TOWN OF MEXICO – SOLAR ORDINANCE

Adopted by Town Meeting JUNE 13, 2023

Section 1. Title

This Ordinance shall be known and may be cited as the "Solar Ordinance".

Section 2. Purpose

The purpose of this ordinance is to establish a municipal review procedure and performance standards for Solar Energy Systems (SES), including those typically characterized as "solar farms". These standards are intended to:

a. Establish clear guidelines, standards and time frames for the Town to regulate Solar Energy Systems;

b. Permit the Town to fairly and responsibly protect public health, safety and welfare;

c. Minimize any potential adverse effect of solar development on surrounding land use;

d. Provide for the decommissioning/removal of panels and associated utility structures that are no longer being used for energy generation and transmission purposes; and

e. Support the goals and policies of the Comprehensive Plan, including orderly development, efficient use of infrastructure, and protection of natural, scenic, and agricultural resources.

Section 3. Applicability

Solar Energy Systems (SES) are subject to location and permitting requirements as set forth in the Mexico Land Use Table (section 10, F & G) of the Land Use Ordinance. A Solar Energy System approved for construction prior to the effective date of this Ordinance shall not be required to meet the terms and conditions of this Ordinance. Any physical modification to any existing SES, whether or not existing prior to the effective date of this Ordinance that expands or relocates the footprint of the SES, shall require approval under this Ordinance. Routine maintenance or replacements do not require a permit.

Section 4. Definitions

Solar Energy System (SES): a solar photovoltaic cell, module, or array, or solar hot air or water collector device, including all Solar Related Equipment, which relies upon solar radiation as an energy source for collection, inversion, storage, and distribution of solar energy for electricity generation or transfer of stored heat.

Solar Energy System, Ground-Mounted. A 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, Roof-Mounted. A 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, Large-Scale. A 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/or that generates a nameplate capacity of 1 MW or greater.

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Solar Energy System, Medium-Scale. A Solar Energy System whose physical size based on total airspace projected over the ground is equal to or greater than 3,000 square feet but less than 4 acres (174,240 square feet), and/or that generates a nameplate capacity of 20 kW up to, but not including, 1 MW.

Solar Energy System, Small-Scale. Also known as an *Accessory-Scale System*. A Solar Energy System whose physical size based on total airspace projected over the ground is less than 3,000 square feet and/or that generates a nameplate capacity of less than 20 kW. Such a system may consist of one (1) or more freestanding ground, or roof mounted, solar arrays, or solar related equipment, and is intended to primarily reduce on-site consumption of utility power or fuels. Such a system generally occupies ~1,750 square feet of surface area or less (equivalent to a rated nameplate capacity of about 10 kW or less).

Kilowatt (kW): a unit for measuring power that is equivalent to 1,000 watts.

Megawatt (MW): a unit for measuring power that is equivalent to one million watts, or 1,000 kilowatts.

Megawatt Hour (MWh): A megawatt hour is equal to 1,000 Kilowatt hours (Kwh). It is equal to 1,000 kilowatts of electricity used continuously for one hour.

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

Solar Energy. Radiant energy (direct, diffuse and/or reflective) received from the sun. Solar Array. A grouping of multiple solar modules with the purpose of harvesting solar energy. Solar Farm. See *Solar Energy System*.

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, fencing, foundations or other structures used or intended to be used for collection and management of solar energy.

Pure Tone. The simplest periodic sound: a constant sound created as a pressure disturbance that fluctuates sinusoidally as a fixed frequency.

Section 5. Application and Permit Fee.

A. Application Fee:

a. Solar Energy System, Large-Scale. The Application Fee is $2,500.

b. Solar Energy System, Medium-Scale. The Application Fee is $500.

c. Solar Energy System, Small-Scale. The Application Fee is the standard building permit fee.

B. Permit Fee is $1.00 per kW with a minimum fee of $25.

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Section 6. Specific Application Requirements

In addition to the requirements listed in (Article 12) of the Town's Land Use Ordinance, an application for a Large or Medium Scaled Solar Energy System Permit must also include the following, at the cost of the applicant:

1) A description of the owner of the SES, the operator if different, and detail of qualifications and track record to run the facility;

2) If the operator will be leasing the land, a copy of the agreement (minus financial compensation) clearly outlining the relationship inclusive of the rights and responsibilities of the operator, landowner and any other responsible party with regard to the SES and the life of the agreement;

3) A description of how and to whom the energy produced will be sold;

4) A copy of the agreement and schematic details of the connection arrangement with the transmission system (most likely Central Maine Power), clearly indicating which party is responsible for various requirements and how they will be operated and maintained;

5) The layout, design and installation shall conform to applicable industry standards, such as those of the American National Standards (ANSI), Underwriters Laboratories (UL), the American Society for Testing and Materials (ASTM), Institute of Electrical and Electronics Engineers (IEEE), Solar Rating and Certification Corporation (SRCC), Electrical Testing Laboratory(ETL), Florida Solar Energy Center (FSEC) or other similar certifying organizations, and shall comply with local ordinances, and with all other applicable fire and life safety requirements. The manufacturer specifications for the key components of the system shall be submitted as part of the application.

6) A description of the panels to be installed, including make and model, and associated major system components;

7) A construction plan and timeline, identifying known contractors, site control and anticipated on-line date;

8) An operations and maintenance plan, including site control and the projected operating life of the system; Such a plan shall include measures for maintaining safe access to the installation, stormwater controls, as well as general procedures for operational maintenance of the installation.

8a) Additionally, such plans shall include efforts to promote beneficial flora and fauna (e.g. honeybees, butterflies, etc.) as well as a commitment to not using pest-control substances (e.g. pesticides, herbicides, fungicides, and/or insecticides).

9) An emergency management plan for all anticipated hazards;

10) A stormwater management plan, certified by a licensed Maine engineer, that demonstrates stormwater from the SES will infiltrate into the ground beneath the SES at a rate equal to that of the infiltration rate prior to the placement of the system.

11) A background noise measurement for the site location as performed by a qualified a qualified professional.

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12)Proof of financial capacity to construct and operate the proposed facility;

13) A decommissioning plan, including:

a) A description of the trigger for implementing the decommissioning plan. There is a rebuttable presumption that decommissioning is required if 10% or less permitted capacity of electricity is generated for a continuous period of twelve (12) months. The Applicant may rebut the presumption by providing evidence, such as a force majeure event that interrupts the generation of electricity, that although the project has not generated electricity for a continuous period of 12 months, the project has not been abandoned and should not be decommissioned.

b) A description of the work required to physically remove all Solar Energy System and Solar Related Components, including associated foundations, buildings, cabling, electrical components, and any other associated facilities to the extent they are not otherwise in or proposed to be placed into productive use. All earth disturbed during decommissioning must be graded and re-seeded, unless the landowner of the affected land requests otherwise in writing and subject to Planning Board approval.

1) At the time of decommissioning, the Applicant may provide evidence of plans for continued beneficial use of any or all of the components of the Solar Energy System. Any changes to the approved decommissioning plan shall be subject to review and approval by the Planning Board.

c) An estimate of the total cost of decommissioning value of the equipment and itemization of the estimated major expenses, including the projected costs of measures taken to minimize or prevent adverse effects on the environment during implementation of the decommissioning plan. The itemization of major costs may include, but is not limited to, the cost of the following activities: panel removal, panel foundation removal and permanent stabilization, building removal and permanent stabilization, transmission corridor removal and permanent stabilization and road infrastructure removal and permanent stabilization.

d) Demonstration in the form of a performance bond, surety bond, to the Planning Board that upon the end of the useful life of the Solar Energy System the Applicant will have the necessary financial assurance in place for 150% of the estimated total cost of decommissioning, subject to a review of such cost by the Code Enforcement Officer. The financial assurance shall include a provision granting the Town the ability to access the funds and property and perform the decommissioning if the facility is abandoned or the Applicant or subsequent responsible party fails to meet their obligations after reasonable notice, to be defined in the agreement and approved by the Planning Board. For a Medium Scaled SES, the Applicant may propose securing the necessary financial assurance in phases, as long as the total required financial assurance is in place a minimum of 5 years prior to the expected end of the useful life of the Solar Energy System.

Note the applicant may apply to the Code Enforcement Officer for release of the guarantee at such time that it or its assignees remove the system and associated abandoned structures, and such completed removal is found to be satisfactory by the Planning Board.

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Section 7. Standard for Approval

In addition to the Site Review standards and requirements included in (Article 12) Town's Land Use Ordinance, the following standards must also be met:

Large and Medium- Scaled Ground-Mounted Solar Energy Systems:

1. Lots - SES shall not exceed 20% coverage of a lot area. Lot coverage shall be calculated based on the total SES airspace projected over the ground. All SES should be designed and located to ensure solar and physical access without reliance on and/or interference to/from adjacent properties.

2. Legal Responsibilities - The Applicant must provide proof that it has authorization to construct, use and maintain the property and any access drive for the life of the project and including the decommissioning of the project. The roles and responsibilities of the system owner, operator, landowner and any other party involved in the project must be clear and meet the satisfaction of the Planning Board that the public interest is protected. The owner or operator of a Ground Mounted Solar Energy System shall build and maintain it in compliance with all relevant Federal, State and Local Laws, Regulations, and Ordinances.

3. Deed Registration – Any Large or Medium Scaled SES system shall be incorporated into the description of the real property in the lot/property deed and registered with the Oxford County Registry of Deeds as a condition of Planning Board approval.

4. Setback - Structures within a SES shall be setback a minimum of 50 feet from all lot lines. Any solar photovoltaic cells or arrays shall be subject to a maximum height of 10 feet above the ground surface. Associated SES structures shall be subject to the maximum height regulations specified for principal and accessory buildings within the applicable zoning district.

5. Prohibited Locations – Components of a ground mounted SES shall not be placed within any legal easement or right-of-way location, or be placed within any stormwater conveyance system, or in any other manner that would alter or impede stormwater runoff from collecting in a constructed stormwater conveyance system.

6. Utility Notification - No grid-intertied photovoltaic system shall be installed until evidence has been given to the Planning Board that the applicant has an agreement with the utility to accept the power. Off-grid systems are exempt from this requirement.

7. Fence - Ground Mounted Solar Energy Systems shall be protected by a perimeter fence (no less than 6 feet). Such fences shall allow for small wildlife passage and movement.

8. Signage - A sign shall be required to identify the owner/operator and provide a 24-hour emergency contact phone number. Solar energy systems shall not be used for displaying any advertising. A clearly visible warning sign shall be placed at the base of all pad-mounted transformers and substations and on any fence surrounding the SES informing individuals of potential voltage hazards.

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9. Screening - Lots on which Ground Mounted Solar Energy Systems are located shall utilize buffers / screening from roads and residences by plantings, berms, and natural topographical features. Ground mounted SES shall be screened from view to the greatest extent practical of any adjacent property that is residentially zoned or used for residential purposes, as well as any public way. The screen shall consist of a vegetative barrier which provides a visual screen. In lieu of a vegetative screen, a fence that provides visual screening, and meets requirements of the controlling ordinance, may be allowed only if a vegetative screen is deemed impractical by the Planning Board.

10. Glare – All SES shall be situated to eliminate concentrated glare onto nearby structures or roadways.

11. Noise – No noise generated by the SES or Solar Related Equipment shall be 10 decibels (dB) greater than the preconstruction / existing background level, nor generate a Pure Tone. The background noise limit will be based on background noise during the quietest period of the night, typically 3:00 am.

12. Lighting - Lighting shall be limited to that required for safety and operational purposes and shall be shielded from interference with abutting properties. Lighting of the SES shall be directed downward and shall incorporate full cut-off fixtures to reduce light pollution and shall otherwise comply with the provisions of the Town of Mexico Land Use Ordinance. Other than required lighting, lighting shall not be used / visible between 9pm and 7am.

13. Impervious Assessment - The surface area of the arrays of a ground mounted SES, regardless of the mounted angle of any solar panels, may or may not be considered impervious contingent upon conformity with the stormwater management plan.

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

15. Emergency Services – SES owner or operator shall provide a copy of the project summary, electrical schematic, and site plan to the Fire Chief. Upon request, the owner or operator shall coordinate with local emergency services in developing an emergency response plan. A "3200 Series KNOX-BOX", or agreed equivalent, shall be provided and installed by the operator to be used to allow emergency service personnel continuous access. All means of shutting down the solar energy system shall be clearly marked. The Fire Department shall have access to clearly marked Emergency Shut-Off. The owner or operator shall identify a responsible person for public inquiries throughout the life of the installation.

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16. Maintenance Conditions - The SES owner or operator shall maintain the facility in good condition. Maintenance shall include, but not be limited to, painting, structural repairs, vegetative screening, fences, landscaping and plantings, and integrity of security measures. The SES must be properly maintained and be kept free from all hazards, including, but not limited to, faulty wiring, loose fastenings, being in an unsafe condition or detrimental to public health, safety or general welfare. Site access shall be maintained to a level acceptable to the fire chief for emergency response. The owner or operator shall be responsible for the cost of maintaining the SES and any access road(s), including regular plowing of snow to maintain road access.

17. Satisfaction with All Aspects of Capacity and Plans Submitted -- The Planning Board must find that the Applicant has the capacity to finance, safely operate and decommission the SES.

18. Removal - When any portion of a ground mounted SES is removed, any earth disturbance must be graded and re-seeded, unless authorized for another developed use.

19. Alternatives Assessment - As determined by the Planning Board, if a proposed ground-mounted SES does not meet the standards in this Ordinance, associated Town LUO standards, or goals and objectives as established in the Town's Comprehensive Plan, then other potential suitable alternative area(s), on the lot(s) included in the application, where a SES can meet the Town's standards, goals, and objectives needs to be evaluated by the applicant. Alternative lot areas should be evaluated against those same Ordinance standards, and Town goals and objectives.

20. Preservation of Town's Character - All reasonable efforts, as determined by the Planning Board, shall be made to ensure any SES is consistent with the character of the community via visual consistency with local neighborhood area, maintenance of scenic views, maintenance of open space land and farms, and the Town Comprehensive Plan, and associated Town planning documents.

Small-Scaled Ground-Mounted Solar Energy Systems:

1. Lots - SES shall not exceed 10% coverage of a lot area. Lot coverage shall be calculated based on the total SES airspace projected over the ground. All SES should be designed and located to ensure solar and physical access without reliance on and/or interference to/from adjacent properties.

2. Setback - Structures within a SES shall be setback a minimum of 50 feet from the side and rear property lines and meet the front setback requirements for structures within the zoning district. Any solar photovoltaic cells or arrays shall be subject to a maximum height of 10 feet above the ground surface. Associated SES structures shall be subject to the maximum height regulations specified for principal and accessory buildings within the applicable zoning district.

3. Prohibited Locations – Components of a ground mounted SES shall not be placed within any legal easement or right-of-way location, or be placed within any stormwater conveyance system, or in any other manner that would alter or impede stormwater runoff from collecting in a constructed stormwater conveyance system.

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4. Signage - Solar energy systems shall not be used for displaying any advertising.

5. Screening - Lots on which Ground Mounted Solar Energy Systems are located shall utilize buffers / screening from roads and residences by plantings, berms, and natural topographical features. Ground mounted SES shall be screened from view of any adjacent property that is residentially zoned or used for residential purposes, as well as any public way. The screen shall consist of a vegetative barrier which provides a visual screen. In lieu of a vegetative screen, a fence that provides visual screening, and meets requirements of the controlling ordinance, may be allowed only if a vegetative screen is deemed impractical by the Planning Board.

6. Glare – All SES shall be situated to eliminate concentrated glare onto nearby structures or roadways.

7. Lighting - Lighting shall be limited to that required for safety and operational purposes and shall be shielded from interference with abutting properties. Lighting of the SES shall be directed downward and shall incorporate full cut-off fixtures to reduce light pollution and shall otherwise comply with the provisions of the Town of Mexico Land Use Ordinance. Lighting shall not be used / visible between 9pm and 7am.

8. Preservation of Town's Character - All reasonable efforts, as determined by the Planning Board, shall be made to ensure any SES is consistent with the character of the community via visual consistency with local neighborhood area, maintenance of scenic views, maintenance of open space land and farms, and the Town Comprehensive Plan, and associated Town planning documents.

Roof Mounted Solar Energy Systems:

1. The owner shall provide evidence certified by an appropriately licensed professional that the roof is capable of supporting the collateral load of the SES.

2. SES mounted on roofs of any building shall be subject to the maximum height regulations specified for principal and accessory buildings within the applicable zoning district.

3. Glare – All SES shall be situated to eliminate concentrated glare onto nearby structures or roadways.

4. For firefighter access, a minimum three (3) foot buffer zone is required from the ridge and one (1) edge of the roof or parapet.

5. Preservation of Town's Character - All reasonable efforts, as determined by the Planning Board, shall be made to ensure any SES is consistent with the character of the community via consistency with local neighborhood area, maintenance of scenic views, maintenance of open space land and farms, and the Town Comprehensive Plan, and associated Town planning documents.

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Section 8. Decommissioning and Removal

1. Any Ground Mounted Solar Energy System that has reached the end of its useful life, ceases to generate power or has been abandoned shall be removed pursuant to a plan approved by the Planning Board during the application process. The landowner, or SES owner or operator shall physically remove the installation no more than 180 days after the date of discontinued operations. The owner or operator shall notify the Code Enforcement Officer by certified mail, return receipt requested, of the proposed date of the discontinued operations and plans for removal.

2. Decommissioning shall consist of:

    a. physical removal of all solar energy systems, structures, equipment, security barriers and transmission lines from the site.

    b. disposal of all solid and hazardous waste in accordance with Local, State and Federal waste disposal regulations; and

    c. stabilize or re-vegetation of the site as necessary to minimize erosion. The Code Enforcement Officer may allow the owner or operator to leave landscaping or designated below-grade foundations to minimize erosion and disruptions to vegetation.

3. Absent a notice of a proposed date of decommissioning or written notice of extenuating circumstances, a Ground Mounted Solar Energy System shall be considered abandoned when it fails to generate 10% or less permitted capacity of electricity for a continuous period of twelve (12) months without having first obtained the written consent of the Code Enforcement Officer. Determination of abandonment shall be made by the Code Enforcement Officer.

4. If the owner or operator of a Ground Mounted Solar Energy System fails to remove the installation in accordance with the requirements of this section within 180 days of abandonment or the proposed date of decommissioning, the Town of Mexico retains the right to use the performance guarantee and any and all legal or available means necessary to cause an abandoned, hazardous or decommissioned solar energy system to be removed.

Section 9. Modifications

1. Any physical modification to any existing SES, whether existing prior to the effective date of this Ordinance, shall require review and approval under this Ordinance.

2. Any modifications to a Medium to Large Scaled Ground-Mounted Solar Energy System made after issuance of the required town permit(s) shall require approval by the Planning Board.

3. Any modifications to a Small-Scaled Ground-Mounted Solar Energy System made after issuance of the required town permit{s) shall require approval by the Code Enforcement Officer.

4. Application fees for modifications shall be consistent with the overall size of the SES, not solely the modification.

5. Permit fees for modifications shall be based on the modified portion of the SES.

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1. This Ordinance is adopted pursuant to the enabling provisions of Article VIII, Part 2, Section 1 of the Maine Constitution, provisions of 30-A, M.R.S. § 3001, Ordinance Power, the provisions of 30-A, M.R.S. § 4352, Zoning, and the provisions of Title 30-A §4311 et seq. (Comprehensive Planning and Land Use Regulation, or "Growth Management" Act).

2. To the extent that any provision of this Ordinance is deemed invalid by a court of competent jurisdiction, such provision shall be removed from the Ordinance and the balance of the Ordinance shall remain valid.

Section 11. Effective Date and Duration

This Ordinance shall take effect on June 13 2023 upon enactment by the Town of Mexico unless otherwise provided and shall remain in effect until it is amended or repealed.

Section 12. Enforcement Violations and Penalties

This Ordinance shall be enforced by the municipal officers or their designee. Violation of this Ordinance shall be subject to the enforcement and penalty provisions of 30-A, M.R.S. § 4452, Enforcement of Land Use Laws and Ordinances.

DATE ADOPTED: **JUNE 13, 2023**

ATTESTED: Tami A. Vradenburgh

Tami A. Vradenburgh, Town Clerk

THOMAS "TJ" WILLIAMS, CHAIRMAN

KEVIN JAMISON

RITCHIE PHILBRICK, VICE-CHAIR

PETER MERRILL

RANDAL CANWELL