

**WECS ORDINANCE AS CURRENT. WILL BE REVIEWING YET THIS YEAR.**

**6.24 Development Standards, Wind Energy Conservation System, (WECS)**

It is the purpose of the WECS Development Standards to:

A. Assure that the development and production of wind-generated electricity in Wabash County is safe and effective by establishing predictable and balanced regulations for the establishment of COMMERCIAL and NON COMMERCIAL WECS in the locations and circumstances under which the use may be established without detriment to the public health, safety and welfare of neighboring property owners or occupants.

B. It is the intent of the Wind Energy Conservation System (WECS) siting regulations to provide a regulatory scheme for the construction and operation of WECS in Wabash County subject to reasonable restrictions. These regulations are intended to preserve the health, safety, and welfare of the community.

**6.24 A Applicability**

The provisions of the WECS Development Standards are applicable to those zoned Districts which allow WECS, or govern the siting of WECS and WECS associated equipment that generate electricity to be sold to wholesale or retail markets, or that generate electricity for private use. A reasonable attempt shall be made by the Plan Commission, at the applicants expense, to notify all property owners within the proposed defined area of a WECS project prior to review of any application for a Commercial WECS . Notification may be done by media, separate mailings, or through the public notice requirements prescribed in IC 5-3-1 as amended. Said notice shall inform said property owners of the intended COMMERCIAL WECS.

**6.24 B Prohibition**

No person or entity shall construct, operate or locate a WECS within the Jurisdiction of the Wabash County Plan Commission without having fully complied with all of the provisions of this Ordinance.

**6.24 C Commercial WECS Application Requirements**

Prior to the construction of a COMMERCIAL WECS, Applicant(s) shall seek approval for a COMMERCIAL WECS by completing a Special Exception Application in which the following conditions shall be met:

Special Exceptions and Variances shall be applied for and reviewed under the procedures outlined in Indiana Code, The Plan Commission and BZA Rules of Procedure, and this Ordinance.

Applications for COMERCIAL WECS shall include, but not be limited to the following:

A. Contact information of the project applicants including names, addresses, and phone numbers for the applicant and applicant's overall role in the proposed project.

B. Contact information of current project owner including names, addresses and phone numbers of the owner and owner's overall roll in the proposed project.

C. Contact information of project operator including names, addresses and phone numbers of the operator and operator's overall role in the proposed project,

D. Contact information of the current project applicant shall include a description of the project applicant's business structure with three (3) references.

E. Contact information of the current project owner shall including a description of the project owner's business structure with three (3) references.

F. Contact information of the current project operator shall include a description of the project operator's business structure with three (3) references.

G. The legal description, property addresses, deeded owners names and addresses, and location of the proposed project, including documentation of land ownership or legal control of the property on which the WECS is proposed to be located.

H. For all COMMERCIAL WECS, the manufacturer's engineer or a Certified Indiana Structural Engineer shall certify, by Seal, as part of the permitting application, that the turbines foundations, tower design, substations, and power distribution for the COMMERCIAL WECS are within accepted professional standards, given local soil and climate conditions.

1. Must certify soil type at each turbine site location.

I. An engineering analysis of the tower showing compliance with the applicable regulations and certified by a licensed professional engineer shall also be submitted. The analysis shall be accompanied by the certified drawings of the wind turbine structure, including the tower, base, and footers.

J. A WECS project description, providing information on each WECS turbine proposed including:

1. Each turbines point location,
2. Turbine type,
3. Nameplate generating capacity,
4. Tower height and design,
5. Blade arc diameter,
6. Total height,
7. Anchor base schematic,
8. Underground cable routing path,
9. Means of interconnection with the electrical grid (Electrical Schematic),
10. Equipment Manufactures,
11. All related accessory structures.

K. All COMMERCIAL WECS shall comply with all air hazard rules by applying for and receiving permits and approvals of compliance for all required Federal Aviation Administration rules and regulations.

L. A copy of the Communications Study and Noise Profile for each wind turbine unit to be installed on each specific site.

M. For the purpose of preventing unnecessary harm to nature and wildlife, the applicant shall provide written documentation verifying they are in direct correspondence and cooperation with the U.S. Fish and Wildlife Service, Indiana Department of Natural Resources and the Wabash County Natural Resources Conservation Service (NRCS).

N. A Transportation Plan for construction, operation, and maintenance phases shall be submitted containing the following:

Indicate by description and map what roads the project will utilize during the construction, operation and maintenance phases of the project, along with

current road surfacing and conditions; specify any new roads and proposed upgrades or improvements needed to the existing road system to serve the project (for both the construction and O&M periods); identify needed bridges, culverts, fence crossings etc.; identify all areas where modification of the topography will be or is anticipated (cutting/filling) to construct and / or improve roadways or intersections; address road improvement, restoration and maintenance needs associated with the construction, ongoing maintenance/repair, and potential dismantling of the project and provide projected traffic counts for the construction period, broken down by the general type and size of vehicles, and identify how many trips will have oversized or overweight loads. If significant impacts to the transportation system are anticipated, the County shall require financial guarantees to ensure proper repair/ restoration of roadways or other infrastructure damaged or degraded during construction, operation or dismantling of the project. In such case, the "before" conditions of the roadways and other infrastructure shall be documented through appropriate methods such as videos, photos, and written records, to provide for proper reference and restoration.

- O. Applications for COMMERCIAL WECS shall include a preliminary site layout plan with distances, certified by a registered land surveyor, drawn to scale (one inch= 30 feet preferred) illustrating the following:
1. Property lines, including identification of all adjoining properties,
  2. The longitude and latitude of each wind turbine, along with individual identification for each WECS turbine, (ID by number),
  3. Dimensional representation of the structural components of the tower construction including the base and footers,
  4. All WECS access roads and road composition,
  5. Substations and switching stations,
  6. All WECS electrical cabling runs,
  7. Ancillary equipment,
  8. All Primary Structures within one (1) mile of all proposed COMMERCIAL WECS equipment,
  9. Required setbacks identified and displayed,
  10. Location of all public roads which abut, or traverse the proposed site,
  11. Location of all above-ground utility lines within one (1) mile of any proposed COMMERCIAL WECS turbine or structure,
  12. Location of all existing underground utilities that may impede buried cable runs and all underground utilities associated with the WECS,
  13. The location of any historic or heritage sites as recognized by the Division of Historic Preservation and Archeology of the IDNR or the Wabash County Historical Society, within one (1) mile of the proposed COMMERCIAL WECS,
  14. The location of any wetlands based upon a delineation plan prepared in accordance with the applicable U.S. Army Corps of Engineers requirements and guidelines, within one (1) mile of the proposed COMMERCIAL WECS,
  15. A USGS topographical map or map with like data, of the property and the surrounding area, including contours at one (1) foot intervals,
  16. Any other items reasonably requested by the Plan Commission.
- P. Due to the possible complexity of large-scale solar power projects, the county may require a development agreement or other appropriate instrument to address taxing, land use, property assessment, and other issues related to the project. Cooperation to

establish an agreement for payment in lieu of taxes (PILT), or other acceptable solutions, may be necessary. A development agreement may be required as a condition of the permit process, and must be approved by the board of county commissioners prior to completion of the permitting process.

#### **6.24 D Aggregate Project Applications**

Aggregate projects may jointly submit a single application and be reviewed under joint proceedings, including notices, hearings, and reviews, and as appropriate, approvals.

#### **6.24 E Application for Variance**

Contemporaneously with the application for a Special Exception, the applicant shall submit a Variance Application for any variances sought as part of the WECS. A Variance Application shall be submitted for each different variance category sought.

A. One Variance shall be submitted for each variance category, however consideration of said variance, by the board, shall be applied to each individual applicable unit or situation for which the variance covers.

#### **6.24 F Non-Commercial WECS Application Requirements**

Prior to the construction of a NON-COMMERCIAL WECS, the Applicant(s) shall obtain approval for a NON-COMMERCIAL WECS by completing an Application for an Improvement Location Permit in which the following conditions shall be met. Variances shall be applied for and reviewed under the procedures established by the Wabash County Zoning Ordinance. Applications for NON-COMMERCIAL WECS shall include the following information:

- A. Contact information of the project applicant, including name, address, and phone number of the applicant.
  
- B. Contact information of current project owner, including name, address, and phone number of the owner.
  
- C. The legal description, address, and location of the proposed turbine(s) and associated equipment including documentation of land ownership or legal control of the property on which the NON-COMMERCIAL WECS will be located.
  
- D. A NON-COMMERCIAL WECS project description, providing information on each wind turbine proposed including:
  1. Number of turbines,
  2. Turbine type,
  3. Nameplate generating capacity,
  4. Tower height and design,
  5. Blade arc diameter,
  6. Total height,
  7. Anchor base schematic,
  8. Underground cable routing path,
  9. Means of interconnection with the electrical grid (Electrical Schematic),
10. Equipment Manufactures,
11. All related accessory structures.
  
- E. Most of the energy produced by a non-commercial WECS project shall be consumed on said property defined in the application.

F. A site layout plan drawn to scale (one inch (1”) equal thirty feet(30’) preferred).

G. For all NON-COMMERCIAL WECS, the manufacturer's engineer or another qualified registered professional engineer shall certify, as part of the building permit application, that the turbine, foundation and tower design of the NON-COMMERCIAL WECS are within accepted professional standards, for the proposed location soil types and climate conditions.

H. A line drawing of the electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the National Electrical Code and meets all the requirements of the electrical utility's service regulations applicable to WECS as amended from time to time.

I. All NON-COMMERCIAL WECS shall comply with all air hazard rules by applying for and receiving permits and approvals of compliance for all required Federal Aviation Administration rules and regulations.

J. All NON-COMMERCIAL WECS applicants must provide a copy of Communications Study and Noise Profile of the actual wind turbine that is to be installed on the selected site.

K. No NON-COMMERCIAL WECS shall be installed until verification that the local utility company has been informed of the customer's intent to install an interconnected customer owned wind turbine generating system.

1. All applicants must provide a completed "Agreement to Interconnect Application" between the public utility company providing electrical service and the customer before an application for an Improvement Location Permit can be completed,

2. Off-grid systems shall provide proof of notification of the local utility company before and after installation with verification of approval from the utility

company.

### 6.24 G Zoning Requirements

Applications for WECS shall be accepted for review when development is to be located in the following Districts:

<b>COMMERCIAL</b>		<b>NON-COMMERCIAL</b>
AGRICULTURE 2	AGRICULTURE 1	AGRICULTURE 2
FLOOD PLAIN		FOREST, RECREATION, CONSERVATION
FOREST, RECREATION, CONSERVATION		RESIDENTIAL 1
INDUSTRIAL		RESIDENTIAL LAKE 1
		GENERAL
BUSINESS		INDUSTRIAL

### 6.24 H Application Fees

All fees for Special Exceptions, Variances, and ILPs shall be paid at the time of application. The fees charged by the County shall aid the County in recovering the cost incurred in connection with the application process resulting from engineering and other professional fees and expenses, including but not limited to attorney's fee.

- A. All Improvement Location Permit Applications for NON-COMMERCIAL WECS shall be charged a fee based on the current Permit Fee Schedule.
- B. All Variance Application fees for COMMERCIAL and NON-COMMERCIAL WECS shall be based on the current Permit Fee Schedule. Multiple Variances may be listed on one (1) application.
- C. The Special Exception Application fee for COMMERCIAL WECS shall be based on the current Permit Fee Schedule.
- D. All Improvement Location Permit Applications for all COMMERCIAL WECS shall be charged a fee, based on the current Permit Fee Schedule, for each tower.
- E. WECS shall conform to all industry standards. Applicant shall submit a certificate of design compliance that the wind turbine manufactures have obtained from Underwriters Laboratories, Det Norske Vertas, Germanishcer Lloyd Wind Energie, or an equivalent Third party.

#### **6.24 I WECS Standards**

- A. Tower Construction  
All wind turbines shall be installed on a certified tubular free standing tower, a guyed lattice tower, or a monopole tower. Towers may be guyed or self-supporting.
- B. Filtering  
All NON-COMMERCIAL and COMMERCIAL WECS shall be filtered, shielded or otherwise designed and constructed so as not to cause electrical, radio frequency, television, navigational, microwave, or any other electro-magnetic interference.
- C. Grounding  
All NON-COMMERCIAL AND COMMERCIAL WECS components shall be grounded and shielded to protect against natural lightning strikes and system faults in conformance with the National Electrical Code (NEC), and local utilities service regulations which may apply to WECS.
- D. Speed Control  
All NON-COMMERCIAL and COMMERCIAL WECS shall be designed with automatic over speed control to render the system inoperable when winds are in excess of speeds for which the machine is designed to operate.
- E. Brake Control  
All NON-COMMERCIAL and COMMERCIAL WECS shall be equipped with a redundant braking system. This includes both aerodynamic over speed controls (including variable pitch, tip, and other similar systems) and mechanical brakes. All mechanical brakes shall be operated in a fail-safe mode. Stall regulation shall not be considered a sufficient braking system for over speed protection.
- F. Power Loss  
All NON-COMMERCIAL and COMMERCIAL WECS, connected to an electric utility grid, shall be designed with an automatic and a manual control that will render the system inoperable in case of loss of utility power to prevent the WECS from supplying power

to a de-energized electrical distribution system.

G. Utility Interconnection

All NON-COMMERCIAL and COMMERCIAL WECS connected to a utility system, shall meet the requirements for interconnection and operate as set forth in the electrical utility's service regulations applicable to WECS, as amended from time to time.

H. Electrical Applications

1. All electrical components of all NON-COMMERCIAL and COMMERCIAL WECS shall conform to all applicable local, state, federal and national codes, and any relevant national and international standards,
2. All NON-COMMERCIAL and COMMERCIAL WECS, turbines, structures, substations, feeder lines, facilities, and accessory equipment shall comply with the National Electrical Code and operate as set forth in the electrical utility's service regulations Applicable to WECS, as amended from time to time.

I. Noise and Vibration

1. At no time outside of any Primary Structure shall the sound pressure levels from a wind turbine or any of the components that make up a NON-COMMERCIAL or COMMERCIAL WECS exceed 32 decibels on the "A" weighted scale of a Sound Level Meter.
2. At no time shall vibration created by any Commercial or Non-Commercial WECS be detectable on any non-participating land owners property or within the structures located on said property.

J. Shadow Flicker

For NON-COMMERCIAL OR COMMERCIAL WECS.

At no time shall a wind turbines tower, nacelle, or blades create shadow flicker on or within the current structures of any non-participating land owners property.

K. Lighting

All lighting, including lighting intensity and frequency of strobe, shall adhere to, but not exceed, requirements established by the Federal Aviation Administration (FAA) permits and regulations. Except with respect to lighting required by the FAA, all other lighting shall require shielding so that no glare extends twenty (20) feet beyond any any NON-COMMERCIAL or COMMERCIAL WECS structures.

**6.24 J WECS Conditions**

In addition to all WECS requirements and standards, all WECS shall meet or exceed the following WECS conditions as designated dependent on the classification of each WECS as a NON-COMMERCIAL or COMMERCIAL WECS.

A. Final Site Layout Plan

APPLIES TO COMMERCIAL WECS

1. Provide a copy of the Final Site Layout Plan illustrating the final location of all that is required in the preliminary site layout plan, as approved by the landowners, WECS project owners, WECS project operators, WECS project applicants, Wabash County Highway Department, Wabash County Drainage Board, Wabash County Plan Commission, and the Wabash County Commissioners.
2. The final site plan shall include a utility plan drawn to scale (one inch (1") equals

thirty feet (30') preferred) illustrating the location of all underground utility lines associated with the total WECS project.

3. A site plan shall be required for any WECS Commercial Work Yard in which WECS materials, work equipment, portable engineering offices, etc. are to be located during the construction period, operations period, and demolition period.
  - a. Site shall be fenced and gated for security purposes.
  - b. Any work site facility requiring sewer, septic or well, shall comply with the current regulations of the Wabash County Health Department, and the Indiana State Department of Public Health,

#### B. Drainage and Erosion

##### APPLIES TO COMMERCIAL WECS

1. Requirements of the IDEM Rule 5 and the Wabash County Storm Water Control Ordinance shall be followed during construction, operation and maintenance of the WECS. An erosion control plan developed in consultation with NRCS, IDEM, and any storm water quality management plan adopted by the applicable jurisdiction shall be submitted and approved.

##### APPLIES TO COMMERCIAL WECS and NONCOMMERCIAL WECS

2. All site locations shall be reviewed by the Wabash County Drainage Board and shall comply with all requirements administered by the drainage board for each specific site. All damages to waterways, drainage ditches, field tiles, or any other infrastructures caused by construction, construction equipment, maintenance, maintenance equipment, turbine transportation equipment or all-purpose use vehicles of the WECS must be completely repaired to original or better condition, and so as to not impede the natural flow of water. All maintenance and repairs must be completed immediately.

#### C. Drainage, Road and Property Maintenance Agreement

##### APPLIES TO COMMERCIAL WECS

1. Any applicant, owner, or operator of a Commercial WECS proposing to use any county road for the purpose of transporting any COMMERCIAL WECS associated substation parts and/or equipment for construction, operation, maintenance, or demolition of any part of the COMMERCIAL WECS, shall prior to construction:
  - a. Identify all such public roads, bridges, culverts, ditches, county drains, personal property and services. Any proposed routes that will be used for construction and maintenance purposes shall be identified. Any route that includes a public road shall be approved by the Wabash County Highway Supervisor. The WECS applicant and County Highway Supervisor shall conduct a pre-construction baseline survey to determine existing road conditions for assessing potential future road damage,
  - b. Any damage, to above listed items , or items noted during the survey, created during the construction of the WECS, by the project equipment, by the installation, removal, maintenance or demolition of same, must be repaired to the satisfaction of the Wabash County Highway Superintendent, County Drainage Board and/or County Commissioners. The Wabash County Highway Superintendent and/or the County Commissioners shall require remediation of all road damage under a scheduled timeline previously set and agreed to by all parties. Further, a corporate surety bond, in an amount to be fixed by a county selected professional engineer, shall be required by the Wabash County Commissioners to insure the County that the future repairs are completed to the



Satisfaction of the County. The cost of bonding is to be paid by the applicant.

**APPLIES TO COMMERCIAL and NONCOMMERCIAL WECS**

- c. Culvert pipes shall be sized by the County Highway Superintendent and installed as required at all exits from roadways onto WECS access roads and any intersection corners expanded to provide ample turning area for oversized or wide loads,
- d. Newly constructed WECS access roads and expanded intersection corners shall not impede the natural flow of water and shall comply with the Wabash County Storm Water Control Ordinance,
- e. Dust control measures shall be required by the county in scheduled work areas during construction of all Commercial WECS,

**D. Required Agreement**

**APPLIES TO COMMERCIAL WECS**

All WECS applicants, operators, owners shall complete and follow an economic development agreement, a drainage agreement, and a road use and maintenance agreement approved by the Wabash County Commissioners. The agreement shall also prescribe or reference provisions to address all current and future crop and field tile damages.

**6.24 K Color and Finish**

**APPLIES TO COMMERCIAL WECS and NONCOMMERCIAL WECS**

- A. All WECS turbines shall be white, light grey, or another non-obtrusive color. Finishes shall be matt or non-reflective. Must meet all applicable FAA color requirements. No advertising or signage shall be allowed on a WECS turbine, or WECS related equipment except for the manufactures name on the Nacelle.
- B. Upon review by the WCPC Board, exception may be made for meteorological towers, with regard to color, where concerns exist relative to aerial spray applicators.

**6.24 L Timetable**

**APPLIES TO COMMERCIAL WECS**

A work schedule shall be provided, to the Wabash County Commissioners by 8:30 AM every Monday morning, for review during the County Commissioners weekly scheduled meeting outlining the construction zone and all other related project activity for the current week.

**6.24 M Modification, Repairs, Maintenance**

**APPLIES TO COMMERCIAL WECS and NONCOMMERCIAL WECS**

Any physical modification to a WECS that alters the mechanical load, mechanical load path, or major electrical components shall require re-certification. Like-kind replacements shall not require re-certification. Prior to making any physical modifications (other than like-kind) the owner, operator or service technician shall confer with the Wabash County Plan Commission to determine whether the physical modification requires re-certification.

**6.24 N Inspections**

**APPLIES TO COMMERCIAL WECS and NONCOMMERCIAL WECS**

The Wabash County Plan Commission, along with a licensed 3rd party professionals, retained by the County for the specific purpose of conducting inspections of the WECS, shall have the right, at any reasonable time and with sufficient prior notice, to accompany the owner, operator, agent, or

service technician onto the premises where a WECS has been constructed, to inspect all parts of said WECS installation and to require repairs or alterations be made. The owner or operator of a WECS may also retain a licensed 3rd party professional engineer, familiar with WECS systems, to prepare and submit data to address the repairs or alterations requested and may suggest alternate methods for addressing the defaults or provide evidence that said repairs or alterations are unnecessary.

#### **6.24 O Written Notices**

APPLIES TO COMMERCIAL WECS and NONCOMMERCIAL WECS

Prior to implementation of the existing procedures for the resolution of such default, the Plan Commission shall first provide written notice to the owner, operator, or service technician setting forth the alleged default. Response to the written notice must be submitted to the Plan Commission, within thirty (30) days of receiving notice of the infractions. The WCPC will consider any such written report and determine whether the repairs or alterations should be made as originally requested in the initial written report. The decision of the Plan Commission shall be final.

#### **6.24 P Temporary Meteorological Equipment**

APPLIES TO COMMERCIAL WECS and NONCOMMERCIAL WECS

Temporary equipment located upon a temporary tower used on an interim basis to gather wind and meteorological data to determine feasibility of the WECS shall require siting approval along with the satisfactory completion of an Improvement Location Permit showing compliance with the requirements of this Ordinance.

#### **6.24 Q, Discontinuation, Decommissioning, And Removal**

APPLIES TO COMMERCIAL WECS

- A. Prior to issuance of a Special Exception, the applicant shall provide a contractor cost estimate for demolition and removal of all COMMERCIAL WECS structures and access drives. Applicant shall provide financial assurance through the use of a bond, or other security acceptable to the county, in an amount equal to 200% of the contractor estimated cost of said demolition and removal. The security for decommissioning, demolition and removal of anything proposed to be constructed under said ILP shall be released when such structures are properly decommissioned as determined by the Plan Commission.

APPLIES TO COMMERCIAL WECS

- B. The plan shall include assurance that all facilities will be properly decommissioned upon the end of the project life or facility abandonment. Applicants' and owners' obligations with respect to decommissioning shall include removal of all physical material pertaining to the project improvements to a depth of fifty four inches (54") beneath the soil surface and restoration of the area occupied by the project improvements to the same or better condition that existed immediately before beginning construction of such improvements.

APPLIES TO COMMERCIAL WECS and NONCOMMERCIAL WECS

- C. In the event of abandonment by the owner or operator, the applicant shall provide, in the application process, an affidavit to the Plan Commission that all easements for the wind turbines shall contain assurance for access to remove WECS equipment. The Plan Commission shall have the right to remove any abandoned WECS and the right to sell all equipment to defray the cost of removal

subject to the rights of any secured creditor holding a security interest in the WECS.

APPLIES TO COMMERCIAL WECS and NONCOMMERCIAL WECS.

- D. Any WECS therefore declared to be unsafe by the Plan Commission by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster, damage or abandonment is hereby declared to be a public nuisance and shall be abated by repair, rehabilitation, or demolition and removal in accordance with the procedures set forth in this Ordinance.

APPLIES TO COMMERCIAL WECS and NONCOMMERCIAL WECS

- E. All WECS shall be considered as a discontinued use after one (1) year without energy production, unless a plan is submitted to the Plan Commission outlining the steps and schedule for returning the WECS to service. The submitted timeline and steps shall be strictly adhered to.

APPLIES TO COMMERCIAL WECS and NONCOMMERCIAL WECS

- F. Applicant and/or owner obligations shall include removal, by the owner or by Wabash County, at the owner's expense, of all physical material pertaining to the project improvements, within three hundred sixty five (365) days of the discontinuation or abandonment of the facility. Restoration of the area occupied by the project improvements to the same or better condition which existed immediately before construction of such improvements shall be required.

#### **6.24 R WECS Construction Requirements**

##### **A. BLADE CLEARANCE**

The minimum distance between the ground and any protruding blades utilized on a WECS shall be fifty (50) feet, as measured at the lowest point of the arc of the blades. The minimum distance maybe increased as necessary to provide clearance in locations which may require a greater clearance.

##### **B. STRUCTURE HEIGHT**

Maximum tower height shall not to exceed the maximum height in feet permitted by the Federal Aviation Administration as measured from the ground level base of the WECS tower to the top of the tower.

##### **C. TOTAL HEIGHT**

Maximum total height shall not to exceed the maximum height in feet permitted by the Federal Aviation Administration as measured from the ground level base of the WECS tower to the top of the arc of the rotor diameter.

##### **D. COLLECTION, TRANSMISSION AND FEEDER LINES**

All COMMERCIAL WECS electrical distribution, transmission, feeder and collection lines shall be located underground a minimum of five (5) feet. All electrical components of the WECS shall conform to all applicable local, state and national codes and relevant national and international standards.

1. For all identified existing tile drains, open drains, streams or ditches all WECS buried cables shall be a minimum of five (5) feet below the existing flow line.
  - a. Field locate of identified existing tiles will be at WECS applicants expense.

##### **E. SETBACKS**

No NON-COMMERCIAL or COMMERCIAL WECS shall be constructed in any setback, dedicated public easement or dedicated public right-of-way without prior written authorization from the county. No WECS shall be constructed in any flowage easement or floodplain without prior written authorization from FEMA, Army Corp. of Engineers, Indiana Department of Natural Resources or the Wabash County Floodplain Administrator.

- F. Distances shall be measured from the center of the foundation at the base of the structure. New structures built adjacent to the wind power facilities shall, at minimum, follow primary structure setback requirements for the designated zone. Participating landowners within the area comprising the COMMERCIAL WECS may waive side and rear property line setbacks with written approval, from both land owners, when the adjoining properties are both owned by participating land owners
- G. Except as otherwise provided herein the setback distance for all COMMERCIAL WECS towers and turbines shall be a minimum of three thousand nine hundred sixty (3,960) feet from any existing non-applicant/ non-participant Primary Residential or Business Structure and one thousand nine hundred eighty feet (1,980') from any existing applicant/participant Primary Residential or Business Structure.
- H. All WECS turbines shall be set back from all public roads two (2) times the total height of the wind turbine or a minimum of one thousand feet (1000') whichever is more restrictive.
- I. Substations, and accessory facilities, not located within a public right of way or any utility easement, shall be setback as specified from the centerline of any public road the following minimum distances
  - 1. State Road 105 Feet
  - 2. Primary County Road 95 Feet
  - 3. Secondary County Road 65 Feet
- J. All WECS turbines shall be set back two (2) times the total height of the wind turbine or a minimum of one thousand feet (1000') from any non-participating WECS Property owner's property line, whichever is more restrictive

**6.24 S Housekeeping**

- A. All solid waste whether generated from supplies, equipment, parts, packaging or operation and maintenance of a WECS, including old parts and equipment, shall be removed from each site immediately upon completion of the site development. All hazardous waste generated by the operation and maintenance of the facility, including but not limited to lubrication materials, coolants, shall be handled in a manner consistent with all local, state and federal rules and regulations.

**6.24 T Safety**

- A. Equipment Type
  - 1. All WECS components shall be constructed of commercially available equipment.
- B. Signage
  - 1. For all WECS, warning signs, danger signs and informational signs shall be posted on towers, transformers, substations, structures and accessory buildings to notify of: high voltage, no trespassing, danger overhead, emergency contact phone

number (s), turbine ID number.

2. Emergency manual shutdown procedures shall be posted with all manual shutdown levers and switches clearly labeled,
3. No signage shall be used on any WECS equipment for the purpose of advertising or to promote any product or service.

C. WECS Access

1. Removal of all exterior tower climbing fixtures twenty (20) feet above ground level shall be required. Installation of a locking anti-climb device shall be installed on all towers when exterior climbing mechanisms are present. All substations, switching stations, associated facilities, or accessory structures shall be locked.

D. Guyed Towers

1. For all guyed towers, visible and reflective objects, such as plastic sleeves, reflectors or tape, shall be placed on the guy wire anchor points along the outer and innermost guy wires up to a height of not less than twenty (20) feet above the ground.

E. Emergencies

1. The applicant, owner or operator of a WECS shall submit to the local fire department a copy of the site plan. Upon request by the local fire department, the owner/operator shall cooperate with the local fire department to develop the fire department's emergency response plan. Nothing in this Section shall alleviate the need to comply with all other applicable fire laws and regulations.

F. Insurance Commercial Units

1. The owner, operator of the WECS shall maintain a current general liability policy covering bodily injury and property damage and name Wabash County as an additional insured with limits of at least \$2 million per occurrence and \$5 million in the aggregate with a deductible of no more than \$5,000.00.

G. Experimental /Prototype Equipment

1. Experimental or proto-type equipment, still in testing, which does not fully comply with industry standards, shall not be approved for use.

**6.24 U WECS Ownership**

A. Change in Ownership

1. It shall be the responsibility of the owner, operator listed on the application to inform the Plan Commission of all changes in ownership and operation of the WECS during the life of the project.
2. All bonding and liabilities shall require new bonding whenever a change of ownership is to be established

# BEFORE THE WABASH COUNTY BOARD OF COMMISSIONERS

## Ordinance \_\_\_\_\_

### AN ORDINANCE REGULATING SOLAR ENERGY SYSTEMS

**1. PURPOSE.** This Ordinance is to assure that the development and production of solar-generated electricity in Wabash County, Indiana, is safe and effective, to facilitate economic opportunities for local residents, to provide standards for solar generated energy, utilize natural resources and ecologically sound energy sources, and to support Indiana's alternative energy sources potential and other such economic development tools.

**2. INTENT.** The intent of this Ordinance is to provide a regulatory scheme for the development, construction and operation of Solar Energy System in Wabash County, Indiana, to establish reasonable guidelines and restrictions on the development, construction, operation, rehabilitation, decommissioning and restoration of an SES, and to preserve the health, safety and general welfare of Wabash County residents and the general public.

### **3. DEFINITIONS.**

**Adjacent:** lying near, close; contiguous; adjoining; neighboring.

**Adjoining:** being in contact at some point or line; contiguous; bordering.

**Accessory Use:** A use customarily incidental and subordinate to the primary use or building and located on the same lot therewith. A use which dominates the primary use or building in area, extent, or purpose shall not be considered an accessory use.

**Battery Back-Up:** A battery system that stores electrical energy from a solar PV system, making the electricity available for future use. Battery Back-Up systems are common in Off-Grid Systems and Hybrid Systems.

**Buffer Strip:** An area of land maintained to provide screening by use of permanent, different configurations of grasses, trees, shrubs, soil for the purpose of concealing a C-SES.

**Concentrated Solar Thermal Power (CST):** A Solar Energy Systems that use lenses or mirrors, and often tracking systems, to focus or reflect a large area of sunlight into a small area. The concentrated energy is absorbed by a transfer fluid or gas and used as a heat source for either a conventional power plant, such as a steam power plant, or a power conversion unit, such as a sterling engine. Although several concentrating solar thermal technologies exist, the most developed types are the solar trough, parabolic dish and solar power tower.

**Electricity Generation (aka production, output):** - The amount of electric energy produced by transforming other forms of energy, commonly expressed in kilowatt-hours (kWh) or megawatt-hours (MWh).

**Economic Development Agreement:** An agreement between the applicant, owner and/or operator and the county setting forth the applicant, owner and/or operator's financial commitment to support economic development and/or provide other financial assistance in the county.

**Ground-Mount System:** A solar energy system that is directly installed on specialized

solar racking systems, which are attached to an anchor in the ground and wired to connect to an adjacent home, building or utility. Ground-mount systems may be applicable when insufficient space, structural and shading issues, or other restrictions prohibit rooftop solar.

**IAC:** Indiana Administrative Code

**Indiana Electric Code:** Identified in 675 IAC 17 Indiana Residential Code- Identified in 675 IAC 14 Indiana Building Code- Identified in 675 IAC 13

**Inverter:** A device that converts the Direct Current (DC) electricity produced by a solar photovoltaic system is converted to useable alternating current (AC).

**Megawatt (MW)** Equal to 1000 Kilowatts, or 1,000,000 Watts a measure of the use of electrical power.

**Megawatt-hour (MWh):** A unit of energy equivalent to one Megawatt (1 MW) of power expended for 1 hour of time.

**National Electric Code (NEC):** Sets standards and best practices for wiring and electrical systems.

**Net Metering:** A billing arrangement that allows customers with grid-connected solar electricity systems to receive credit for any excess electricity generated on-site and provided to the utility grid.

**Off-Grid Solar Photovoltaic Systems with battery back-up:** Solar photovoltaic electricity systems designed to operate independently from the local utility grid and provide electricity to a home, building, boat, RV (or remote agricultural pumps, gates, traffic signs, etc.). These systems typically require a battery bank to store the solar electricity for use during nighttime or cloudy weather (and/or another back-up generation). Typical system components include: PV panels, battery bank, a charge controller, inverter(s), required disconnects, and associated electrical safety gear.

**Passive Solar:** Techniques, design, and materials designed to take advantage of the sun's position throughout the year (and the local climate) to heat, cool, and light a building with the sun. Passive solar incorporates the following elements strategically to maximize the solar potential of any home or building (namely, maximizing solar heat gain in winter months and minimizing solar heat gain in summer months to reduce heating/cooling demand; and maximizing the use of daylighting to reduce demand for electricity for lighting): strategic design and architecture, building materials, east-west and building lot orientation, windows, landscaping, awnings, ventilation

**Photovoltaic (PV) System:** A solar energy system that produces electricity by the use of semiconductor devices, called photovoltaic cells, which generate electricity when exposed to sunlight. A PV system may be roof-mounted, ground-mounted, or pole-mounted.

**PV-Direct Systems:** The simplest of solar photovoltaic electric systems with the fewest components (no battery back-up and not interconnected with the utility) designed to only provide electricity when the sun is shining. Typical system components include: PV panels, required electrical safety gear, and wiring.

**Racking:** Solar energy systems are attached securely and anchored to structural sections of the roof-mounted or pole-mounted systems. Specially designed metal plates called flashings prevent leaks and are placed under shingles and over bolts to create a water-tight seal.

**Roof-Mount System (aka rooftop mounted, building mounted):** A solar energy system consisting of solar panels are installed directly on the roof of a home, commercial building, and/or an accessory structure, such as a garage, pergola, and/or shed. Solar panels are mounted and secured using racking systems specifically designed to minimize the impact on the roof and prevent any leaks or structural damage. Roof-mount systems can be mounted flush with the roof or tilted toward the sun at an angle.

**Solar Access:** the ability of one property to continue to receive sunlight across property lines without obstruction from another's property (buildings, foliage or another impediment).

**Solar Array:** Multiple solar panels combined together to create one system.

**Solar Collector:** A solar PV cell, panel, or array, or solar thermal collector device, that relies upon solar radiation as an energy source for the generation electricity or transfer of stored heat.

**Solar Easement:** An easement recorded pursuant to Chapter IC 32-23-4, obtained for the purpose of insuring exposure of a solar energy device or a passive solar energy system to the direct rays of the sun. Solar Easements are further described and regulated in subsections 19-6-2-9 & 19-7-6-6 Solar easements are to follow the state requirements of recording (IC32-23-2-5).

**Solar Energy System (SES):** Solar Energy System ("SES") means the components and subsystems required to convert solar energy into electric or thermal energy suitable for use; the area of the system includes all the land inside the perimeter of the system, which extends to any fencing, buffer and landscaping. The term applies, but is not limited to, solar photovoltaic (PV) systems, solar thermal systems, and solar hot water systems. A regulated SES fits into one of two system types: Commercial (C-SES) or Noncommercial (NC-SES) (as hereinafter defined). For purposes of this ordinance an SES does not include concentrated solar thermal systems and such systems are not permitted.

**Solar Energy System, Commercial (C-SES):** means a utility-scale commercial facility that converts sunlight into electricity with the primary purpose of wholesale or retail sales of generated electricity. A Concentrated Solar Thermal (CST) is not permitted or considered a C-SES for the purposes of this Ordinance.

**Solar Energy System, Noncommercial (NC-SES):** include any photovoltaic, solar thermal, or solar hot water devices that are accessory to, and incorporated into the development of an authorized use of the property, and which are designed for the purpose of reducing or meeting on-site energy needs.

**Solar Glare:** The potential for solar panels to reflect sunlight, with intensity sufficient to cause annoyance, discomfort, or loss in visual performance and visibility.

**Solar Photovoltaic (Solar PV) System:** Solar systems consisting of photovoltaic cells, made with semiconducting materials, that produce electricity (in the form of direct current (DC)) when they are exposed to sunlight. A typical PV system consist of PV panels (or modules) that combine to form an array; other system components may include racks and hardware, wiring for electrical connections, power conditioning equipment, such as an inverter and/or batteries.

**Hybrid Solar Photovoltaic Systems, Hybrid (aka grid-tied PV with battery back-up):** Solar photovoltaic electricity generation systems designed to serve the electricity



needs of the building to which it is connected, thus offsetting a home's or business's electricity usage, while also utilizing a battery back-up in the event of a power outage. This is the only system that provides the ability to have power when the utility grid is down. Typical system components include: PV panels, inverter(s), and required electrical safety gear, battery bank, and a charge controller.

**Solar Panel (or module):** A device for the direct conversion of sunlight into useable solar energy (including electricity or heat).

**Solar Thermal System (aka Solar Hot Water or Solar Heating Systems):** A solar energy system that directly heats water or other liquid using sunlight. Consist of a series of tubes that concentrate light to heat either water or a heat-transfer fluid (such as food- grade propylene glycol, a non-toxic substance) in one of two types of collectors (flat- plate collectors and evacuated tube collectors). The heated liquid is used for such purposes as space heating and cooling, domestic hot water, and heating pool water.

**Visual Barrier:** As used in Article26 it is a density of landscaping equal to Thuja Green Giant Arborvitae spaced 4' apart which initial planting size and density is expected to attaining a height of 7' in three years under normal growing conditions. A minimum height of 15' is to be maintained thereafter. The intent is to completely exclude visual contact with solar panels and equipment.

**Waiver:** Waiver Agreement – An agreement to modify a standard required in this Ordinance which is entered into by and between the landowner burdened by lessening the standard required by the Ordinance and the landowner requesting the modification of the standard required by this Ordinance. An agreement to modify a standard required by this Ordinance, or “waiver agreement”, is permissible only when a waiver of such standard is specifically authorized by this Ordinance. In order to be valid, a “waiver agreement” must be in writing, specifically state that the document is a waiver agreement, briefly describe the standard or requirement which is being modified, briefly describe the standard agreed upon by the parties to the waiver agreement, be executed in a manner free from coercion or duress, be executed by both parties to the waiver agreement, be subject to the approval of the PC Director, and filed with the PC office.

**Watts (W):** A measure of the use of electrical power (power (Watts) = voltage (volts) X current (Amps).

All other terms used in this Ordinance, but not specifically defined herein shall have the meaning contained in the Wabash County Zoning Ordinance (“Zoning Ordinance”) or shall have the meaning inferred from their context or their ordinarily accepted definitions.

#### **4. APPLICABILITY AND EXEMPTIONS.**

**4.1.** The provisions of this Ordinance are applicable to those zoning districts defined by the Zoning Ordinance in which an SES is allowed, and govern the siting, development, operation, rehabilitation, decommissioning and restoration of an SES.

**4.2.** When any part of the development, construction, rehabilitation, operation, decommissioning or restoration of a SES requires action, recommendations, hearing and/or decision pursuant to the provisions of the Zoning Ordinance, notice shall be given pursuant to the Zoning Ordinance and the applicable Rules of Procedure (“Rules”) of the Wabash County Plan Commission (“PC”) or Board of Zoning Appeals (“BZA”), as applicable.

**4.3.** Provisions of this Ordinance which are specifically made applicable to a

specific type of SES such as Noncommercial (NC- SES) or Commercial (C-SES), shall apply to that type of SES. Provisions without reference to a specific type of SES, shall apply to all SESs unless determined otherwise by the PC. The PC Director may refer any question related to an SES application for discussion with and/or instruction from the PC. An applicant for a SES may appeal the requirement, decision or determination of the PC in the manner prescribed by applicable Rules of the BZA, the Zoning Ordinance, and/or Indiana law.

**4.4.** A NC-SES with an aggregate collection and/or focusing area of 8 square feet or less is exempt from this ordinance.

**4.5.** An SES constructed prior to the effective date of this Ordinance shall not be required to meet the terms and conditions of this Ordinance. Any physical modifications to an existing SES, whether or not existing prior to the effective date of this Ordinance that materially alters the SES shall require an improvement location permit. Routine maintenance or like-kind replacements do not require a permit.

**5. PROHIBITION.** No person shall construct, operate, or locate a SES within the jurisdictional area of the PC without first obtaining an improvement location permit (“ILP”). No improvement location permit shall be issued until the applicant has complied with all of the provisions of this Ordinance, the Zoning Ordinance, and Indiana law related to a SES.

**6. CONFLICT WITH OTHER REGULATIONS.** Nothing in this Ordinance is intended to pre-empt other applicable state and federal laws or regulations, nor shall any provisions of this Ordinance interfere with, abrogate, or annul any other ordinance, rule, regulation, statute or other provision of law. In the event that any provision of this Ordinance 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 highest standard(s) shall control, except that standards specified in this Ordinance that conflict with standards found in the Zoning Ordinance take precedence as it relates to an SES.

**7. DISTRICT WHERE A SES IS PERMITTED.**

**7.1.** An NC-CES shall be permitted in Districts A, FR, R1-R3, LR, Ab, LB, GB, I, and IR.

**7.2.** A C-SES shall be permitted only as a Special Exception in District A, FR, I, and IR.

**8. SAFETY, DESIGN, AND INSTALLATION STANDARDS FOR NC-SES.**

**8.1. Interference.** When selecting a site for solar panels, all applicants shall take into consideration the potential maximum allowable structure height and possible landscaping of the adjacent properties to avoid interference and potential loss of efficiency from the sun to the solar panel surface. As part of the application process a written disclaimer is required acknowledging an issued permit does not imply any solar access rights.

**8.2. Roof Mounted and Wall Mounted NC-SES.**

**(a)** A roof mounted or wall mounted NC-SES may be located on a principal or accessory building.

**(b)** Roof-mounted solar panels installed on a building or structure with a sloped roof shall not project vertically more than the height requirements for the district in which they are located. The panels shall not be located within two feet (2’) of any peak, eave, or valley of the roof to maintain pathways of accessibility.

(c) Wall mounted NC-SES shall comply with the setbacks for principal or accessory structures in said zoning districts.

(d) Roof mounted solar panels shall be located only on rear or side-facing roofs as viewed from any adjoining street unless the applicant demonstrates to the PC that, due to solar access limitations, no location exists other than the street-facing roof, where the solar energy system can perform effectively.

(e) For roof and wall mounted systems, the applicant shall provide written evidence that the plans comply with the Indiana Residential Code and adopted building codes of Wabash County, and that the roof or wall is capable of supporting the load imposed on the structure.

(f) All roof, wall, ground mounted systems shall be equipped with a rapid disconnect to ensure a safe condition in the event of any emergency situation.

### **8.3. Ground Mounted NC-SES.**

(a) Setback

i. The minimum yard setbacks from side and rear property lines shall be ten feet (10') feet from the property lines for all solar associated equipment,

ii. Freestanding solar panels shall only be permitted in the rear and side yard.

(b) Ground mounted NC-SES located in an A, FR, or I zoning district shall not exceed fifteen feet (15') in feet in height, when oriented at maximum tilt, above the ground elevation surrounding the system. In all other zoning districts where a ground mounted NC-SES is permitted, the maximum height of the NC-SES shall be ten feet (10") when oriented at maximum tilt, above the ground elevation surrounding the system.

(c) Safety/warning signage as required by applicable law concerning voltage shall be placed with ground mounted electrical devices, equipment, and structures.

(c) Ground-mounted N-SES shall not be placed within any legal easement or right-of-way location, or be placed within any storm water conveyance system, or floodplain, or in any other manner that would alter or impede storm water runoff from collecting in a constructed storm water conveyance system, except when permission is granted in writing by the Wabash County Drainage Board, and/or Floodplain Administrator and/or owner of the land and/or right-of-way and/or easement. This would include but not be limited to state, county and/or privately owned waterways, ditches, drainage tiles, retention areas and designed swells.

### **8.4. Electrical Components:**

(a) Electrical components of all NC-SESs shall conform to applicable local, state and federal safety codes for similar NC-SESs.

(b) All on-site utility, transmission lines, and plumbing shall be placed underground.

(c) When solar storage batteries are included as part of the solar energy collector system, they must be placed in a secure container or enclosure and installed and maintained as required by applicable law.

**8.5. Utility Interconnection.** A NC-SES, if interconnected to a utility system, shall meet the requirements for interconnection and operate as required by applicable law.

**8.6. Color, Finish and Glare.**

(a) Solar energy panels, regardless of how they are mounted, shall be oriented and/or screened year-round so that glare is directed away from adjacent properties and streets.

(b) The NC-SES shall be designed using such features as colors, materials, textures, screening and landscaping so as to blend into their settings and avoid significant visual impact. The NC-SES shall remain painted or finished in the color or finish that was originally applied by the manufacturer. The exterior surface of any visible components shall be a non-reflective, neutral color like white, grey or another non-obtrusive color. Finishes shall be matte or non-reflective. The applicant has the burden of mitigating any glare produced so as not to have significant adverse impact on adjacent uses. Mitigation is accomplished by panel siting, panel orientation, landscaping and/or other means.

**8.7. Signage.** No portion of the NC-SES shall contain or be used to display advertising. The manufacturer's name and equipment information or indication of ownership shall be allowed on any equipment of the NC-SES provided they comply with the prevailing Sign Ordinance.

**8.8. Landscaping/Screening.** No trees or other landscaping otherwise required by county ordinances or attached as a condition of approval of any plan, application, or permit may be removed for the installation or operation of a NC-SES.

**8.9. Maintenance.** The NC-SES must be properly maintained and be kept free from all hazards, including but not limited to, faulty wiring, loose fastenings, cracked glass, being in an unsafe condition or detrimental to public health, safety or general welfare.

**9. APPLICATION FOR AN ILP FOR A NC-SES.** An application for NC-SESs shall include, but not be limited to, the following information and any other information reasonably requested by the PC Director:

**9.1. Engineering Certification.** A manufacturer's engineer or another qualified registered professional engineer shall certify that all proposed structural aspects of the NC-SES design are within accepted professional standards, and the structure that the solar technology will be affixed to, will tolerate the installed weight and wind load of said technology (e.g., roof walls, soils, etc.).

**9.2. Contact Information of NC-SES Applicant.** The name(s), address(es), telephone number(s) and e-mail address(es) of the applicant(s).

**9.3. Legal Description.** The legal description, the 911 Emergency Address and the County parcel ID number of the real property upon which the NC-SES is to be located,

**9.4. NC-SES Description.** A detailed description of the following:

- (a) Type of solar technology (e.g., solar panels, thermal solar, solar shingles, etc.).
- (b) Solar panel mounting technique (e.g., ground-mount, roof-mount, wall mount etc.).
- (c) Solar panel installation height.
- (d) Name plate generating capacity.
- (e) The means of interconnecting with the electrical grid.,
- (f) The potential equipment manufacturer(s) including information sheets and installation manuals.
- (g) Accessory structures.

**9.5. Demonstration of Energy Need.** The primary purpose of the production of energy from a NC-SES shall be to serve the energy needs of the tract or parcel of real property upon which the NC-SES is to be located. The applicant shall demonstrate how much energy is needed and how the proposed size will fulfill this need. At the discretion of the PC Director, some Net Metering may be allowed, but the PC Director may deny the issuance of an ILP if the primary purpose of the NC-SES is to produce energy in excess of the demonstrated need.

**9.6. Utility Approval.** The applicant shall provide the PC written evidence that the public utility company to which the NC-SES will be connected has approved such connection, including the projected power output of the system. Applicants of off-grid systems, (PV Direct Systems), shall also provide written confirmation that the public utility company has been notified of the off-grid system.

**9.7. Compliance with National Electrical Code.** A line drawing of the electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the National Electrical Code shall be supplied. (This information is frequently supplied by the manufacturer and should conform to the current Indiana Residential Code set out in 675 IRC 14 or the current Indiana Electric Code set out in 675 IRC 17).

**9.8. Disclaimer.** Applicants must acknowledge in writing that the NC-SES will not create in the property owner, its, his, her or their successors and assigns in title, or, create in the property itself:

- (a) the right to remain free of shadows and/or obstructions to solar collectors caused by development of adjacent or other property, or the growth of any trees or vegetation on such property, or
- (b) the right to prohibit the development on, or growth of any trees or vegetation on such property. This disclaimer is secondary to any solar easements entered into with adjacent land owners and subject to the terms agreed to therein.

**9.9. Solar Easements.**

- (a) When an applicant seeks to construct a NC-SES in a subdivision or land development, solar easements may be provided; said easements shall be in writing, and shall be subject to the same conveyance and instrument recording requirements prescribed in IC 32-23-2-5 or subsequent amendment(s).

(b) Any such solar easements shall be appurtenant, shall run with the land benefited and burdened, and shall be defined and limited by conditions stated in the instrument of conveyance. Instruments creating solar easement shall meet the requirements of IC 32-23-4- 4 and 32-23-4-5 and shall include, but not be limited to, the following:

i. A description of the dimensions of the easement including vertical and horizontal angles measured in the degrees at which the solar easement extends over the real property that is subject to the solar easement, and a description of the real property to which the solar easement is appurtenant.

ii. Restrictions on the placement of vegetation, structures, and other objects which may impair or obstruct the passage of sunlight through the easement.

iii. Enumerate any terms and conditions, under which the easement is granted, and may be revised or terminated.

(c) If necessary, a NC-SES owner and/or operator must obtain any solar easements necessary to guarantee unobstructed solar access by separate civil agreement(s) with adjacent property owner(s).

**9.10 THIRD-PARTY USE OF SOLAR PANELS.** Any panels installed to be used by someone other than the owner of the NC-SES shall provide an affidavit or evidence of agreement between the lot owner and facility's owner or operator confirming the facility owner or operator has permission of the property owner to install and utilize solar panels.

## **10. SAFETY DESIGN AND INSTALLATION STANDARDS FOR COMMERCIAL SOLAR ENERGY SYSTEMS (C-SES)**

**10.1. Horizontal extension for C-SES.** The furthest horizontal extension of a C-SES, excepting the C-SES collection system, C-SES transmission lines, ingress/egress road and C-SES access roads/lanes, shall not extend into a setback which is otherwise required for the zoning district in which the C-SES is located, or into a required buffer area or into a setback required for an adjacent zoning district nor be less than 15 feet from any structure or public right-of-way easement for any above-ground telephone line, electrical transmission line, electrical distribution line or other above ground communication or transmission line.

**10.2. Setback requirements.** The follows set-back requirements shall apply:

(a) The minimum setbacks for all equipment, buffering, fencing and access roads/lanes associated with the C-SES shall be as listed in Table 26-7-1-2 (e) and shall be measured from the center of the road, or from the adjoining property line. Setbacks apply to solar panels, racking, inverters, accessory buildings, buffering, fence, access roads/lanes and any other power equipment or meteorological towers. They do not apply to underground cabling.

(b) C-SES Substation setbacks shall be the same as those of a C-SES development on a 0 to 5 acre parcel.

(c) For all poles carrying overhead wiring and for any underground wiring connecting the racks and components of a C-SES and/or to connect a C-SES to a substation for connection to or other direct connection to a utility's electric transmission line, there are no setback requirements from property lines of

adjoining landowners so long as the poles and underground wiring are located within a recorded easement for such purpose or in right-of-way.

**(d)** Ground-mounted C-SES shall not be placed within any legal easement or right-of-way location, or be placed within any storm water conveyance system, or floodplain, or in any other manner that would alter or impede storm water runoff from collecting in, and/or conveyance through, and/or discharge from, a constructed storm water conveyance system (including, without limitation any swale, regulated drain, water course or drainage tile) except as permitted in writing by the Wabash County Drainage Board, and/or Floodplain Administrator and owner of the land and/or owner of right-of-way and/or easement. This would include, but not be limited to, state, county and/or private owned waterways, ditches, drainage tiles, retention areas and designed swells. Notwithstanding the foregoing, nothing in the preceding sentence shall prevent the replacement, repair, reconstruction and/or relocation of any such water conveyance system as necessary to develop and install the C-SES with any necessary approvals from the County Drainage Board.

**(e) Proportional Setback Chart:**

<b>PROPORTIONAL SETBACK CHART</b>				
C-SES Site acreage including Road / Drive Designation	Property Line Setback	Residential or Business Setback	Public Use, Outdoor Facilities, Parks, Camp Grounds, Recreational, FR District	Solar Farm Buffer Layout From Inside Out
0 to 5	30'	450'	450'	Solar Arrays, Access Lane, Visual Buffer, Fence
5.1 to 10	60'	540'	540'	Solar Arrays, Access Lane, Visual Buffer, Fence
10.1 to 20	90'	625'	625'	Solar Arrays, Access Lane, Visual Buffer, Fence
2.1 to 30	120'	710'	710'	Solar Arrays, Access Lane, Visual Buffer, Fence

30.1 to 40	150'	800'	800'	Solar Arrays, Access Lane, Visual Buffer, Fence
40.1 to 50	180'	885'	885'	Solar Arrays, Access Lane, Visual Buffer, Fence
50.1 to 60	210'	970'	970'	Solar Arrays, Access Lane, Visual Buffer, Fence
60.1 to 70	240'	1060'	1060'	Solar Arrays, Access Lane, Visual Buffer, Fence
70.1 to 80	270'	1145'	1145'	Solar Arrays, Access Lane, Visual Buffer, Fence
80.1 to 90	300'	1235'	1235'	Solar Arrays, Access Lane, Visual Buffer, Fence
90.1 to 100	330'	1320'	1320'	Solar Arrays, Access Lane, Visual Buffer, Fence
SEC CO RD	65'	65'	65'	Solar Arrays, Access Lane, Visual Buffer, Fence
PRI CO RD	95'	95'	95'	Solar Arrays, Access Lane, Visual



				Buffer, Fence
ST RD	105'	105'	105'	Solar Arrays, Access Lane, Visual Buffer, Fence
Ingress Egress Drive	All ingress/egress drives shall meet/exceed the minimum setback from adjoining property lines			

**10.3 Buffer Strip, Screening, & Vegetation.** The buffering and screening shall comply with the Proportional Setback Chart under Section 10.2(e), and the following design and developmental standards:

- (a) The width of the visual buffer strips is to be shown in a certified landscape plan.
- (b) A natural vegetative ground cover shall be maintained under and around the solar arrays. Only non-invasive species shall be used and native species are recommended. In interest of protecting pollinators seed mixes consisting of native meadow grasses and pollinator-friendly wildflower forbs and/or clover species shall be used in consultation with a USDA Farm Bill biologist or local Soil and Water Conservation District professional on the area under and around the solar arrays. Maintenance shall include eradication of all noxious weeds and plants prior to the weeds seeding and spreading.
- (c) No trees or other landscaping otherwise required by the County ordinances or attached as a condition of approval of any plan, application, or permit may be removed for the installation or operation of a C-SES.
- (d) All buffers requiring landscaping/screening shall have a Visual Barrier as defined in 3.0 Definitions. A Visual Barrier shall provide a year-round barrier of evergreens or other similar plantings.
- (e) Only the following improvements shall be permitted within the Buffer Strip:
  - i. Vehicular ingress/egress drives which tie into approved access points as determined by INDOT and/or Wabash County Highway Department,
  - ii. Perimeter road / lane,
  - iii. Visual Barrier, Landscaping and landscaping fixtures,
  - iv. Fencing,
  - v. Signage,
  - vi. All associated solar equipment,
  - vii. Overhead utility lines, underground utility lines,

**viii.** Drainage or storm water detention or retention areas, and

**x.** Buildings.

**(f)** The visual order of placement from inside the solar site outward shall be solar array panels, perimeter road/lane, visual barrier, fence.

**(g)** Landscaping/Screening Requirements:

**i.** A visual barrier shall be provided from any C-SES equipment. A visual barrier is intended to exclude visual contact with the solar equipment from any protected property. Landscaping/screening shall be placed on all sides adjacent to the C-SES. A visual barrier may be composed of landscaping, landscaped berm, or combination thereof.

**ii.** Natural areas: An existing vegetated area located on the same property as the solar farm; is within or includes the required buffer; and is of sufficient height, length, and depth and contains adequate and sufficient healthy vegetation to provide a visual barrier where required may, upon determination by the PC that the natural visual buffers along with the additional placement of visual buffers will be sufficient screening buffer accordingly.

**iii.** Solid Fencing or walls constructed of materials making a solid visual barrier shall not be permitted as a use for screening, fencing or gates.

**iv.** Landscaping required within buffer strips shall be done in accordance with a certified landscape plan that shows a Visual Barrier with a predicted minimum height of ten (10) feet within two (2) years will be achieved by the selected species and planting size and density during normal growing conditions. A minimum height of fifteen (15') is to be maintained over the life of the project. Height is to be measured from original grade,

**v.** Grass or ground cover shall be planted on all portions of the required buffer areas not occupied by other landscaped material. Only non-invasive species shall be used and native species are recommended.

**vi.** All landscaping materials shall be installed and maintained according to accepted nursery industry procedures. The C-SES applicant, owner, operator shall be responsible for the continued property maintenance of all landscaping materials throughout the life of the solar project and shall keep them in a proper, neat, and orderly appearance free from refuse and debris at all times.

**vii.** Unhealthy and dead plants shall be replaced within one (1) year. The determination of whether a plant is unhealthy shall be at the discretion of a recognized landscape professional.

**viii.** The effectiveness of screening shall be maintained as the plant materials mature.

**ix.** A clear sight triangle shall be maintained at all intersections and ingress/egress locations,

- x. The C-SES Owner, operator shall be responsible for the control of vegetation in the perimeter fence row.

#### **10.4. Equipment type.**

(a) All C-SES shall be constructed of commercially available equipment and in conformance with this Ordinance. Material Safety Data Sheets and/or Safety Data Sheets shall be submitted for each model of solar panel and components to be used.

(b) Experimental or proto-type equipment: Experimental or proto-type equipment still in testing which does not fully comply with industry standards, may be approved by the BZA after notice and hearing pursuant to the variance procedures of BZA Rules of Procedure.

(b) Solar storage batteries: When solar storage batteries are included as part of the solar energy collector system, they must be placed in a secure container or enclosure meeting the requirements of the Indiana Building Code and IDEM regulations when in use, and when no longer used shall be disposed of in accordance with all applicable laws and regulations.

(c) All SESs shall conform to applicable industry standards, as well as all local, state and federal regulations. An applicant, owner, operator shall submit certificate(s) of design obtained by the solar manufacturers from Underwriters Laboratories, Det Norske Veritas, Germanishcher Lloyed Solar Energie, or an equivalent third party.

~~(d) All C-SES equipment, components shall be American-made products.~~

#### **10.5. Electrical components.**

(a) Electrical components of all C-SES shall conform to applicable local, state and national safety codes for similar C-SES,

(b) Cables and Lines: All cables and lines on site within the fenced area shall follow the current Indiana Electric Code (identified in 675 IAC 17). Transmission cables and lines outside the fenced site shall be buried no less than forty-eight inches (48") underground with a warning mesh located thirty- six inches (36") deep. No plow type installations shall be permitted, only open trenching or boring installations shall be permitted. All underground cabling will be marked at road crossings, creeks, streams, river beds and property lines with an identifiable metal or fiberglass post at least five feet (5') in height. Maintenance of the identification post shall be required throughout the life of the C-SES.

(c) For streams, waterways, creeks, and river beds transmission cables and lines shall be buried a minimum of sixty inches (60") below the existing flow line with a warning mesh located forty-eight inches (48") below the existing flow line.

**10.6. Color Finish and Glare.** In addition to any applicable FAA requirements that now exist and the same are amended from time to time, the following shall also apply:

(a) The solar energy systems shall remain painted or finished in the color or finish that was originally applied by the manufacturer provided the exterior surface of any visible components are non-reflective, a neutral color like white, grey or another non-obtrusive color. Finishes shall be matte or non-reflective.

(b) Solar energy panels, regardless of how they are mounted, shall be oriented and/or screened year-round so that glare is directed away from adjacent properties, structures and roadways.

(c) The C-SES applicant, owner, operator has the burden of mitigating any glare produced so as not to have significant adverse impact on adjacent uses. Mitigation is accomplished by panel siting, panel orientation, landscaping and/or other means. The determination of the APC shall be conclusive relative to applicant's compliance with this standard.

#### **10.7. Materials Handling, Storage and Disposal.**

(a) Solid wastes: All solid wastes whether generated from supplies, equipment, parts, packaging, operation, maintenance, rehabilitation, decommissioning, restoration of the facility, or otherwise, including, but not limited to, old parts and equipment related to the maintenance, rehabilitation, decommissioning, or restoration of any C- SES shall be removed from the site promptly and disposed of in accordance with all federal, state and local regulations, laws and ordinances. The C-SES applicant, C-SES owner and C-SES operator shall have the same responsibility for compliance hereof.

(b) Hazardous Materials: All hazardous materials or hazardous waste related to the construction, operation, maintenance, rehabilitation, decommissioning, or restoration of any C-SES or otherwise generated by the facility shall be handled, stored, transported and disposed of in accordance with all applicable local, state and federal regulations and laws. The C-SES Applicant, C-SES owner and the C-SES operator shall have the same responsibility for compliance hereof. The C-SES owner shall be responsible for all clean-up cost and shall be bonded accordingly for all clean-up of a C-SES site, including the leased ground in the event of an environmental spill creating any environmental hazard(s).

**10.8. Sewer, Septic and Water.** All C-SES facilities shall comply with the sewer, septic and well regulations as currently required or as hereinafter amended, by the Wabash County Health Department and the Indiana State Department of Health.

**10.9. Utility Interconnections.** A C-SES, interconnected to a utility system, shall meet the requirements for interconnection and operate as prescribed by the interconnection agreement with the electrical utility, as any applicable federal and state regulations now exist and as the same are from time to time amended.

**10.10. Signage.** Signs shall comply with the following standards and any other reasonable submittals.

(a) Development Signs: An identification sign relating to a C-SES may be located on all sides of the fenced facility area, provided that there shall be no more than one (1) sign located per one hundred yards (100 yds.) of the C-SES fenced facility area,

(b) A sign shall be securely posted on each gate entry point clearly displaying all emergency telephone number(s) and all other contact information,

(c) All ingress/egress roads to a C-SES shall have posted, in a conspicuous location, a 911 Address sign indicating the assigned address for that location,

(d) Warning signs shall comply with applicable laws,

(e) No portion of the C-SES sign shall contain or be used to display advertising. The manufacturer's name and equipment information or indication of ownership shall be allowed on equipment of the C-SES provided they comply with the prevailing sign regulations,

(f) All signage required or permitted by this Ordinance shall be made of materials and constructed in a manner to be durable and long lasting. The same shall be painted or made of material with a distinct, high contrast background and be weather proof paint or other weather proof material to promote safety and protect the public from hazards and potential hazards.

**10.11. Collection Cable/Lines.** Collection cables, collection lines, and communication lines installed as part of any C-SES shall not be considered essential services.

**10.12. Other Appurtenances.** No appurtenances other than those associated with the C-SES construction, operations, maintenance, repair, replacement, rehabilitation, decommissioning, restoration, removal, and permit requirements shall be connected to the C-SES area.

**10.13. Height.** Ground mounted C-SES arrays shall not exceed fifteen feet (15') in height when oriented at maximum tilt.

**10.14. Fence.** For security, all ground-mounted C-SES shall be completely enclosed by a minimum eight (8) foot high fence with locking gates accessible only by a key pad or Knox Box with key. The fence shall be located around the entire perimeter of the project site meeting the required setback. It shall be the sole responsibility of the C-SES applicant, owner, operator to maintain all fencing, post, and gates in order to remain free from rust, corrosion, sag.

**10.15. Noise, Vibration, Interference.** No part of an operating C-SES shall produce noise that exceeds any of the following limitations except during construction. Adequate setbacks, barriers, enclosures, use of quieter equipment, or other effective means of reducing noise shall be used to comply with these limitations:

(a) A maximum of thirty-two decibels (32 dB) on the A weighted scale shall be permitted, as measured immediately outside the closest point of the nearest residential or business structure.

(b) Any proposed C-SES or associated features shall not produce vibrations humanly perceptible beyond the property on which it is located or cause vibration that could be detected in nearby structures or damage underground wells during construction, operation, decommissioning or restoration.

(c) All equipment used in producing solar energy shall be constructed and operated so that they do not interfere with television, microwave, agricultural GPS use, military defense radar, navigational or radio reception to neighboring areas.

**10.16. Ingress/Egress and Perimeter Access.**

(a) At a minimum, a 20' wide ingress/egress road must be provided from a public road or a legally established access drive, into the site. This ingress/egress road shall be stoned or paved and must meet all county, state and federal regulations.

(b) At a minimum, a 20' wide perimeter access road/lane shall be provided

around the perimeter of the C-SES, between the solar arrays and visual buffer area to allow access for maintenance vehicles and emergency management vehicles including fire apparatus and emergency vehicles.

(c) All stoned ingress/egress roads and the perimeter access lanes shall be treated for dust control and control of detrimental plants, (weeds).

**10.17. Lighting.** The ground mounted C-SES shall not be artificially lit except to the extent required for safety or applicable federal, state, or local authority. Such lighting shall be shielded and downcast so as not to adversely affect adjacent properties.

## **11. OPERATION AND MAINTENANCE**

**11.1. Repair.** The C-SES applicant, owner and/or operator shall repair, maintain and replace defective, damaged, inoperable C-SES related solar equipment during the operational life of the C-SES in a manner consistent with industry standards as needed to keep the C-SES in good repair and operating condition.

**11.2. Operation and Maintenance Plan.** The C-SES applicant, owner, operator shall submit a plan for the operation and maintenance of the C-SES, which shall include measures for maintaining safe access to the installation, storm water controls, as well as general procedures for operation and maintenance of the installation.

**11.3. Physical Modifications.** Any physical modification to any C-SES major electrical components or a part thereof which materially alters the mechanical load, or mechanical load path, shall require re-certification by all appropriate regulatory authorities. Like-kind replacements shall not require re-certification, unless required by a regulatory authority. Prior to making any material physical modification, other than a like-kind modification, the applicant, owner or operator of such C-SES shall confer with the APC and any other appropriate regulatory authority as to whether or not the proposed physical modification requires re-certification of such C-SES.

**11.4. Declaration of Public Nuisance.** Any C-SES declared unsafe by the PC by being in breach of, or, out of compliance with its C-SES permit(s) may seek to be rehabilitated and declared safe by appropriate repair(s) and other essential steps necessary to eliminate the breach(es) so as to be in compliance with such C-SES permit(s). A C-SES declared by the PC by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, damage, abandonment or as provided herein to be determined unsafe, is hereby declared to be a public nuisance. A Rehabilitation Plan shall be submitted to the PC within 45 days of notice of the Declaration of Public Nuisance. This plan shall provide procedures to rehabilitate the C-SES in a time not to exceed 180 days, except in the event of force majeure, including but not limited to unavailability of components or parts, strikes, and moratoriums which said majeure may extend said time to 365 days total or a reasonable extension agreed to by the PC. In the absence of an approved Rehabilitation Plan or meeting the agreed to time schedule(s), or failure to execute the required repair(s), in the time determined reasonable by the PC, such C-SES shall be demolished and removed in accordance with the Decommissioning-Restoration Plan and Agreement required by this Ordinance.

**11.5. Public Nuisance Waiver.** In the instance that an unavoidable Act of God inhibits, damages, or destroys part of, or the majority of the C-SES, the 180-day public nuisance removal timeline may be revised so long as the C-SES applicant, owner and/or operator provides a Rehabilitation Plan to remedy the damage and said plan is submitted to, and approved by, the PC. Said plan will outline the necessary protocol and time schedule for returning the C-SES to energy production and must be submitted to the County within 45 days of the date the damage was incurred.

**11.6. Contact Information.** The C-SES applicant, owner and operator shall maintain and provide to the PC a list of current personnel with corresponding phone numbers and e-mail addresses to contact with public inquiries or complaints throughout the life of the project. The C-SES applicant, owner and/or operator shall respond to the public's inquiries and complaints submitted by the APC.

**11.7. LIABILITY INSURANCE.** The owner and operator of a C-SES shall maintain a commercial general liability policy covering death, bodily injury and property damage, which may be combined with umbrella coverage, and shall be required to name Wabash County, Indiana as an additional insured solely to the extent of liabilities arising under this Ordinance, and said policy shall carry dollar amounts satisfactory to the County Commissioners and with agreed upon dollar amount limits per occurrence, aggregate coverage, and deductible amounts, all of which shall be agreed upon by the C-SES applicant, owner and operator and County Commissioners and provided in the Decommissioning-Restoration Plan and Agreement or other appropriate plan or agreement between the County Commissioners and C-SES applicant, owner and operator. The C-SES owner and/or operator shall furnish the county with a certificate of insurance and annual renewal certificate of insurance pursuant to this provision. The County Commissioners may require the certificate of insurance and any renewal certificate at a time agreed between the County Commissioners and C-SES applicant, owner and/or operator, provided, however, the County Commissioners may require the certificate of insurance as part of the application procedures or at such earlier time that said Commissioners believe the same to be necessary and appropriate.

**12. APPLICATIONS FOR AN ILP FOR A C-SES.** All application requirements, together with all other applicable requirements of this Ordinance and the Zoning Ordinance, shall be completed and approved by all required authorities, (federal, state and local), before an Improvement Location Permit is issued. Applications for an ILP for a C-SESs shall include the following:

**12.1. Contact Information of C-SES Applicant.** The name(s), address(es), telephone number(s) and e-mail address(es) of the applicant(s), together with a description of the applicant's business structure and overall role in the proposed project,

**12.2. Contact Information of C-SES Owner.** The names(s), address(es), telephone number(s) and e-mail address(es) of the C-SES owner(s), together with a description of the owner's business structure and overall role in the proposed C-SES, and documentation of real estate ownership of any real property upon which any part of the proposed C-SES is to be located. The C-SES owner shall inform the PC of any change of C-SES ownership, in whole or in part, and shall furnish the required information regarding such owner,

**12.3. Contact Information of C-SES Operator.** The name(s), address(es), telephone number(s) and e-mail address(es) of the operator(s), together with a description of the operator(s) business structure and overall role in the proposed C-SES, and documentation of real estate ownership of any real property upon which any part of the proposed C-SES is to be located. The C-SES operator shall inform the APC of any change of C-SES ownership, in whole or in part, and shall furnish the required information regarding such operator,

**12.4. Legal Description.** The legal description(s) the 18-digit tax ID number, and the 911 Emergency Address(es) of all real property upon which the C-SES is to be located,

**12.5. SES Description.** A detailed description of the proposed C-SES project including, but not limited to, the following:

- (a) Type of solar technology (e.g., solar panels, solar shingles, etc.),

- (b) Solar panel mounting technique (e.g., ground-mount, roof-mount, etc.),
- (c) Solar panel installation height,
- (d) Name plate generating capacity,
- (e) The means of interconnecting with the electrical grid,
- (f) The potential equipment manufacturer(s); including information sheets and installation manuals, and
- (g) Accessory structures and other appurtenances.

#### **12.6. Preliminary Site Plan.**

- (a) A site plan, drawn to scale, including distances pertaining to all applicable setback and buffer requirements. All drawings shall be at a scale of one inch (1") equals thirty feet (30'). Any other scale must be approved by the PC. No individual sheet or drawing shall exceed twenty-four inches (24") by thirty-six inches (36") without the prior consent of the PC
- (b) The preliminary site plan shall illustrate the following:
  - i. Property lines upon tract(s) subject to the application, together with property lines and the names of owners of record of each adjacent tract(s),
  - ii. Location and name/number of public roads surrounding, abutting, and/or traversing the C-SES and any C-SES ingress/egress road,
  - iii. Location of all substations,
  - iv. Location of all electrical cabling inside and outside of fenced areas,
  - v. All Ancillary equipment,
  - vi. All structures within (1/2) mile of the proposed C-SES boundary,
  - vii. The location of any airport within (2) miles of the proposed C-SES boundary,
  - viii. Setback lines: Distances from the solar energy system to each setback requirement listed in this Ordinance,
  - ix. The location of any historic or heritage sites as recognized by the Division of Historic Preservation and Archeology of the Indiana Department of Natural Resources, within one (1) mile of a proposed C-SES,
  - x. The location of any wetlands based upon a delineation plan prepared in accordance with the applicable U.S. Army Corps of Engineers requirements and guidelines, within one (1) mile of a proposed C-SES,
  - xi. Location of any floodway, floodplain within one (1) mile of the proposed C-SES based upon a delineation plan prepared in accordance with the applicable FEMA, DNR mapping,



- xii.** Location of any flowage easement within one (1) mile of the proposed C-SES based on a delineation plan prepared in accordance with the applicable ASACE mapping
- xiii.** Location of any tiles, creeks, streams, ditches, channel, spillway, retention pond, water coarse within one (1) mile of a proposed C-SES,
- xiv.** Location of fencing, gates, access roads, berms and landscaping associated with a visual buffer zone,
- xv.** Location and spacing of panels/arrays and key components,
- xvi.** SES Accessory Buildings, Structures or Facilities, Meteorological Towers, Operation Support Meteorological Towers, and
- xvii.** All other information reasonably requested by the BZA, or PC.

**12.7. Topographic Map.** A topographical (topo) map, of the property and the surrounding area, with contours of not more than (2) foot intervals shall be provided.

**12.8. Landowner Agreements.**

- (a)** A Memorandum of Agreement for all agreements of any description signed by participating landowners authorizing the placement of the identified C-SES on landowner's property,
- (b)** An executed copy of any waiver agreement signed by adjacent landowner(s) and notarized,
- (c)** A signed and notarized copy of any recorded Solar Easements from adjacent landowners, and
- (d)** Fully executed setback waiver agreements, if any, signed by adjacent landowners.

**12.9. Engineering Certification.** For all C-SES and C-SES facilities, the manufacturer's engineer or another qualified registered professional engineer shall certify, as part of the Improvement Location Permit (ILP) Application, that all structural aspects of the C-SES design are within accepted professional standards, and the structure or substrate the solar technology will be affixed to will tolerate the installed weight of said technology (e.g., roof structure, soils, poles, etc.).

**12.10. Proof of Correspondence and Cooperation with Wildlife Agencies:** For the purposes of demonstrating compliance with required permits, the applicant shall provide written documentation that the applicant is in direct correspondence, cooperation and in compliance and shall remain in compliance with all applicable regulations and requirements of the U.S. Fish and Wildlife Service and the Indiana Department of Natural Resources. All such correspondence must include job title, contact name, phone number, and e-mail address of those verifying compliance with all applicable regulations and requirements.

**12.11. Disclaimer.** Prior to the issuance of an (ILP), C-SES applicants must acknowledge in writing that the issuing of said permit shall not and does not create in the property owner, its, his, her or their successors and assigns in title or, create in the property itself:

- (a)** the right to remain free of shadows and/or obstructions to solar energy

caused by development of adjacent or other property or the growth of any trees or vegetation on such property, or

(b) the right to prohibit the development on or growth of any trees or vegetation on such property.

Any such disclaimer is subordinate to any solar easements entered into with adjacent land owners and subject to the terms agreed to therein.

**12.12. Solar Easements.** Solar Easement may be entered into between affected parties as described in subsection 26-7-6-6 and must be submitted with the C-SES application.

**12.13. Required Agreements.** In addition to all other application requirements and any other requirements, the plans and agreements described in Section 13 of this ordinance must be provided.

**12.14. Aggregated C-SES Applications.** Aggregated C-SESs may jointly submit a single application and be reviewed under joint proceedings.

**13. PLANS AND AGREEMENTS.** All reasonable attorney fees incurred in the preparation of any agreement or plans required hereunder shall be borne by the applicant. The following plans and agreements are required:

**13.1. Emergency Services Plan.** A plan including but not limited to the project summary, electrical schematic, and site plan to the appropriate local safety officials including the Wabash County Homeland Security Emergency Management, Sheriff Department, the responding Fire Department, the responding law enforcement department, and the Wabash County selected engineering firm. Upon request the owner or operator shall cooperate with local safety officials and selected engineering firm in developing an emergency response plan. Specialized training will be provided to these entities at the applicants, owners, operator's expense. Knox boxes, keys, or key pad combinations shall be provided to the required emergency personnel for locked entrance access. All means of shutting down the solar photovoltaic installation shall be provided to said entities.

**13.2. Operation and Maintenance Plan.** A plan for the operation and maintenance of the C-SES which shall include measures for maintaining safe access to the installation, storm water controls, as well as general procedures for operation and maintenance of the facility. Maintenance of vegetation within the buffer strip, underneath the ground mounted solar arrays, in the fence row and on access roads/lanes shall be included in the plan and consistent with the requirements of this Ordinance.

**13.3. Decommissioning-Restoration Plan and Agreement.** A Decommissioning-Restoration Plan and Agreement with the PC outlining the anticipated means, costs and method of payment of all costs in carrying out such Decommissioning Restoration Plan and Agreement at the end of the C-SES life or the life of any part of a C-SES, upon becoming an abandoned use, or being declared a public nuisance. The plan shall be recorded with the Wabash County Recorder, cross referenced to the deed(s) to all associated project parcels, and shall contain the following provisions:

(a) Discontinuation and abandonment. The C-SES applicant, owner, operator shall submit written notice, to the PC, of intent to abandon use of a C-SES facility at least 60 days prior to the discontinuation of electrical production

(b) A C-SES or portion of a C-SES shall be considered an abandoned use after

one (1) year without energy production unless a Rehabilitation Plan developed by the C-SES applicant, owner and/or operator is submitted to, and approved by, the PC outlining the necessary procedures and time schedule for commencing or returning the C-SES to energy production. Failure by the C-SES applicant, owner and/or operator to commence energy production at the identified C-SES site, or return such C-SES to energy production within the time schedule which has been approved by the PC, said C-SES or portion of C-SES shall be considered an abandoned use and/or a public nuisance.

**(c) Removal and Restoration.** The C-SES owner and/or the C-SES operator is required to remove all physical material pertaining to the C-SES above ground level and all improvements of said C-SES below ground level to a depth of 50” for all C-SES’s declared irreparably damaged, abandoned, and/or a public nuisance. All materials shall be so removed and C-SES site restored within 180 days of the discontinuation of energy production or in accordance with agreements developed under this Ordinance. A C-SES which is irreparably damaged, abandoned or declared to be a public nuisance shall within such time limit (180 days) be restored to the original condition of the C-SES site prior to the development of such C-SES by the applicant, owner, and/or operator. If any portion of the C-SES is found to be hazardous in nature by a state or federal regulatory agency or required to be recycled, the C-SES applicant, owner and/or operator shall be required to remove such in a manner as prescribed by law,

**(d) Identification and Removal of Hazardous Materials.** As part of the application process the C-SES applicant, owner and/or operator shall identify all currently listed hazardous materials as regulated by state and federal regulatory agencies (such as the EPA and IDEM) as well as non-hazardous materials and indicate the appropriate handling, storage and transport of said materials during Disposal and/or Diversion of both.

**(e) Performance Guarantee.** A performance guarantee in the form of a bond, irrevocable letter of credit and agreement, or other financial security acceptable to the APC in the amount of 125% of the estimated decommission and restoration cost. Estimates shall be determined by licensed engineers selected by the APC, and

**i.** Unless otherwise agreed to by all parties, every five (5) years, said engineer shall calculate a new estimate of probable cost of Decommissioning and Restoration that shall be submitted for approval in the same manner as the initial submission, and the bond, letter of credit, or other financial security acceptable to the county shall be adjusted upward or downward as necessary. A new estimate shall be submitted to the APC prior to the sale of any portion of the C-SES and the Performance Guarantee adjusted appropriately and made part of the sales contract,

**ii.** All fees associated with the engineer’s calculation and review of decommissioning and restoration cost shall be paid by the C-SES applicant, owner, operator,

**iii.** Failure to negotiate in good faith the calculated decommissioning and restoration cost during the operational life of the C-SES shall be just cause for the county commissioners to declare the C-SES a nuisance and require the C-SES applicant, owner, operator to cease operation of the C-SES and complete the Decommissioning and Restoration process,

iv. All expenses involved in such Decommissioning and Restoration shall be paid by the C-SES owner and C-SES operator, or removal and restoration will be completed by Wabash County at the C-SES applicant's, owner's, operator's expense as specifically provided by the Decommissioning-Restoration Plan and Agreement.

**13.4. Drainage Agreement, and Road Use and Maintenance Agreements.** A

Drainage Agreement, and a Road Use and Maintenance Agreement shall be established and approved by the Wabash County Commissioners or their designees. The Drainage Agreement must prescribe or reference provisions to address field tile damages and repairs during the life of the C-SES, the decommissioning process and 2 years beyond the completion of the site decommissioning, removal and restoration for repair of any damaged field tile within the development site.

**13.5. Erosion Control Plan.**

- (a) An erosion control plan developed in accordance with the Natural Resources Conservation Services (NRCS) guidelines, and any storm water quality management plan adopted by the applicable jurisdiction(s) shall be submitted.,
- (b) The area beneath the ground mounted C-SES is considered pervious cover. However, use of impervious construction materials within the C-SES would cause areas to be subject to the impervious surfaces' limitations for the applicable Zoning District. Natural (pervious) ground covers are required beneath the solar arrays.

**13.6. Solar Easements.** All solar easements shall be in writing, and shall be subject to the conveyance and instrument recording requirements prescribed in IC 32-23-2-5 or subsequent amendment. Any such easements shall be appurtenant; shall run with the land benefited and burdened; and shall be defined and limited by conditions stated in the instrument of conveyance. Instruments creating solar easement shall include but not be limited to:

- (a) A description of the dimensions of the easement including vertical and horizontal angles measured in the degrees at which the solar easement extends over the real property that is subject to the solar easement, and a description of the real property to which the solar easement is appurtenant,
- (b) Restrictions on the placement of vegetation, structures, and other objects which may impair or obstruct the passage of sunlight through the easement;
- (c) Enumerate any terms and conditions under which the easement is granted, and may be revised or terminated.

If necessary, a C-SES applicant, owner and/or operator must obtain any solar easements necessary to guarantee unobstructed solar access by separate civil agreement(s) with the adjacent property owner(s). Copies of such easements shall be submitted as part of the application process with proof of appropriate recording in the Wabash County Recorder's Office. A C-SES applicant, owner, operator shall complete a solar easement, with each deeded land owner, for all buried transmission cables and lines outside the fenced area that traverse the deeded owner's property. Said easements shall be in writing, and shall be subject to the conveyance and instrument recording requirements prescribed in IC 32-23-2-5 or subsequent amendment.

**13.7. Development Taxation Agreement.** The county is required to ensure the

prevention of large tax shifts that may otherwise be incurred by the taxpayers of the county and more particularly of those taxing units upon which the project resides due to any reduction in tax base caused by such projects. Therefore, in cooperation with all parties, (the Board of County Commissioners, the Wabash County Council, the Wabash County Auditor, the C-SES applicant, owner, operator), an agreement shall be established that allows for an acceptable solution for the proper taxation or Payment in Lieu of Taxes, (PILOTS), (IC 36-3-2-10), of said C-SES. Any agreement drafted and or implemented shall be developed in conjunction with and be approved by the Board of County Commissioners and Wabash County Council as may be required by law prior to the issuance of any permits and or the commencing of construction. In calculation of the payment amount to be assessed annually:

- (a) No tax abatements shall be granted for land use or tools and equipment associated with the C-SES,
- (b) No part of a C-SES development or project shall be permitted to be established as a TIF District,
- (c) PILOTS shall be equal to but not greater than the annual tax assessment for property, tools and equipment.
- (d) An Economic Development Agreement may be entered into between the Solar Applicant and Wabash County for funding alternatives in lieu of tax payments.

#### **14. PRE-CONSTRUCTION REQUIREMENTS FOR C-SES.**

**14.1. Avoidance and Mitigation of Damages to Public Infrastructure.** In addition to complying with the approved Road Use and Maintenance Agreement, an applicant, owner, and/or operator proposing to use any county road(s), for the purposes of transporting any component of a C-SES, substation or any other equipment for the construction, operation or maintenance of, decommissioning and restoration of a C-SES shall comply with the following pre-construction requirements:

- (a) Identification of road and services: All roads and services, to the extent that all proposed routes that will be used for transportation of construction materials, construction of the C-SES, and/or maintenance of the C-SES shall be identified. If the route includes a public road, such route shall be approved by the Wabash County Highway Department Superintendent. To the extent possible state or federal highways shall be utilized, whenever possible, for the purposes of transporting any component of a C-SES, substation and/or any other equipment for the construction, operation or maintenance of a C-SES. All county road, bridge, culvert weight restrictions shall be strictly enforced.
- (b) Pre-construction survey. The applicant, owner and/or operator shall conduct a pre-construction baseline survey in coordination with, and acceptable to, the Wabash County Highway Superintendent and such survey shall be a part of the Road Use and Maintenance Agreement to determine existing road conditions for assessing current needed improvements and potential future damage. The survey shall include, but not be limited to, photographs, and/or video, or a combination thereof, and a written agreement to document the condition of the public facility as the same exists on the date of the baseline survey. This survey shall be the basis for determining the minimum width of roads (not platted width) when repair or replacement is required in the Road Use and Maintenance Agreement

**14.2. Amendments and Changes to the Preliminary Site Plan.** Any material change of location of the C-SES fenced boundary and any material change in the location of C-SES facilities outside of the C-SES fenced boundary shall be furnished to the APC, County Highway Superintendent, County Drainage Board and any other person(s) designated and authorized by the APC. It shall be the duty and responsibility of the applicant, owner and/or operator to obtain any variance required by such change and to comply with any other requirement necessitated by such change. Any variance required by this Section shall be obtained prior to construction or implementation of such change.

**15. CONSTRUCTION REQUIREMENTS FOR C-SES.** During construction, the applicant shall demonstrate and document to the satisfaction of the PC Director, County Highway Superintendent, County Drainage Board, and any other person(s) designated and authorized by the APC, that the following requirements are being met:

**15.1. Dust Control.** All reasonable dust control measures required during construction and operation of the C-SES are being followed together with any additional steps or adjustments for dust control which may from time to time be required by the PC.

**15.2. Drainage.** Storm water best management practices as required by the approved Drainage Plan/Agreement in accordance with Wabash County Stormwater Control Ordinance 2020-85-17 as amended.

**15.3. Noise.** Near a residence or public use parcel, noise shall be kept to a minimum during the hours of 6:00 p.m. to 7:00 a.m.

**16. POST-CONSTRUCTION REQUIREMENTS FOR C-SES.** Post-construction, the applicant shall comply with the following provisions:

**16.1. Road Repairs.** Any road damage caused by the transport of any matter or material utilized in any way regarding the C-SES, in the construction of the C-SES, the installation of the same, operation of C-SES and/or the removal, decommissioning and restoration of the same, shall be repaired to the satisfaction of the Wabash County Highway Department Superintendent (as per the Road Use and Maintenance Agreement). The county shall require remediation of C-SES damaged roads throughout the life of the C-SES including the completion of site decommissioning and remediation. Further, a surety bond or letter of credit in an amount to be determined by a professional highway engineer selected by the superintendent shall be required by the County to ensure that future repairs are completed to the satisfaction of the Wabash County Commissioners. The cost of such bond or letter of credit shall be paid by the C-SES owner and said bond shall remain in full force and affect until the decommissioning and restoration is fully completed as prescribed by this Ordinance and the Decommissioning-Restoration Plan and Agreement.

**16.2. As-Built Plans Requirement.** Where upon completion of all development, the exact measurements of the location of above ground lines, underground lines, utilities, structures and components erected during the development are necessary for public record and shall therefore be recorded. The applicant, owner, and/or operator shall submit a copy of the final as built survey to the PC with the locations of the C-SES facilities shown thereon. The selected engineering firm, after being satisfied that the locations of the C-SES facilities are substantially similar to the locations on the originally approved final plan(s) or as the same were from time to time amended and have so indicated in writing, the PC shall approve, date and sign said as-built survey for the C-SES, which the applicant, owner, and/or operator shall then have recorded in the office of the Wabash County Recorder and provide the APC a copy of said recorded plans.

**16.3. Change in Ownership.** It is the duty and responsibility of the C-SES applicant, C-SES owner and/or C-SES operator and any subsequent C-SES owner and C-SES operator,

in addition to the notice requirements of any C-SES plan(s) and C-SES agreement(s) to notify, by written notice, the PC of any change in the ownership of the C-SES or any part of the ownership thereof to and through the time that the final Decommissioning- Restoration Plan and Agreement are concluded and all applicable acceptances, releases and performance standards of any description have been met and concluded and accepted by the appropriate local, state, federal or private authority, department, agency, and person(s) and all financial payments or other financial obligations are fully satisfied and all appropriate parties are in receipt thereof. In order for the owner and/or operator to inform said PC of the required information regarding changes as herein provided, said notice shall be sent by certified mail with certified funds for any required recording fees and any other applicable fee(s) to the PC or by personally delivering the same to the PC office. Said changes shall be reviewed by the PC Director and the C-SES owner/operator during the next regular scheduled board meeting to ensure all requirements of this ordinance are compliant.

**17. FEES.** All applications filed hereunder be assessed fees as prescribed by the County's Official Schedule of Fees as amended from time to time.

**18. SPECIAL EXCEPTIONS.** The BZA, upon appeal, shall have the power to authorize Special Exceptions if the following requirements are met:

**18.1.** The Exception is permitted pursuant to Section 7.2 of this Ordinance.

**18.2.** The Exception will not be detrimental to or endanger the public health, safety, or welfare,

**18.3.** The Exception will not substantially diminish or impair property values within the neighborhood, and

**18.4.** The Exception will not impede the normal and orderly development and improvement of the neighborhood.

**19. VARIANCE FROM DEVELOPMENTAL STANDARDS.** The BZA, upon appeal, shall have the power to authorize a Variance from Developmental Standards, and to attach any conditions to the Variances it deems necessary to assure compliance with the purposes of this Ordinance if it is shown:

**19.1.** The Variance will not be injurious to the public health, safety, morals, and general welfare of the community,

**19.2.** The use and value of the area adjacent to the property included in the Variance will not be affected in a substantially adverse manner,

**19.3.** The strict application of the terms of the zoning ordinance will result in practical difficulties in the use of the property, and

**19.4.** The Variance will not interfere substantially with the County's Comprehensive Plan.

**20. VARIANCE OF USE.** The BZA, upon appeal, shall have the power to authorize a Variance of Use, and to attach any conditions to the Variances it deems necessary to assure compliance with the purposes of this Ordinance if it is shown:

**20.1.** The Variance will not be injurious to the public health, safety, morals, and general welfare of the community.

**20.2.** The use and value of the area adjacent to the property included in the Variance will not be affected in a substantially adverse manner.

**20.3.** The need for the Variance arises from some condition peculiar to the property involved.

**20.4.** The strict application of the terms of the Ordinance will constitute an unnecessary hardship if applied to the property for which the Variance is sought.

**20.5.** The Variance will not interfere substantially with the County's Comprehensive Plan.

A Variance of Use does not follow the land, but expires when the applicant ceases to occupy the land or ceases to do business for which the Variance was approved.

**21. ENFORCEMENT.**

**20.1.** The PC Director, the PC, the BZA, and/or any resident of Wabash County may, by suit in a court of general jurisdiction located in Wabash County enforce any provision of this Ordinance and enjoin the violation of this Ordinance.

**20.2.** In addition to any injunction, fine, or other penalty, any person or entity found in violation of this Ordinance shall be responsible for the payment of all reasonable attorney's fees and litigation expenses incurred by the Director, Commission, Board, or resident, as the case may be, in seeking enforcement or injunctive relief.

**22. FINES AND PENALTIES.**

**22.1.** Any structure or use that violates this Ordinance shall be deemed to be a public nuisance, and the owner, lessee, agent, or contractor, as the case may be, shall be liable for maintaining a public nuisance.

**22.2.** Any person or entity who violates any provision of this Ordinance shall be guilty of an ordinance violation, and upon conviction, shall be fined not less than ten dollars (\$10.00) and not more than three hundred dollars (\$300.00).

**22.3.** Each day the violation continues or occurs shall constitute a separate offense.

Adopted this \_\_\_\_ day of \_\_\_\_\_, 2021.

Wabash County Board of Commissioners

\_\_\_\_\_  
Jeff D. Dawes

\_\_\_\_\_  
Barry E. Eppley

\_\_\_\_\_  
Brian K. Haupert

Attest:

\_\_\_\_\_



Marcie Shepherd, Wabash County Auditor

M:\dswan\Wabash County\Zoning\SOLAR ORDINANCE 7-6-2021.docx

DRAFT

**“WECS- Commercial”** means all necessary devices including but not limited to the blades, rotor, nacelle, generator, WECS tower, electrical components, WECS foundation, transformer, and electrical cabling from the WECS tower, the substation, switching stations, meteorological towers, communications facilities, and other required facilities and equipment, as customarily related to the WECS project, that together convert wind energy into electricity and most of that electricity is delivered to a public utility's transmission lines.

**“WECS-Non-Commercial”** means all necessary devices , including but is not limited to the blades, rotor, nacelle, generator, WECS tower ,electrical components, WECS foundation, transformer, electrical cabling from the WECS Tower, the substation(s), switching stations, meteorological towers, communication facilities, and other required facilities and equipment, as customarily related to a WECS Project that together convert wind energy into electricity and most of that electricity is not delivered to a public utility's transmission lines, but rather is consumed privately, and wholly within that property described in the application on which the WECS project is to be located.

**“Wind Energy Conservation System”** means a wind driven machine that converts wind energy into electrical power for the primary purpose of resale, on site or off-site use.