

SECTION 1. TITLE AND AUTHORITY

This Ordinance shall be known and may be cited as the “Starke County Solar Energy Systems Ordinance.” This Ordinance is enacted pursuant to the authority granted to counties under Indiana Code § 36-7-4 et seq., which empowers local governments to regulate the use and development of land for the purpose of promoting the public health, safety, morals, convenience, order, and general welfare of the community. This Ordinance shall apply to the siting, development, construction, operation, maintenance, decommissioning, and reclamation of all Commercial and Utility-Scale Solar Energy Systems (CSES) within the jurisdiction of Starke County, Indiana, and is binding on all applicants, property owners, Applicants, successors, and operators. This Ordinance replaces all prior Solar Ordinances. Any and all aspects of Indiana Code, as it presently exists, or may futurely be amended, as found in IC 8-1-42 et. Seq. and IC 4-3-23.1 et. Seq., are incorporated herein, unless otherwise addressed hereto.

SECTION 2. PURPOSE AND INTENT

The purpose of this Ordinance is to establish comprehensive regulations for the permitting, placement, design, construction, operation, maintenance and decommissioning of Commercial Solar Energy Systems (CSES) in Starke County, Indiana. It is the intent of this Ordinance to:

- a) Promote the responsible and orderly development of solar energy infrastructure while balancing landowner rights, community character and planning, and long-term public safety and environmental interests;
- b) Ensure that the development of CSES does not negatively affect the health, safety, or welfare of county residents or the agricultural integrity of rural Starke County;
- c) Establish enforceable standards that restrict nuisances, including but not limited to glare, noise, aesthetic impacts, safety hazards, and traffic disruptions;
- d) Safeguard County infrastructure, including public roads, drainage systems, and emergency services, from deterioration or overuse due to CSES construction or operation;
- e) Provide a transparent, objective, and standardized permitting process that includes public input and inter-agency collaboration;
- f) Ensure that all CSES projects include enforceable provisions for full site reclamation and decommissioning at the end of the facility’s operational life and/or upon abandonment.

This Ordinance shall be interpreted and enforced in a manner that ensures the long-term compatibility of solar energy development with agricultural operations, residential communities,

County long range planning, orderly development and preservation of property values and public trust resources.

SECTION 3. DEFINITIONS

For the purposes of this Ordinance, the following definitions shall apply. Any term not defined herein shall have the meaning customarily assigned to it by common usage or as defined by applicable Indiana statutes or regulations.

- a) **Agrivoltaics:** The simultaneous use of land for both solar energy generation and agricultural production, including but not limited to animal grazing, crop cultivation, beekeeping, or similar agricultural practices.
- b) **Applicant:** The person(s), entity(ies), public or quasi public utility(ies) or applicant(s) submitting an application for a permit under this Ordinance. This shall include any all assignees of the Applicant must be approved by the County, not unreasonably withheld
- c) **As-Built Plans:** Final construction drawings reflecting the exact built layout of all CSES equipment, submitted for County verification and recording.
- d) **Commercial Solar Energy System (CSES):** A ground-mounted, utility-scale solar energy facility that occupies ten (10) or more contiguous acres and is intended primarily to generate electric power for transmission and distribution to the public or wholesale utility market.
- e) **Construction (CSES context):** Any activity related to clearing, road installation, grading, excavating, or material delivery on the project site, regardless of utility interconnection status. For the purposes of this ordinance, "construction" explicitly excludes preliminary site work, such as soil boring, sampling, surveying, and environmental testing.
- f) **Decommissioning Plan:** A detailed and enforceable plan submitted by the Applicant and approved by the County outlining the procedures, financial assurance, and timeline for the removal of all solar-related structures, equipment, and restoration of land at the end of the project's useful life.
- g) **Decommissioning:** The systematic dismantling, removal, and site restoration of a CSES after the end of its operational life, as detailed in Section 11 and Appendix B.
- h) **Force Majeure:** Acts of God or external events beyond the reasonable control of the operator that temporarily prevent operation, including natural disasters, war, or government actions.

- i) **Improvement Location Permit (ILP):** A permit issued by the County Planning Department upon the Planning Commission’s approval of a complete Preliminary and Final Site Plan, authorizing construction to begin.
- j) **Net Removal Cost:** The gross decommissioning cost minus the salvage value of any reusable equipment, unless salvage value is explicitly assigned to the County.
- k) **Non-Participating Landowner:** Any individual or entity owning property adjacent to or near (within two thousand feet as measured from the edge of the proposed CSES site) a proposed CSES site who is not a party to any lease, easement, option, or agreement with the Applicant.
- l) **Participating Landowner:** Any individual or entity/trust owning land within the footprint of the proposed CSES project who has entered into a lease, easement, or other agreement with the Applicant for the purpose of installing solar energy equipment or related infrastructure. May also be referred to herein as “Landowner”. Their signed written consent shall accompany any Application herein and.
- m) **PASER Rating:** The Pavement Surface Evaluation and Rating system, used by the Starke County Highway Department to assess road condition on a scale of 1 to 10.
- n) **Pollinator-Friendly Groundcover:** Regionally appropriate, perennial vegetation planted and maintained in accordance with the Indiana Solar Site Pollinator Habitat Planning Scorecard or equivalent.
- o) **Preliminary Site Plan and Specifications:** A comprehensive engineering document that identifies the location, layout, components, and construction details of the proposed CSES, submitted at a minimum 75% construction design level, and used to determine eligibility for permits and at initial application for Plan Commission review.
- p) **Project Owner:** Any individual or entity that owns the real estate upon which the Applicant desires to establish a CSES project.
- q) **Private Residential Solar Energy System (PRSES):** A solar energy system primarily intended for on-site residential energy use, located on the roof or ground of a private residence, and not exceeding the total size of accessory structures allowed in the zoning district.
- r) **Private Commercial Solar Energy System (PCSES):** A solar energy system primarily intended for on-site commercial or industrial energy use, located on the roof or ground of a private commercial or industrial development, and not exceeding the total size of structures allowed in the zoning district, to provide energy for the business operations located thereon.

- s) **Special Use Permit (SUP):** A discretionary approval granted by the Starke County Board of Zoning Appeals after a public hearing, permitting a use subject to specific conditions not otherwise allowed by right in a zoning district, which, if granted in this context, shall subsequently be understood to be a commercial use for property taxation purposes.
- a) **Special Use Permit (SUP):** A discretionary permit issued by the Board of Zoning Appeals following a public hearing for projects requiring additional review or conditions beyond standard zoning.
- b) **Wildlife-Friendly Agricultural Fencing:** Fencing designed to prevent unauthorized access and livestock intrusion while allowing passage of native wildlife, typically non-barbed and low-profile.

PASER Rating: The Pavement Surface Evaluation and Rating system used to assess roadway condition on a 1–10 scale.

SECTION 4. APPLICABILITY AND SCOPE

4.1 Jurisdictional Scope:

This Ordinance shall apply to all land within the unincorporated areas of Starke County, Indiana. It governs the permitting, construction, operation, and decommissioning of all Commercial Solar Energy Systems (CSES) and certain standards for Private Residential Solar Energy Systems (PRSES) where applicable under local zoning regulations. Recognizing a goal of Starke County to maintain a rural agricultural character, preserve the County Master Plan, and agricultural based use of land the maximum percentage of coverage of CSES systems, within any individual township located in Starke County, shall not exceed six percent (6%) of total acreage and/or a cumulative six percent (6%) of total acreage in the county, whichever occurs first.

4.2 Applicability:

The requirements of this Ordinance shall apply to the following:

- a) Any CSES proposed to be constructed on any parcel or group of contiguous parcels that collectively exceed ten (10) acres in total system footprint;
- b) Any material modification, expansion, or repowering of an existing permitted CSES;
- c) Any CSES or associated infrastructure proposed to be installed in combination with agrivoltaic uses;
- d) All new CSES applications submitted on or after the effective date of this Ordinance.

4.3 Exemptions and Limited Applicability:

The following installations shall be exempt from the provisions of this Ordinance except where specifically stated:

- a) **Private Residential Solar Energy Systems (PRSES):** A PRSES located on a single-family or multi-family (up to four (4)) residential property and used exclusively to supply energy to the on-site residence shall be permitted as an accessory use, subject to applicable accessory structure regulations in the County Zoning Ordinance. No PRSES may exceed the maximum size, height, or setback limits applicable to other accessory structures in the same zoning district.
- b) **Private Commercial Solar Energy Systems (PCSES):** A PCSES located on a commercially or industrial zoned property and used exclusively to supply energy to the onsite business shall be permitted as an accessory use, subject to applicable structure coverage regulations in the County Zoning Ordinance (each solar plate shall be measured as to its face to determine square footage coverage). No PCSES may exceed the maximum size, height, or setback limits applicable to other accessory structures in the zoning district.
- c) **Agricultural Solar Installations:** Systems used to generate power for a single agricultural property and not connected to the utility grid for wholesale distribution shall be regulated as accessory structures and not as CSES, provided they do not exceed one (1) acre in total system footprint. Any system footprint in excess of one (1) acre shall require a developmental variance, subject to the review of the Board of Zoning and Appeals.

4.4 Permit Requirement:

All CSES shall be subject to approval under both:

- a) A Special Use Permit (SUP) issued by the Starke County Board of Zoning Appeals (BZA) following a public hearing. The BZA shall approve the Special Use Permit (SUP) upon finding that the application satisfies the following general criteria, which shall be demonstrated exclusively by the applicant's compliance with the corresponding objective development standards of this Ordinance:
 - o **Compatibility and Rural Character:** The proposed use is compatible with surrounding land uses and the Starke County comprehensive plan, as demonstrated by compliance with Section 6.5 (Height), Section 6.7 (Vegetative Buffers), and Section 7 (Environmental Protections) or, reasonable accommodations have been made to screen, offset, and enable the surrounding land use and comprehensive plan to be followed.
 - o **Impact on Neighboring Properties:** The use shall not adversely affect the value of surrounding properties, as demonstrated by compliance with Section 6.2 (Setbacks) and Section 12.6 (Property Value Protection Program). The BZA may require studies conducted verifying same, prior to assessment and approval.

- o **Public Health and Safety:** The use does not pose a threat to public health or safety, as demonstrated by compliance with Section 6.3 (Glare), Section 6.4 (Noise), and Section 9 (Fire Safety). The BZA may require studies conducted verifying same, prior to assessment and approval.
- b) **Infrastructure Adequacy:** The use is supported by adequate infrastructure, as demonstrated by compliance with Section 8 (Drainage) and Section 10 (Road Use). An Improvement Location Permit (ILP) and Building Permit may be issued by the Starke County Planning and Building Department upon approval of a Preliminary Site Plan and Specifications as detailed in Section 5.

4.5 Enforceability:

No CSES may be constructed, expanded, or operated unless and until all required permits under this Ordinance have been issued. Any CSES found operating without full compliance shall be subject to immediate stop work orders, enforcement actions, fines, and possible revocation of permits as further provided herein.

4.6 Unified Project and Anti-Circumvention Provision:

For purposes of this Ordinance, a "Common Plan of Development" shall include, but not be limited to, any solar installations that:

- a) Are located on contiguous parcels or parcels separated only by a public or private right-of-way;
- b) Are under common ownership, control, or contractual arrangement, including affiliated entities, subsidiaries, or related business interests;
- c) Share infrastructure, including but not limited to access roads, inverter systems, substations, transmission lines, or interconnection facilities;
- d) Are proposed, constructed, or operated in phases or stages as part of a larger coordinated development;
- e) Utilize a common point of interconnection to the electrical grid;
- f) Are marketed, financed, or represented to regulatory agencies or investors as a single project.

Where the Plan Commission or Board of Zoning Appeals determines that multiple applications or developments constitute a Common Plan of Development, such projects shall be aggregated and reviewed as a single CSES for purposes of:

- Minimum and maximum acreage thresholds;

- Setback requirements;
- Township coverage limitations;
- Permitting requirements; and
- Environmental, drainage, and infrastructure review.

No applicant shall avoid or attempt to avoid the requirements of this Ordinance by subdividing land, creating separate entities, phasing development, or submitting multiple applications for what is functionally a single project.

The Plan Commission and Board of Zoning Appeals shall have the authority to make final determinations regarding project aggregation based on the totality of the circumstances and evidence presented. Any ambiguity regarding whether a project constitutes a Common Plan of Development shall be resolved in favor of aggregation of the total project.

SECTION 5. PERMITTING PROCESS AND PROCEDURES

5.1 General Requirement for Permits:

No Commercial Solar Energy System (CSES) shall be constructed, installed, modified, expanded, or repowered without first obtaining both a Special Use Permit (SUP) and an Improvement Location Permit (ILP) from Starke County, subject to process outlined herein. These permits shall be granted only after the full review and approval of the Preliminary Site Plan and Specifications by the Planning Commission, Technical Advisory Committee (TAC), and the Board of Zoning Appeals (BZA) and necessary public hearings.

5.2 Permit Application and Required Materials:

An application shall be submitted to the Starke County Planning Office and shall include all required components listed in this section. The application will not be considered complete or eligible for further review until the following are submitted:

- a) A completed and signed application form (as determined by the Planning and Building Department in compliance with this Ordinance);
- b) Applicable application fees (see Section 5.9);
- c) Preliminary Site Plan and Specifications drawn to engineering scale at a minimum 75% construction design level, including:
 - CSES layout, fencing, and access roads;
 - Electrical schematics and control systems (to extent possible all electrical wires and utility connections shall be installed underground, except for transformers, inverters, substations and controls);
 - Drainage features and contours;

- o Utility interconnection layout;
- d) Manufacturer and model information for solar panels, inverters, switchgear, and mounting systems;
- e) A legally executed Road Use and Maintenance Agreement (RUA) with Starke County;
- f) A fully executed Decommissioning Plan and Agreement, including financial assurance instruments;
- g) A Glare and Reflectivity Study compliant with FAA Interim Policy (if within 1,000 feet of an airport);
- h) A Traffic Management Plan including equipment transport routing and local impact mitigation;
- i) A Fire Prevention and Emergency Response Plan prepared in consultation with the Indiana Department of Homeland Security, local fire departments, and EMS providers;
- j) A Soil and Drainage Analysis including ditch, culvert, and regulated drain inventory;
- k) A completed Environmental Vegetation and Ground Cover Plan as described in Section 7;
- l) A lighting plan, which showcases that exterior lighting shall be no more than that required for security purposes. Lighting shall be shielded and oriented to prevent direct lighting on adjacent dwelling or non participating parcels. Light shall not exceed one-half (0.5) foot candles at the property light of an adjoining residential parcel.
- m) All required affidavits regarding signal interference, FAA compliance, glare mitigation, and notification of local utilities;
- n) A certified notification list and proof of certified mail sent to all adjacent (those within two thousand feet) landowners;
- o) Copies of all completed and approved federal and state permits or clearances applicable to the project. Status updates or pending applications will not be accepted in lieu of final approvals. These include, but are not limited to:
 - o Indiana Department of Environmental Management (IDEM) Construction Stormwater General Permit (CSGP);
 - o IDEM Section 401 Water Quality Certification and U.S. Army Corps of Engineers (USACE) Section 404 Permit (if impacting wetlands or waterways);
 - o Indiana Department of Transportation (INDOT) Driveway/Right-of-Way Permit (if utilizing state highways);

- Indiana Department of Natural Resources (IDNR) Construction in a Floodway Permit (if applicable);
 - U.S. Fish and Wildlife Service (USFWS) and/or IDNR endangered species consultation clearances;
 - Federal Aviation Administration (FAA) Determination of No Hazard to Navigable Airspace (if applicable);
 - Indiana Utility Regulatory Commission (IURC) declination of jurisdiction or Certificate of Public Convenience and Necessity (CPCN)
- p) Any necessary studies as required by the Plan Commission as contained in this Ordinance.
- q) Certification that layout, design, and installation will conform to and comply with all applicable industry standards, such as the National Electrical Code (NEC) (NFPA-70), the American National Standards Institute (ANSI), the Underwriter’s Laboratories (UL), the American Society for Testing and Materials (ASTM), the Institute of Electric and Electronic Engineers (IEEE), the Solar Rating and Certification Corporation (SRCC), the Electrical Testing Laboratory (ETL) and other similar organizations, the Federal Aviation Administration (FAA), the Indiana Building Code (IBC), and any other standards applicable to solar energy systems and battery energy storage systems.
- r) All CSES shall be installed so as to not cause disturbance or interference with television, internet, telecommunications, microwave, GPS, military defense radar, navigational or radio reception to neighboring areas.
- s) All CSES shall be situated to eliminate concentrated glare on any part of a nonparticipating parcel, abutting structures and roadways.
- t) An independent assessment of the ability of responding fire departments, located within a 25 mile radius of the proposed CSES site, and their ability to address any reasonable emergency situation which may occur on a CSES site. Said review must include input from those fire departments located within this radius.
- u) A comprehensive sound study analysis which outlines the maximum decibel level, which shall be derived from the site, and plan to limit any sound produced on site, at edge of the CSES site, to no more than 55 dba. Sound shall not disseminate from the site at property line edge in excess of 12 collective hours per day between 45 and 55 dba.

5.3 Engineering Review and Technical Advisory Committee (TAC):

The Starke County Plan Commission may assign an independent engineering consultant or inspectors (at their sole discretion) to conduct a comprehensive review of all submitted site plans and technical documents to ensure full conformance with County requirements and as the project is approved and constructed. All costs associated with third-party engineering review shall be paid

by the Applicant and must be deposited with the County prior to TAC review. At inception of the application, the applicant shall deposit an estimated review and inspection cost into a project-specific fund created for the application. These funds shall be utilized to retain, per County approval, any and all necessary third party engineers, noise experts, and inspectors.

Once engineering review is complete, the Technical Advisory Committee shall review the application within sixty (60) business days. The Committee may request modifications or clarification and shall provide recommendations to the Plan Commission. In the absence of an appointed Technical Advisory Committee, the Plan Commission shall act in its stead and fulfill the role of the TAC, with assistance from relevant departmental agencies.

5.4 Planning Commission and Board of Zoning Appeals Review:

After receiving recommendations from TAC, the Plan Commission shall consider the application for Preliminary Site Plan approval. Upon approval, the application will be forwarded to the Board of Zoning Appeals (BZA) for a public hearing (must be submitted at least thirty (30) days prior to the public hearing) and review of the Special Use Permit request. The BZA may approve, deny, or conditionally approve the SUP based on evidence and findings related to zoning compliance, adjacent property impacts, public safety, infrastructure adequacy, other reasonable municipal interests on behalf of Starke County and her residents and conformance with this Ordinance. Any and all applications shall include final, not contingent approvals from the Indiana Department of Environmental Management and Indiana Department of Natural Resources. Additionally, a fully executed interconnection agreement from a relevant utility authority, that CSES will provide services to , is a mandatory requirement for permit issuance.

5.5 Permit Duration and Expiration:

The Improvement Location Permit (ILP) and Building Permit shall be valid for a period of one (1) year from the date of issuance. In accordance with Section 6-4-6 of the Starke County Code, construction of the CSES must begin within ninety (90) days of permit issuance. Furthermore, in accordance with Section 6-5-2(f), construction work must continue diligently until the completion of the project. Failure to continue diligently may result in the revocation of the permit(s), which may only be renewed at the discretion of the Director of Planning and Building. The Special Use Permit request must include a construction timeline, which shall guide the ILP and Building Permit request. The renewal of any permit shall be performance-based, contingent upon the submitted timeline and actual physical construction progress being completed as outlined and approved.

5.6 Permit Renewal Limits:

Permits may not be renewed more than once. Any second request for continuation of a previously approved project that has not commenced construction shall be subject to a new application process and compliance with then-current ordinance requirements.

5.7 As-Built Plans and Project Modifications:

Upon completion of construction, the Applicant must submit final As-Built Construction Plans to the Planning Department, reflecting all installed utilities, fencing, structures, and system specifications. These documents must be certified by a licensed engineer and recorded with the Starke County Recorder. Any deviation from approved plans must be documented, reviewed, and approved by the Planning Director and may require a modification hearing before the BZA.

5.8 Ownership and Operator Changes:

It shall be the responsibility of the Applicant to notify the Starke County Planning Commission in writing of any change in ownership, controlling interest, or operational responsibility of the CSES during its permitted life. Such changes may require an updated Decommissioning Agreement or new financial assurance documents to be submitted for review and approval. All assurances and requirements of any initial approvals shall be assigned to any new owner.

5.9 IMPROVEMENT LOCATION PERMIT FEE SCHEDULE FOR CSES

The following non-refundable fees shall apply to all CSES projects based on total system capacity (DC kW rating). These fees shall be paid in full at the time of application submittal:

System Size (DC kilowatts) Fee Amount

0 – 10 kW	\$300.00
11 – 50 kW	\$600.00
51 – 100 kW	\$1,200.00
101 – 500 kW	\$3,000.00
501 – 1,000 kW	\$6,000.00
1,001 – 2,000 kW	\$12,000.00
Over 2,000 kW	\$12,000.00 + \$500 per additional 1,000 kW
Maximum Permit Fee	\$250,000.00

Permit Renewals:

- a) **First Renewal:** ~~Ten Percent of original Permit Fee.~~ 100% of original Permit Fee.

Additional Fees:

- a) Engineering & Inspection Third Party Consultant(s) Review: Actual cost as invoiced.

Legal Fees for Enforcement or Review: At actual cost as invoiced by Plan Commission/BZA Attorney.

5.10 SEQUENTIAL/RELATED PERMIT ISSUANCE AND COMPLIANCE:

No subsequent or affiliated permits, including but not limited to Improvement Location Permits (ILPs), building permits, or certificates of occupancy, shall be issued for any project, phase, or related component of a development until all requirements, conditions, and provisions of previously issued permits for that development have been fully satisfied to the satisfaction of the Planning and Building Department. This requirement includes, but is not limited to, the timely submission and approval of certified as-built plans, engineering certifications, and environmental compliance reports as required by this Ordinance.

SECTION 6. ZONING DISTRICTS AND DESIGN STANDARDS

6.1 Permitted Zoning Districts:

Commercial Solar Energy Systems (CSES) are permitted only within parcels zoned as **Agricultural** under the Starke County Zoning Ordinance, or as otherwise approved herein. A CSES shall be considered a **Special Use** within the Agricultural zoning district and shall not proceed without first receiving a Special Use Permit (SUP) issued by the Board of Zoning Appeals (BZA), as required under Section 5 of this Ordinance. Any land approved for CSES use under this Ordinance shall be considered commercial use for property taxation purposes.

No CSES shall be allowed in residential, commercial, or industrial, overlay zoning districts without a formal amendment to this Ordinance.

6.2 Setbacks from Non-Participating Landowners and Infrastructure:

To ensure protection of surrounding landowners and preserve rural character, all CSES projects shall comply with a mandatory setback of **five hundred (500) feet** from all non-participating property lines. This setback is not waivable, except by formal variance through the BZA after a public hearing and written findings of no adverse impact. For those property lines adjacent to areas designated as conservation or preservation or wild life refuge areas by local, state, or federal authorities, this setback shall increase to 1,500 feet.

These setback distances shall apply to all CSES system components. While a general setback of five hundred (500) feet applies to most structures, specific infrastructure shall adhere to the following:

a) General Components: A minimum setback of **five hundred (500) feet** shall apply to:

- Solar panels and supporting structures;
- Access roads and internal driveways;

- Battery storage or hazardous material enclosures;
- All perimeter fencing and vegetative buffers.

b) Infrastructure Components: Substations, inverters, transformers, and control enclosures shall be subject to an increased minimum setback of **one thousand five hundred (1,500) feet**.

- **BZA Reduction:** The BZA may reduce this specific setback if the developer can demonstrate that the dBA/dBC thresholds meet or exceed the minimum standards set forth in Section 6.4. In granting any such reduction, the BZA shall aim to maintain a separation of no less than **one thousand (1,000) feet** wherever feasible.
- **Verification:** The BZA may require independent studies to verify compliance before granting any such reduction.

Additional Required Setbacks:

- From public road centerlines (federal, state, county, and local):** Minimum of **500 feet**.
- From regulated drains, legal ditches, or county watercourses:** Minimum **100 feet** from the top of the bank.
- From potable water wells (private or public):** Minimum **500 feet**.
- From floodplains:** As determined by IDNR and FEMA; elevation certificates required (see Section 8).
- Participating Landowner Setback:** Minimum setback of 200 feet from any *residential dwelling building*.

Landscaping, berms, or visual buffers may not be used to reduce required setbacks unless approved through the formal variance process, or as otherwise described above.

6.3 FAA and Glare Mitigation Requirements:

If any portion of the proposed CSES lies within **1,000 feet of a public or private airport property boundary**, or within **FAA-designated approach zones**, the applicant must demonstrate FAA compliance:

- Submit a **Glint and Glare Analysis** conducted by a qualified FAA consultant or licensed engineer using recognized software or methodology;
- Include documentation from the **FAA Office of Airports** verifying that the proposed CSES does not pose a hazard to air navigation or interfere with flight operations;
- No CSES shall be permitted if any FAA study finds unacceptable levels of glint or glare.

In addition, the Applicant must submit a sworn affidavit certifying that:

- a) The CSES has been designed to **avoid concentrated or prolonged glare** affecting nearby roadways, adjacent homes, or aircraft; and\n
- b) The system shall **not cause electromagnetic interference** with communications, GPS, or public utilities.

6.4 Noise Limitations:

A certified Ambient Noise Baseline Study, which must include both A-weighted (dBA) and C-weighted (dBC) measurements, shall be submitted as part of the application at the sole expense of the developer or owner. Operational noise from inverters, transformers, motors, substations, or tracking systems shall not exceed 50 decibels A-weighted (dBA) above ambient background levels, and shall not exceed 60 decibels C-weighted (dBC), as measured at the closest point on any non-participating property line. These limits apply during both daytime and nighttime operations and may not be waived. Baseline and operational noise testing shall be conducted at various times of day (daytime, evening, and nighttime) to capture the true acoustic environment. Operational noise shall not exceed between 45 and 55 dBA in excess of twelve (12) hours per day. Substations and transformers shall be designed to absorb noise in compliance with these standards.

Noise complaints shall be investigated by the Planning Commission. All costs associated with noise monitoring, testing, and investigations required to verify ongoing compliance shall be borne entirely by the developer or owner. Repeat violations shall be grounds for penalties under Section 12.

6.5 Height Restrictions:

The following height limits shall apply:

- a) **Solar Panels and Arrays:** Maximum height of **18 feet** from the highest adjacent natural grade to the highest point of the panel at full tilt. If Applicant desires a higher maximum height, this shall be considered a variance and application of additional height of vegetation may apply.;
- b) **Substations, Switchyards, and Transmission Support Structures:** Maximum height of **75 feet**, unless otherwise required by interconnection standards and supported by documentation.

6.6 Fencing and Security Requirements:

All CSES facilities shall be enclosed for security and safety. Required fencing shall meet the following standards:

- a) **Wildlife-Friendly Agricultural Fencing** shall be used, defined as non-barbed wire or woven wire fencing that permits passage of native wildlife but restricts livestock and unauthorized access;
- b) Chain-link fences may be allowed for substations and inverter yards with BZA approval and must include top-mounted deterrents (e.g., 3-strand barbed/similar wire) only if justified by security requirements;
- c) Gates must be kept locked at all times. Access keys or digital codes must be filed with local fire departments, EMS, and law enforcement;
- d) Ground-mounted electrical equipment must be fully enclosed, visibly labeled with hazard warnings, owner/operator information, and emergency contact numbers.

6.7 Screening and Vegetative Buffer Requirements:

To minimize visual impacts and preserve the aesthetic quality of surrounding properties, all CSES projects shall incorporate the following perimeter screening and native buffer planting standards:

a) **General Standards:** Vegetative buffers shall be designed to provide year-round visual screening, enhance wildlife habitat and biodiversity, protect soil stability, and ensure long-term survivability in Northwest Indiana conditions. Buffers shall be a minimum of ~~15 to 30~~ 30 feet in total width and must be located entirely outside of regulated drain rights-of-way, drainage easements, and utility easements.

b) **Spacing and Layout:** Plantings shall consist of a 30 foot wide triple spaced rows of trees planted every 20 feet, offset (staggered). Shrubs shall be planted to fill the gaps between trees. All plantings shall be located no closer than 25 feet to any perimeter fencing.

c) **Required Plant Mix:** All buffer plantings shall be composed of native species appropriate to Northwest Indiana and shall include the following:

- **Canopy Trees:** A minimum of one (1) canopy tree every 20-30 linear feet per row shall be installed. Approved species include Swamp White Oak, Bur Oak, White Oak, Hackberry, American Sycamore, Red Maple, Blue Spruce, and Norway Spruce. Minimum size at planting shall be 1.5"-2.5" caliper and 10 feet minimum in height.
- **Understory Trees:** At least 25% of the total tree count shall be understory species (e.g., Eastern Redbud, Serviceberry).
- **Shrubs:** A minimum of one (1) shrub every 6-10 linear feet per row shall be installed. Approved species include American Hazelnut, Gray Dogwood, Red Osier

Dogwood, Ninebark, and Elderberry. Minimum size at planting shall be a 5-gallon container.

- **Groundcover:** All buffer areas shall be seeded with a native prairie mix OR a pollinator-friendly native mix. The selected mix must comply with the Purdue Pollinator Scorecard.

d) **Prohibited Species:** Invasive species (e.g., Callery Pear, Tree of Heaven), non-native ornamental species, and any species known to interfere with drainage systems are strictly prohibited.

e) **Drainage Protection:** No planting shall occur within regulated drain rights-of-way without explicit approval. Trees shall not be planted where roots may interfere with tile systems or drainage structures.

f) **Installation Standards:** All plantings shall be installed according to ANSI A300 standards. Installation shall include proper mulching, a dedicated watering plan, and adequate protection from wildlife damage.

g) **Maintenance and Performance Standards:** The vegetative buffer shall achieve effective visual screening within three (3) years of planting. The Applicant shall maintain all plantings, replace any dead or failing plant material annually, and actively control invasive species. If effective screening is not achieved within the 3-year timeframe, additional plantings will be required.

h) **Internal Boundary Waivers:** Landowners who are both participating and adjacent to other participating landowners may seek to waive vegetative buffer requirements along internal boundaries, but only via a recorded mutual waiver agreement submitted to and approved by the Plan Commission, at their discretion.

i) **Warranty Bond:** A warranty bond shall be established by the Applicant and provided to the County prior to the commencement of construction. In the event the developer or operator fails to maintain the vegetative buffer in compliance with the standards outlined in this section, the County shall have the authority to draw upon this bond to repair, replace, or otherwise maintain the buffer to ensure continued compliance.

SECTION 7. ENVIRONMENTAL, VEGETATION, AND SOIL PROTECTIONS

7.1 Groundcover and Vegetation Requirements:

All land within the boundaries of a permitted Commercial Solar Energy System (CSES), including areas under and between solar panels, inverter pads, and access lanes, shall be **stabilized and maintained** using native perennial vegetation consistent with Indiana conservation standards. Specifically:

- a) Vegetation must be established using **regionally appropriate, non-invasive native species** suitable for soil stabilization, pollinator support, and habitat enhancement;

- b) Turf grass, gravel, bare soil, synthetic matting, or artificial ground coverings are **strictly prohibited**, except for designated service areas such as substation pads and fire lanes;
- c) All seed mixtures must conform to or exceed the minimum criteria of the **2020 Indiana Solar Site Pollinator Habitat Planning Scorecard** developed by Purdue University or its most current equivalent;
- d) All seed mixes, planting depths, and establishment procedures must be developed in consultation with the Starke County Soil and Water Conservation District or a qualified native seed expert and submitted as part of the Preliminary Site Plan and Specifications.

7.2 Establishment and Maintenance of Vegetation:

The Applicant shall ensure that vegetation is properly established during the first full growing season after seeding. A **Monitoring and Maintenance Plan** shall be required and must include:

- a) A pre-planting plan showing site preparation methods (e.g., herbicide removal of invasive species, tillage);
- b) A seeding schedule, including species list and seeding depths;
- c) Biannual monitoring reports for the first 3 years post-installation;
- d) An adaptive management strategy, including replanting or spot overseeding if establishment goals are not met;
- e) Invasive species removal protocols compliant with the Indiana Invasive Species Council list;
- f) Ongoing vegetation maintenance and mowing not more than twice annually, timed to avoid disruption of pollinator or nesting habitat;
- g) Long-term maintenance obligations enforceable for the full operational life of the CSES.
- h) **Vegetation monitoring and invasive species plan.** A multi-year plan insuring screening achieves 100% opacity and meets the 2020 Indiana solar site pollinator habitat planning score card as approved by the Plan Commission.

7.3 Agrivoltaics Exception to Standard Groundcover:

The required use of pollinator-friendly native groundcover may be waived in specific zones of the project only if the CSES Applicant submits an **approved Agrivoltaics Plan**, demonstrating that agricultural co-use will occur on-site. To qualify:

- a) The Agrivoltaics Plan must include:
 - 1) A list of intended agricultural activities (e.g., rotational grazing, beekeeping, crop rows);

- 2) A written agreement with one or more Indiana-registered farm operators participating in the management of the co-use area;
- 3) A layout map showing zones of agrivoltaic activity and infrastructure designed to accommodate it (e.g., panel spacing, access paths, fencing suitable for livestock);
- b) Agrivoltaic operations must begin within **twenty-four (24) months** of project energization;
- c) If agrivoltaic use is not commenced within that time, or if operations cease for more than **eighteen (18) consecutive months**, the Applicant shall be required to establish pollinator-friendly groundcover per Section 7.1 across all affected areas;
- d) The Agrivoltaics Plan must be approved by the Plan Commission and monitored annually for compliance.
- e) Any facility or farm currently practicing agrivoltaics prior to the effective date of this ordinance shall submit an Agrivoltaics Plan to the Starke County Planning and Building Department within sixty (60) days of the effective date of this ordinance for records purposes and to demonstrate conformance.

7.4 Chemical Use Restrictions:

To protect soil health, groundwater, and pollinator habitats, the use of the following is **prohibited**, unless approved, which shall not be unreasonably withheld using area agriculture standards best practices, by the Soil and Water Conservation District on a limited, site-specific basis:

- a) Broad-spectrum **synthetic herbicides**, insecticides, and pesticides;
- b) Fertilizers or soil amendments not derived from organic or natural sources;
- c) Chemical treatments during the establishment phase that affect soil microbiology or groundwater leaching potential.

The applicant shall submit a **Chemical Management Plan**, if any chemical use is proposed, detailing the products, application methods, frequencies, safety data sheets (SDS), and containment protocols.

7.5 Soil Protection and Farmland Preservation:

All CSES projects shall be designed to preserve the agricultural productivity and long-term viability of Starke County soils:

- a) Projects shall strive to **avoid siting on USDA-defined Prime Farmland** to the greatest extent feasible. Where unavoidable, justification shall be submitted demonstrating lack of suitable alternatives;

- b) Applicants must implement **best practices for soil protection** during construction, including low ground pressure equipment, topsoil stripping and storage, and designated laydown areas to avoid compaction;
- c) A **Soil Management and Erosion Control Plan** must be submitted with construction plans, and shall include:
 - 1) Topsoil conservation strategy;
 - 2) Erosion control measures per NRCS (Natural Resources Conservation Service) standards;
 - 3) Phasing and timing to minimize open soil exposure;
 - 4) Stormwater BMPs (Best Management Practices) tied to site grading and hydrology;
- d) All sediment control and stormwater features must be installed and functional before earth disturbance begins.

7.6 Post-Construction Soil Testing (Optional Provision):

The County may require soil compaction testing or nutrient analysis at the request of the Drainage Board, Plan Commission, or a participating landowner. If post-construction testing shows evidence of soil degradation, the operator shall implement corrective actions, including deep tilling, nutrient rebalancing, and/or native species restoration.

SECTION 8. DRAINAGE AND EROSION CONTROL

8.1 PURPOSE:

The purpose of this section is to ensure that all Commercial Solar Energy Systems (CSES) are designed, constructed, and operated in a manner that protects and preserves the function, capacity, and accessibility of regulated drains and associated drainage infrastructure within Starke County.

8.2 APPLICABILITY:

This section shall apply to any CSES where regulated drains, legal drains, or regulated drain watersheds are located within:

- a) The project area;
- b) Any parcel under lease, ownership, or control of the Applicant; or
- c) Any area hydrologically affected by the project.

8.3 SURVEYOR NOTIFICATION AND DRAINAGE REVIEW

- a) The Applicant shall provide formal written notice to the Starke County Surveyor's Office identifying all regulated drains and watersheds within or affected by the project;
- b) No application shall be deemed complete until confirmation of receipt is provided;
- c) All drainage review shall be conducted in consultation with the County Surveyor, who shall serve as the primary authority for regulated drain identification and interpretation.

8.4 DRAINAGE ANALYSIS AND PERFORMANCE STANDARD

- a) The Applicant shall demonstrate that post-construction conditions will not:
 - Increase peak flow, runoff volume, or velocity;
 - Cause erosion, sedimentation, or obstruction;
- b) This standard shall apply through and beyond the project area to the next adequate outlet, as determined by the County Surveyor;
- c) All drainage modeling shall be based on field-verified conditions, including located tile systems where required.

8.5 REGULATED DRAIN MAINTENANCE—PRE-CONSTRUCTION

- a) Prior to or during any construction activity, all regulated drains within or affected by the project area may be required to be brought to maintenance specifications;
- b) Work may include debrushing, dredging, obstruction removal, and stabilization;
- c) All work shall:
 - Be publicly bid by the Drainage Board;
 - Be awarded by the Drainage Board;
 - Be paid in full by the Applicant;
- d) Completion of required work shall be a condition precedent to or in conjunction with construction.

8.6 REGULATED DRAIN MAINTENANCE—PRE-OPERATION

- a) Prior to project energization, the Drainage Board may require additional maintenance;
- b) Work shall be:
 - Publicly bid;

- Awarded by the Drainage Board;
- Paid by the Applicant.

8.7 ONGOING DRAINAGE MAINTENANCE (VEGETATION CONTROL)

- a) The Applicant shall fund vegetation maintenance of regulated drains within or affected by the project;
- b) Spraying shall occur as reasonably feasible twice per year.
- c) Work shall be bid and awarded by the Drainage Board and paid by the Applicant.

8.8 REGULATED DRAIN CROSSINGS No infrastructure may cross a regulated drain or its right-of-way without:

- a) Written approval from the Drainage Board;
- b) Recommendation of the County Surveyor; All crossings shall meet design standards established by the County Surveyor.

8.9 TILE AND SUBSURFACE DRAINAGE PROTECTION

- a) All tile systems shall be field-verified where required;
- b) Any damage shall be repaired:
 - At the Applicant's expense;
 - To County Surveyor specifications;
- c) Temporary or substandard repairs are prohibited.

8.10 AS-BUILT REQUIREMENTS

- a) As-built plans shall be submitted to the County Surveyor;
- b) Plans shall clearly identify all borings under regulated drains;
- c) This ensures:
 - Accurate future maintenance;
 - Contractor safety during ditch work.

8.11 DRAINAGE DOCUMENTATION

a) The Applicant shall provide pre- and post-construction video/photo documentation of all regulated drains;

b) Documentation shall be submitted in a format acceptable to the County Surveyor.

8.12 POST-STORM INSPECTION

a) Following rainfall events exceeding one (1) inch in 24 hours during construction, the Applicant shall inspect all regulated drains;

b) Any issues shall be reported within 48 hours.

8.13 MAINTENANCE ACCESS

The Applicant shall maintain permanent access routes sufficient for County equipment to all regulated drains.

8.14 SEDIMENT AND EROSION RESPONSIBILITY

Any sediment or obstruction entering a regulated drain as a result of the project shall be removed at the Applicant's expense.

8.15 PRESUMPTION OF PROJECT IMPACT

Any drainage failure within three (3) years of construction completion shall be presumed to be project-related unless proven otherwise, and repaired at Applicant expense.

8.16 FINANCIAL ASSURANCE

The County may require:

a) Drainage restoration bonds;

b) Drainage escrow funds for emergency repairs.

8.17 NO CREDIT OR OFFSET

Work performed under this section:

a) Does not offset drainage assessments;

b) Does not relieve liability.

8.18 ENFORCEMENT

Failure to comply shall result in:

- a) Stop Work Orders;
- b) Permit suspension or revocation;
- c) County-performed work at Applicant expense. Payment of fines shall not cure violations.

SECTION 9. FIRE SAFETY AND EMERGENCY RESPONSE

9.1 General Fire Safety and Prevention Requirements:

To ensure the safety of first responders, property owners, and nearby communities, all Commercial Solar Energy Systems (CSES) must incorporate fire prevention, suppression, and monitoring protocols consistent with national best practices and local agency coordination. All plans and infrastructure must meet or exceed the standards set forth in the **National Fire Protection Association (NFPA) 855 – Standard for the Installation of Stationary Energy Storage Systems**, as amended, and applicable Indiana fire codes.

9.2 Fire Prevention, Suppression, and Monitoring Plans:

As part of the Preliminary Site Plan and Specifications, the Applicant shall submit a **Fire Safety and Emergency Response Package**, including the following elements:

- a) A **Fire Prevention Plan**, detailing materials and system components used (e.g., batteries, inverters, transformers) and fire risk mitigation strategies;
- b) A **Fire Suppression Plan**, identifying the type and locations of suppression infrastructure (e.g., hydrants, chemical or water-based systems, fire extinguishers, etc.);
- c) A **Monitoring and Alarm System Plan**, showing how fire events or electrical faults will be automatically detected and reported;
- d) A **Fire Department Notification System**, integrating direct automated notification to **Starke County Dispatch 911 center** for all fire-related alerts;
- e) A **Hazardous Materials Inventory and Containment Plan and Expanded Disaster Repair Plan** to address Force Majeur events, identifying all flammable, explosive, or environmentally hazardous components used on site and the containment measures in place.

All plans must be reviewed and approved by the Planning Commission and EMA Director in consultation with local fire departments and emergency management personnel.

9.3 Fire Suppression Infrastructure Requirements:

Each CSES must install on-site fire response infrastructure that meets the following minimum standards:

- a) A **fire protection well and hydrant system (or reasonable alternative)** shall be installed at each major site entrance;
- b) The system must be capable of producing a **minimum flow of 600 gallons per minute (GPM)** and shall be functional prior to delivery of electrical equipment;
- c) The hydrant shall be placed within **20 feet of the field entrance and 20 feet from the edge of the improved road surface**;
- d) An **electric H-panel control station** must be installed near the hydrant, within 20 feet of the discharge area;
- e) The H-panel must be **clearly labeled for fire department use only**, and a lockable enclosure and key must be provided to all emergency services personnel;
- f) The hydrant and panel system must be **inspected bi-annually**, with maintenance logs submitted to the Planning Commission and responding fire department.

9.4 Fire Response Funding and Equipment Support:

The Applicant shall provide direct financial support to local first responders as follows:

Solar Emergency Response Fund: The County Council shall create a dedicated "Solar Emergency Response Fund" to support local emergency services. The Applicant shall be required to make an initial deposit of **one hundred thousand dollars (\$100,000)** into this fund prior to the issuance of the Improvement Location Permit (ILP). This initial deposit is required to provide the equipment and materials necessary for local departments to combat the unique fire and safety requirements associated with solar farms.

For the life of the project, the Applicant shall make annual payments of **fifty thousand dollars (\$50,000)**, which shall be indexed at an annual increase of **three percent (3%) after the 1st year of the project**. All funds deposited into this account shall be distributed among emergency response agencies at the sole discretion of the County Commissioners to address equipment, training, and operational needs related to the project. Any funds deposited into this account must be utilized by the receiving agencies within twelve (12) months following the date of receipt.

- a) ???
 - 1) The **primary responding fire department**; and
 - 2) The local **EMS provider** serving the project area;

- b) Funds shall be used for the purchase of fire suppression tools, personal protective equipment (PPE), thermal cameras, foam supplies, or any other equipment deemed necessary by the responding agencies;
- c) Upon completion of the project and receiving final approval to commence operations, the Applicant shall provide, each year, on or before March 1 of each year, the sum of \$50,000 towards emergency responders as outlined above. Each year, this sum shall increase by three percent (3%), year over year, during operation of the project. (Should CSES infrastructure necessitate specific chemicals/foam which have a limited shelflife, this annual sum may be increased as required by the Plan Commission during their review.

9.5 Emergency Response Training:

The Applicant must coordinate and offer **annual fire and emergency response training sessions** to all local responders, including fire, EMS, and emergency management. The first training session must occur prior to the delivery of major system components.

Training shall cover:

- a) System shut-off and lock-out procedures;
- b) Electrical hazard zones and battery-specific hazards;
- c) Access points and system layout review;
- d) Use of on-site hydrant and fire suppression equipment;
- e) Emergency contact protocols.

Proof of training attendance and completion must be submitted annually to the Starke County Planning Commission. Failure to conduct annual training shall constitute a violation under Section 12.

9.6 Standard Operating Procedures (SOPs) and Guidelines (SOGs):

The immediate responding fire department, along with designated mutual aid fire departments and EMS, shall develop Standard Operating Procedures (SOPs) and Standard Operating Guidelines (SOGs) specific to the CSES. These shall be completed and submitted prior to issuance of an Improvement Location Permit.

The Applicant shall assist in SOP/SOG preparation.

9.7 Emergency Management Agreement (EMA)

Prior to the issuance of an Improvement Location Permit (ILP), the Applicant shall execute a formal **Emergency Management Agreement** with the Starke County Emergency Management Agency. This agreement, which must be reviewed and approved by the EMA Director, shall establish the protocols for:

- **On-Site Coordination:** Roles and responsibilities during a site-specific emergency or a county-wide disaster.
- **Resource Sharing:** Access to specialized equipment or materials funded by the Solar Emergency Response Fund.
- **Site Access:** Protocols for immediate, unhindered access for all first responders.
- **Communication:** 24/7 emergency contact chains and integration with the Starke County Dispatch 911 center.
 - **Reimbursement:** Procedures for the operator to reimburse the County for extraordinary expenses incurred during an emergency response.

SECTION 10. ROAD USE AND MAINTENANCE AGREEMENT (RUA)

10.1 Requirement and Purpose

Prior to any grading, construction, or delivery of equipment associated with a Commercial Solar Energy System (CSES), the Applicant shall enter into a binding Road Use and Maintenance Agreement (RUA) with the Starke County Highway Department and Board of Commissioners. The purpose of this agreement is to ensure that all county and local public roads used for construction traffic are protected, restored, and maintained to safe standards throughout the project lifecycle.

The RUA shall be executed as a legally enforceable contract and made a public record. It shall be incorporated by reference into the Special Use Permit and Improvement Location Permit.

10.2 Engineer Selection and Costs

All road condition assessments, engineering analysis, and restoration cost estimates required under this section shall be performed by a licensed Indiana professional engineer selected by the County. The CSES Applicant shall be responsible for all costs associated with the engineering services and shall remit payment in full before the commencement of any fieldwork, inspections, or haul route planning.

The County's engineer shall report directly to the Starke County Highway Department.

10.3 Pre-Construction Road Survey and Inventory

The RUA shall require the Applicant to complete a detailed pre-construction road survey, including:

- a) Inventory of all county and township roads, bridges, culverts, and intersections along the proposed haul routes;
- b) High-resolution photo and/or video documentation of current road conditions;
- c) Load-bearing and PASER rating assessments of all affected road segments;

- d) Identification of road segments requiring upgrades, widening, or temporary reinforcement prior to construction.

This survey shall be reviewed and approved by the County Highway Superintendent and the Starke County Board of Commissioners and incorporated into the final RUA.

10.4 Approved Haul Routes and Traffic Coordination

The Applicant shall submit a map showing all proposed construction equipment haul routes. The plan shall include:

- a) Identification of state and local roads to be used;
- b) Proposed phasing schedule and projected daily truck trips;
- c) Temporary road closure or detour requests;
- d) Traffic safety controls including flaggers, signage, and dust suppression;
- e) Notification procedures to local law enforcement, EMS, schools, post offices, and INDOT.

No CSES construction-related traffic may deviate from the approved haul routes without written approval from the County Highway Department and the Starke County Board of Commissioners.

10.5 Road Bonding and Financial Security

The Applicant shall post a road restoration performance bond or equivalent financial assurance in an amount determined by the County-selected engineer. The bond shall:

- a) Equal 100% of the estimated cost to fully restore all haul routes to their pre-construction condition or better;
- b) Remain valid throughout the construction period and for at least six (6) months after final energization of the project;
- c) Be payable to Starke County and released only upon written verification by the Highway Superintendent and the Starke County Board of Commissioners that all restoration obligations have been met.

10.6 Road Restoration and Pavement Standards

Upon completion of construction, the County shall conduct a post-construction inspection. If the inspection reveals deterioration, the Applicant must:

- a) Restore the affected road segment to its original PASER rating or better; or
- b) If the PASER rating has dropped by more than one full point, mill and resurface the entire road segment to a minimum PASER 6 standard, at the Applicant's full expense;

- c) Patch repairs or partial overlays shall not be permitted if the PASER rating has fallen below 4;
- d) All temporary road widening, gravel shoulders, or access cuts shall be removed and restored unless expressly permitted to remain.

10.7 Construction Access and Dust Control

During construction, the Applicant shall:

- a) Limit all CSES-related vehicle traffic to approved haul routes;
- b) Implement dust control measures including periodic water application and street sweeping as needed;
- c) Maintain safe and continuous access for public traffic, emergency vehicles, school buses, and agricultural operations;
- d) Provide flagging or signage at critical intersections and turns.
- e) These efforts shall apply at decommissioning as well.

10.8 Enforcement and Violations

Failure by the Applicant to comply with any term of the Road Use and Maintenance Agreement shall result in one or more of the following actions:

- a) Issuance of a Stop Work Order until compliance is achieved;
- b) Drawing upon the road bond by the County to fund necessary repairs;
- c) Suspension or revocation of the Improvement Location Permit or Special Use Permit;
- d) Daily fines as provided in Section 12.

10.9 Modifications to the Road Use and Maintenance Agreement

No changes, waivers, or modifications to the executed RUA shall be valid unless:

- a) Reviewed and approved at a public hearing before the Board of Zoning Appeals (BZA);
- b) Formally amended by variance issued pursuant to public notice and findings under Indiana Code IC 5-3-1;
- c) All changes are recorded in the official public record and incorporated into the project file.

10.10 Incorporation into Ordinance

The template for the Road Use and Maintenance Agreement, including survey requirements, bonding formulas, restoration standards, and enforcement procedures, shall be adopted by

reference as Appendix A to this Ordinance. No CSES may proceed without executing the RUA as provided unless formally modified through the variance process.

SECTION 11: DECOMMISSIONING AND REPAIR AND MAINTENANCE

11.1 Decommission Bond

An Applicant may not install or locate a CSES system unless the Applicant submits to Starke County a decommissioning and site restoration plan (for use in Decommissioning Trigger Events), and posts a surety bond, or an equivalent means of security acceptable to Starke County, including a parent company guarantee or an irrevocable letter of credit, but excluding cash, in an amount equal to the estimated cost of decommissioning the CSES system, as calculated by a third party licensed or registered engineer or by another person with suitable experience in the decommissioning of CSES systems, as agreed upon by the Applicant and Starke County. The required bond or other security shall be posted in increments such that the total amount of the bond or security posted is as follows:

(1) An amount equal to twenty-five percent (25%) of the total estimated decommissioning costs not later than the start date of the CSES system's full commercial operation.

(2) An amount equal to fifty percent (50%) of the total estimated decommissioning costs not later than the fifth anniversary of the start date of the CSES system's full commercial operation.(3) An amount equal to one hundred percent (100%) of the total estimated decommissioning costs not later than the tenth anniversary of the start date of the CSES system's full commercial operation. For purposes of this subdivision, the total estimated decommissioning costs shall be reevaluated by a third party licensed or registered engineer (or by another person with suitable experience in the decommissioning of CSES systems, as agreed upon by the project owner and the permit authority):

(A) in connection with the tenth anniversary of the start date of the CSES system's full commercial operation; and

(B) at least once every succeeding five (5) year period after the tenth anniversary of the start date of the CSES system's full commercial operation.

11.2 Decommissioning Triggers

Decommissioning shall begin if:

- a) The CSES ceases generating electricity for twelve (12) consecutive months, including in situations of force majeure;
- b) The operator issues written notice of permanent shutdown;
- c) The County finds the project has been abandoned or is unsafe.

In case of force majeure or a natural disaster, a written repowering or restoration plan must be submitted within four (4) months of the occurrence of the event. If not resumed within eighteen (18) months of the occurrence of the event, decommissioning shall begin immediately and be completed within six (6) months.

11.3 Scope of Decommissioning

The plan shall require full removal of:

- a) All solar panels, racks, piles, fences, pads, conduits;
- b) Subsurface infrastructure to a depth of at least three (3) feet;
- c) Gravel or construction materials;
- d) Restoration of site to original contours with topsoil, native seeding, or agreed-upon agricultural reuse;
- e) Removal or restoration of roads, wells, fencing as directed by landowner and approved by County.
- f) Any and all third party professional costs, engineering, legal or other, incurred by the County during investigation and enforcement actions, shall be applied for compliance monetary surcharge.

11.4 Cost Estimate and Independent Review

Decommissioning costs shall be prepared by a licensed engineer and may be subject to third-party review by a County-selected engineer at the Applicant's expense. Cost must:

- a) Reflect current market conditions;
- b) Cover 100% of the gross cost to remove all infrastructure, restore soil, remove projected salvage and scrap of any and all equipment.;
- c) Not assume salvage value unless full value is contractually assigned to the County.

11.5 Financial Assurance Requirement

A decommissioning bond, as outlined in 11.1, or equivalent financial assurance shall be provided covering all parcels under each individual participating landowner. This bond shall:

- a) Be executed between the solar Applicant and the participating landowner;
- b) Name Starke County as a third-party beneficiary with right of enforcement;
- c) Be posted prior to any construction activity.
- d) This cost estimate must be updated by a licensed Indiana engineer, every three (3) years post completion of the project, to account for inflation and related expenses and costs.

11.6 Landowner Accountability

If the Applicant fails to act, and does not initiate decommissioning within twelve (12) months of cessation, upon thirty (30) days written notice to the Applicant and Landowner, the County may enforce the agreement and recover costs from:

- a) The bond;
- b) Legal action against the landowner; and/or
- c) Placement of liens on project parcels.

11.7 Soil Restoration

After removal, the site shall:

- a) Be decompacted, contoured, and restored per the Agricultural Soil Reclamation Plan (Appendix C);
- b) Be suitable for native vegetation or agricultural reuse per landowner preference.

11.8 Bond Release

Release of the financial assurance shall require:

- a) Final site inspection;
- b) Written certification from the County Surveyor and Plan Commission;
- c) Approval by the Board of Commissioners confirming full compliance.

11.9 Amendments

No changes to the agreement or bond may be made without:

- a) Public notice and hearing before the BZA;
- b) Formal variance approval;
- c) Recordation of amendment with the County Recorder.

SECTION 12. INSURANCE AND LIABILITY

12.1 General Liability Insurance Requirement:

All Commercial Solar Energy System (CSES) Applicants and operators shall procure and maintain **Commercial General Liability (CGL) insurance** for the duration of the project, including during the construction, operational, and decommissioning phases.

The policy shall be issued by an insurance company licensed to do business in the State of Indiana and shall provide, at a minimum:

- a) **Commercial General Liability (CGL):** Minimum coverage of \$5,000,000 per occurrence for bodily injury, property damage, and personal injury;
- b) **General Aggregate Limit:** Minimum \$10,000,000 aggregate limit;
- c) **Umbrella / Excess Liability:** A minimum umbrella or excess liability policy of \$20,000,000 to supplement the base CGL coverage;
- d) **Environmental / Pollution Liability:** Dedicated pollution liability coverage with a minimum limit of \$5,000,000 per occurrence to cover environmental damage, including but not limited to chemical spills, battery storage leaks, or material leaching;

The insurance must apply on a **per-project basis**, not as part of a blanket or shared policy.

12.2 Additional Insured Requirements:

The following entities shall be named as **Additional Insureds** under the CGL policy for the entire term of the policy:

- a) Starke County Government;
- b) Starke County Plan Commission;
- c) Starke County Highway Department;
- d) Starke County Drainage Board;
- e) All Fire and EMS departments identified as primary or mutual aid responders for the project area.

Evidence of additional insured status must be included on the certificate of insurance and endorsement forms submitted with the project application.

12.3 Certificate of Insurance and Updates:

A valid Certificate of Insurance (COI) must be submitted to the County at the following stages:

1. With the initial permit application;
2. Annually on or before the anniversary date of the policy's effective date;
3. Within thirty (30) days of any change, renewal, cancellation, or non-renewal of the policy.

Failure to provide an updated COI shall result in a Stop Work Order until compliance is achieved.

12.4 Worker's Compensation Coverage:

The Applicant shall maintain **Worker's Compensation Insurance** coverage in accordance with all applicable Indiana and federal laws. Coverage shall be provided for all employees, contractors, and subcontractors engaged in construction, maintenance, or operations at the CSES site.

A copy of the active worker's compensation policy shall be kept on file with the Starke County Plan Commission for the duration of construction and operations.

12.5 Professional Liability and Construction Bonding:

The County reserves the right to require the following additional forms of insurance or bonding, as a condition of approval, where circumstances warrant:

- a) **Professional Liability Insurance** (Errors and Omissions) for engineering or construction firms providing structural, geotechnical, or drainage design;
- b) **Performance Bond or Completion Bond** for high-risk or phased construction activities;
- c) **Environmental Liability Insurance** for battery systems, chemical storage, or sites within 1,000 feet of critical natural resources.

The need for such coverage will be determined by the County Plan Commission in consultation with the County Attorney and technical advisors.

12.6 Liability for Damages and Indemnification:

The CSES Applicant and operator shall assume full responsibility and legal liability for any and all damages to public infrastructure, private property, drainage systems, or utilities arising from project development, construction, operation, or decommissioning.

The Applicant shall indemnify and hold harmless Starke County and its officials, departments, boards, employees, and agents from any and all claims, costs, damages, or legal actions resulting from:

- a) Failure to maintain required insurance;
- b) Property damage, injury, or death caused by the CSES or its operations;
- c) Environmental contamination or drainage system disruption; and/or
- d) Negligence or willful misconduct by the Applicant or its agents.

The indemnification provision shall be included in the recorded Agreements required under this Ordinance.

12.6 Property Value Protection Program

- a) **Applicability:** This section shall apply to non-participating landowners located within a two (2) mile radius of a Commercial Solar Energy System (CSES) project boundary. Participation in this program shall be made available to all eligible property owners upon written request.

b) Baseline Appraisal: Prior to the commencement of construction, the Applicant shall offer, at the Applicant's sole expense, to obtain a fair market appraisal of eligible properties. Such appraisal shall:

- Be conducted by a state-certified independent appraiser;
- Establish the fair market value of the property as if the proposed CSES were not present;
- Be provided to both the property owner and the County for recordkeeping purposes.

c) Post-Construction Appraisal: Upon request of the property owner, following completion of construction, the Applicant shall provide a second appraisal, conducted under the same standards as the baseline appraisal.

d) Trigger for Compensation: Compensation under this section shall only be required if all of the following conditions are met:

- The property is actively listed for sale;
- A bona fide arm's-length offer is received;
- The final sale price is less than the appraised value established under this section; and
- The reduction in value is determined to be reasonably attributable to the presence of the CSES project.

If these conditions are met, the Applicant shall compensate the property owner for the difference between the sale price and the appraised value, as determined by an independent appraiser or mutually agreed third party.

e) Determination of Impact: Any determination that loss in value is attributable to the CSES shall be made by:

- A mutually agreed upon independent appraiser; or
- A third-party appraiser selected through the dispute resolution process.

f) Dispute Resolution: In the event of a dispute regarding valuation or attribution:

g) Duration: This program shall remain in effect for a period of ten (10) years from the date the project becomes operational.

- Each party may obtain an independent appraisal;
- If the appraisals differ, a third independent appraiser shall be selected;
- The determination of the third appraiser shall be binding, or
- The matter may be resolved through binding arbitration, if mutually agreed.

h) Condition of Approval: Participation in the Property Value Protection Program shall be a condition of approval of the Special Use Permit (SUP) for the CSES project.

SECTION 13. ENFORCEMENT, VARIANCES, AND VIOLATIONS

13.1 Enforcement Authority:

This Ordinance shall be enforced by the **Starke County Plan Commission**, with the assistance of the Starke County Building Commissioner, County Attorney, Drainage Board, Highway Department, and other designated officials or contractors. These authorities shall have the right to access CSES sites for inspection, documentation, compliance verification, or investigation at any time with 24-hour notice, or immediately in the event of an emergency.

All permits, plans, and agreements associated with a CSES shall be enforceable as conditions of zoning approval under Indiana Code § 36-7-4 and applicable County ordinances.

13.2 Stop Work Orders:

If at any time the County determines that a violation of this Ordinance or any condition of an issued permit exists, the Plan Commission or Building Commissioner may issue a **Stop Work Order** requiring the immediate cessation of all construction or operational activity.

- The Stop Work Order shall remain in effect until full compliance is demonstrated to the satisfaction of the County;
- Continued work while a Stop Work Order is active constitutes a separate violation for each day of activity and may trigger immediate permit suspension or revocation.

13.3 Fines and Penalties:

Violations of this Ordinance shall be subject to the following monetary penalties and corrective requirements:

- a) **First Violation:** Immediate Stop Work Order issued; no monetary penalty unless corrective action is not completed within 30 days.
- b) **Second Violation (Same or Similar Offense):** Stop Work Order + fine of **\$2,500 per day** until the violation is corrected and verified by County inspectors. Subsequent violation for the same or similar offenses is increased to \$7,500 per day.
- c) **Unpaid Fines After 30 Days:** Fine doubles to **\$5,000 per day**; continued Stop Work Order remains in effect.

- d) **Chronic Violations (3+ documented infractions within a rolling 5 year period):** Subject to permit suspension, public hearing before the Board of Zoning Appeals (BZA), and potential revocation of all County approvals.

All fines collected shall be deposited with the **Starke County Planning Commission**.

13.4 Monthly Compliance Reporting:

During construction and for the first 12 months of commercial operation, the Applicant shall submit **monthly compliance reports** to the Plan Commission. These reports must document:

- a) Construction progress and phasing;
- b) Site condition and erosion control measures;
- c) Any issues involving drainage, access, or neighbor complaints;
- d) Contact updates for key personnel.

Failure to submit two (2) consecutive reports shall be considered a violation and shall trigger penalties under Section 13.3.

13.5 Variance Procedure:

Any request to deviate from the strict requirements of this Ordinance shall require a formal **Variance** and public hearing before the Board of Zoning Appeals (BZA), including:

- a) Submission of a detailed variance application;
- b) Notification of adjacent landowners in accordance with IC 5-3-1;
- c) Findings by the BZA that the variance will not harm neighboring properties, public infrastructure, or health and safety;
- d) Recording of the variance and all related conditions in the public record.

No variance shall be granted unless the applicant demonstrates a **clear hardship** or material change in technology or land use.

13.6 Modification of Approved Agreements or Plans:

Any modification to a previously approved Road Use and Maintenance Agreement, Decommissioning Agreement, Emergency Response Plan, Landscape Plan, or Drainage Plan shall be subject to the following:

- a) Public notice and hearing before the Board of Zoning Appeals;
- b) Review by affected departments (e.g., Drainage Board, Highway Department, EMS, Fire);
- c) Approval of a formal **amended variance** incorporating the change;
- d) Filing of the updated documents with the County Recorder.

13.7 Injunctive Relief and Legal Action:

In the event of willful violation, project abandonment, nonpayment of fines, or breach of agreement:

- a) The County may seek **injunctive relief** or enforcement orders in the Starke County Circuit or Superior Court;
- b) The County may recover **all legal, engineering, and remediation costs**, including attorney's fees;
- c) The County may place a **lien on project parcels** to recover fines, restoration costs, or public expenses; and/or
- d) Additional penalties may be pursued under Indiana's Uniform Enforcement of County Ordinances statutes.

SECTION 14. APPENDICES AND DEFINITIONS

14.1 Incorporation of Appendices by Reference:

The following appendices are hereby incorporated by reference into this Ordinance and shall carry the same legal force and effect as if set forth in full herein. Amendments to these Appendices may be made by County Officials, so long as they comport with all terms found within this Ordinance.

Appendix A – Road Use and Maintenance Agreement Template

- Standardized agreement format for haul route identification, pre/post-construction road condition surveys, bonding, restoration standards, and enforcement triggers.
- Engineer-selected by County, costs paid by Applicant.
- Public variance required for any deviations.

Appendix B – Decommissioning Plan and Agreement Template

- Legal framework for recording decommissioning obligations between Applicant and landowner Starke County third-party beneficiary rights.

- Includes triggers, removal scope, cost estimating protocols, and financial assurance formats.
- Defines landowner enforcement responsibility and Starke County third-party beneficiary rights.

Appendix C – Agricultural Soil Reclamation Plan

- Detailed plan specifying soil decompaction, grading, subsoiling, seed mixes, and replanting methods.
- Includes NRCS-based standards and timeline for restoration success.
- Required for all decommissioned areas not returned to active agrivoltaics.

Appendix D – Required Submittals Checklist

- Comprehensive checklist of all documents required at each phase: permit application, Preliminary Site Plan, and final As-Built certification.
- Includes: fire suppression plan, landscape buffer plan, glare affidavit, drainage approval, financial assurance documents, proof of insurance, utility notification affidavits, and contact registry.

APPENDIX A – ROAD USE AND MAINTENANCE AGREEMENT TEMPLATE

THIS ROAD USE AND MAINTENANCE AGREEMENT (the "Agreement") is made and entered into this ___ day of _____, 20, by and between:

Starke County, Indiana, by and through its Board of Commissioners and Highway Department (hereinafter, the "County"),

and

[**Applicant Name**], a [State] [Entity Type] having its principal office at [Address] (hereinafter, "Applicant").

RECITALS

WHEREAS, Applicant intends to construct and operate a Commercial Solar Energy System (CSES) within unincorporated Starke County;

WHEREAS, the construction and development of a CSES will require the transport of heavy equipment and materials over public roads maintained by the County;

WHEREAS, the County is responsible for protecting and preserving its road infrastructure for public use;

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, the parties agree as follows:

SECTION 1. HAUL ROUTE IDENTIFICATION

1.1 Applicant shall submit a detailed haul route plan identifying all state, county, and township roads intended for use during project construction and delivery.

1.2 Applicant shall not use any road not identified in the approved plan without written permission from the Starke County Highway Superintendent and the Board of Commissioners.

SECTION 2. PRE-CONSTRUCTION ROAD CONDITION SURVEY

2.1 The County shall select a licensed professional engineer to conduct a pre-construction inspection of all haul routes. The survey shall include:

- Video and photographic documentation;
- PASER ratings and load-bearing assessments;

- Recommendations for preemptive improvements, if necessary.

2.2 Applicant shall pay all costs for the survey, which must be completed before any construction, clearing, or mobilization occurs.

SECTION 3. BONDING AND FINANCIAL ASSURANCE

3.1 Applicant shall post a road restoration performance bond in an amount equal to 100% of the engineer's estimate for full restoration of the haul routes to pre-construction condition.

3.2 The bond shall be payable to Starke County and shall remain in effect through construction and for at least six (6) months following project energization.

3.3 The bond may be drawn upon if Applicant fails to meet post-construction restoration requirements.

SECTION 4. CONSTRUCTION OBLIGATIONS

4.1 Applicant shall limit all heavy vehicle and equipment traffic to the approved haul routes.

4.2 Applicant shall implement dust control measures, maintain roadway safety, and coordinate with emergency services, schools, and affected residents.

4.3 Any temporary access improvements (e.g., widening, culvert installations) must be approved and removed or restored unless otherwise authorized in writing.

SECTION 5. POST-CONSTRUCTION INSPECTION AND RESTORATION

5.1 The County's engineer shall conduct a post-construction road inspection within 30 days of substantial project completion.

5.2 If road segments are found to have:

- A PASER rating reduced by more than 1 point: full resurfacing shall be required;
- A PASER rating below 4: partial patching is not allowed; full milling and repaving is mandatory.

5.3 Applicant shall restore all impacted roads to their pre-construction PASER rating or better, at its sole expense.

SECTION 6. ENFORCEMENT AND NON-COMPLIANCE

6.1 The County may issue a Stop Work Order if:

- Any haul route is used without approval;
- Applicant fails to maintain public safety or dust control;
- Post-construction restoration is not completed as required.

6.2 The County may draw on the bond and contract for road repairs if Applicant fails to complete repairs within 30 days of notice.

6.3 Permit suspension or revocation may occur for ongoing non-compliance.

SECTION 7. MODIFICATIONS AND AMENDMENTS

7.1 No modification or waiver of this Agreement shall be valid unless:

- Approved by a public hearing before the Board of Zoning Appeals;
- Documented in writing and signed by both parties;
- Recorded in the County's project file.

SECTION 8. RECORDING AND TERM

8.1 This Agreement shall be incorporated into the Applicant's Special Use Permit and Improvement Location Permit.

8.2 This Agreement shall remain in full force until all roadways have been inspected and formally released in writing by the County.

8.3 This Agreement may be created/modified by the County, so long as it comports with all requirements found herein.

SIGNATURES

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates indicated below.

[Applicant Representative Name]

Title:

Date:

Starke County Highway Superintendent

Date:

Starke County Commissioner (President or Designee)

Date:

APPENDIX B – DECOMMISSIONING PLAN AND AGREEMENT TEMPLATE

THIS DECOMMISSIONING PLAN AND AGREEMENT (the “Agreement”) is made and entered into this ___ day of _____, 20, by and among:

[Applicant Name], a [State] [Entity Type] having its principal office at [Address] (hereinafter, “Applicant”);

and

[Participating Landowner Name(s)], the record owner(s) of the real property described in Exhibit A attached hereto and incorporated herein (hereinafter, “Landowner”);

with **Starke County, Indiana** named as a third-party beneficiary (hereinafter, “County”) for the limited purposes set forth herein.

RECITALS

WHEREAS, Applicant has entered into an agreement with Landowner to construct and operate a Commercial Solar Energy System (CSES) on the Property;

WHEREAS, the Starke County Solar Energy Systems Ordinance requires an enforceable plan to ensure the removal of CSES infrastructure and full restoration of land upon cessation of operations;

WHEREAS, the parties intend for this Agreement to define the obligations, timelines, financial assurances, and enforcement mechanisms related to decommissioning;

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, the parties agree as follows:

SECTION 1. DEFINITIONS

“CSES” means the Commercial Solar Energy System and all associated infrastructure, equipment, and access improvements described in the permit application approved by the County.

“Decommissioning” means removal of the CSES, restoration of the site, and reestablishment of soils and vegetation as further detailed below.

“Trigger Event” means:

- (a) 12 consecutive months of non-generation; or
- (b) Written notice of permanent shutdown by Applicant;
- (c) Determination of abandonment by the County.

SECTION 2. DECOMMISSIONING OBLIGATIONS

2.1 Removal Scope: Applicant shall remove all above- and below-ground equipment, cables, concrete, foundations (to a depth of 3 feet), and gravel roads, unless the Landowner requests certain improvements remain and the County approves in writing.

2.2 Soil and Site Restoration: Applicant shall:

- Decompact disturbed soils to a depth of at least 18 inches;
- Regrade and recontour land to pre-project topography;
- Respread topsoil and revegetate using a native mix or convert to agricultural production as chosen by the Landowner;
- Implement all practices in the Agricultural Soil Reclamation Plan (Appendix C of the Ordinance).

2.3 Timeline: Applicant shall initiate decommissioning within ninety (90) days of a Trigger Event and complete it within 12 months, unless extended in writing by the County.

SECTION 3. FINANCIAL ASSURANCE

3.1 Form and Amount: Applicant shall provide a performance bond, irrevocable letter of credit, or cash escrow equal to 100% of the estimated decommissioning cost, not reduced by salvage value.

3.2 Updates: The cost estimate shall be reviewed and updated by a licensed Indiana engineer every five (5) years and submitted to the County for review. The financial assurance shall be adjusted accordingly and maintained at all times.

3.3 Beneficiaries: The Landowner is the primary beneficiary and responsible party. The County shall be listed as a third-party beneficiary, with rights of notice, inspection, and enforcement under this Agreement and the Starke County Solar Energy Systems Ordinance.

SECTION 4. LANDOWNER RESPONSIBILITY

4.1 If Applicant fails to fulfill the decommissioning obligation, and the Applicant does not initiate decommissioning within 12 months of the Trigger Event, upon thirty (30) days issuance of written notice to the Landowner, the County may:

- Enforce the terms of this Agreement;
- Draw upon the financial assurance;

- Perform decommissioning and place a lien on the Property for any costs not covered by the bond.

4.2 Landowner agrees to cooperate in all reasonable respects with County enforcement actions and to provide access to the site as needed.

SECTION 5. RECORDING AND TERMINATION

5.1 This Agreement shall be recorded by the Landowner against the Property in the Office of the Starke County Recorder within 30 days of execution.

5.2 This Agreement shall remain in full force until:

- All decommissioning obligations are satisfied; and
- The County has issued a written release.

SECTION 6. GENERAL TERMS

6.1 Amendments: No amendment shall be valid unless in writing, approved by the County, and recorded.

6.2 Notices: All required notices shall be sent via certified mail to the parties at the addresses above, or such other address as may be provided.

6.3 Governing Law: This Agreement shall be governed by the laws of the State of Indiana.

6.4 Form: This Agreement may be developed and modified so long as it comports with the terms of this Ordinance.

SIGNATURES

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates indicated below.

[Applicant Title: Date: Representative Name]

[Landowner Name] Date:

Authorized Representative, Starke County (acknowledged as third-party beneficiary)
Date:

EXHIBIT A: Legal Description of Property
[Insert legal description or attach plat]

APPENDIX C – AGRICULTURAL SOIL RECLAMATION PLAN

This Appendix establishes the minimum standards and required procedures for the restoration of soils disturbed during the construction and decommissioning of a Commercial Solar Energy System (CSES) in Starke County.

1. Topsoil Management

- Prior to grading or excavation, all topsoil shall be stripped from affected areas, stockpiled separately from subsoil, and protected from erosion and compaction.
- Stockpiles shall be stabilized with temporary seeding and protected with silt fencing or other BMPs during construction.

2. Subsurface Soil Decompaction

- All disturbed areas, including panel rows, laydown yards, and access roads to be removed, shall undergo deep tillage or subsoiling to a depth of **at least 18 inches**.
- Tillage shall be performed in two perpendicular passes to relieve compaction and restore infiltration capacity.

3. Topsoil Replacement and Grading

- After decompaction, the stockpiled topsoil shall be evenly redistributed to a minimum depth equal to pre-construction conditions.
- Final grading shall restore approximate original contours and ensure drainage patterns function as they did pre-construction.

4. Soil Amendments and Stabilization

- If post-removal soil testing reveals nutrient depletion, pH imbalance, or organic matter loss, the operator shall apply lime, compost, or other approved amendments based on soil test recommendations.
- Temporary stabilization shall be achieved using approved erosion control seed mixes until final cover is established.

5. Permanent Vegetative Cover

- All restored areas shall be reseeded with:
 - A **native tallgrass prairie mix** appropriate for Indiana soils and climate; or
 - **USDA/NRCS-approved pasture/crop seed mix** if site will return to active farming.
- No invasive or non-native species shall be used.

6. Monitoring and Success Criteria

- The restored land shall be monitored for **three (3) growing seasons**.
- At least **80% vegetative cover** must be established by the end of the second season.
- Any bare spots >100 sq ft shall be reseeded within 30 days.
- Visual inspections and photo documentation shall be submitted annually to the County.

7. Final Certification

- Upon satisfactory completion of all restoration activities, the County Surveyor and Plan Commission shall conduct a final site inspection.
- Final release shall be issued in writing once all restoration and vegetative success criteria are verified.

8. Acknowledgment and Certification

The Applicant and Landowner acknowledge and agree to follow this Agricultural Soil Reclamation Plan as a binding part of the Decommissioning Plan and Solar Energy Systems Ordinance. This document must be signed and submitted with the Decommissioning Agreement.

[Applicant
Title:
Date: Representative Name]

[Landowner
Date: Name]

APPENDIX D – REQUIRED SUBMITTALS CHECKLIST

The following documents shall be submitted to the Starke County Plan Commission as part of the permitting process for any CSES project. All items are mandatory unless explicitly waived by the Commission in writing.

A. Initial Application Submittal

1. Completed CSES Permit Application Form
2. Application Fee and Fee Schedule Acknowledgment
3. Proof of Ownership or Land Lease Authorization
4. Preliminary Site Plan (minimum 75% design)
5. Manufacturer Specifications (panels, inverters, batteries)
6. FAA Glare Impact and Compliance Study (if within 1,000 ft of airport)
7. Affidavits of:
 - o No wireless or radio signal interference
 - o Glare mitigation for neighboring homes and roads
 - o Utility notification per Indiana law
8. Noise Study and Compliance Plan

B. Infrastructure and Engineering Documents

9. Drainage and Erosion Control Plan (including Rule 5 Permit)
10. Pre/Post Drainage Maps and Calculations
11. Road Use and Maintenance Agreement (executed copy)
12. Fire Prevention and Emergency Response Plan
13. Vegetation and Groundcover Plan (native/pollinator focus)
14. Landscape Buffer and Screening Plan with cross-sections
15. Decommissioning Plan and Agreement (executed copy)
16. Financial Assurance Documentation (bond/LOC/escrow)
17. Signed Appendix C – Agricultural Soil Reclamation Plan Acknowledgment

C. Construction and Operational Phase

18. Monthly Compliance Reporting Template

19. Pre-Construction Photo and Video Survey of Roads
20. Contact Directory for Applicant, Site Manager, Emergency Leads

D. Closeout Submittals

21. As-Built Construction Drawings (certified and recorded)
22. Updated Legal Description and Parcel Data
23. Final Soil Restoration Report (per Appendix C)
24. Decommissioning Bond Renewal or Update Verification
25. Final Inspection Reports by Highway, Drainage, and Plan Commission
26. Certificate of Completion and Compliance

Failure to submit or maintain any of the above documents may result in Stop Work Orders, permit suspension, or fines under Section 13 of this Ordinance.

APPENDIX E – EMERGENCY MANAGEMENT AGREEMENT (EMA)

This template establishes the formal operational coordination between the Project Operator and County Emergency Services. This agreement must be finalized, signed by the EMA Director, and recorded prior to the issuance of any Improvement Location Permit (ILP). This template may be modified, so long as it comports with the terms of this Ordinance.

1. PURPOSE AND SCOPE

This Emergency Management Agreement (EMA) defines the roles, responsibilities, and standardized operating procedures for responding to fire, hazardous materials release, or medical emergencies at the [Project Name] facility. The goal is to ensure responder safety, protect the public, and minimize environmental impact through pre-planned coordination.

2. 24/7 COMMUNICATION AND MONITORING

- **Emergency Contact Registry:** The Operator shall maintain a tiered contact list, updated quarterly and provided to County Dispatch:
 - **Level 1 (On-Site):** Local Site Manager (response time within 30–60 minutes).
 - **Level 2 (Remote):** Operations Center (authorized to remotely de-energize the facility).
 - **Level 3 (Corporate):** Environmental, Health, and Safety (EHS) Lead.
- **Automatic Notification:** All facility monitoring systems (smoke, heat, gas detection, or thermal runaway sensors) shall be integrated to provide simultaneous notification to the Operator and the County Dispatch 911 center.

3. SITE ACCESS AND INFRASTRUCTURE

- **Secure Access:** All primary and secondary gates shall be equipped with a "Knox-Box" or similar high-security key box approved by the local Fire Chief. This box shall contain current site maps, gate keys/codes, and emergency shut-off instructions.
- **Responder Mapping:** Laminated, weather-proof site maps shall be posted at all entrances and inside the Knox-Box, identifying:
 - High-voltage disconnects and inverter locations.
 - Hazardous material storage and Battery Energy Storage System (BESS) chemistry types.
 - Emergency staging areas and water supply points (hydrants or tanks).

4. INCIDENT COMMAND AND OPERATIONAL STRATEGY

- **Unified Command:** In the event of an incident, a Unified Command structure shall be established between the responding Fire Department, the EMA Director, and the Operator's representative.

- **"Defensive-Only" Protocol:** For BESS facilities or large-scale transformer fires, the default strategy shall be defensive (perimeter protection and monitoring) unless an offensive attack is specifically authorized by the Incident Commander in consultation with the Operator's technical lead.
- **Thermal Runaway Response:** If battery modules enter thermal runaway, the strategy shall prioritize cooling adjacent units and preventing spread, rather than direct suppression of the failing unit, unless specialized agents are available.

5. FIRE SUPPRESSION AND WATER MANAGEMENT

- **On-Site Water Supply:** The facility shall maintain the minimum water flow rates (e.g., 600 GPM) as established in Section 9 of the Ordinance.
- **Containment and Runoff:** The Operator is responsible for managing all fire suppression runoff. If water or foam is used, the Operator must provide immediate secondary containment or vacuum services to prevent pollutants from entering local tile systems or regulated drains.

6. TRAINING AND EXERCISES

- **Annual Multi-Agency Drill:** The Operator shall host and fund one annual "live-site" training exercise for all primary and mutual aid agencies.
- **Specialized Training:** The Operator shall provide annual training modules for first responders regarding DC voltage safety, arc flash hazards, and chemical-specific fire behavior.

7. FINANCIAL REIMBURSEMENT AND THE EMERGENCY FUND

- **Extraordinary Expenses:** Beyond the standard annual contributions to the Emergency Response Fund, the Operator shall reimburse the County for all extraordinary costs incurred during a specific incident, including:
 - Replacement of contaminated fire hoses or PPE.
 - Procurement of specialized suppression foam or cooling agents.
 - Third-party environmental remediation or hazardous waste disposal.
- **Fund Utilization:** Per Section 9.4, all funds disbursed to responding agencies from the Emergency Response Fund must be utilized within twelve (12) months of receipt for equipment, training, or operational maintenance related to energy project safety.

8. POST-INCIDENT RECOVERY

- **After-Action Report (AAR):** Following any emergency deployment, a mandatory meeting between the EMA Director, Fire Chiefs, and the Operator shall occur within 14 days to identify improvements for the EMA.
- **Return to Service:** No facility or component involved in a fire or explosion shall be re-energized until a certified structural and electrical engineer provides a "Safety-to-Operate" report to the Building Commissioner and the EMA Director.

SIGNATURES AND APPROVAL

EMA Director _____

Fire Chief (Primary Responding Department)

Project Operator Authorized Representative