

PROPOSED NEW SOLAR ORDINANCE

Adds new Section 24-2 to Article IV Carroll County Zoning Ordinance

24-2 Commercial Solar Energy systems- applies to Districts A, I-1 and I-2

a. **Purpose.** It is the purpose of these performance standards to enable Carroll County to: regulate the permitting of commercial solar energy systems; be informed of the placement of commercial solar energy systems; preserve and protect public health and safety; allow for the orderly development of land; and protect property values in Carroll County.

b. **Definition.** Commercial solar energy systems (CSES) is defined as a system that has a nameplate capacity of at least ten (10) megawatts; and captures and converts solar energy into electricity for the purpose of selling the electricity at wholesale; and for use in locations other than where it is generated. This term includes solar panels, collection and feeder lines, generation tie lines, substations, ancillary buildings, solar monitoring stations, and accessory equipment and structures.

c. **Permitted Districts.** CSES are only allowed in Districts A (Agriculture), I-1 and I-2 (Industrial).

d. **Permitting Requirements.** Applications for CSES shall be filed on forms provided by the Zoning Administrator, and all applications must include a preliminary commercial site plan. Such plans and application shall then be reviewed by the Carroll County Board of Zoning Appeals at a special exception public hearing. If approved, an improvement location permit shall be issued and construction must begin within three (3) years of the BZA approval. (Drainage Board approval shall be required prior to application to the Area Plan Commission.)

e. **Additional Pre-Construction Requirements.** Once a special exception has been approved, the following shall also be required:

1. Solar system specifications, including typical manufacturer and model.
2. Array/module design and site plans.
3. Certification that layout, design, and installation 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 Underwriters 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 certifying organizations, the Federal Aviation Administration (FAA), the Indiana Building Code (IBC), and any other standards applicable to solar energy systems. The manufacturer specifications for the key components of the CSES shall be submitted with the application.

f. **Setbacks.** A project owner may not install or locate a CSES on property in a unit unless the distance, measured in a straight line, from the nearest outer edge of the CSES's solar panel to:

1. the nearest edge of the right-of-way for any:
 - (A) federal interstate highway, federal highway, state highway, or county highway is at least forty (40) feet;
 - (B) collector road is at least forty (40) feet; or
 - (C) local road is at least the forty (40) feet; or
2. the property line of any nonparticipating property is at least one hundred (100) feet;
3. the nearest point on the outer wall of a dwelling located on a nonparticipating property is at least eight hundred (800) feet, unless waived in writing by a nonparticipating adjacent property owner.

g. **Height.** A project owner may not install or locate a CSES on property in a unit unless the height of the CSES solar panels are not more than thirty-five (35) feet above ground level when the CSES arrays are at full tilt.

h. **Ground Cover Requirements.** If a project owner installs a CSES in a unit, the project owner shall plant, establish, and maintain for the life of the CSES, perennial vegetated ground cover on the ground around and under the solar panels, and in project site buffer areas. The use of pollinator seed mixes in the planning of ground cover is encouraged and the project owner is to prepare for a project site a vegetation plan that:

1. is compatible with each CSES on the project site;
2. provides for the planting of noninvasive species and the use of native or naturalized species if the planting and use of noninvasive species and native or naturalized species are:
 - (A) appropriate for the region;
 - (B) economically feasible; and
 - (C) agreed to by the landowner;

in order to reduce storm water runoff and erosion at the sight and to provide habitat for wildlife and insects; and

3. provides for site preparation and maintenance practices designed to control invasive species and noxious weeds.

i. **Fencing.** If a project owner installs a CSES in a unit, the project owner shall completely enclose the CSES with fencing that is at least six (6) feet high.

j. **Installation.** If a project owner installs a CSES in a unit, all cables of up to thirty-four and one-half (34.5) kilovolts that are located between inverter locations and project substations shall be located and maintained underground, as feasible. Other solar infrastructure such as module-to-module collection cables, transmission lines, substations, junction boxes, and other typical aboveground infrastructure may be located and maintained above ground. Buried cables shall be at a depth of at least thirty-six (36)

inches below grade or, if necessitated by onsite conditions, at a greater depth. Cables and lines located outside of the CSES project site may:

1. be located above the ground; or
2. in the case of cables or lines of up to thirty-four and one-half (34.5) kilovolts, be buried underground at:
 - (A) a depth of at least forty-eight (48) inches below grade, so as not to interfere with drainage tile or ditch repairs; or
 - (B) another depth, as necessitated by conditions;as determined in consultation with the landowner.

k. **Noise limits.** A project owner may not install or locate a CSES in a unit unless the project owner demonstrates to the permit authority that the CSES will operate in a manner such that the sound attributable to the CSES will not exceed an hourly average sound level of fifty (50) A-weighted decibels, as modeled at the outer wall of a dwelling located on an adjacent nonparticipating property. This requirement may be waived with respect to any one (1) CSES, subject to the written consent of each adjacent nonparticipating property.

l. **Other limits.**

1. A CSES system installed by a project owner must be designed and constructed to:
 - (A) minimize glare on adjacent properties and roadways; and
 - (B) not interfere with vehicular traffic, including air traffic.
2. A CSES system installed in a unit must be installed in a manner so as to minimize and mitigate impacts to:
 - (A) television signals;
 - (B) microwave signals;
 - (C) agricultural global positioning systems;
 - (D) military defense radar;
 - (E) radio reception; or
 - (F) weather and doppler radar.

m. **Repairs required due to construction.**

1. All damages to waterways, drainage ditches, field tiles, or other drainage related infrastructure caused by the construction, installation, or maintenance of a CSES must be completely repaired by the project owner or remedied with the installation of new drainage infrastructure so as to not impede the natural flow of water.
2. All damages to roads, culverts and bridges caused by the construction, installation, or maintenance of a CSES must be completely repaired by the project owner, to a degree at least equal to the condition of said roads, culverts and bridges immediately prior to the construction of the CSES.

n. **Additional notice requirements.**

1. The CSES operator shall identify all State highways and local roads to be used in the transport of equipment and parts for construction, operation, or

maintenance of the solar farm. It shall also prepare a timeline and phasing plan for construction and identify any known road closures. This information must be released to the local newspapers as notice to persons who may be affected. This information shall also be conveyed to local law enforcement, emergency services, public school corporations, the U.S. Postal Service, and the regional office of the Department of Transportation.

2. During construction, roads shall remain open at all times except for periods of time less than ten (10) minutes. Expected loss of capacity (i.e. temporary closures) greater than ten (10) minutes shall require notice to neighboring and affected property owners forty-eight (48) hours prior to the temporary closure, and either detour to be established or personnel to redirect traffic to alternate routes during the temporary closure. Any necessary temporary closures and proposed detours shall be made known to the Highway Department at least twenty-four (24) hours prior to the temporary closure or as otherwise agreed.

o. **As-Built Plans Requirement.** Upon completion of all development, the exact measurements of the location of utilities and structures erected during the development are necessary for public record and shall therefore be recorded. The applicant, owner, or operator shall submit a copy of the final construction plans (as-built plans), as amended, to the Area Plan Administrator with the exact measurements thereon shown. The Area Plan Administrator, after being satisfied that the measurements are substantially the same as indicated on the originally approved final plans, shall approve, date and sign said construction plans for the project, which the applicant, owner, or operator shall then record.

p. **Change in Ownership.** It is the responsibility of the owner or operator listed in the application to inform the Area Plan staff of all changes in ownership and operation during the life of the project, including the sale or transfer of ownership or operation.

q. **Decommissioning.**

1. Except as otherwise allowed by IC 36-7-4-1109, a project owner may not install or locate a wind power device in a unit unless the project owner submits to the permit authority a decommissioning and site restoration plan, and posts a surety bond, or equivalent means of security acceptable to the permit authority, 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 wind power device, as calculated by a third party licensed or registered engineer, or other person with suitable experience in the decommissioning of wind power devices, as agreed upon by the project owner and the permit authority. 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:

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

(B.) An amount equal to fifty percent (50%) of the total decommissioning costs not later than the fifth anniversary of the start date of the CSES' full commercial operation.

(C.) 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' 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 CSESs, as agreed upon by the project owner and the permit authority):

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

(ii) at least once every succeeding five (5) year period after the tenth anniversary of the start date of the CSES' full commercial operation;

and the total amount of the bond or security posted under this subdivision shall be adjusted as necessary after each reevaluation.

2. For purposes of this section, the estimated cost of decommissioning a CSES, as calculated by a licensed or registered engineer (or by another person with suitable experience in decommissioning of CSES, as agreed upon by the project owner and the permit authority), shall be net of any estimated salvage value attributable to the CSES at the time of decommissioning, unless the unit and the project owner agree to include any such value in the estimated costs.

3. A project owner shall provide to the permit authority written notice of the project owner's intent to decommission a CSES not later than sixty (60) days before the discontinuation of commercial operation by the CSES. Except as provided in subsection 5 of this section, after the discontinuation of commercial operation by the CSES, and as part of the decommissioning process:

(A) all structures, foundations, roads, gravel areas, and cables associated with the project shall be removed to a depth of at least thirty-six (36) inches below grade; and

(B) the ground shall be restored to a condition reasonable similar to its condition before the start of construction activities in connection with the CSES project.

4. Except as provided in subsection 5 of this section, if the project owner fails to remove all CSES system assets not later than one (1) year after the proposed date of final decommissioning, as set forth in the notice to the permit authority under subsection 3 of this section, the permit authority may engage qualified contractors to:

(A) enter the project site;

(B) remove the CSES system project assets;

(C) sell any assets removed; and

(D) remediate the site;

and may initiate proceedings to recover any costs incurred.

5. Project assets may remain in place after decommissioning is complete if:

- (A) the location and condition of the assets conform with local regulations at the time of decommissioning; and
- (B) the written consent of the landowner is obtained.

r. **Rights of County.** Carroll County officials may, from time to time, but not more often than once every twelve (12) months, upon ninety-six (96) hours' notice to a CSES Operator, request an audit of the energy production made by that CSES Operator at a given facility.

s. **Abandonment.**

1. If a CSES installed in a unit does not generate electricity for eighteen (18) consecutive months:
 - (A) the CSES is considered abandoned as of the date that is five hundred forty (540) days after the date on which the CSES last generated electricity; and
 - (B) all CSES project assets shall be removed in accordance with section q. (3) of this chapter not later than one (1) year after the date of abandonment specified in (A) above.
2. In the case of abandonment, as described in subsection 1. above, if the project owner fails to remove the CSES project assets not later than one (1) year after the date of abandonment as specified in (A) above, the permit authority may engage qualified contractors to:
 - (A) enter the project site;
 - (B) remove the CSES project assets;
 - (C) sell any assets removed; and
 - (D) remediate the site;and may initiate proceedings to recover any costs incurred.

t. **Force Majeure Event.**

1. As used in this section, "force majeure event" included the following:
 - (A) Fire, flood, tornado, or other natural disasters or acts of God.
 - (B) War, civil strife, a terrorist attack, or other similar acts of violence.
 - (C) Other unforeseen events or events over which a project owner has no control.
2. If a force majeure event results in a CSES system not generating electricity, the project owner shall:
 - (A) as soon as practicable after the occurrence of the force majeure event, provide notice to the permitting authority of the event and of the resulting cessation of generating operations; and
 - (B) demonstrate to the permit authority that the CSES will be substantially operational and generating electricity not later than twelve (12) months after the occurrence of the force majeure event.
3. If the CSES does not become substantially operational and resume generating electricity within the time set forth in subsection 2(B) above:
 - (A) the CSES is considered abandoned as of the date that is three hundred sixty-five (365) days after the date on which the CSES last generated

electricity, unless the project owner demonstrates to the permit authority that the project owner is using all commercially reasonable efforts to resume generation; and

(B) all CSES project assets shall be removed in accordance with section q(3) of this chapter not later than one (1) year after the date of abandonment specified in subdivision (A) above.

4. In the case of presumed abandonment, as described in subsection 3, above, if the project owner fails to remove the CSES project assets not later than one (1) year after the date of abandonment, as required by subsection 3(B) above, the permit authority may engage qualified contractors to:

(A) enter the property site;

(B) remove the CSES project assets;

(C) sell any assets removed; and

(D) remediate the site:

and may initiate proceedings to recover any costs incurred.