

**AN ORDINANCE CREATING A NEW ARTICLE XVI CHAPTER 42,
TITLED “RENEWABLE ENERGY SYSTEMS,” WITHIN THE CODE
OF ORDINANCES OF THE CITY OF MEXICO**

WHEREAS, the use of Renewable Energy Systems are becoming more prevalent and the City of Mexico desires to promote energy conservation; and

WHEREAS, the City desires to adopt regulations concerning the use of Renewable Energy Systems in order to strike an appropriate balance between the use of available renewable energy technology and the protection of the health, safety, and welfare of neighboring properties and the occupants thereof; and

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF MEXICO, MISSOURI, AS FOLLOWS:

Section One. Chapter 42, “Zoning” is hereby amended by enacting a new article XLII, “Renewable Energy Systems,” to read as follows:

ARTICLE XLII. RENEWABLE ENERGY SYSTEMS

DIVISION I. GENERALLY

Sec. 42-1000: GENERAL

The general purpose of this Article is to regulate the placement, construction, and modification of Renewable Energy Systems in order to protect the health, safety, and welfare of the public, while at the same time promoting and not unreasonably interfering with the use of Renewable Energy Systems in the City. Specifically, this Section is intended to:

1. Provide for the appropriate location and development of certain Renewable Energy Systems to serve the citizens and businesses of the City; and
2. Minimize adverse visual impacts of Renewable Energy Systems through careful design, siding, landscape screening, and camouflaging.

SECTION 42-1001: APPLICABILITY

- A. This Article applies to Renewable Energy Systems to be installed and constructed after the effective date of the Article.
- B. Except as specified below, Renewable Energy Systems constructed prior to the effective date of this Article shall not be required to meet the requirements of this Article.
- C. Any upgrades, modifications, or changes that materially alter the size or placement of an existing Renewable Energy System shall comply with the provisions of this Article.

SECTION 42-1002: ABANDONMENT

Any Renewable Energy System that is out of service for a period of six (6) months will be considered abandoned and must be removed within sixty (60) days. If such System is not removed within sixty (60) days, the City may remove such System at the owner's expense after giving the owner notice and an opportunity to be heard with respect to removal.

SECTION 42-1003: PENALTY

Any person violating any provision of this Article shall be subject to a penalty as provided in Section 1-12. Each day the violation continues shall constitute a separate offense.

SECTION 42-1004: DEFINITIONS

As used in this Article, the following terms shall have these prescribed meanings:

ARRAY: A number of solar panels or modules connected together in a single structure. One (1) installation can have more than one (1) array.

BUILDING-INTEGRATED PHOTOVOLTAIC SYSTEM (BIPV): Photovoltaic system used to replace traditional building materials in part of a building envelope, like awnings, roofs, facades, and sunrooms. PV shingle or tiles, PV laminates, and PV glazing are all examples of BIPV.

BUILDING-MOUNTED SMALL WIND ENERGY SYSTEM: A Small Wind Energy System affixed to either a principal or accessory structure including vertical-axis or horizontal-axis systems mounted on any building.

BUILDING-MOUNTED SOLAR ENERGY SYSTEM: A Solar Energy System affixed to either a principal or accessory structure.

COMMERCIAL SOLAR FARM FACILITY – A Renewable Energy System facility that consists of one or more ground or free-stranding Solar Energy Systems, related equipment, and associated infrastructure, with the primary intention of generating electricity or otherwise converting solar energy to a different form of energy for primarily commercial or other off-site use.

GEOTHERMAL OR GROUND-SOURCE HEAT-PUMP SYSTEM: A system for heating and/or cooling buildings using the earth's thermal properties in conjunction with electricity.

GROUND-MOUNTED SOLAR ENERGY SYSTEM: A Solar Energy System that is not attached to another structure and is affixed to the ground.

GROUND-MOUNTED WIND ENERGY SYSTEM: A Small Wind Energy System that is not attached to another structure and is affixed to the ground and consists of a Tower consisting of a single pole, constructed without guyed wires and anchors.

RENEWABLE ENERGY SYSTEMS: Geothermal or ground-source heat-pump, Solar Energy Systems, and Small Wind Energy Systems used to reduce on-site energy consumption, or

Commercial Solar Farm Facilities which generate energy to be used for primarily commercial or other off-site use.

ROOF-MOUNTED SOLAR ENERGY SYSTEM: A Solar Energy System affixed to the roof of either a principal or accessory structure.

SMALL WIND ENERGY SYSTEM: Any apparatus or equipment designed for the purpose of converting wind energy into electrical energy to reduce on-site consumption of utility power. This includes any Building-Mounted Wind Energy System or Ground-Mounted Wind Energy System over eight (8) feet in height.

SOLAR ENERGY SYSTEM: Any apparatus or equipment designed for the purpose of collecting and transforming solar energy into electric energy, such as photovoltaic systems. Solar Energy Systems shall not include any system which convert solar energy into thermal energy.

TOWER: The vertical component of a Small Wind Energy System that elevates the wind turbine generator and attached blades above the ground.

DIVISION II. RENEWABLE ENERGY SYSTEM REGULATIONS

SECTION 42-1005: GENERAL PROVISIONS FOR RENEWABLE ENERGY SYSTEMS

A. *Applicability of City Ordinances.* Renewable Energy Systems shall comply with all applicable provisions of the Municipal Code and the standards of this Article.

B. *Principal or Accessory Use.* Renewable Energy Systems intended primarily to offset part or all of the customer-generator's own electrical energy requirements shall be an accessory use subject to the provisions of this Article. All other Renewable Energy Systems are considered a principal use.

C. *Lot Location.* All Renewable Energy Systems as accessory uses shall be located on the same lot as the principal use they serve. For Commercial Solar Farm Facilities, such use may be the principal use on such lot.

D. *Maintenance.* The property owner on the lot where the Renewable Energy System is located is solely responsible at all times to maintain and keep in good, safe working condition the Renewable Energy System.

E. *Federal and State Compliance.* All Renewable Energy Systems shall meet or exceed state and federal standards and regulations in force at the time of installation.

F. *Trees.* This Article is not intended to preclude any property owner from having trees or other permitted structures on their property that would or could possibly interfere with any

Renewable Energy System.

SECTION 42-1006: SOLAR ENERGY SYSTEMS

A. Roof-Mounted Solar Energy Systems. Roof-mounted Solar Energy Systems shall be permitted by administrative permit in all districts pursuant to Sections 42-1011 provided that the application meets the following provisions applicable to the construction and/or installation of Roof-mounted Solar Energy Systems:

1. *Location.* A roof mounted system may be located on any roof face of a principal or accessory building, but shall not extend above the peak of the roof with an unoccupied area of 2' in the front and 4' in the rear.
2. *Mounting on pitched roofs.* The mounting of solar arrays to a pitched roof in a parallel or a flush manner is the preferred method. Parallel mounting shall be placed no more than eight (8) inches higher than the roof surface. If a pitched array mounting system is proposed, the mounting system must be supported by specific engineering drawings.
3. *Mounting on flat roofs.* Arrays on flat roofs shall be screened from view by a parapet or other architectural feature that is compatible with the existing architecture and does not exceed the height and other requirements of the underlying zoning districts.
4. *Glare.* Roof-Mounted Solar Energy Systems shall be installed to avoid concentrated radiation or glare onto neighboring properties or traffic. The energy absorbing components of the system shall be a non-glare material.

B. Ground-Mounted Solar Energy Systems. Ground-mounted Solar Energy Systems, excluding Commercial Solar Farm Facilities, may be permitted by administrative permit in all districts pursuant to Section 42-1011 but only upon an Applicant's showing that a Roof-Mounted Solar Energy System is not technologically and physically feasible, and only in accordance with the following conditions:

1. *Yard requirement.* Ground-Mounted Solar Energy Systems shall only be located in the rear yard of any zoning district.
2. *Setbacks and lot coverage.* Ground-Mounted Solar Energy Systems must comply with all setback requirements for the zoning district in which the property is located.
3. *Height requirement.* Ground-Mounted Solar Energy Systems may not exceed the maximum height of the principal structure on the property. In any event, Ground-Mounted Solar Energy Systems may not exceed six (6) feet in height in any residential zoning district measured from the average grade at the base of the supporting structure to the highest edge of the system.
4. *Screening requirement.* All Ground-Mounted Solar Energy Systems shall be screened from view at-grade from all adjacent streets and adjacent properties by fencing, walls, plantings, or other architectural feature or combination thereof in compliance with

the requirements of the underlying zoning districts.

5. *Color.* The Ground-Mounted Solar Energy Systems shall be black or gray.

6. *Underground utilities.* All exterior electrical and/or plumbing lines must be buried below the surface of the ground in accordance with the current Electrical and Plumbing Codes adopted by the City.

7. *Maintenance.* All Ground-Mounted Solar Energy Systems shall be well maintained underneath the Array with the installation of mulch, chat, rocks, or other attractive materials. The Ground-Mounted Solar Energy Systems shall be maintained to avoid violation of Chapter 26 prohibiting nuisances relating to weeds, tall grass, and brush.

8. *Removal.* If a Ground-Mounted Solar Energy System is removed, any earth disturbance as a result of the removal shall be graded and reseeded.

9. *Glare.* Ground-Mounted Solar Energy Systems shall be installed to avoid concentrated radiation or glare onto neighboring properties or traffic. The energy absorbing components of the system shall be a non-glare material.

C. *Commercial Solar Farm Facilities.* Commercial Solar Farm Facilities may be permitted as an Additional Use in accordance with Article XI of Chapter 42 in the C-2 General Commercial District, the C-3 Business District, the I-1 Light Industry District, and the I-2 Heavy Industry District pursuant to Section 42-1011, in accordance with the following additional conditions:

1. *Size; extent.* Commercial Solar Farm Facilities shall be only located on a parcel that is at least one (1) acre in size, and cannot be located on a parcel that is more than one thousand (1,000) acres. Commercial Solar Farm Facilities shall be limited to a coverage of one and one-fourth (1.25) square miles.

2. *Setbacks, height, and lot coverage.* Commercial Solar Farm Facilities must comply with all setback, height, and lot coverage requirements for the zoning district in which the property is located.

3. *Stormwater and drainage.* All Commercial Solar Farm Facilities shall be designed to comply with City stormwater and drainage requirements to prevent flooding or groundwater pollution.

4. *Screening requirement.* All Commercial Solar Farm Facilities shall be screened from view at-grade from all adjacent streets and adjacent properties by fencing, walls, or plantings, or other architectural feature or combination thereof in compliance with the requirements of the underlying zoning districts.

5. *Color.* The photovoltaic systems used by a Commercial Solar Farm Facility shall be black or gray.

6. *Underground utilities.* All exterior electrical and/or plumbing lines must be buried below the surface of the ground in accordance with the current Electrical and Plumbing Codes adopted by the City, unless demonstrated by the property owner(s) to be unreasonable given the topography or other special circumstances of the property dictating limited above-ground utility lines.

7. *Decommissioning; bonding requirements.* All Commercial Solar Farm Facilities shall submit to the City for approval a plan for decommissioning the Commercial Solar Farm Facility detailing the removal of all equipment, stabilizing and reseeded of the underlying property, and disposal of materials. Within such decommissioning plan, the property owner(s) shall post a bond with the City to secure decommissioning of such Commercial Solar Farm Facility in line with the decommissioning plan submitted to the City. The amount of such bond shall be as determined by the Administering Officer provided for in Section 42-56. In the event that the property owner(s) do not decommission the Commercial Solar Farm Facility in accordance with the approved decommissioning plan, the City may draw on the decommissioning bond and conduct the decommissioning work in accordance with the approved decommissioning plan.

8. *Glare.* Commercial Solar Farm Facilities shall be installed to avoid concentrated radiation or glare onto neighboring properties or traffic, and in accordance with any federal or state requirements controlling glare from such facilities. The energy absorbing components of the system shall be a non-glare material. Such regulations may also include applicable Federal Aviation Administration (FAA) regulations for such facilities, and if such regulations are applicable the property owner(s) shall submit proof of compliance with such FAA requirements. If within five hundred (500') feet of the Mexico Memorial Airport, the property owner(s) must complete and provide the results of the Solar Glare Hazard Analysis Tool (SGHAT) for the Airport Traffic Control Tower cab and final approach paths, consistent with FAA policies.

D. In addition to the requirements of Sections A, B, and C above, all approved Solar Energy Systems shall comply with the following at all times:

1. *Maintenance.* It shall be the obligation of the property owner(s) where the Solar Energy System is located to maintain such system free of defects, deterioration, and rust.

2. *Safety disconnect.* The electric disconnect for all Solar Energy Systems shall be located near the electric meter on the exterior of the building being served (or other location approved by the City's Department of Public Safety) and identified as the Solar Energy System disconnect to facilitate emergency operations by the City's Fire Department.

3. *Advertisement.* A Solar Energy System shall not be used to display advertising. The manufacturer's and equipment information, warning, or indication of ownership shall be allowed on any equipment of the Solar Energy System provided that the signage is not for advertising purposes.

SECTION 42-1007: SMALL WIND ENERGY SYSTEMS

Small Wind Energy Systems, including Building-Mounted Wind Energy Systems and Ground-Mounted Wind Energy Systems, are not permitted.

SECTION 42-1008: GEOTHERMAL SYSTEMS

Geothermal heat pump systems may be permitted by administrative permit in all districts pursuant to Section 42-1011 and the following:

A. *Easement and Setback Requirements.* Drilling and trenching for geothermal heat pump systems shall be prohibited on any easement. Any Geothermal System must comply with the requirements of this Article and all setback and zoning restrictions of the applicable zoning district.

B. *State Requirements.* All geothermal heat pump systems shall comply with all applicable Missouri codes and regulations.

DIVISION III. PERMIT REQUIREMENTS

SECTION 42-1009: BUILDING PERMIT

It shall be unlawful for any person or entity to construct, erect, and/or install any permitted Renewable Energy System without first applying for and obtaining a building permit (including any other permit needed pursuant to Section 42-130, collectively referred to as the “Building Permit”), and complying with the following requirements:

- A. Payment of a review fee in accordance with the fee schedule in Section 42-1014 plus the applicable Building Permit fee in accordance with Chapter 6;
- B. Filing of an application for permit that, in addition to the requirements below, is in the form and meets the requirements prescribed by Chapter 42;
- C. Submission of building and design plans for the Renewable Energy System and including therewith a certification from a licensed Missouri engineer or architect that all such plans and design are in compliance with this Article and all other applicable state and federal requirements;
- D. For all Roof-Mounted Solar Energy Systems, the certification shall include details of the weight of each Array per square foot and certifying that the supporting structure has the structural integrity to carry the weight and wind loads of the Solar Energy System; and,
- E. In addition to application for a Building Permit, depending on the type of Renewable Energy System, an application for an administrative permit pursuant to Section 42-1011 is also required, which shall be applied for at the same time as application for the Building Permit.

SECTION 42-1010: OTHER PERMITS

A. *Electrical Permit.* It shall be unlawful for any Renewable Energy System to be constructed, erected, and/or installed without first applying for and obtaining an electrical permit in accordance with the City's current adopted Electrical Code.

B. *Code Compliance.* Renewable Energy Systems shall comply with all applicable Building, Mechanical, Fire, Plumbing, and Electrical Codes.

C. *Other Permits.* Nothing in this Article shall relieve the applicant from applying for and obtaining any other required local, state, or federal permit.

SECTION 42-1011: AUTHORIZATION BY ADMINISTRATIVE PERMIT

A. *Authorized Use.* The placement of allowable Renewable Energy Systems is permitted by administrative permit in all zoning districts in compliance with the requirements contained in this Article and specifically Sections 42-1006, 42-1007, and 42-1008, and the required Building Permits under Sections 42-1009 and 42-1010.

B. *Application Procedure.* Application for administrative permits shall be made by all owners of record or owners under contract of a lot or tract of land (with contract granting such interest attached) on the appropriate forms to the Administering Officer provided for in Section 42-56 and accompanied by payment of the established fee.

1. Application Contents:

a. A detailed site plan indicating:

- 1) all existing and proposed improvements including buildings, drives, walkway, parking areas;
- 2) location of overhead utility wires;
- 3) the zoning categories of the property and adjoining properties;
- 4) the location of and distance to off-site residential structures;
- 5) all existing or proposed buffer and landscaping;
- 6) the proposed location of the Renewable Energy System; and
- 7) any other relevant information or drawings requested by the Administering Officer provided for in Section 42-56 to assist in his/her review.

b. Detailed drawings of support structures where applicable.

- c. A picture or other representation of the sample colors for the proposed Renewable Energy System and for Roof-Mounted Solar Energy Systems, the structure's roof material demonstrating whether the proposed Solar Energy System architecturally blends with the roof in color and texture.
 - d. All electrical plans.
 - e. Sectional drawings, plan view, and elevation views. Detail all connections.
 - f. Manufacturer's cut sheets/diagrams installation instructions that describe the system and installation.
 - g. The design approval letter from the utility company shall be submitted for customers requesting to interconnect to the utility company's electrical grid.
 - h. For Roof-Mounted Solar Energy Systems, a structural certification statement (properly signed, sealed, and dated by a Missouri Licensed Engineer). The structural certification statement shall state the existing structure with the addition of the solar energy device is capable of supporting the design load referenced in all applicable building and other code requirements.
2. The application shall be reviewed by the Administering Officer provided for in Section 42-56 to determine compliance with the standards and requirements of this Article and applicable building codes. Simultaneous to the City's review, Applicant shall transmit the application to other departments and public agencies that may be affected by the proposed Renewable Energy System, including the City's Fire Department, for review and comment. Any comments or conceptual approvals Applicant receives from the reviewing agencies shall be provided to the City.
3. The application shall also be reviewed by the Administering Officer provided for in Section 42-56 to determine compliance with all setback and lot dimension requirements.
4. The Administering Officer provided for in Section 42-56 may deny the application or approve the application as submitted or with such modifications or conditions as are, in his/her judgment, reasonably necessary to protect the safety or general welfare of the citizens consistent with the purposes of this Article. A decision to deny an application shall be made in writing, and state the specific reasons for the denial.
- B. *Appeals.* Appeals from the decision of the Administering Officer provided for in Section 42-56 shall be made to the Board of Adjustment pursuant to Chapter 42, Article II, Division 3 of the City Code.

SECTION 42-1012: RESERVED.

SECTION 42-1013: SITE INSPECTION

Immediately upon completion of installation of any Renewable Energy System, the contractor and/or property owner shall contact the Administering Officer provided for in Section 42-56 for a final inspection of the installation. The system cannot begin operating until it has received

approval from both the City and the electric utility. The inspections focus on verifying that an installation is code compliant with electrical, building code, and fire safety requirements. Among other things, the inspection verifies labeling of equipment to limit firefighter exposure to electrical voltage, space for firefighters to access the building or structure, and limitations in roof installations due to firefighting suppression techniques to ensure fire safety of the installation.

SECTION 42-1014: REVIEW AND INSPECTION FEES

A. The review and inspection fee to be paid for an administrative permit to install a Renewable Energy System shall be as follows:

Fee Amount	Cost of Project
\$150.00	up to \$3,000.00
\$300.00	between \$3,001.00 to \$5,000.00
\$425.00	between \$5,001.00 to \$7,500.00
\$500.00	between \$7,501.00 to \$10,000.00
\$750.00	Over \$10,000.00

B. Fee Administration.

1. The review and inspection fees set forth in Subsection (A) of this Section shall be paid in anticipation of the City's expenses incurred in processing the application or submission at issue, including, but not limited to, administrative and clerical costs, costs of engineering, planning, and legal review, cost of site inspections, cost of publication expenses, expenses of notification to adjoining property owners, expenses of hearings, if necessary, and other administrative costs incurred by the City. Processing and all other actions related to the application or submittal shall not proceed until the applicable fee is paid in full.

2. In the event the fee or deposit noted are insufficient to pay all such expenses incurred by the City, the City Clerk and/or the Administering Officer provided for in Section 42-56 may document additional costs incurred by the City and request payment of same within thirty (30) days. Processing and all other actions related to the application shall not proceed until such additional sums are paid in full.

Section Two. Section 42-678, entitled “Additional buildings and uses authorized upon permit obtained, generally.” is hereby amended by adding the following additional use:

(16) Commercial Solar Farm Facilities, in accordance with Section 42-1006(C).

All other portions of Section 42-678 that are not amended by this Ordinance shall remain in full force and effect.

Section Three. The portions of this Ordinance shall be severable. In the event that any portion of this Ordinance is found by a court of competent jurisdiction to be invalid, the remaining portions of this Ordinance are valid, unless the court finds the valid portions of this Ordinance are so essential and inseparably connected with and dependent upon the void portion that it cannot be presumed that the City Council would have enacted the valid portions without the invalid ones, or unless the court finds that the valid portions standing alone are incomplete and are incapable of

being executed in accordance with the legislative intent.

Section Four. This Ordinance shall be in full force and effect on and after its passage and approval by the City Council and the Mayor.

PASSED THIS 22ND DAY OF AUGUST 2022

MAYOR

ATTEST:

CITY CLERK