting or provide for the collection, storage and distribution of solar energy for space heating or cooling, electricity generation, or water heating.
 - c. Solar Energy System, Roof-Mounted: An Active Solar Energy System that is structurally mounted to the roof of a building or structure; may be of any size (small-, medium- or large-scale).
 - d. Solar Energy System, Ground-Mounted (residential or non-residential): An Active Solar Energy System that is structurally mounted to the ground and is not roof-mounted.
 - e. Solar Energy System for Onsite Use: Solar energy generated to be consumed primarily at the location where it is generated and not primarily sold for profit.
 - f. Solar Energy System for Offsite Use: Solar energy generated to be primarily sold for profit and not primarily consumed at the location where it is generated.
 - g. Rated Nameplate Capacity: The maximum rated output of electric power production of the photovoltaic system in watts of Direct Current (DC).
3. Applicability
- a. This ordinance applies to all ground-mounted and roof-mounted solar energy systems and to physical modifications that materially alter the type, configuration, or size of these facilities or related equipment.
 - b. Ground-mounted solar energy facilities on municipal and school district properties are permitted in all districts upon site plan approval from the Planning Board.
 - c. All other ground-mounted solar energy systems are allowed by Site Plan Approval and Special Permit from the Planning Board, per the use chart.
 - d. All roof mounted solar energy systems are permissible with a building permit.
4. General Requirements for residential and non-residential solar systems
- a. Compliance with Laws, Ordinances and Regulations – The construction and operation of all such proposed solar energy systems must be consistent with all applicable local, state, and federal requirements, including but not limited to all applicable safety, construction, environmental, electrical, communications, and aviation requirements. All buildings and fixtures forming part of a solar energy system shall be constructed in accordance with the State Building Code.
 - b. Building Permit and Building Inspection – No solar energy system may be erected, constructed, installed, or modified as provided in this Article without first obtaining a building permit.
 - c. Site Plan Approval – Except where allowed by right or otherwise excluded by this ordinance based on the system size, no ground-mounted solar energy system may be erected, constructed, installed, or modified as provided in this Article without first undergoing site plan approval by the Planning Board.
 - i. General – Onsite Ground-mounted Solar Systems on residentially zoned properties require a plot plan designed by the solar system installer or other similarly qualified individual. All other ground-mount solar systems require plans stamped by PE. All plans and maps must be prepared, stamped, and signed by a professional engineer licensed to practice in Massachusetts.
 - ii. Required Documents – Pursuant to the site plan approval process, the project proponent shall provide the following documents.
 1. Site plan meeting specific and other guidelines in Article XI
 - a. Property lines and physical dimensions of the site parcel and adjacent parcels within three hundred (300) feet of the site parcel;
 - b. Outline of all existing buildings, including purpose (e.g., residence, garage, etc.) on site parcel and all adjacent parcels within one-hundred feet (100') of the site parcel, including distances from the solar energy system to each building shown;

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- c. Location of the proposed solar panel arrays, foundations, guy anchors, access roads, and associated equipment;
 - d. Location of all existing and proposed roads, both public and private, and including temporary roads or driveways, on the site parcel and adjacent parcels within one-hundred feet (100') of the site parcel;
 - e. Any existing overhead utility lines;
 - f. Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting (other than FAA lights), screening vegetation or structures;
 - g. One (1) or three (3) line electrical diagram detailing solar panel arrays, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and overcurrent devices;
 - h. Documentation of the solar energy system's manufacturer and model
 - i. Name, address, phone number and signature of the applicant as well as all co-applicants or property owners, if any;
 - j. The name, contact information and signature of any agents representing the applicant
 - k. Proof of liability insurance
- d. Utility Notification – No solar energy system may be installed until evidence has been given that the utility company that operates the electrical grid where the facility is to be located has accepted the customer's intent to install an interconnected customer-owned system. Off-grid systems are exempt from this requirement.
- e. General Design Standards
- i. Glare – Solar energy systems and Solar Panels shall be placed and arranged such that reflected solar radiation or glare shall not be directed onto adjacent buildings, properties or roadways
 - ii. Lighting – Lighting shall be limited to that required for safety and operational purposes, and shall not be intrusive in any way on abutting properties. Lighting shall incorporate full cut-off fixtures to reduce light pollution.
 - iii. Signage – A solar energy system shall not be used to display advertising, including signage, streamers, pennants, spinners, reflectors, ribbons, tinsel, balloons, flags, banners, or similar materials, with the exception of the following:
 - 1. Necessary equipment information, warnings, or indication of ownership shall be allowed on any equipment of the solar energy system or where required by the Building Code
 - iv. Utility Connection – Reasonable efforts, as determined by the Planning Board, shall be made to place all utility connections from the solar energy system 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.
 - v. Structures and Appurtenances – All solar energy systems and appurtenant structures to solar energy systems are subject to regulations of this Ordinance 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, must be architecturally compatible with each other whenever technically and economically feasible. Whenever reasonable, structures should be shaded from view by vegetation and/or located in an underground vault and joined or clustered to avoid adverse visual impacts. For the purposes of this ordinance, ground-mounted solar systems are subject to these requirements.
 - vi. Access driveway – Driveway width will be a minimum for 20 feet, where applicable, to accommodate emergency vehicles. Access driveway shall consist of a minimum 12" depth of compacted gravel Massachusetts Highway Department Specifications M1.03.0, Type B. If the access road is longer than 150 feet, provisions for apparatus to turn around will be provided. There shall be no parking allowed along the sides of the access driveway.

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- f. Inclusionary Uses – Small accessory or ornamental solar products which do not generate electricity for use in a dwelling or structures are exempt from the provisions of this ordinance.
 - g. General Construction Standards
 - i. Construction shall be limited to between the hours of 7 AM and 6 PM
 - ii. All construction activities will be conducted in conformance with the Environmental Performance Standards outlined in Section 22-41 of the Leominster Zoning Ordinance, particularly sections 41.1 (Emissions), 41.2 (Erosion Control), 41.7 (Noise) and 41.8 (Runoff).
 - iii. There shall be no parking of vehicles allowed along the sides of the access driveway during the construction of the solar facility.
 - h. Safety & Environmental Standards
 - i. Unauthorized Access – Solar energy systems must be designed to prevent unauthorized access. Fencing must be wood with a height of eight feet. Pressure-treated posts must be used. Electrical equipment must be locked where possible.
 - ii. Land-clearing, Soil Erosion and Habitat Impacts – **Solar panels may be installed on no more than 60% of the project site.** Large-scale clearing of forested areas for the purpose of constructing a solar energy system is limited to that which is necessary for the construction, operation and maintenance of the energy facility or otherwise prescribed by applicable laws, regulations and ordinances.
 - iii. No System shall be used or constructed such that it becomes a private or public nuisance or hazard, and no System shall be abandoned or not maintained in good order and repair. Any System that is deemed a private or public nuisance or hazard or otherwise abandoned or not maintained in good order and repair shall be removed from the property at the property owner’s sole expense.
 - iv. Visual Impact – A system installation shall limit the visual and other impacts on the adjacent properties. The solar energy system shall be screened from ground and water level view of the line of sight from public ways or waterway and adjacent properties by appropriate year-round landscaping, fencing, screening, or other type of buffers consistent and compatible with the character of the neighborhood where the System is located. A Landscape plan will be submitted prior to construction.
 - i. Monitoring & Maintenance
 - i. Solar Energy System Conditions – The applicant shall maintain the solar energy system in good condition. Maintenance includes, but is not limited to, painting, structural repairs, and integrity of security measures. Site access must be maintained to a level acceptable to the Fire Chief and Emergency Medical Services. The project owner is responsible for the cost of maintaining the solar energy system and any access road(s), unless accepted as a public way.
 - ii. Modifications – All material modifications to a solar energy system made after the issuance of the required building permit require approval by the Planning Board.
5. Additional Requirements for non-residential Solar Systems
- 1. Documentation of actual or prospective access and control of the project site.
 - 2. A location map consisting of a copy of a portion of the most recent USGS Quadrangle Map, at a scale of 1:25,000, showing the proposed facility site, including solar array sites, and the area within at least two (2) miles from the facility. Zoning district designation for the subject parcel should be included (submission of a copy of a zoning map with the parcel identified is suitable for this purpose).
 - 3. A statement that evidences the solar energy system’s conformance with Subsection 22-41.7, listing existing ambient sound levels at the site and maximum projected sound levels from the solar energy systems; and
 - a. Site control – The applicant shall submit documentation of actual of prospective access and control of the project site sufficient to allow for installation and operation of the proposed solar energy system.

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Control includes the legal authority to prevent the use or construction of any structure for human habitation with the setback line.

- b. Operation & Maintenance Plan – The applicant shall submit a plan for maintenance of access roads and stormwater controls, as well as general procedures for operational maintenance of the solar energy system.
- iii. Ground-mounted Systems equal to or less than 900 s.f. or 1.5% of lot size, whichever is larger, may be installed by an Applicant via issuance of a building permit.
- iv. The maximum height above ground level of any portion of the system shall be 8 (eight) feet, measured as the vertical distance from the main natural grade on the street side(s) and, if not abutting a street, from the mean natural ground level along the system’s designated front yard, as said front yard is designated by the Planning Board.
- v. The solar energy system shall follow setback requirements as outlined in **Section 22-37** (Location of Accessory Structures).
 - c. Abandonment or Decommissioning
 - i. Removal requirements – Any solar energy system which has reached the end of its useful life or has been abandoned must be removed. The system owner or operator shall physically remove the system no more than one hundred fifty (150) days after the date of discontinued operations. The system owner or operator shall notify the Planning Board by certified mail of the proposed date of discontinued operations and plans for removal. Decommissioning consists of:
 - 1. Physical removal of all solar panel array 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 revegetation of the site as necessary to minimize erosion. The Planning Board may allow the owner or operator to leave landscaping or designated below-grade foundations in order to minimize erosion and disruption to vegetation.
 - ii. Abandonment – Absent notice of a proposed date of decommissioning or written note of extenuating circumstances, the solar energy system is abandoned when the facility fails to operate for more than one (1) year without the written consent of the Planning Board. If the system owner or operator fails to remove the system in accordance with the requirements of this section within one hundred fifty (150) days of abandonment or the proposed date of decommissioning, the City may enter the property and physically remove the system.
 - iii. Financial Surety – Applicants for offsite solar energy systems shall provide a form of surety, either through escrow account, bond or otherwise, to cover the cost of removal in the event the City must remove the system and remediate the landscape, in an amount and form determined to be reasonable by the Planning Board, but in no event exceed more than one hundred twenty-five (125) percent of the cost of removal and compliance with the additional requirements set forth herein, as determined by the applicant and agreed to by the Department of Public Works. Such surety will not be required for municipally or state-owned facilities. The applicant shall submit a fully inclusive estimate of the cost associated with removal, prepared by a qualified engineer. The amount must include a mechanism for calculating increased removal costs due to inflation.
 - d. Additional Safety and Environmental Standards for non-residential Solar Systems
 - iv. Emergency Services – The applicant shall provide a copy of the project summary, electrical schematic, and the site plan to the police and fire departments. **The application will provide Emergency Services a key to the gated entrance to provide 24 hours access to the facility.** Upon request the applicant shall cooperate with local emergency services in developing an emergency

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response plan. All means of disconnecting the solar energy system must be clearly marked. The applicant or facility owner shall identify a responsible person for public inquiries or complaints throughout the life of the project.

6. Standards for Roof-Mounted Systems

- a. Roof-mounted systems may be installed in applicable zoning districts by an Applicant requiring only that a building permit be issued and that the system conforms to the following conditions:
 - i. Within Residential Districts, roof-mounted Systems shall conform to existing roof contours, extending not more than 12 inches above the roof surfaces. Roof-mounted Systems shall be set back a minimum of 8 inches from all roof edges (eaves, gutter line, ridge) of the roof surface and 24 inches from adjacent roof or abutting roof or walls of adjoining property. All residential flat roof systems shall conform to requirements of **section 4.h.iii** (Large-scale clearing of forested areas is prohibited)
 - ii. Flat roof systems shall have a 4-ft setback from edge of building perimeter
 - iii. Within non-residential districts, roof-mounted solar panels may be installed at angles of up to 50 degrees from the horizontal on flat roofs (less than 2-in pitch per foot). The top most points of the solar panels shall not exceed a total height of 4 (four) feet above the roof surface. On a pitched roof system (roof pitch equal or greater than 2 (two) inches per foot), the top most point of the solar panel shall not exceed 2 (two) feet measured perpendicular to the roof surface. Systems shall be set back from building edge a minimum of 4 (four) feet. All these systems are considered to be building-mounted mechanical systems and shall meet all requirements thereof. All flat roof systems shall conform to requirements of **5.a.ii**, above.

The reason for this proposed amendment arose from the need the Board perceived to allow for a more simple, less costly process for residential properties to have solar Use. The Board feels their proposed draft achieves this.

In preparation of making this petition, I reached out to the Building Commissioner to get his thoughts on this proposal. His correspondence dated 10/28/2020 and 11/2/2020 is attached to this letter.

When the Council or Council Committee is scheduled to discuss this petition, I will be in attendance so that I can further clarify the request and be available to answer any questions. In the interim, please don't hesitate to reach out to me for more information.

Sincerely,



Elizabeth Wood, AICP
Planning & Development Director

Attachments: Email Dialogue between Planning & Development Director and Building Commissioner

Office of The Planning Board
City of Leominster, Massachusetts

cc: Mayor Dean Mazarella
John Souza, Planning Board Chair
Carol Vittorioso, Planning Board Vice Chair
Peter Niall, Building Commissioner
File

City of Leominster
Department of Inspections

Peter Niall
Building Commissioner



Gary Williams
Plumbing Inspector

William Charpentier
Building Inspector

October 28, 2020

To Whom It May Concern:

It is my opinion that the following Articles be rewritten as stated below. By updating these sections, it will help to clarify any misinterpretations or grey areas.

Article II Section 22-16.2:

“Home occupations are allowed as an accessory use by right in zoning districts where the use is allowed in the table of uses for that zone, and they meet the following criteria. Home offices are allowed as an accessory use by right in residential zoning districts, provided all of the following criteria are met.”

Article XVI Section 22-104.3.2:

“On site ground mounted solar energy systems are allowed by right in the RB, RC, BA, BB and C zones. Zones RA and I require Site Plan Approval and Zones RR, MU1 and MU2 require a Special Permit and Site Plan Approval from the Planning Board.”

If you have any further questions regarding these matters, please do not hesitate to contact this office.

Sincerely,

A handwritten signature in blue ink that reads "Peter Niall".

Peter Niall
Building Commissioner

PN/mfp

City of Leominster
Department of Inspections

Peter Niall
Building Commissioner



Gary Williams
Plumbing Inspector

William Charpentier
Building Inspector

November 2, 2020

To Whom It May Concern:

It is my opinion that when it comes to on site ground mount solar panels in residential zones that you should not ask for engineered plans that cost several thousand dollars for site plan approval, instead the plans could be drawn by the homeowner.

If you have any further questions regarding these matters, please do not hesitate to contact this office.

Sincerely,

A handwritten signature in blue ink that reads "Peter Niall".

Peter Niall
Building Commissioner

PN

