

**CITY OF BELFAST PLANNING BOARD
PUBLIC HEARING - WEDNESDAY, DECEMBER 4, 2019
6:00 PM UNIVERSITY OF MAINE HUTCHINSON CENTER
PROPOSED AMENDMENTS TO BELFAST CODE OF ORDINANCES
CHAPTER 102, ZONING
AMENDMENTS REGARDING SOLAR ENERGY SYSTEMS**

INTRODUCTION

The City of Belfast Planning Board is proposing amendments to the following Chapters in the City Code of Ordinances to establish standards to regulate the design, installation, operation, maintenance and abandonment of solar energy systems in the City:

- Chapter 66, General Provisions - Proposed establishment of new definitions regarding solar energy systems.
- Chapter 82, Shoreland - Amendments identify Shoreland Districts in which a solar energy system would be permitted and the Shoreland standards that would apply to said systems.
- Chapter 102, Zoning - Amendments identify Zoning Districts in which a solar energy system would be permitted and the standards that would apply to said systems.

The standards identified in Chapter 102, Zoning, Article VIII, Supplementary District Regulations, Division 9, Solar Energy Systems, are the primary standards that would apply to any solar energy system. The standards identified in Chapter 82, Shoreland, apply only to a solar energy system that is located in the Shoreland Zone; reference Official Shoreland Map for City of Belfast. The proposed standards would apply to all sizes of solar energy systems in Belfast; ranging from a system installed by a homeowner on the roof of their house to a commercial system that is 20 acres or greater in size.

CITY PROCESS TO REVIEW ORDINANCE AMENDMENTS

The Planning Board is conducting a public hearing on the proposed Ordinance amendments associated with Solar Energy Systems at its meeting of Wednesday, December 4, 2019 beginning at 6:00 pm at the University of Maine Hutchinson Center. The purpose of the hearing is to obtain comment from persons who may be affected by the proposed amendments. The Planning Board will be accepting comment in any of the following three ways:

- 1) Oral comment presented to the Board at the December 4 public hearing. Oral comment should be limited to 4 minutes.
- 2) Written comment. Written comment should be sent to City of Belfast, Code and Planning Department, 131 Church St, Belfast, Maine, 04915. Written comment should be submitted to the Department no later than 2:00 pm on December 4.
- 3) Email comment. Email comment should be submitted to wmarshall@cityofbelfast.org, and should be submitted no later than 2:00 pm on December 4.

The Planning Board, at the conclusion of the hearing, will review the Ordinance amendments and will decide how to proceed. The role of the Board is to offer a recommendation on the proposed amendments to the City Council. The Board does not have the authority to adopt the amendments and have such become part of City Ordinances.

If the Planning Board supports the proposed amendments, the City's current approach is to submit the amendments to the City Council at their meeting of Tuesday, December 17 for First Reading and public hearing. The Council is tentatively scheduled to conduct the Second Reading and public hearing of the amendments at its meeting of January 7, 2019. At the conclusion of the Second Reading and public hearing the Council has the authority to adopt, reject or revise the proposed amendments.

FORMAT OF ORDINANCE AMENDMENTS

All language proposed to be added to the Ordinance is shown in black underlined font. All language shown simply in black font is existing language in the Ordinance. Text **identified in Green Font** is additional information to the public to help explain a provision in the Ordinance. Text identified in **Green Font** is not part of the final Ordinance amendments that would be adopted by the City. The Ordinance amendment only identifies language for in Chapter 102, Zoning, that is proposed to be amended.

TEXT OF PROPOSED AMENDMENTS CHAPTER 102, ZONING

ARTICLE 1. In General

Sec 102-1. Definitions

The definitions and words and terms used in this Chapter shall be as set forth in Chapter 66, General Provisions, Section 66-1. Several Divisions in Article VIII, Supplementary District Regulations also identify specific definitions that are applicable to that Division, including the following: Division 5, Telecommunication Facilities, Section 102-1032, Division 7, Significant Groundwater Wells, Section 102-1076, ~~and~~ Division 8, Medical Marijuana Regulations, Section 102-1085, and Division 9, Solar Energy Systems, Section 102-1091, Definitions.

ARTICLE V. DISTRICT REGULATIONS

Note to Public: Reference the Official Zoning Map for the City of Belfast for the location of zoning districts identified in Article V, District Regulations.

DIVISION 2. General Purpose "A" District

Sec. 102.321. Permitted uses requiring Code Enforcement Officer review.

- (11) Solar Energy Systems, Small-Scale and Medium-Scale, ground-mounted and roof-mounted.
- (12) Solar Energy Systems, Large-Scale, roof-mounted.

Sec. 102-322. Permitted uses requiring Planning Board review.

Permitted uses requiring Planning Board review in the General Purpose "A" District are as follows:

(25) Solar Energy Systems, Large-Scale, ground-mounted.

DIVISION 3. General Purpose "B" District

Sec. 102.341. Permitted uses requiring Code Enforcement Officer review.

(11) Solar Energy Systems, Small-Scale and Medium-Scale, ground-mounted and roof-mounted.

(12) Solar Energy Systems, Large-Scale, roof-mounted.

Sec. 102-342. Permitted uses requiring Planning Board review.

Permitted uses requiring Planning Board review in the General Purpose "B" District are as follows:

(22) Solar Energy Systems, Large-Scale, ground-mounted.

DIVISION 4. Residential/Agricultural I District.

Sec. 102-361. Permitted uses requiring Code Enforcement Officer review.

(11) Solar Energy Systems, Small-Scale and Medium-Scale, ground-mounted and roof-mounted.

(12) Solar Energy Systems, Large-Scale, roof-mounted.

Sec. 102-362. Permitted uses requiring Planning Board review.

Permitted uses requiring Planning Board review in the Residential/Agricultural I District are as follows:

(22) Solar Energy Systems, Large-Scale, ground-mounted.

DIVISION 5. Residential/Agricultural II District.

Sec. 102-381. Permitted uses requiring Code Enforcement Officer review.

- (11) Solar Energy Systems, Small-Scale and Medium-Scale, ground-mounted and roof-mounted.
- (12) Solar Energy Systems, Large-Scale, roof-mounted.

Sec. 102-382. Permitted uses requiring Planning Board review.

Permitted uses requiring Planning Board review in the Residential/Agricultural II District are as follows:

- (22) Solar Energy Systems, Large-Scale, ground-mounted.

DIVISION 7. Residential II District.

Sec. 102-421. Permitted uses requiring Code Enforcement Officer review.

- (9) Solar Energy Systems, Small-Scale and Medium-Scale, ground-mounted and roof-mounted.
- (10) Solar Energy Systems, Large-Scale, roof-mounted. , however, the proposed system must be on property owned or controlled by the City or Regional School Unit 71.

Sec. 102-422. Permitted uses requiring Planning Board review.

- (13) Solar Energy Systems, Large-Scale, ground-mounted, provided that system is located on property owned or controlled by the City or Regional School Unit 71.

DIVISION 9. INSIDE THE BYPASS DISTRICTS

Sec. 102-461. Table of Uses

This Table of Uses applies to the following zoning districts: Residential 1, Residential 2, Residential 3, Downtown Commercial, Waterfront Mixed Use 1 and Waterfront Mixed Use 2.

Type of Use	Res - 1	Res - 2	Res - 3	Downtown	WMU-1	WMU-2
139) Solar Energy System, Small Scale, and Medium Scale, Roof Mounted	P - CEO	P - CEO	P- CEO	P- CEO	P - CEO	P - CEO
140) Solar Energy System, Large-Scale, Roof Mounted	NO	NO	NO	NO	NO	NO
141) Solar Energy System, Small Scale, Ground-Mounted	P-CEO	P-CEO	P-CEO	P-CEO	P-CEO	P-CEO
142) Solar Energy System, Medium Scale, Ground-Mounted, or Large Scale Roof-Mounted, however, the proposed system must be located on property owned or controlled by the City or RSU 71	P - PB	P-PB	P-PB	NO	NO	NO

DIVISION 12. OFFICE PARK DISTRICT

(Note to Reader: The following uses will be added to the Official Table of Uses for the Office Park District.

Section 542. Table of Uses.

Type of Use	Allowed Uses
<u>139) Solar Energy System, Small-Scale and Medium Scale Roof-Mounted</u>	<u>P-CEO</u>
<u>140) Solar Energy System, Large Scale, Roof-Mounted</u>	<u>P-CEO</u>
<u>141) Solar Energy System, Small Scale, Ground Mounted</u>	<u>P-CEO</u>
<u>142) Solar Energy System, Large Scale, Ground Mounted</u>	<u>P-CEO</u>
<u>143) Solar Energy System, Small-Scale and Medium-Scale, ground-mounted and roof-mounted.</u>	<u>P - CEO</u>
<u>144) Solar Energy Systems, Large-Scale, roof-mounted.</u>	<u>P- CEO</u>
<u>145) Solar Energy Systems, Large-Scale, ground-mounted.</u>	<u>P - PB</u>
<u>142) Solar Energy Systems, Large-Scale, ground-mounted, however, the proposed system must be on property owned or controlled by the City or Regional School Unit 71.</u>	<u>N/A</u>

DIVISION 13. Searsport Avenue Waterfront District.

Sec. 102-561. Permitted uses requiring Code Enforcement Officer Review.

(14) Solar Energy Systems, Small-Scale and Medium-Scale, ground-mounted and roof-mounted.

(15) Solar Energy Systems, Large-Scale, roof-mounted.

Sec. 102-562. Permitted uses requiring Planning Board review.

The City Planning Board shall review and make decisions regarding applications for the following types of uses in the Searsport Avenue Waterfront District:

(29) Solar Energy Systems, Large-Scale, ground-mounted.

DIVISION 15. Business Park - Airport District.

Sec. 102-601. Permitted uses requiring Code Enforcement Officer review.

(19) Solar Energy Systems, Small-Scale and Medium-Scale, ground-mounted and roof-mounted.

(20) Solar Energy Systems, Large-Scale, roof-mounted.

Sec. 102-602. Permitted uses requiring Planning Board review.

(4) Solar Energy Systems, Large-Scale, ground-mounted.

DIVISION 19. Route One South Business Park.

Sec. 102-681. Permitted uses requiring Code Enforcement Officer review.

(12) Solar Energy Systems, Small-Scale and Medium-Scale, ground-mounted and roof-mounted.

(13) Solar Energy Systems, Large-Scale, roof-mounted.

Sec. 102-682. Permitted uses requiring Planning Board review.

(13) Solar Energy Systems, Large-Scale, ground-mounted.

DIVISION 20. Protection Rural District.

Sec 102-701. Permitted uses requiring Code Enforcement Officer review.

- (12) Solar Energy Systems, Small-Scale and Medium-Scale, ground-mounted and roof-mounted.
- (13) Solar Energy Systems, Large-Scale, roof-mounted.

Sec. 102-702. Permitted uses requiring Planning Board review.

- (21) Solar Energy Systems, Large-Scale, ground-mounted.

DIVISION 20.5 Protection Rural 2 District.

Sec 102-711. Permitted uses requiring Code Enforcement Officer review.

- (11) Solar Energy Systems, Small-Scale and Medium-Scale, ground-mounted and roof-mounted.
- (12) Solar Energy Systems, Large-Scale, roof-mounted.

Sec. 102-712. Permitted uses requiring Planning Board review.

- (8) Solar Energy Systems, Large-Scale, ground-mounted.

DIVISION 21. Airport Growth District.

Sec 102-721. Permitted uses requiring Code Enforcement Officer review.

- (10) Solar Energy Systems, Small-Scale and Medium-Scale, ground-mounted and roof-mounted.
- (11) Solar Energy Systems, Large-Scale, roof-mounted.

Sec. 102-722. Permitted uses requiring Planning Board review.

- (8) Solar Energy Systems, Large-Scale, ground-mounted.

DIVISION 22. Residential Growth District.

Sec 102-741. Permitted uses requiring Code Enforcement Officer review.

- (8) Solar Energy Systems, Small-Scale and Medium-Scale, ground-mounted and roof-mounted.
- (9) Solar Energy Systems, Large-Scale, roof-mounted.

Sec. 102-742. Permitted uses requiring Planning Board review.

Permitted uses requiring Planning Board review in the Residential Growth District are as follows:

- (17) Solar Energy Systems, Large-Scale, ground-mounted.

DIVISION 24. Route 3 Commercial District.

Sec 102-767. Permitted uses requiring Code Enforcement Officer review.

- (13) Solar Energy Systems, Small-Scale and Medium-Scale, ground-mounted and roof-mounted.
- (14) Solar Energy Systems, Large-Scale, roof-mounted.

Sec. 102-768. Permitted uses requiring Planning Board review.

- (32) Solar Energy Systems, Large-Scale, ground-mounted.

DIVISION 26. Route 141 and Mill Lane Commercial District.

Sec 102-780. Permitted uses requiring Code Enforcement Officer review.

- (14) Solar Energy Systems, Small-Scale and Medium-Scale, ground-mounted and roof-mounted.
- (15) Solar Energy Systems, Large-Scale, roof-mounted.

Sec. 102-781. Permitted uses requiring Planning Board review.

- (34) Solar Energy Systems, Large-Scale, ground-mounted.

DIVISION 27. Route 137 Commercial District.

Sec 102-786. Permitted uses requiring Code Enforcement Officer review.

- (14) Solar Energy Systems, Small-Scale and Medium-Scale, ground-mounted and roof-mounted.
- (15) Solar Energy Systems, Large-Scale, roof-mounted.

Sec. 102-787. Permitted uses requiring Planning Board review.

- (31) Solar Energy Systems, Large-Scale, ground-mounted.

DIVISION 28. Route One South Commercial

Sec 102-791. Permitted uses requiring Code Enforcement Officer review.

- (14) Solar Energy Systems, Small-Scale and Medium-Scale, ground-mounted and roof-mounted.
- (15) Solar Energy Systems, Large-Scale, roof-mounted.

Sec. 102-792. Permitted uses requiring Planning Board review.

- (33) Solar Energy Systems, Large-Scale, ground-mounted.

DIVISION 29. Searsport Avenue Commercial District.

Sec 102-791. Permitted uses requiring Code Enforcement Officer review.

- (14) Solar Energy Systems, Small-Scale and Medium-Scale, ground-mounted and roof-mounted.
- (15) Solar Energy Systems, Large-Scale, roof-mounted.

Sec. 102-797. Permitted uses requiring Planning Board review.

- (36) Solar Energy Systems, Large-Scale, ground-mounted.

ARTICLE VIII. SUPPLEMENTARY DISTRICT REGULATIONS

Division 9. Solar Energy Systems.

Sec 102-1090. Purpose and Applicability.

The City of Belfast has established that the use of more solar energy and less reliance of fossil fuels is a current and long-term City goal. The Article VIII, Supplementary District Regulations, Division 8, Solar Energy System provisions are intended to assist the City in addressing this goal in the following ways:

- a) To foster the use of solar energy equipment in the City for the purpose of providing a source of renewable electricity and energy for heating and/or cooling;
- b) To establish clear guidelines and standards for the regulation of solar energy systems in the City;
- c) To provide for the effective removal of solar panels and associated utility structures that have been abandoned or are no longer in use for energy generation and transmission purposes; and
- d) To enable the City to fairly and responsibly protect the public health, safety and welfare that could be adversely affected by the installation and operation of a solar energy system.

Sec 102-1091. Definitions.

The following definitions shall apply to specific terms in this Division:

Electricity Generation (production output). The amount of electric energy produced by transforming other forms of energy, commonly expressed in kilowatt-hours (kWh) or megawatt hours (MWh).

Electrical Equipment. Any device associated with a solar energy system, such as an outdoor electrical unit/control box, that transfers the energy from the solar energy system to the intended location.

Mounting. The manner in which a solar PV system is affixed to the roof or ground (i.e; roof mount, ground mount, pole mount).

Photovoltaic (PV) System. A solar energy system that produces electricity by the use of semiconductor devices, called photovoltaic cells, which generate electricity when exposed to sunlight. A PV system may be roof-mounted, ground-mounted, or pole-mounted.

Pole-Mount System. A solar energy system that is directly installed on specialized solar racking systems, which are attached to pole, which is anchored and firmly affixed to a foundation in the ground, and wired underground to an attachment point at the building's meter. Pole-mounted systems can be designed to track the sun (with single-axis or dual-axis tracking motors) and to help maximize solar output throughout the year.

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

Solar Access. The access of a solar energy system to direct sunlight.

Solar Array. Multiple solar panels combined together to create one system.

Solar Cell. The smallest basic solar electric device that generates electricity when exposed to light; also reference Solar Energy System.

Solar Collector. A solar PV cell, panel, or array, or solar thermal collector device, that relies upon solar radiation as an energy source for the generation of electricity or transfer of stored heat.

Solar Energy. Radiant energy (direct, diffuse and/or reflective) received from the sun.

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.

Solar Energy System, Active. A solar energy system whose primary purpose is to harvest energy by transforming solar energy into another form of energy or transferring heat from a collector to another medium using mechanical, electrical, or chemical means.

Solar Energy System, Ground-Mounted. An Active Solar Energy System that is structurally mounted to the ground and is not roof-mounted; may be of any size (small, medium, or large-scale).

Solar Energy System, Large-Scale. An Active Solar Energy System whose physical size based on total airspace projected over the ground is equal to or greater than 4 acres (174,240 square feet), and that generates a nameplate capacity of 1 mgw or greater.

Solar Energy System, Medium-Scale. An Active Solar Energy System whose physical size based on total airspace projected over the ground is equal to or greater than 20,000 square feet but less than 4 acres (174,240 square feet), and that generates a nameplate capacity of 125 kw to 1 mgw.

Solar Energy System, Off-grid. A photovoltaic solar energy system in which the circuits energized by the solar energy system are not electrically connected in any way to electric circuits that are served by an electric utility.

Solar Energy System, Roof-Mounted. An Active Solar Energy System that is mounted on the roof of a building or structure; may be of any size (small, medium, or large-scale).

Solar Energy System, Small-Scale. An Active Solar Energy System whose physical size based on total airspace projected over the ground is less than 20,000 square feet and that generates a nameplate capacity of about 125 kw or less. A small-scale system typically is an accessory use to a principal use on the property.

Solar Glare. The potential for solar panels to reflect average sunlight, with an intensity sufficient to cause annoyance, discomfort, loss in visual performance or visibility, or a public safety hazard, such as but not limited to airport operations.

Solar Panel (or module). A device used for the direct or conversion of sunlight into useable solar energy, including electricity or heat.

Solar Related Equipment. Items including a solar photovoltaic cell, module, or array, or solar hot air or water collector device panels, lines, pumps, batteries, mounting brackets, framing and possibly foundations or other structures used or intended to be used for the collection of solar energy.

Tilt. The angle of the solar panels and/or solar collectors relative to horizontal.

Sec. 102-1092. Applicability.

This Division shall apply to all solar energy systems installed or engineered after January 1, 2020 regardless of the size of the solar energy system, and shall apply to a solar energy system, including a system installed prior to January 1, 2020, that is modified to materially alter the size or placement of the solar collectors or the originally permitted output of the solar energy system.

Sec 102-1093. Permitting.

No solar energy system or device shall be installed or operated in the City except in compliance with this Division, and if applicable, requirements of Chapter 82, Shoreland. The installation or modification of a solar energy system shall require a City permit in accordance with the following procedures:

- a) A permit for a small-scale or medium-scale roof-mounted or ground-mounted solar energy system or a large scale roof mounted solar energy system shall comply with all applicable standards in this Division and shall require a building permit and electrical permit from the City Code Enforcement Officer.
- b) A permit for a large-scale ground-mounted solar energy system shall comply with all applicable standards in this Division and shall require a Site Plan permit (reference Chapter 90) from the City Planning Board. The Planning Board shall conduct its review of a Site Plan permit application, both the Preliminary Plan requirements identified in Chapter 90, Article III, Preliminary Plan, and Article IV, Final Plan, as a singular review, meaning that the Board shall concurrently consider the Preliminary Plan and Final Plan requirements.

Sec. 102-1094. Permit Application Requirements for Large-Scale Solar Energy System.

An application for a large-scale ground-mounted solar energy system shall address applicable submission requirements identified in City Code of Ordinances, Chapter 90, Site Plan, Article III, Preliminary Plan, Sec 90-72, Required Information and Format, and Article IV,

Final Plan, Sec. 90-102, Required Information and Format, and shall address the following specific additional requirements identified below. The City also recognizes that certain Information requirements identified in Sec 90-72 and 90-102 are not relevant to an application for a large-scale solar energy system, thus, the Planning Board shall have broad latitude in determining the Information requirements that do and do not apply.

- a) A description of the owner of the system, the operator if different, and detail of qualifications and technical ability of the owner or operator to construct, maintain and operate the facility.
- b) If the operator is leasing the site, a copy of the lease agreement (minus financial compensation) and any and all related easements clearly outlining the relationship of the respective parties, inclusive of the rights and responsibilities of the operator, landowner and any other responsible party with regard to the large-scale solar energy system and the term or duration of the agreement. Further, the operator shall identify any and all agreements or obligations of the landowner to the operator regarding any premises that are not specifically subject to the lease agreement, but which the operator has certain rights to use as part of the operation of the solar energy system.
- c) A description of the energy to be produced and to whom it will be sold.
- d) A copy of the agreement and schematic details of the connection arrangement with the transmission system that clearly indicates who is responsible for various requirements and how such will be operated and maintained.
- e) A basic description of the number and configuration of panels to be installed, including make and model, and associated major system components.
- f) A construction plan and timeline that identifies known contractors, site control, when project construction will commence and the anticipated date that the system will be on-line.
- g) An operations and maintenance plan for the projected operating life of the system;
- h) An emergency management plan that identifies potential hazards and the response to such hazards.
- i) Evidence of financial capacity to construct and operate the proposed facility;
- j) Identification of methods that the operator shall use to manage on-site vegetation.
- k) Identification of how the applicant shall address buffering requirements identified in this Division.
- l) Submission of a decommissioning plan that addresses the requirements of this Division.
- m) Evidence that the owner or operator, prior to issuance of a Site Plan permit by the Planning Board, has applied for any and all non-City permits that may be required for the installation of the proposed system; for example, a stormwater management permit from the State Department of Environmental Protection.

Sec. 102-1095. Permitted Use.

- a) The zoning districts in which a small, medium or large scale roof mounted or ground mounted solar energy system are identified in Article V, District Regulations of this Chapter. A solar energy system must comply with the standards in this Division to obtain a permit as a permitted use. In general, City policy is to encourage the establishment of solar

energy systems in Belfast, subject to some specific limitations on medium and large scale ground mounted systems and large scale roof mounted systems in certain zoning districts located in the Inside the Bypass area; reference Article V, District Regulations, Division 9.

- b) In the Shoreland Zone, reference Chapter 82, Shoreland, a solar energy system, regardless of its size is a permitted use in the following Shoreland districts, provided it complies with all standards in this Division and all standards identified in Chapter 82, Shoreland: Limited Residential, Urban Residential, General Development, Waterfront Development, Stream Development, and Manufactured Housing Community. In the Shoreland Zone, a solar energy system, regardless of its size, is a prohibited use in the Resource Protection and Stream Protection Districts. Notwithstanding the above prohibition, a residence that is located in either of the above two Shoreland Districts may apply for and obtain a permit for a small scale roof mounted solar energy system. Reference Chapter 82, Shoreland, Article IV Districts, Table of Uses, for specific Shoreland District designations.

- d) In the Flood Zone, a ground mounted solar energy system, regardless of its size, shall be a prohibited use in any area that is designated as being in the V, VE, AE or AO flood zones, reference Chapter 78, Floods, Official Flood Maps for the City of Belfast for the location of said flood zone areas, however, a roof mounted solar energy system shall be a permitted use in said flood zones. A roof mounted solar energy system, regardless of its size, or a small-scale ground mounted solar energy system, shall be a permitted use in any designated A zone, reference Chapter 78, Floods, Official Flood Maps for the City of Belfast for the location of said areas, however, a medium-scale or large-scale ground mounted solar energy system shall be a prohibited use in any designated A zone.

Sec. 102-1095. Dimensional Standards.

(a) Height.

- (1) Roof Mounted solar energy systems. Roof mounted solar energy systems are exempt from the building height requirement in all Zoning Districts and in all Shoreland Zoning Districts.

- (2) Ground mounted solar energy systems. A ground-mounted solar energy system that is setback less than fifty (50) feet from any property line shall not exceed sixteen (16) feet in height when oriented at maximum tilt. A ground mounted system that is setback fifty (50) feet or more from any property line may be a maximum of thirty (30) feet in height when oriented at maximum tilt.

- 3) Pole mounted solar energy system. A pole mounted solar energy system that is located less than 50 feet from any property line may be a maximum of sixteen (16) feet in height. A pole mounted solar energy system that is located fifty (50) feet or more from a property line may be a maximum of thirty (30) feet in height.

(b) Setbacks for Ground-Mounted Solar Energy Systems.

Setback standards for ground-mounted solar energy systems shall be as follows:

- (1) Minimum front yard setback: The minimum front yard setback for a solar energy system shall be as follows:
 - a) Small-scale solar energy systems. In all Inside the Bypass zoning districts, reference Article V, Division 9 of this Chapter, the solar energy system shall not be located directly in front of the principal structure or in the front yard area which is the area between the principal structure and the adjacent street. In all other zoning districts, the minimum front yard setback shall be thirty (30) feet.
 - (b) Medium-scale solar energy system. The solar energy system shall be setback a minimum of fifty (50) feet from any adjacent street.
 - (c) Large-scale solar energy system. The solar energy system shall be setback a minimum of fifty (50) feet from any adjacent street.
- (2) Minimum side yard setback. The minimum side yard setback requirement for any solar energy system shall be as follows:
 - a) Small-scale and off-grid solar energy system. The solar energy system shall be setback a minimum of fifteen (15) feet from any side lot line, provided the solar energy system, at full tilt, does not exceed a maximum height of sixteen (16) feet. Any solar energy system that is greater than sixteen (16) feet in height shall be setback a minimum of fifty (50) feet.
 - b) Medium-scale solar energy system. The solar energy system shall be setback a minimum of thirty (30) feet from any side lot line, provided the solar system, at full tilt, does not exceed a maximum height of sixteen (16) feet. Any solar energy system that is greater than sixteen (16) feet in height shall be setback a minimum of fifty (50) feet.
 - c) Large-scale solar energy system. The solar energy system shall be setback a minimum of fifty (50) feet from any side lot line.
- (3) Minimum rear yard setback. The minimum rear yard setback requirement for any solar energy system shall be as follows:
 - a) Small-scale solar energy system. The solar energy system shall be setback a minimum of fifteen (15) feet from any rear lot line, unless the height of the solar energy system exceeds sixteen (16) feet, in which case the solar energy system shall be setback a minimum of fifty (50) feet.

- b) Medium-scale solar energy system. The solar energy system shall be setback a minimum of thirty (30) feet from any rear lot line, unless the height of the solar energy system exceeds sixteen (16) feet, in which case the solar energy system shall be setback a minimum of fifty (50) feet.
 - c) Large-scale solar energy system. The solar energy system shall be setback a minimum of fifty (50) feet from any rear lot line.
- (4) Minimum setback requirements for solar energy systems located in a Shoreland Zoning District.

A ground-mounted solar energy system that is a permitted use in a designated Shoreland Zoning District shall comply with the minimum structure setback requirement identified for the respective Shoreland Zoning District; reference Chapter 82, Shoreland, Article V, Standards, Division 3, Structures, subject to certain exceptions identified in Article V, Division 19, in that Chapter.

(c) Lot Coverage.

A solar energy system (in combination with other uses on a property), regardless of its size, shall comply with lot coverage standards that apply to a respective Zoning or Shoreland Zoning District. Only the paved, mounting block, or otherwise impervious areas of sites on which a ground-mounted solar energy system is installed shall be counted in the lot coverage calculation.

(d) Vegetation Management.

The owner or operator of a medium scale or large scale ground-mounted solar energy system shall prepare a vegetation management plan associated with the operation of the system. A large-scale ground-mounted solar energy system, by its nature, may occupy a large land area. An application for a large-scale ground-mounted system shall identify measures it will use to effectively manage vegetation, including methods such as but not limited to vegetating the solar array area as a pollinator-friendly manner and allowing the area for the grazing of farm animals.

Sec. 102-1096. Standards for All Roof-Mounted and Small-Scale Ground Mounted Solar Energy Systems.

- (a) A roof-mounted or building-mounted solar energy system and equipment shall be permitted only if the Code Enforcement Officer determines that the system and its installation shall not present any unreasonable safety risks, including, but not limited to, the following:
 - (1) Weightload;
 - (2) Windresistance;
 - (3) Ingress or egress in the event of fire or other emergency; and
 - (4) Proximity of a ground-mounted system relative to buildings.

The Code Enforcement Officer may obtain and consider the professional opinion of other parties in rendering a decision.

- (b) All solar energy system installations shall be installed in compliance with the photovoltaic systems standards of the latest edition of National Fire Protection Association (NFPA) 1, Fire Prevention Code.
- (c) All wiring shall be installed in compliance with the photovoltaic systems standards identified in the latest edition of the National Electrical Code (NFPA 70).
- (d) Prior to operation, electrical connections must be inspected and approved by the City Code Enforcement Officer or Electrical Inspector.
- (e) Any connection to the public utility grid must be inspected and approved by the appropriate public utility.
- (f) Each solar energy installation shall be regularly maintained as necessary to ensure that it is operating safely and as designed over its useful life.

Sec. 102-1097. Additional Standards for Medium-Scale and Large-Scale Ground-Mounted Solar Energy Systems.

In addition to the standards identified in Sec. 102-1096, all medium-scale and large-scale solar energy systems shall comply with the following standards:

- (a) Utility Connections. An applicant shall make reasonable efforts, as determined by the Planning Board, to locate 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.
- (b) Safety. The solar energy system owner shall provide a copy of the site plan application submitted to the Code Enforcement Officer or Planning Board for the review and comment of the Belfast Fire Chief. The Code Enforcement Officer or Planning Board shall consider comments of the Fire Chief and State Fire Marshall, if applicable, regarding the fire safety of the proposal in their review of a permit application.

Sec. 102-1098. Additional Standards for Large-Scale Ground-Mounted Solar Energy Systems.

In addition to the standards identified in Sec. 102-1095 and 102-1096, all large-scale solar energy systems shall comply with the following standards:

- (a) Visual Impact and Buffering. An applicant shall make reasonable efforts, as determined by the Planning Board, to minimize visual impacts associated with the installation of a large-scale solar energy system. The Board shall consider the size, location and topography of the site and the characteristics of the surrounding property and the amount and type of development on said properties in determining the amount and type of screening and buffering that it deems appropriate.

Screening measures shall include but are not necessarily limited to the following: preserving natural vegetation, particularly in the setback area for the solar energy system; planting new vegetation, particularly in the setback area for the solar energy system; installing a raised berm and appropriate plantings, particularly in the setback area; and installing a fence.

- (b) Glare. Solar panels are designed to absorb (not reflect) sunlight; and, as such, solar panels are generally less reflective than other varnished or glass exterior housing pieces. However, solar panel placement should be prioritized to minimize or negate any solar glare onto nearby properties or roadways to the maximum extent practical. Further, in the case of a solar energy system that could have an adverse impact on the safety of operations associated with the Belfast Airport, the Planning Board requires assurances that the installation and operation of the solar energy system would not have an unreasonable adverse impact on public safety. As such, the Belfast Planning Board has the authority to require any Applicant that proposes to install a large-scale ground-mounted solar energy system in an area that could affect the safety of airport operations to conduct a solar glare gauge analysis study as an element of the application submitted to the Planning Board. The Planning Board shall consider the results of the glare analysis in rendering a decision to approve or deny an application and any conditions of approval that it establishes on a permit application.
- (c) Operations and Maintenance Plan. The applicant shall submit a plan for the operation and maintenance of the large scale solar energy system. The plan shall include measures for maintaining safe access to the installation as well as other general procedures for operational maintenance of the installation.
- (d) Emergency Management and Services. The owner of a large-scale solar energy system or operator shall prepare and provide a project summary, electric schematic, and site plan to the Code Enforcement Officer, the Fire Chief and the Chief of Police. Upon a request of the Fire Chief, the owner or operator shall cooperate with the Fire Department and other interested parties in preparing an emergency response plan. All City and County emergency management personnel shall be provided the name and contact information of the party responsible for the operation of the system.
- (e) Installation Conditions. The owner or operator of the large-scale solar energy system shall maintain the facility in good condition on an ongoing basis during the time period that the solar energy system is in operation. Maintenance shall include but is not limited to the following: painting, structural repairs, ground maintenance around the array, maintaining buffering measures required by the Planning Board, maintaining the access road to the solar array, maintaining any stormwater management features required by the State or the City, and maintaining the integrity of security measures.
- (f) The owner or operator of a large scale ground-mounted solar energy system shall prepare a vegetation management plan associated with the operation of the system. A large-scale ground-mounted solar energy system, by its nature, may occupy a large land area. An application for a large-scale ground-mounted system shall identify measures it will use to effectively manage vegetation, including methods such as but not limited to vegetating the solar array area as a pollinator-friendly manner and allowing the area for the grazing of farm animals.

- (g) Signage. The owner or operator shall install a sign that identifies the name of the owner, the name of the operator, and a 24 hour emergency contact phone number for the operator. The sign shall be no greater than 36 inches by 60 inches in size and shall be no more than 8 feet in height from the adjacent ground grade. The sign shall not be internally illuminated, however, it can be illuminated by spot wrap around lighting that is down directed, provided said lighting does not create any unreasonable glare on any adjacent road or neighboring property. The sign shall not display any advertising except for reasonable identification of the manufacturer or operator of the solar energy system.
- (h) Removal of Solar Energy System. A large-scale solar energy system that has reached the end of its useful life or that has been abandoned and not produced power for a period of twelve (12) consecutive months, shall be removed. The owner or operator shall provide notification to the Code Enforcement Officer by certified letter of the proposed date of discontinued operations, and shall prepare and submit a plan to the Code Enforcement Officer that identifies how all components of the solar energy system, including but not necessarily limited to the solar collectors, the mounting equipment, the transmission lines, and any security barriers shall be removed from the site. The Code Enforcement Officer must review and approve the removal plan, and the owner or operator, no more than 150 days after the date of discontinued operations, must complete the removal of the solar energy system in accordance with the approved plan. Further, the owner or operator shall dispose of all solid and hazardous waste in accordance with applicable local, state and federal waste disposal regulations. Post removal of the solar energy system, the owner or operator shall stabilize and re-vegetate the site as necessary to minimize soil erosion. The owner or operator shall contact the Code Enforcement Officer for a final inspection of the removal of the system and to obtain a receipt of approval that the removal was performed successfully.
- (i) Community Donation Option. The operator of a solar energy system that has chosen to discontinue use of the system, may submit a plan for the review and approval of the Belfast Planning Board that identifies how the system can be donated to an appropriate community organization. Said plan shall identify the projected useful remaining life of the system, how the transfer shall occur, the responsibilities of the party that will receive the donation regarding the operation and maintenance of the system, the financial and technical ability of the party that the system is donated to successfully operate the system, and how the receiving party will fulfill the responsibility to decommission the system upon the end of its useful life. The Board shall have the authority to approve or deny the requested donation option. If the Board denies the donation option, the owner operator shall proceed to remove the system.
- (j) Request to reactivate a discontinued large-scale solar energy system. An owner or operator may submit a written request to the Belfast Planning Board to reactivate a large-scale solar energy system that has been discontinued or abandoned due to extenuating circumstances. The Belfast Planning Board shall be responsible for the review and approval or denial of any written request to reactivate a solar energy system, subject to applicable review criteria

for a new permit to operate the system. Unless the Board approves a request to reactivate the system, the solar energy system shall be considered abandoned.

(k) Decommissioning of large-scale solar energy system and abandonment guarantee.

- (1) Absent notice from the owner or operator of a date of decommissioning or written notice of extenuating circumstances and a request to reactivate the solar energy system, a large-scale solar energy system shall be considered to be abandoned when it fails to operate for a period of twelve or more consecutive months.
- (2) At the time of Planning Board review of a Site Plan application and permit, the applicant for a new large-scale solar energy system shall identify how it shall provide a performance guarantee payable to the benefit of the City of Belfast, a municipal corporation, for all costs associated with the removal of an approved solar energy system that has been abandoned. The performance guarantee shall be equal to one hundred fifty (150) percent of the estimated cost of removal. The performance guarantee can be in the form of a performance bond, surety bond, letter of credit, parent holding company guarantee, escrow account established with the City, or other form of financial assistance as may be acceptable to the City as determined by the Planning Board and legal counsel for the City of Belfast. The financial guarantee shall include a provision granting and guaranteeing the City the authority to access the funds and property and perform the decommissioning if the facility is abandoned and the owner or operator fails to meet their obligations to remove the solar energy system; reference Sec 102-1098(h). The applicant shall provide the City the identified performance guarantee prior to the issuance of a building permit by the Code Enforcement Officer for the solar energy system. The owner or operator shall also be responsible for notifying the City in writing if the performance guarantee is revoked, and in such cases, shall provide the City a replacement guarantee that is found acceptable by legal counsel for the City within ninety (90) days, or the owner's or operator's permit to operate the system shall be revoked.
- (3) If the owner or operator of the solar energy system fails to remove the installation in accordance with requirements of this Section within 150 days of abandonment or the proposed date of decommissioning, the City retains the right to use the performance guarantee and all other available means to cause an abandoned, hazardous or decommissioned large-scale solar energy system to be removed.
- (4) If an owner or operator successfully removes a large scale solar energy system in accordance with requirements of this Section, and the City Code Enforcement finds that the removal was successfully completed, the owner or operator may apply to the Belfast Planning Board for the release of the performance guarantee identified in this Section. The City shall not unreasonably withhold the release of a performance guarantee post a determination by the Code Enforcement Officer that an owner or operator has successfully removed a solar energy system.

Sec. 102-1010. Effective Date of Ordinance Amendment.

The City of Belfast City Council adopted this Ordinance at its meeting of -----, 2020, and established that the effective date of these amendments shall be retroactive to January 1, 2020.