

Lee County Board

Dixon, Illinois

ORDINANCE NO. _____

AN ORDINANCE AMENDING THE REGULATING DEVELOPMENT OF SOLAR ENERGY SYSTEMS ORDINANCE

The purpose of this ordinance is to facilitate the construction, installation, and operation of solar farms (Solar Energy Systems – SES) in Lee County that promote economic development and ensure the protection of health, safety, and welfare while also avoiding adverse impacts to important areas such as agricultural lands, endangered species habitats, conservation lands, and other sensitive lands. This ordinance is not intended to replace safety, health, or environmental requirements contained in other applicable codes, standards, or ordinances. The provisions of this ordinance shall not be deemed to nullify any provisions of local, state or federal law.

- A. **Definition:** As used in this section, a Solar Energy System (“SES”), also known as a solar power plant and a solar farm, means an alternative energy facility that consists of one or more ground-mounted or free-standing solar collection devices, solar energy related equipment, and other 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.
- B. **Construction of Solar Energy Systems:** No person shall construct or operate an SES without having fully complied with the provisions of this section.
- C. **Permits Required:** No person shall construct an SES without first obtaining both a special use permit and a building permit.
- D. **Special Use:** An SES shall be permitted in the Ag-1 district as a special use, in accordance with the following regulations and design standards.
 - 1. **Design standards.** The design standards and bulk regulations listed in the Ag-1 district for setbacks, lot size, lot coverage, lot area, height, and signage shall be suspended for an SES and the following regulations shall apply instead. All other design standards and bulk regulations of the district shall apply.
 - a. **Foundations.** The manufacturer’s engineer or another qualified engineer shall certify that the foundation and design of the solar panels is within accepted professional standards, given local soil and climate conditions.
 - b. **Other standards and codes.** All solar farms shall be in compliance with any applicable local, state and federal regulatory standards, and the National Electric Code as amended. All electrical components of the SES must have an Underwriters Laboratories listing or equivalent and all solar collectors must be designed with an anti-reflective coating.

- c. Power and communication lines. Power and communication lines (“Lines”) running between banks of solar panels shall be buried underground except from point of interconnection to existing utility-owned, above-ground electrical wires. The Zoning Administrator, when or after granting a building permit, may grant variances when shallow bedrock, watercourses, or other elements of natural landscape interfere with the ability to bury Lines.
- d. Height. Systems, equipment, and structures shall not exceed twenty (20) feet in height when ground mounted. Excluded from this height requirement, however, are electric transmission lines, utility poles, and other poles and equipment used in connecting a ground-mounted piece of equipment to an electric transmission line.
- d. Setbacks. A ground-mounted SES shall have a setback for all equipment excluding fences a minimum of three hundred (300) feet from the front property line and three hundred (300) feet from side and rear property lines in an agricultural district, or six hundred (600) feet from any foundation of a primary dwelling. The SES shall be set back a minimum of six hundred (600) feet from the property line of a platted subdivision, a non-participating land owner, or other residence that is not in an Ag-1 district. Setbacks for inverters and transformers shall be no less than one thousand (1000) feet from any residence that is not on property that is permitted under the special use permit. The Zoning Board of Appeals may recommend granting a variance to any setback requirement if the proposed or existing buffer is sufficient to screen the SES from view from adjoining property or public rights-of-way or, if the owners of the adjoining properties agree to waive these setback requirements. The Zoning Board of Appeals’ recommendation regarding any variations will be a part of the Zoning Board of Appeals’ recommendation to the County Board.
- f. Security. Knox boxes and keys shall be provided at locked entrances for emergency personnel access.
- g. Lighting. If lighting is provided at the site, lighting shall be shielded and downcast so that the light does not spill onto adjacent parcels.
- h. Noise. Noise levels must meet the Illinois Pollution Control Board noise standards. (35 IL Administrative Code Part 900) After construction of the SES, the Zoning Administrator shall take appropriate enforcement action as necessary to investigate noise complaints and take any additional enforcement action as proves warranted to stop any violation that is occurring, including but not limited to requiring the facility owner or operator to take reasonable steps to mitigate the noise complaint.
- i. Glare. Solar collectors shall be placed such that concentrated solar glare does not project onto nearby structures, roadways or other areas accessible to the public. The applicant has the burden of proving that any glare produced does not have significant adverse impact on neighboring or adjacent uses either through siting or mitigation. After construction of the SES, the Zoning

Administrator shall take appropriate enforcement action as necessary to investigate complaints of glare in or to determine the validity of the complaints and take any additional enforcement action as proves warranted to stop any significant glare that is occurring, including but not limited to requiring the facility owner or operator to take reasonable steps to mitigate the glare such as the installation of additional screening.

j. Screening. A visual screen shall be provided around the perimeter of the SES as follows:

i. With the exception of the participating landowner, a visual screen shall be provided for any part of the SES that is visible to and located within one thousand (1,000) feet of an existing dwelling or residential district except that the visual screen may not be required within the full one thousand (1,000) feet of an existing dwelling or residential district provided the applicant submits a landscape plan prepared by an Illinois Registered Landscape Architect and the Zoning Board of Appeals finds that the visual screen in the landscape plan provides adequate screening. However, the visual screen shall not be required if the SES is not visible to a dwelling or residential district by virtue of the existing topography.

ii. The visual screen shall be waived if the resident of the dwelling(s) have agreed in writing to waive the screening requirement and a copy of the written waiver is submitted to the Zoning Administrator.

iii. A vegetated visual screen buffer shall include a continuous line of native evergreen foliage and/or native shrubs/trees and/or any existing wooded area plantings that will meet height requirements specified to conceal the SES from view from adjacent abutting property.

iv. Any vegetation that is part of the approved visual screen buffer shall be maintained in perpetuity of the SES. If the screen foliage drops below a height of seven (7) feet disappears over time, the screening shall be replaces within the next growing season.

v. All screen buffer shall be detailed in a landscape plan drawing that shall be included with the SES application.

k. Signage. An appropriate warning sign shall be provided at the entrance to the facility and along the perimeter to the SES. The sign at the entrance to the facility shall include the facilities 911 address and a 24-hour emergency contact number.

l. Outdoor storage. Only the outdoor storage of materials, vehicles and equipment that directly support the operation and maintenance of the SES shall be allowed, except for outdoor storage that is otherwise expressly allowed in the zoning district as specified herein. The Zoning Administrator or his or her designee shall have the discretion to determine whether outdoor storage complies with this provision.

- m. During construction of the SES, construction activities shall commence no earlier than 6:00 A.M. and shall be discontinued no later than 9:00 P.M.

E. Application requirements: Due to the unique nature and special requirements of SES and the potential impacts of an SES on adjoining properties and government services, SES shall be required to submit and obtain approval on the following items in addition to any requirements specified in the special use section of the County Code or special conditions required by the County Board. The required information must be submitted either with the application or during the hearing on the application before the Zoning Board of Appeals. The applicant shall provide fifteen (15) copies of all required submittals to the Zoning Office. However, the applicant shall only be required to submit two (2) copies of all documents proving ownership or interest in the property. The applicant shall be required to seek a special use permit for parcels of real estate on which shall be constructed solar collection devices, solar energy related equipment, substations, and other associated infrastructure. A special use permit is not required for a parcel of real estate on which shall be placed or buried only one or more Lines, electric transmission lines, or poles. The application for special use permit need not identify the specific location of each solar panel, access road, access point, underground or overhead electric line, transformer, or other element of the SES. The applicant for a building permit, however, must provide the Zoning Administrator the specific location of each solar panel, access road, access point, underground or overhead electric line, transformer, or other element of the SES.

1. A site plan with existing conditions showing the following:

- a. Existing property lines from the exterior boundaries, including the names of adjacent property owners and current use of those properties.
- b. Existing public and private roads, showing widths of the roads and any associated easements.
- c. A contour map showing topography at two-foot intervals of the project site.
- d. Existing vegetation (list type and percent of coverage: i.e. cropland, grassland, wooded areas etc.).
- e. Waterways, streams, and rivers.
- f. A copy of the current FEMA FIRM map that shows the subject property.
- g. Mapped soils according to the Lee County Soil Survey.
- h. Surface water drainage patterns.

2. A plan for the SES showing the following:

- a. Planned location and spacing of solar panels.
- b. Planned location of access roads and access points.

- c. Planned location of Lines connecting the SES to a building, substation, or other electric load.
- d. Planned new electrical equipment other than at the existing building or substation that is to be the connection point for the SES.
- e. Weed/Grass Control. The applicant shall submit and adhere to an acceptable weed/grass control plan for property inside and outside the fenced area for the entire property. Vegetation between the fencing and the property line shall be maintained such that noxious weeds are controlled or eradicated consistent with the Illinois Noxious Weed Law (505 ILCS 100/1 et seq.).
- f. Fencing. Security fencing having a minimum height of six (6) feet shall be installed, maintained, and secured around the solar panels and all energy producing and storage equipment of the SES and required to comply with the National Electric Code requirements for fencing. The fence shall contain appropriate warning signage that is posted such that it is clearly visible on the site. The required fence shall be maintained to prevent the growth of woody vegetation within and along the fence.
- g. Landscaping. A landscape plan shall be submitted which shall incorporate native grasses, flowers, plants which will provide wild life and pollinator habitat, soil erosion protection and/or aid in strengthening the soil structure. This plan shall be for all other areas of the SES that will not interfere with the solar arrays.

3. Manufacturer's specifications.

- a. The applicant shall provide standard manufacturer's specifications and recommended installation methods for all major equipment, including solar panels, mounting systems and foundations for poles and racks. Specifications for the actual equipment to be used in the SES shall be required before a building permit is issued.

4. Connection and Interconnection.

- a. A description of the method of connecting the SES to a building or substation.
- b. At the time of applying for building permit, the applicant shall provide proof that the applicant has entered into an agreement to sell the power to be generated by the SES.

5. Aviation Protection.

- a. For any SES to be located within five hundred (500) feet of an airport or within approach zones of an airport, the applicant shall 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 the Interim Policy, FAA Review of Solar Energy Projects on Federal Obligated Airports, or most recent version adopted by the FAA.

6. Fire Protection.

- a. The facility owner or operator of the SES shall provide for a fire protection plan for the construction and the operation of the facility and shall provide for and maintain reasonable means of access for emergency services.

7. Endangered Species and Wetlands.

- a. The applicant shall be required to initiate a natural resource review consultation with the Illinois Department of Natural Resources (IDNR) through the Department's online EcoCat Program. The applicant shall include a copy of the Agency Action Report and the response from the Illinois Department of Natural Resources. Areas reviewed through this process will be endangered species and wetlands. The cost of the EcoCat consultation shall be borne by the applicant.
- b. The SES shall be located, designed, constructed, and operated so as to avoid and if necessary mitigate the impacts to wildlife to a sustainable level of mortality.

8. Road Use Agreements.

- a. All routes on either County or Township roads that will be used for construction or maintenance purposes shall be identified on the site plan. The routing shall be approved by the Lee County Highway Engineer and the Township Road Commissioners. The applicant shall provide a preconstruction baseline survey for determining existing road conditions that assesses potential future road damage and provide a letter of credit or other financial security as required by the Lee County Highway Engineer.

9. Storm Water Management, Retention of Topsoil and Minimized Disturbance to Prime Farmland.

a. Storm Water Management

Best management practices shall be employed to minimize erosion and sedimentation during construction of the SES.

b. Retention of all Topsoil

No topsoil may be removed, stripped, or sold from the proposed SES site pursuant to or as part of the construction of the SES.

c. Minimizing Disturbance of Prime Farmland as defined by the U.S. Department of Agriculture

Any SES to be located on identified prime farmland shall minimize the disturbance to prime farmland as follows:

- i. The disturbance to prime farmland caused by construction, operation, and deconstruction of the SES shall be minimized at all times consistent with good engineering practice.
- ii. Disturbance to prime farmland shall be offset by establishment of a vegetative ground cover within the SES that includes the following:
 - (a) The vegetative ground cover shall use native plant species as much as possible and shall be based on a site assessment of the site geography and soil conditions.
 - (b) The species selected shall serve a secondary habitat purpose as much as possible.
 - (c) Maintenance of the vegetative ground cover shall use a combination of management approaches to ensure safe, cost-effective, reliable maintenance while minimizing environmental risks.
 - (d) The plan to establish and maintain a vegetative ground cover that includes native plant species as much as possible shall be detailed in a landscape plan included in the SES application. The landscape plan shall include the weed control plan required by subsection E (2-e).
 - (e) The SES shall be in compliance with the recommendations of the Lee County Soil & Water Conservation District's Natural Resources Information Report as to the appropriate vegetative ground cover species selections.

10. Drainage. The applicant shall commit to repairing or restoring all drainage tiles damaged during construction and deconstruction to the same or better condition as to when construction began specifically outlined in the Illinois Agricultural Impact Mitigation Agreement. The applicant also shall commit to contact local drainage districts before beginning construction to locate drainage district tiles.

11. Agricultural Impact Mitigation Agreement (AIMA). The applicant shall enter into an AIMA with the Illinois Department of Agriculture, not less than 45 days prior to commencement of actual construction. (505 ILCS 147/15)

12. Interference: The applicant shall verify that there will be no communication interference resulting from the SES project. If, after the start of the Commercial Operation Date of the SES project, the facility owner or operator receives a written complaint from a property owner within a one (1) mile radius around the project boundary, related to interference with local broadcast residential television or radio, the facility owner or operator shall respond within ten (10) working days after being notified, and shall use commercially reasonable efforts to mitigate any problems on a case-by-case basis.
13. Duration of Special Use Permit. Notwithstanding the provisions of Section 10-2A-3 of the Lee County Code, the Zoning Administrator shall revoke a special use permit granted for an SES when a building permit has not been secured within three (3) years from the date the special use was granted. The County Board may extend this three-year period for such time as it shall determine, for good cause and without further hearing before either the Zoning Board of Appeals or the County Board.

F. Operational Standard Conditions

1. Maintenance

- a. The facility owner or operator of the SES must submit, on or before the first (1st) anniversary of the Commercial Operation Date, a summary of operation and maintenance reports to the Zoning Administrator and any other operation and maintenance reports as the Zoning Administrator reasonably requests.
- b. Any physical modification to the SES that increases the number of solar conversion devices or structures and/or the land area occupied by the SES shall require a new special use permit. Like for like replacements of all SES components including but not limited to solar panels, transformers, inverters, batteries, cabling, shall not require re-certification provided replacement is done in an equivalent fashion to the original installation and the required replacement permit fees are paid.
- c. The applicant shall explain methods and materials used to clean the SES equipment including an estimation of the daily and annual gallons of water used and the source of the water and the management of wastewater. The Zoning Board of Appeals may request copies of well records from the Illinois State Water Survey and may require an estimate by a qualified hydrogeologist of the likely impact on adjacent water wells.

2. Materials Handling, Storage and Disposal

- a. All solid wastes related to the construction, operation and maintenance of the SES shall be removed from the site promptly and disposed of in accordance with all federal, state and local laws.

- b. All hazardous materials related to the construction, operation and maintenance of the SES shall be handled, stored, transported and disposed of in accordance with all applicable local, state and federal laws.

3. Points of Contact

The facility owner or operator of the SES shall maintain with the Zoning Administrator and Lee County Sheriff's Department a primary and two (2) secondary points of contact. This information shall be kept current at all times, and changes shall be reported immediately or as soon as possible.

G. Decommissioning of the Solar Farm:

1. Before a building permit can be granted, the applicant must present a decommissioning plan to ensure that SES facilities are removed after their useful life. Decommissioning of solar panels must occur in the event they are not producing power for twelve (12) consecutive months and/or the landowner does not receive payment for six (6) months. The last day of this twelve (12) month period shall be considered the termination date. The operating company and/or land owner shall complete decommissioning of the SES within twelve (12) months of the termination date or the County will perform decommissioning at the operating company's expense. The decommissioning plan shall include provisions and the estimated costs for removal of all structures and modifications including equipment, fencing, roads, and foundations, including but not limited to the restoration of soil and vegetation necessary to return the land to the condition in which it existed at the time the application for special use was first filed. The plan must also describe the particular financial security the applicant proposes to offer to guarantee completion of the applicant's decommissioning obligations on the site. The issuance of a building permit for any SES shall be made contingent upon the applicant's prior filing of proof of its fulfillment of the decommissioning security obligation for the entire site, and in no instance shall the financial security be less than five thousand dollars (\$5,000) per acre. The only acceptable form of security financing shall be the applicant's deposit of the determined monetary amount in the County escrow account, unless the County Board may, in its sole discretion, agree to accept alternative security, or a portion thereof, in the form of a security bond approved by the County. An update to the decommissioning plan shall be submitted to the Zoning Administrator every three (3) years measured from the anniversary date of the building permit.

Prior to construction, the facility owner or operator of the SES shall submit an engineer's estimate of cost for decommissioning the SES and restoring the site in accordance with the approved decommissioning plan. Upon review and approval by the Zoning Administrator of the estimate, the facility owner or operator shall obtain a bond, letter of credit, or other form of surety acceptable to the County to be held by the Zoning Administrator in the amount of one hundred fifty percent (150%) of the estimate, so as to cover the cost of decommissioning as well as inflation cost in future years. The value of the surety shall not be reduced based on the salvage value of any

materials or equipment. If the facility owner or operator has a separate surety under the terms of an AIMA, the sum total of all sureties are not required to exceed one hundred fifty percent (150%) of the estimate.

During the operation of the SES, a new engineer's estimate of cost for decommissioning shall be submitted to the Zoning Administrator every ten (10) years on or before the Commercial Operation Date anniversary. Upon approval of the estimated costs by the Zoning Administrator, a revised surety shall be provided to the Zoning Administrator in the amount of one hundred fifty percent (150%) of the new estimate. The value of the surety shall not be reduced based on the salvage value of any materials or equipment. If the facility owner or operator has a separate surety under the terms of an AIMA, the sum total of all sureties are not required to exceed one hundred fifty percent (150%) of the estimate.

- a. The decommissioning plan shall provide for the removal of the following within twelve (12) months of the termination of SES operation:
 - i. All solar collectors and components, above-ground improvements, and outside storage.
 - ii. Foundations, pads, and underground electrical wires so as to reclaim all sites to the depth of six (6) feet below the surface of the ground.
 - iii. Hazardous materials shall be disposed of in accordance with federal and state law.
 - iv. Any earth disturbance resulting from the removal of the ground-mounted solar panels must be graded and reseeded.
2. Any financial assurance required per the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by subsection E (11) shall count towards the total financial assurance required for compliance with section G.

H. Inspections. The Zoning Administrator or his/her representative shall have the right, at any reasonable time, to enter, in the company of the owner, operator or his agent, the premises on which the SES has been constructed to inspect all parts of said SES installation and require that repairs or alterations be made within thirty (30) days if, in his/her judgment, there exists a deficiency in the structural stability of the SES.

I. Liability Insurance. The owner or operator of the SES shall maintain a current general liability policy covering bodily injury and property damage and naming Lee County as an additional insured with limits of at least five million dollars (\$5,000,000) per occurrence and five million dollars (\$5,000,000) in the aggregate with a deductible of no more than five thousand dollars (\$5,000).

J. Standard Condition for Liability Insurance

1. General Liability Insurance

- a. The County of Lee, Illinois, its officers and employees shall be included as an additional insured on the General Liability policy on a primary and non-contributory basis for both ongoing and completed operations. A minimum of a three (3) year extended reporting period is required for all claims made policies.
- b. The County of Lee, Illinois, its officers and employees shall be named as additional insured with a waiver of subrogation on the Commercial Liability policy.
- c. Any Commercial Umbrella utilized shall be a "Following Form" policy.
- d. All policies must contain no more than a thirty (30) day notice of cancellation.
- e. Current copies of the insurance policies and certificates of insurance shall be kept on file with the Zoning Administrator.

2. Maintenance of General Liability Insurance

- a. The owner or operator of the SES shall maintain a current general liability policy covering bodily injury and property damage with minimum limits of a least five million dollars (\$5,000,000) per occurrence and five million dollars (\$5,000,000) in the aggregate.
- b. The owner or operator of the SES shall maintain a current Commercial Auto policy of at least one million dollars (\$1,000,000).
- c. The owner or operator of the SES shall maintain Workman's Compensation insurance in the following amounts:
 - i. One million dollars (\$1,000,000) per accident;
 - ii. Occupational Disease: One million dollars (\$1,000,000) per employee with a policy limit of one million dollars (\$1,000,000).

3. Pollution liability insurance shall be maintained in the amount of five million dollars (\$5,000,000) per policy.

4. The general liability policy shall identify Landowners in the Special Use permit as additional insured.

K. Administration and Enforcement. Before obtaining a building permit, the facility owner or operator of the SES shall at its expense coordinate, with the Zoning Administrator, to develop a system for logging and investigating complaints related to the SES.

L. The Land Evaluation Site Assessment (LESA) System is used by Lee County as the primary method for determining the location of rural development. The LESA system does not, however, prevent the siting of an SES because the harvesting of solar energy is not

incompatible with agriculture. The Lee County Board must not follow the LESA system blindly, but rather, must base its zoning and rezoning decisions on the totality of circumstances that arise in each case. Furthermore, in assessing the impact of the LESA score on requests for a special use, Lee County should determine whether the requested use is:

1. Exempted by 55 ILCS 5/5-12001;
2. Exempted by other statutory provisions;
3. A "bona fide agricultural use; a use the Lee County Board deems to be a trivial encroachment that does not interfere with agricultural use; or
4. Desirable public policy.

This ordinance shall be in full force and effect from and after its passage, approval, and publication as required by law.