

STATE OF INDIANA
BEFORE THE KNOX COUNTY BOARD OF COMMISSIONERS
ORDINANCE NO. 2020-2

AN ORDINANCE TO ADOPT STANDARDS ON SOLAR ENERGY SYSTEMS

SOLAR ENERGY SYSTEMS

§ 152.260 PURPOSE AND GENERAL PROVISIONS.

(A) This subchapter is intended to regulate the construction, placement and modification of Solar Energy Systems; minimize impacts to the aesthetic character of the county and surrounding jurisdiction and to minimize the land use impact of such facilities while providing the community with the benefit of new technological advances; and to protect the public health, safety and general welfare of the community and to further the goals and policies of the comprehensive plan, by:

- (1) Encouraging the location of Commercial Solar Energy Systems in non-residential areas;
- (2) Minimizing the adverse visual effects of Solar Energy Systems through careful design and site standards;
- (3) Maintaining the aesthetic environment of the county; and
- (4) Providing for the administration and enforcement of this subchapter.

(B) The provisions of this Article are applicable to those zoning districts which allow or may allow Solar Energy Systems and to govern the siting, development, operation, rehabilitation, decommissioning and restoration of Solar Energy Systems, which generate electricity to be sold in the wholesale market or retail market, or which are utilized to generate electricity for private use and public use.

(C) No person shall construct, operate, or locate a Solar Energy System within Knox County without having fully complied with the provisions of this Article and all other applicable provisions of the Knox County Zoning Ordinance and applicable Rules of the Area Plan Commission and appropriate Board of Zoning Appeals.

(D) Nothing in this Article is intended to preempt other applicable state and federal laws or regulations, nor shall any provision of this Article interfere with, abrogate, or annul any other ordinance, rule, regulation, statute or other provision of law. In the event that any provision of this Article imposes restrictions different from any other ordinance,

rule, regulation, statute, or provision of law, the provision which is more or most restrictive or which imposes the higher or the highest standard(s) shall control.

§ 152.261 DEFINITIONS.

For the purpose of this subchapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

ACCESSORY USE SOLAR ENERGY SYSTEM (AUSES): A solar panel, or array thereof, used for a solar collection system principally used to capture solar energy and to convert it to electrical energy or thermal power to supply electrical or thermal power primarily or solely for on-site use, and consisting of one or more free-standing, ground- or roof-mounted panel(s) or modules and solar related equipment, intended to primarily reduce on-site consumption of utility power and/or fuels. An AUSES may be permitted in all zoning districts as accessory structures in each zoning district in which they are erected. The maximum size of AUSES is limited to the maximum size allowed for an accessory structure in each zoning district, and AUSES shall not be excluded from maximum-height, setback, or lot-coverage restrictions.

CO-APPLICANT: A person or entity which executes an application for a Solar Energy System project solely because of an ownership interest in real property to be used in connection with the project.

COLLECTOR: Any power line whether above ground or below ground that carries electrical power from one or more solar panels or transformers or converters associated with solar panels to the point of interconnection with the electrical power grid. In the case of interconnection with high voltage transmission systems, the point of interconnection shall be substation serving the project.

COMMERCIAL SOLAR ENERGY SYSTEM (CSES): An area of land or other area used by a property owner, multiple property owners, and/or corporate entity and its contained industrial scale group or series of photo-voltaic (or solar) panels placed to convert solar radiation into usable direct current electricity or thermal power, and supply electrical or thermal power, primarily or solely for off-site utility grid use, and consisting of one or more free-standing ground-mounted, solar arrays or modules, battery storage facilities, solar related equipment, and ancillary improvements, including substations, operations, maintenance and storage buildings.

GROUND-MOUNTED SOLAR ENERGY SYSTEM: A solar energy system that is directly installed into the ground and is not attached or affixed to any structure.

NON-PARTICIPATING (Property or Landowner): Property or the property-owner of land adjacent to the CSES project that is not participating in a Solar Energy System project as Co-Applicant.

OPERATOR: Any person or entity which has the primary involvement with or responsibility for the use, operation, or maintenance of all or a portion of a Solar Energy System project.

OWNER: Any person or entity and his, her, or its assigns and successors in interest which has any ownership interest in any, or all, of the necessary devices to convert solar energy into electricity. The term "Owner" does not include any person or entity whose ownership interest in CSES is limited to an interest in real property that is used in a CSES.

PARTICIPATING (Property or Landowner): Property or the property-owner of land adjacent to the CSES project that is participating in a Solar Energy System project as Co-Applicant.

PHOTOVOLTAIC (SYSTEM): A solar energy system that produces electricity by the use of semiconductor devices called photovoltaic cells that generate electricity whenever light strikes the cells.

PRINCIPAL STRUCTURE: A structure in which the principal use of the lot on which it is located is conducted, but limited to those structures in which individuals dwell or are employed (but excluding small agricultural buildings and barns).

ROOF-MOUNTED SOLAR ENERGY SYSTEM: A solar energy system located on the roof of a lawfully established structure.

SOLAR ARRAY: Multiple solar panels combined together to create one system, which may be small enough to serve as an Accessory Use Solar Energy System or large enough to be paired with multiple arrays to create a Commercial Solar Energy System.

SOLAR ENERGY SYSTEM (SES): A system capable of collecting and converting solar radiation into heat or mechanical or electrical energy and transferring these forms of energy by a separate apparatus to storage or to point of use, including, but not limited to, water heating, space heating or cooling, electric energy generation, or mechanical energy generation. This definition shall include Solar Thermal, Photovoltaic, and Passive Solar Systems and both large-scale commercial and small-scale accessory use solar energy systems.

SOLAR PANEL: A device for the direct conversion of sunlight into useable solar energy (including electricity or heat).

§ 152.262 ACCESSORY USE SOLAR ENERGY SYSTEM (AUSES).

(A) Roof-Mounted AUSES

(1) A Roof-Mounted AUSES is considered an incidental accessory use to the principal use and allowed without an Improvement Location Permit in all zoning districts.

(2) Roof-Mounted AUSESs shall adhere to the development standards of the underlying zoning district including minimum setbacks, maximum height, and maximum lot coverage. Where feasible, panels on residential structures facing the front yard shall be mounted at the same angle as the roof surface with a maximum distance of 18 inches between the roof and the highest edge of the system. Roof-Mounted AUSESs are subject to the rules of historic preservation districts and restrictive covenants.

(B) Ground-Mounted AUSES

(1) A Ground-Mounted AUSES is considered an accessory structure to the principal use and will require Improvement Location Permits.

(2) Ground-Mounted AUSESs shall adhere to the development standards of the underlying zoning district including minimum setbacks, maximum height, and maximum lot coverage. Ground-Mounted AUSESs shall be located at least 100 feet from the foundation of any neighboring residence. A Ground-Mounted AUSES is considered a permitted use in zoning districts designated A-1, A-2, I-1, and I-2 and is

considered a Conditional Use in zoning districts designated R-1, R-2, R-A, C-1, C-2, and C-3. Conditional Uses require approval from the appropriate Board of Zoning Appeals.

(3) Ground-Mounted AUSES shall not be placed within any legal easement or right-of-way, or be placed within any storm water conveyance system, or in any other manner that would alter or impede storm water runoff from collecting in a constructed storm water conveyance system.

(C) Application

(1) Prior to the construction of a Ground-Mounted AUSES, the landowner is required to obtain an Improvement Location Permit by filing an application with Zoning Administrator. An application for an Improvement Location Permit shall be accompanied by a site plan in accordance with Section 152.061 of the Knox County Zoning Ordinance, and additionally showing the location of all solar panels and equipment and the location of the emergency disconnect for the equipment.

(2) The application shall include information regarding the type of solar technology proposed, mounting methods, dimensions, generating capacity, means of interconnecting, and manufacturer's data.

(3) Evidence that the local electrical utility has been informed of the customer's intent to install a customer owned SES must also be submitted with the application, unless no interconnection is proposed.

(D) Glare. The AUSES shall be designed and located in order to prevent glare toward any inhabited buildings and adjacent highways or rights-of-way.

(E) Approved Components: Electric SES components shall have an Underwriters Laboratory (UL) listing or approved equivalent.

(F) An Improvement Location Permit may be revoked if the AUSES is moved or otherwise altered in a manner which causes the AUSES not to be in conformity with this Ordinance. The AUSES 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. In the event of a violation of any of the foregoing provisions, the Zoning Administrator shall give written notice specifying the violation to the owner of the AUSES to conform or to remove the AUSES.

§ 152.263 COMMERCIAL SOLAR ENERGY SYSTEM (CSES).

(A) Commercial Solar Energy Systems may be located in zoning districts designated A-1, A-2, and I-2.

(B) No construction of a CSES shall commence before the issuance of an Improvement Location Permit by the Zoning Administrator. Prior to the issuance of an Improvement Location Permit, the Applicant, Owner, and Operator shall be required to obtain the following:

(1) Economic Development Agreement for the project with the Board of Commissioners of Knox County and the Knox County Council.

(2) Development Plan Approval for the project from the Knox County Area Plan Commission during a public hearing.

(3) Approval of any proposed variances by the Knox County Area Plan Commission in conjunction with the Development Plan Approval.

(4) Drainage Plan Approval from the Knox County Drainage Board, or other applicable entity.

(5) Stormwater Pollution Prevention Plan Approval from the Knox County Soil and Water Conservation District, or other applicable entity.

(C) Application: The Applicant, Owner, and Operator shall file with the Zoning Administrator:

(1) Application for an Improvement Location Permit

(2) Project Narrative

(3) Development Plan

(4) Decommissioning Plan

(5) Safety and Security Plan and Insurance

(6) Landscaping / Screening Plan

(7) Telecommunications and Wireless Signals Report

(8) Coordination Report

(9) A list of the Applicant, Owner, and Operator, any other responsible party, and if applicable each of their intermediate and ultimate parent companies, listing experience in similar projects. If the Applicant is not the owner of the real property on which the project is sited, all Participating Landowners of the real property where the project is to be located must be Co-Applicants.

(10) List the names, addresses, email addresses, phone numbers, websites of Applicants, Owners, Operators, and Co-Applicants.

(D) Economic Development Agreement: The Applicant, Owner and Operator shall enter into an Economic Development Agreement with the Board of Commissioners of Knox County and the and the Knox County Council to address matters related to economic development and the economic impact of the proposed Solar Energy System project with respect to each Knox County governing entities duly respective powers.

(E) Development Plan: The Development Plan shall be submitted with the application for an Improvement Location Permit and in accordance with Section 152.062 of the Knox County Zoning Ordinance, with a map or set of maps at appropriate scales depicting the following items:

(1) Approximate location of all SES structures including:

a. Location, number, and spacing of solar panel blocks

b. Substations

c. Maintenance and storage buildings

d. Transmission lines, collectors

e. Ancillary equipment

f. Identification, access, informational, and warnings signs

- g. Battery Storage if any
- (2) Boundary Survey, or a reference to a previously recorded survey, conducted in accordance with the Minimum Standards for Competent Practice of Land Surveying as outlined in 865 IAC-1-12
- (3) Location of fencing, screening, and buffer areas
- (4) Location of all access roads and access points
- (5) Location of all above ground and underground utility lines associated with the site
- (6) Floodplain location and elevation, and wetlands if any
- (7) Location of all residences and other Principal Structures within 200 feet of the nearest SES structure
- (8) Location of all easements
- (9) Location of all security lights

(F) Decommissioning Plan:

(1) A Decommissioning Plan shall be submitted with the Development Plan to assure the project will be properly decommissioned by the Applicant or any subsequent Owner upon the end of the project life or abandonment. The plan shall demonstrate how the removal of all infrastructure and remediation of soil and vegetation will be conducted, and the expected timeline for execution of the decommissioning. A cost estimate for decommissioning, determined by a third-party professional engineering firm, shall be included. Salvage value may be considered in determining decommissioning cost.

(2) The Applicant shall secure and provide to the Board of Commissioners of Knox County a financial assurance in the form of a performance bond, surety bond, or other form of financial assurance that is acceptable to the Board of Commissioners of Knox County before the issuance of an Improvement Location Permit.

(3) The obligations with respect to decommissioning shall include removal and proper disposal of all physical material pertaining to the project improvements beneath the soil surface, and restoration of the area occupied by the project improvements such that it is suitable for an equivalent land use to what existed immediately before construction of such improvements.

(4) In the event of a force majeure or other event that results in the absence of electrical generation for twelve (12) consecutive months, by the end of the twelfth month of non-operation the Applicant must demonstrate to Area Plan Commission that the project will be substantially operational and producing electricity within twenty-four (24) months of the force majeure or other event. If such demonstration is not made to the Area Plan Commission's satisfaction, the decommissioning must be initiated eighteen (18) months after the force majeure or other event. A force majeure event means fire, earthquake, flood, tornado, or other acts of God and natural disasters, and war, civil strife, or other similar violence.

(5) The Decommissioning Plan shall include the full written legal description(s) of all Participating properties from the last recorded deed(s) or subsequently recorded project legal description. It shall also include the record owner name(s) of the property(ies) from the last recorded deed(s), and a cross-

reference to the book and page and document number of those deed(s) as recorded in the Office of the Knox County Recorder.

(6) Before an Improvement Location Permit is issued, the Decommissioning Plan shall be duly recorded in the Office of the Knox County Recorder.

(7) The Decommissioning Plan shall be updated by the Operator and approved by the Area Plan Commission every five (5) years after the approval of the initial Decommissioning Plan, and when any material improvements are added to the project. All updates to the Decommissioning Plan shall be recorded using the same criteria as outlined in subsection 5 and 6 above, and must also contain a cross-reference to the initial recorded Decommissioning Plan.

(G) Safety and Security Plan; Insurance:

(1) A Safety and Security Plan shall be submitted demonstrating provisions for site security and safety. If the plan includes using Knox County services, it shall include the signatures of the proper authorities indicating they are aware of their role and capable of performing it. Coordination of local emergency responders must be included.

(2) Safety & Warnings: All CSESs shall provide the following warnings and safety information at all locked entrances:

- a. A visible "High Voltage" warning sign
- b. Name and phone number for the electric utility operator
- c. Name and phone number for the site operator
- d. The facility's 911 address, GPS coordinates, and
- e. A lock box with keys as needed

(3) Insurance: The Owner and Operator of a CSES shall maintain commercial general liability insurance covering death, bodily injury and property damage, which may be combined with umbrella coverage, and shall be required to name Knox County, Indiana as an additional insured solely to the extent of liabilities arising under this Ordinance, in such amounts as agreed upon in the Safety and Security Plan.

(H) Landscaping/Screening Plan: A Landscaping /Screening Plan shall demonstrate the plan to mitigate any negative visual impact on residences and other Principal Structures on adjoining property via fencing, the planting of vegetation, utilization of existing natural screening, or a combination thereof. Additionally, the plan shall demonstrate the proposed method to control site erosion via the planting of grass or other cover crops. Unhealthy and dead plants shall be replaced promptly and not later than one (1) year of being provided written notice from the Zoning Administrator.

(I) Telecommunications and Wireless Signals Report: The Applicant shall submit a Telecommunications and Wireless Signals Report prepared by a licensed professional engineer with a specialization in telecommunications identifying any expected interference with over the air communications. The Applicant shall provide a statement that it will mitigate any such interference. If, after construction, the Applicant receives a written

complaint related to interference, the Applicant shall promptly resolve the complaint. No solar energy system shall interfere with public safety telecommunications.

(J) Coordination Report: The Applicant shall submit a summary report identifying the applicable federal, and state entities with permitting authority in respect to environmental, health, and safety standards and regulations, and identifying the entities the Applicant has communicated and coordinated with in respect to the project.

(K) Waste Handling & Disposal: All solid waste, whether generated from supplies, equipment, parts, packaging, operation or maintenance of the facility, shall be removed from the site promptly and disposed of in accordance with all local, state, and federal laws. All hazardous waste related to the construction, operation, maintenance, or decommissioning of the facility shall be handled, stored, transported, and disposed of in accordance with all local, state, and federal laws.

(L) Additional Assurances: The Applicant shall provide a notarized statement acknowledging and affirming the following with respect to the project:

(1) All duties and obligations of the Owner and Operator shall be joint and several, and shall be binding upon each of their heirs, successors in interest, and assigns.

(2) At least thirty (30) days after any transfer of any ownership interest in the project or change in Operator, written notice shall be given to the Executive of the municipality where the project is located and the Zoning Administrator.

§ 152.264 DEVELOPMENT STANDARDS FOR COMMERCIAL SOLAR ENERGY SYSTEMS.

(A) CSESs shall adhere to the development standards of the underlying zoning district unless specified otherwise below:

(1) Setbacks: Minimum setback of 50 feet from all rights-of-way and side and rear property lines for all equipment associated with the CSES.

(2) Buffer Zones: Minimum setback of 200 feet from the foundation of any existing residence or Principal Structure to any SES structure.

(3) Height: No solar panel may exceed 35 feet in height at its highest point.

(4) Lighting: Lighting shall be limited to that required for safety, inspection, repair, maintenance, and operational purposes. If lighting is provided, lighting shall be shielded and downcast such that the light does not spill onto any adjacent parcel, residence, or Principal Structure.

(5) Glare: The CSES shall be designed and located in order to prevent glare toward any inhabited buildings, adjacent highways, or rights-of-way.

(6) Fencing: All systems, equipment, panels, and structures shall be fully enclosed and secured by a fence with a minimum height of 6 feet but no greater than 8 feet to prevent unauthorized access.

(7) Screening: In all instances that a CSES adjoins property with a residential dwelling or is located across a public road from a residential dwelling, screening

shall be installed to inhibit view of the facility consisting of an opaque fencing, a compact evergreen hedge, or other type of evergreen foliage

(8) Noise: Noise levels measured at the property line of the facility shall not exceed 55 decibels.

(9) Outdoor Storage: Only the outdoor storage of materials, vehicles, and equipment that directly support the operation and maintenance of the facility shall be allowed.

(10) Easements: Components of the CSES shall not be placed within any legal easement or right-of-way, or be placed within any storm water conveyance system, or in any other manner that would alter or impede storm water runoff from collecting in a constructed storm water conveyance system.

§ 152.265 ADDITIONAL DEVELOPMENT PLAN REQUIREMENTS.

(A) Revisions: All revisions to the approved Development Plan or modifications to the CSES after installation require approval prior to being implemented. The proposed revisions along with any supporting information shall be submitted to the Zoning Administrator for review, to determine whether the revisions are in compliance with the Ordinance. If the Zoning Administrator determines that the revisions require Area Plan Commission approval, the revisions will be forwarded to the Area Plan Commission for review. If the Area Plan Commission determines that a public hearing is necessary, notification of the public hearing will be consistent with the Rules and Procedures of the Area Plan Commission.

(B) Approval: Notice shall be given to interested parties and the hearing conducted in accordance with the Area Plan Commission's Rules of Procedure. Upon concluding the hearing for the Development Plan, the Area Plan Commission shall state its findings with respect to the Development Plan's conformance to this Ordinance and determine the approval, disapproval, or conditional approval of the application. The Area Plan Commission will inform the Applicant of its decision and any modifications or conditions to which approval is subject. The findings and decision of the Area Plan Commission will be entered in the official minutes of the meeting. The Zoning Administrator will give written notice of approval, conditional approval, or disapproval and the reasons therefore within five (5) working days following the public hearing.

(C) Construction shall commence within three (3) years of the approval date, unless extended by the Area Plan Commission. If construction does not commence within such three-year period, the Development Plan approval shall be null and void. Upon request of the Applicant, the Area Plan Commission may extend the Development Plan Approval in increments of one (1) year beyond the expiration date without further notice or public hearing.

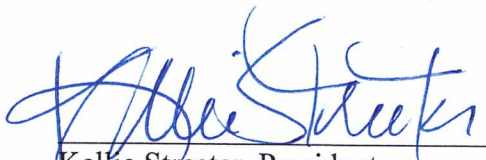
(D) Maintenance: An Improvement Location Permit may be revoked if the CSES is moved or otherwise altered in a manner which causes the CSES not to be in conformity with this Ordinance. The CSES must be properly maintained and be kept free from all hazards,


including but not limited to, faulty wiring, loose fastenings, being in an unsafe condition or detrimental to public health, safety or general welfare. In the event of a violation of any of the foregoing provisions, the Zoning Administrator shall give written notice specifying the violation to the Owner or Operator of the CSES to conform to the ordinance standards or to remove the CSES.

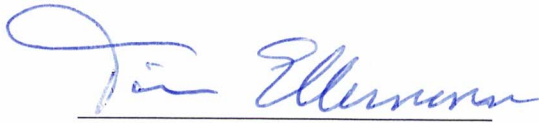
So, ORDAINED and adopted by the Knox County Board of Commissioners, this 21st day of August 2020, by a vote of 3 ayes and 0 nays.

So Approved with a Favorable Recommendation by the Knox County Area Plan Commission on August 4, 2020.


So, ORDAINED and adopted by the Knox County Board of Commissioners, this 1st day of September 2020, by a vote of 3 ayes and 0 nays.


Kellie Streeter, President


Trent Hinkle, Vice-President


Tim Ellerman, Commissioner

Attest:


Micheal P. Morris
Knox County Auditor