

***** PLEASE NOTE: THIS DRAFT IS CURRENT AS OF 04.04.23, AND IS STILL PENDING FINAL TOWN COUNSEL REVIEW. ON MARCH 28TH, 2023, THE PLANNING BOARD AND TOWN COUNSEL MET IN AN OPEN MEETING TO DISCUSS THIS BYLAW AND GIVE ADDITIONAL FEEDBACK. A SECOND MEETING WILL BE HELD ON 04/11/23. THIS DRAFT IS NOT FINAL AND WILL BE UPDATED AFTER APRIL 11TH *****

ARTICLE XXII

~~Large-Scale, Ground-Mounted~~ Solar Photovoltaic Installations

§ 175-22.0. Purpose. The purpose of this article is to provide for the creation of ~~large-scale, ground-mounted~~ solar photovoltaic facilities or installations by establishing 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 that provide adequate financial assurance for the eventual decommissioning of such installations.

§ 175-22.1. Definitions. In addition to definitions generally applicable to the Zoning Bylaw as set forth in § 175-2.2, for purposes of this article, the following terms shall have the meanings indicated:

Building Permit — A construction permit issued by the Building Inspector that is evidence the project is consistent with state and federal building codes as well as local zoning bylaws.

~~**LARGE-SCALE, GROUND-MOUNTED SOLAR PHOTOVOLTAIC INSTALLATION** — A solar photovoltaic system that is structurally mounted on the ground and is not roof-mounted, and has a minimum nameplate capacity of 250 kW DC.~~

Commercial Power Generation Installations — All solar energy systems that do not fit the parameters defined by the NFPA 855, Chapter 15, shall be deemed commercial installations.

Energy Storage System (ESS) — A device or group of devices assembled that is to convert the electrical energy from power systems and store energy in order to supply electrical energy at a later time when needed. ESS are regulated by the Building Code and the Fire Code (particularly the NFPA 855).

Fire Permit — A construction permit issued by the Fire Department that is evidence the project is consistent with state and federal fire codes as well as local zoning bylaws.

Rated Nameplate Capacity — The maximum rated output of electric power production of the photovoltaic system in direct current (DC).

Site Plan Approval — Review by the Planning Board to determine conformance with the site plan approval requirements of the Zoning Bylaw, Article XV, and this article.

Site Plan Approval Authority — The Planning Board.

Solar Canopies — A Canopy is any device, fixed or retractable, of any material, which extends over or otherwise covers a sidewalk, courtyard, walkway, eating area, driveway, parking lot, building or other area or space whether that area or space is intended for pedestrians, vehicles or other purposes.

Solar Energy — Radiant energy received from the sun that can be collected in the form of heat or light by a solar collector.

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) and includes solar canopies and ballasted solar. If there are any inconsistencies between the size of system and nameplate capacity, then the nameplate capacity shall be what determines the size of the system.

Solar Energy System, Large-Scale — An Active Solar Energy System that occupies more than 40,000 square feet of surface area, or is equivalent to a rated nameplate capacity of 250kW DC or greater.

Solar Energy System, Medium-Scale — An Active Solar Energy System that occupies more than 1,750 but less than 40,000 square feet of surface area, or is equivalent to a rated nameplate capacity of 21 - 249 kW DC.

Solar Energy System, Small-Scale — An Active Solar Energy System that occupies 1,750 square feet of surface area or less, or is equivalent to a rated nameplate capacity of 20 kW DC or less.

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).

Residential Power Generation Installations — All solar energy systems that fit the parameters defined by the NFPA 855, Chapter 15, shall be deemed residential installations.

Zoning Enforcement Authority — The Building ~~Inspector~~ Commissioner.

§ 175-22.2. General requirements for all commercial power generation installations.

A. Compliance with laws, bylaws and regulations. The construction and operation of all ~~large-scale, ground-mounted~~ 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 **and all applicable Fire codes.**

B. Building permit and building inspection. No ~~large-scale, ground-mounted~~ solar photovoltaic installation shall be constructed, installed or modified as provided in this section without first obtaining a building permit. **No building permit shall be granted without first obtaining approval from the Fire and Conservation Departments, or before securing a Stormwater permit.**

C. Fees. The application for site plan approval and for a building permit shall be accompanied by the appropriate fee(s).

D. Site plan review. ~~Large-scale,~~ Ground-mounted solar photovoltaic installations shall be subject to site plan approval by the Norton Planning Board as **per §175-4.5, Use Table**

Regulations provided for in the Norton Zoning Bylaw, and Article XV, Site Plan Approval, and this article. [Amended 1-14-2019 STM by Art. 5; 4-17-2019 STM by Art. 22]

~~E. Special permit. Large-scale, ground-mounted solar photovoltaic installations located within the Residential 80 or Residential 60 Zoning District shall be allowed only upon grant of a special permit from the Norton Planning Board. [Amended 1-14-2019 STM by Art. 5; 4-17-2019 STM by Art. 22]~~

FE. Public notification. The project proponent for a ~~large-scale~~, ground-mounted solar photovoltaic installation shall provide notice of the time, date, and location of the site plan approval hearing before the Planning Board pursuant to the notice provisions of MGL c. 40A, § 11, Notice Requirements for Public Hearing, Paragraphs (1) and (2).

GF. Plans. All plans and maps required by this article shall be prepared, stamped and signed by a professional engineer licensed to practice in Massachusetts.

HG. Required documents.

(1) Pursuant to the site plan approval process, the project proponent(s) shall provide the following documents:

(a) A site plan showing:

[1] Property lines and physical features, including wetland resource areas and roads, for the project site; [Amended 10-17-2016 FTM by Art. 14]

[2] Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, screening vegetation or structures;

[3] 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;

[4] 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;

[5] Documentation of the major system components to be used, including the photovoltaic panels, mounting system, inverter, **and any proposed ESS;**

[6] Name, address, and contact information for the proposed system installer, if known at the time of application;

[7] Name, address, phone number and signature of the project proponent, as well as all co-proponents and property owners, if any;

[8] The names, contact information and signature of any agents representing the project proponent; and

(b) Documentation of actual or prospective access and control of the project site (see also § 175-22.2I);

(c) An operation and maintenance plan (see § 175-22.2J);

(d) Zoning district designation for the parcel(s) of land comprising the project site [submission or a copy of a zoning map with the parcel(s) identified is suitable for this purpose];

(e) Proof of liability insurance; the project proponent shall be required to provide evidence of liability insurance in an amount sufficient to cover loss or damage to persons and property pursuant to industry standards;

(f) Description of financial surety that satisfies ~~§ 175-22.7~~ **§ 175-22.8**;

(g) A public outreach plan, including a project development time line, which indicates how the project proponent will meet the required site plan approval notification procedures and otherwise inform abutters and the community;

(h) A stormwater management checklist, drainage report and construction-term stormwater management plan. Solar array projects are subject to Massachusetts DEP Stormwater Standards. The arrays are considered impervious surface and peak rate of runoff control must be provided. [Amended 10-17-2016 FTM by Art. 14]

(i) A decommissioning plan. When the applicant wishes to decommission a solar energy system, their decommissioning plan must have been updated in the last 12 months. Decommissioning plans older than 12 months will not be accepted by the Planning Board.

(2) The Planning Board may waive the above-cited documentary requirements as it deems appropriate.

I. 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 ~~large-scale,~~ ground-mounted solar photovoltaic installation.

J. Operation and 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, stormwater controls **(including a stormwater pollution and prevention plan)**, as well as general procedures for operation and maintenance of the installation.

a. Once every 12 months, the applicant has to submit proof of annual inspection to the Building Commissioner. Failure to do so will constitute a zoning violation, and will be dealt with as such.

K. Utility notifications. No ~~large-scale,~~ ground-mounted solar photovoltaic installation shall be constructed until evidence has been provided 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 solar photovoltaic installation owner's or operator's intent to install an interconnected customer-owned generator into its power grid. Off-grid systems shall be exempt from this requirement.

§ 175-22.3. General requirements for all residential power generation installations.

A. Compliance with laws, bylaws and regulations. The construction and operation of all 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.

B. Building permit and building inspection. No solar photovoltaic installation shall be constructed, installed or modified as provided in this section without first obtaining a building permit. No building permit shall be granted without first obtaining approval from the Fire and Conservation Departments, or before securing a Stormwater permit.

C. Fees. The application for site plan approval and for a building permit shall be accompanied by the appropriate fee(s).

D. Site plan review. Ground-mounted solar photovoltaic installations shall be subject to site plan approval by the Norton Planning Board as per §175-4.5, Use Table Regulations provided for in the Norton Zoning Bylaw, and Article XV, Site Plan Approval, and this article. [Amended 1-14-2019 STM by Art. 5; 4-17-2019 STM by Art. 22]. Residential power generation installations shall be exempt from site plan review only if the nameplate capacity of the system is 20 kW DC or less.

E. Plans. All plans and maps required by this article shall be prepared, stamped and signed by a professional engineer licensed to practice in Massachusetts.

F. Required documents.

(1) Pursuant to the site plan approval process, the project proponent(s) shall provide the following documents:

(a) A site plan showing:

[1] Property lines and physical features, including wetland resource areas and roads, for the project site; [Amended 10-17-2016 FTM by Art. 14]

[2] Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, screening vegetation or structures;

[3] 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;

[4] 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;

[5] Documentation of the major system components to be used, including the photovoltaic panels, mounting system, inverter, and any proposed ESS;

[6] Name, address, and contact information for the proposed system installer, if known at the time of application;

[7] Name, address, phone number and signature of the project proponent, as well as all co-proponents and property owners, if any;

[8] The names, contact information and signature of any agents representing the project proponent; and

(b) Zoning district designation for the parcel(s) of land comprising the project site [submission or a copy of a zoning map with the parcel(s) identified is suitable for this purpose];

(c) A stormwater management checklist, drainage report and construction-term stormwater management plan. Solar array projects are subject to Massachusetts DEP Stormwater Standards. The arrays are considered impervious surface and peak rate of runoff control must be provided. Disturbances of less than 20,000 square feet do not require a stormwater permit. [Amended 10-17-2016 FTM by Art. 14]

(2) The Building Commissioner may waive the above-cited documentary requirements as it deems appropriate.

§ 175-22.34. Location, setback and screening requirements

A. Designated location. ~~Large-scale,~~ Ground-mounted solar photovoltaic installations shall be allowed as ~~follows: on no less than two acres within the Commercial and Industrial Zoning Districts; and on no less than five acres within the Residential 60 and Residential 80 Zoning Districts, subject to the provisions of this article~~ **indicated in §175-4.5, Use Table Regulations.** Solar installations shall not be allowed within "bordering vegetated wetland," "bordering land subject to flooding" or "riverfront area," all as defined in the Massachusetts Wetland Protection Act Regulations, 310 CMR 10.55(2) or 310 CMR 10.57(2), respectively. [Amended 10-17-2016 FTM by Art. 14; 1-14-2019 STM by Art. 5; 4-17-2019 STM by Art. 22]

B. Setbacks. For ~~large-scale,~~ ground-mounted solar photovoltaic installations, front, side and rear setbacks, inclusive of photovoltaic array and accessory/appurtenant structures, shall be as follows:

(1) Front yard:

(a) All ground-mounted solar installations must have a front yard setback of at least 100 ft, and a 20 ft wide access road shall be required for commercial power generation installations.

~~(a) Industrial Zoning District: 50 feet.~~

~~(b) Commercial Zoning District: 50 feet.~~

~~(c) Residential 60 Zoning District: 75 feet.~~

~~(d) Residential 80 Zoning District: 75 feet.~~

(2) Side yard:

(a) Industrial Zoning District: 40 feet.

(b) Commercial, **Village Commercial and Village Center Core** Zoning District: 30 feet.

(c) Residential ~~60~~ Zoning Districts: 50 feet.

~~(d) Residential 80 Zoning District: 50 feet.~~

(3) Rear yard:

(a) Industrial Zoning District: 40 feet.

(b) Commercial, **Village Commercial and Village Center Core** Zoning District: 30 feet.

(c) Residential ~~60~~ Zoning Districts: 50 feet.

~~(d) Residential 80 Zoning District: 50 feet.~~

(4). Height. Ground mounted solar installations (except for solar canopies) shall not exceed 20 feet in height.

a. Exemptions. Mechanical equipment and appurtenances necessary to the operation or maintenance of the building or structure itself, including chimneys, ventilators, plumbing vent stacks, cooling towers, water tanks, broadcasting and television antennae and roof-mounted solar energy systems.

C. Accessory/Appurtenant structures. All accessory or 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.

D. Visual screening. A ~~large-scale~~, ground-mounted solar photovoltaic facility [including appurtenant structures and access drive(s) for such facility] shall provide visual screening in the form of plantings, existing vegetation, earthen berms, fencing, or a combination thereof, between the facility and the adjacent use. The size, configuration and design of the visual screening shall be determined by the Planning Board based upon the characteristics of the project site and the proximity, type and intensity of the adjacent use. A facility that is adjacent to residential use(s) shall require more intensive screening **as per the buffer parameters defined in § 175-6.5. and § 175-6.6.** unless the Planning Board determines that such more intensive screening is not needed in the circumstances.

§ 175-22.45 Design standards for commercial power generation installations.

A. Lighting. Lighting of ~~large-scale~~, ground-mounted solar photovoltaic installations shall be consistent with federal and state law and shall conform to the standards and requirements of the Norton Zoning Bylaw, Article XX, Lighting.

B. Signage.

(1) Signs on ~~large-scale~~, ground-mounted solar photovoltaic installations shall comply with the Town of Norton Zoning Bylaw. A sign consistent with the Zoning Bylaw shall be required to identify the owner and provide a twenty-four-hour emergency contact phone number.

(2) ~~Large-scale~~, Ground-mounted solar photovoltaic installations shall not be used for displaying and advertising except for reasonable identification of the manufacturer or operator of the solar photovoltaic installation.

C. Utility connections. Reasonable efforts, as determined by the Planning Board, shall be made to place all utility connections from the ~~large-scale~~, ground-mounted solar photovoltaic installation underground, depending on appropriate soil conditions, shape, 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.

§ 175-22.56 Safety and environmental standards for commercial power generation installations.

A. Emergency services. The ~~large-scale~~, ground-mounted solar photovoltaic installation owner or operator shall provide a copy of the project summary, electrical schematic, and site plan to the Fire Chief. ~~Upon request, the~~ The owner or operator shall cooperate 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 inquiries throughout the life of the installation.

B. Land clearing and soil erosion. 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. Land alterations exceeding one acre shall comply with the Environmental Protection Agency's (EPA's) National Pollutant Discharge Elimination System (NPDES) Stormwater Discharges from Construction Activities. A stormwater pollution prevention plan (SWPPP) shall be submitted to the Conservation Director for review and comment a minimum of 45 days prior to the commencement of work. Sediment controls shall be properly installed and maintained until the project is stabilized. All disturbed areas shall be permanently stabilized prior to final approval. [Amended 10-17-2016 FTM by Art. 14]

§ 175-22.67 Monitoring and maintenance for commercial and residential power generation installations.

A. Solar photovoltaic installation conditions. The ~~commercial 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.

B. Modifications.

- (1) **For commercial ground-mounted solar photovoltaic installations**, all material modifications ~~to large-scale, ground-mounted solar photovoltaic installations~~ made after issuance of the required building permit shall require site plan approval by the Planning Board.
- (2) **For residential ground-mounted solar photovoltaic installations, all material modifications made after issuance of the required building and fire permits shall require the review and approval of the Building Commissioner and the Fire Department.**

C. Removal requirements.

- (1) For **commercial ground-mounted solar photovoltaic installations**, any ~~large-scale,~~ ground-mounted solar photovoltaic installation which has reached the end of its useful life or has been abandoned consistent with ~~§175-22.6D~~ **§ 175-22.7D** 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 Planning Board by certified mail of the proposed date of discontinued operations and plans for removal. Decommissioning shall consist of:

- ~~(1)~~ **(a)** Physical removal of all ~~large-scale,~~ ground-mounted solar photovoltaic installations, structures, equipment, security barriers and transmission lines from the site.
- ~~(2)~~ **(b)** Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.
- ~~(3)~~ **(c)** Permanent 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.

(2) For residential ground-mounted solar photovoltaic installations, applicants need to notify the Building Commissioner and the Fire Department of their intent to remove the structures.

D. Abandonment **of commercial ground-mounted solar photovoltaic installations.**

- (1) 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 Planning Board.
- (2) 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, after receipt of an appropriate court order or to the extent otherwise authorized by law, may enter the property and physically remove the installation.

§ 175-22.8 Financial surety **for commercial ground-mounted solar photovoltaic installations.**

A. Proponents of ~~large-scale~~, ground-mounted solar photovoltaic installation shall provide a form of surety, either through escrow account, bond, or otherwise, to cover the estimated 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 Planning Board, but in no event to exceed more than 125% of the estimated cost of removal and compliance. Such surety shall not be required for municipally or state-owned facilities. The project proponent shall submit, for the Planning Board's determination, 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.

B. The Planning Board will work with the project proponent to develop a financial instrument in the amount as determined above to ensure satisfactory removal of the facility and whose terms are sufficiently flexible to provide financial feasibility for the project proponent. Such an instrument may provide for initially smaller amounts of surety in the early years of the project's useful life and increasing in amount as the project nears the end of its useful life.

§155-4.5 Industrial uses. [Amended 5-15-2019 ATM by Art. 19; 10-17-2020 STM by Art. 4; 6-7-2022 ATM by Art. 13]

Principal Uses	Zoning District Allowed Uses						
	R-80	R-60	R-40	VC	VCC	C	I
Research, technical laboratories, including life sciences	N	N	N	SP	N	SP	Y
Warehouse, storage and distribution facilities	N	N	N	SP	N	SP	Y
Wholesale distribution of food and beverage	N	N	N	SP	N	SP	Y
Wholesale offices or showrooms with storage on premises	N	N	N	SP	N	SP	Y
Sale or rental of new or used construction materials handling equipment, farm implements and machinery	N	N	N	N	N	SP	Y
Light processing and fabrication	N	N	N	N	N	SP	Y
Factories, manufacturing firms	N	N	N	N	N	N	Y
Machine-intensive processing, fabrication and assembly	N	N	N	N	N	N	Y
Manufacturing, assembly, compounding, packaging and distribution for companies principally engaged in life sciences	N	N	N	N	N	SP	Y
Auto body repair, paint, soldering or welding shop	N	N	N	N	N	N	Y
Earth removal	SP	SP	SP	SP	SP	SP	SP
Allowed-by-right principal uses as	SP	SP	SP	SP	N	SP	SP

enumerated in §175-4.5, Industrial uses, with 10,000 or more square feet of floor area or 25 or more parking spaces (See §175-4.8 for detailed explanation)							
Large-scale, ground-mounted or large-scale ground-mounted canopy solar photovoltaic installations (See Article XXII, § 175-22.3A)	SP	SP N	N	N	N	SPR SP	SPR SP
Medium-scale, ground-mounted or medium-scale ground-mounted canopy solar photovoltaic installations (See Article XXII)	SPR	SPR	SPR	SPR	SPR	SPR	SPR
Small-scale, ground-mounted or small-scale ground-mounted canopy solar photovoltaic installations (See Article XXII)	Y	Y	Y	Y	Y	Y	Y
Roof-Mounted Solar Energy	Y	Y	Y	Y	Y	Y	Y
Digital electronic billboard	N	N	N	N	N	N	SP

Principal Uses	Zoning Districts						
	Allowed Uses						
	R-80	R-60	R-40	VC	VCC	C	I
Machine-intensive processing, fabrication and assembly	N	N	N	N	N	N	Y
Manufacturing, assembly, compounding, packaging and distribution for companies principally engaged in life sciences	N	N	N	N	N	SP	Y
Auto body repair, paint, soldering or welding shop	N	N	N	N	N	N	Y
Earth removal	SP	SP	SP	SP	SP	SP	SP
Allowed-by-right principal uses as enumerated in § 175-4.5, Industrial uses, with 10,000 or more square feet of floor area or 25 or more parking spaces (See § 175-4.8 for detailed explanation)	SP	SP	SP	SP	N	SP	SP
Large-scale, ground-mounted solar photovoltaic installations (See Article XXII, § 175-22.3A)	-	-	-	-	N	-	-
Digital/electronic billboard	N	N	N	N		N	SP