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Deborah S. Ottinger
Boone County Recorder IN
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ORDINANCE No. 202 5 - 18

AN ORDINANCE TO AMEND THE TEXT OF
THE BOONE COUNTY ZONING ORDINANCE REGARDING
THE ESTABLISHMENT OF AN ENERGY OVERLAY DISTRICT

WHEREAS, the County Commissioners for Boone County, Indiana recognizes the need for orderly growth and development within its planning jurisdiction, and

WHEREAS, the Boone County Area Plan Commission has an existing Zoning Ordinance that regulates development within its jurisdictional areas, and

WHEREAS, the current Zoning Ordinance does not have standards for regulating solar energy development, wind energy development, and battery energy storage systems, and

WHEREAS, the Boone County Commissioners adopted Ordinance 2024-06 establishing a moratorium on commercial solar, wind, and storage systems until April 15, 2026, or such time as standards are adopted to regulate such systems, and

WHEREAS, the Boone County Area Plan Commission has drafted and held a properly noticed public hearing for an Energy Overlay District Ordinance establishing standards for regulating commercial solar, wind, and storage systems, and

WHEREAS, by a vote of 3 in favor and 0 opposed, the Commissioners hereby approve the amendment to the Zoning Ordinance to establish the Energy Overlay District Ordinance.

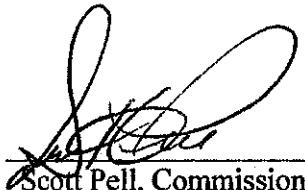
NOW, THEREFORE, BE IT ORDAINED as follows:

Section 1. The amendments are for the purpose of establishing an Energy Overlay District Ordinance in the attached Exhibit A.

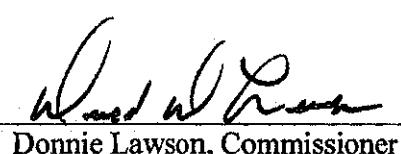
Section 2. This Ordinance is effective upon adoption.

ADOPTED this 19 day of December, 2025.

BOARD OF COMMISSIONERS OF BOONE COUNTY, INDIANA.



Scott Pell, Commissioner



Donnie Lawson, Commissioner



Tim Beyer, Commissioner

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JAN 22 2026


Debbie M. Morton-Crum
BOONE COUNTY AUDITOR

Certification of Recommendation

Boone County Area Plan Commission



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DATE: December 18, 2025

RE: AMENDMENT TO THE BOONE COUNTY ZONING ORDINANCE concerning the Energy Overlay District Ordinance (File 25ZO-16-253)

In accordance with IC 36-7-4-605(a)(2), the Boone County Area Plan Commission hereby certifies their recommendation to the Boone County Commissioners. At their public hearing on December 17, 2025, the Area Plan Commission gave a **FAVORABLE RECOMMENDATION** to change the text of the Boone County Zoning Ordinance as follows:

- Create an Energy Overlay District Ordinance to regulate solar development, wind development, and battery energy storage systems in the unincorporated areas of Boone County.

County Commissioner Action: Per IC 36-7-4-607(f), the legislative body shall vote and make the final decision on the proposed amendments within 90 days of the date of this notice (March 18, 2026).

- The legislative body can vote to adopt the amendment as presented; the proposal takes effect.
- The legislative body can vote to reject the amendment as presented; the proposal is defeated.
- If the legislative body amends a proposal to make the standards less restrictive, it shall be returned to the APC for its consideration, with a written statement of the reasons for the requested amendments.
- If the legislative body does not take action within 90 days, the amendment is automatically approved.

If you have any questions, please contact me at your earliest convenience.

Respectfully,

A handwritten signature in black ink, appearing to read "Deborah Luzier".

Deborah Luzier, AICP
Boone County Area Plan Commission
Interim Executive Director

COMMERCIAL ENERGY SYSTEMS

Add the following text to Chapter V. Overlay Districts of the Zoning Ordinance:

D. ENERGY OVERLAY DISTRICT

1. General

a. **Purpose and Intent.** To preserve the health, safety, and general welfare of Boone County residents and public, the intent of this article is to guide the development and operation of energy projects in Boone County, Indiana, through reasonable standards and restrictions on the development, construction, operation, rehabilitation, decommissioning and restoration of energy production and storage facilities. This ordinance is intended to:

- 1) Ensure that any energy production or storage facility in Boone County is safe.
- 2) Protect prime farmland and encourage the use of rooftops and non-productive land, including brownfields, for the siting of energy facilities.
- 3) Provide a regulatory scheme for the construction, operation, and decommissioning of energy facilities in Boone County to preserve the public health, safety, and general welfare.
- 4) Provide economic opportunities for Boone County and its residents.

b. Definitions

Battery Energy Storage System (BESS). One or more devices, assembled together, capable of storing energy to supply electrical energy at a future time, excluding a stand-alone 12-volt car battery or an electric motor vehicle. A BESS is classified as a Tier 1 (accessory) or Tier 2 (commercial) Battery Energy Storage System as follows:

- 1) *Tier 1 Battery Energy Storage Systems* have an aggregate energy capacity less than or equal to 600 kWh and, if in a room or enclosed area, consist of only a single energy storage system technology.
 - a) *Tier 1 BESS, Accessory*. An individual energy storage bank with a maximum stored energy of 20 kWh. The aggregate energy capacity of a BESS cannot exceed:
 - 40 kWh within utility closets, basements, and storage or utility spaces.
 - 80 kWh in attached or detached garages and detached accessory structures.
 - 80 kWh, where wall-mounted or ground-mounted outdoors.
- 2) *Tier 2 BESS, Commercial*. An individual energy storage bank with an aggregate energy capacity greater than 600 kWh or are comprised of more than one storage battery technology in a room or enclosed area.

Concentrated Solar Thermal Power (CST): Solar energy systems that use lenses or mirrors to focus a large area of sunlight into a small area. The concentrated energy is absorbed by a transfer fluid or gas and used as a heat source for either a conventional power plant or a power conversion unit. The most developed types are the solar trough, parabolic dish, and solar power tower.

Non-Participating Property. A parcel located within 1,320 feet of a proposed energy facility and the parcel owner does not consent to having an energy facility on the parcel nor enter into a lease or other agreement with the energy facility owner to use the parcel.

Participating Property. A parcel owned, leased, or otherwise controlled to be part of a proposed energy facility with the consent of the parcel owner.

Prime Farmland: Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management and acceptable farming methods, are applied.

Solar Easement: An easement recorded pursuant to IC 32-23-4, obtained for the purpose of ensuring exposure of a solar energy device or a passive solar energy system to the direct rays of the sun. Solar Easements are further described and regulated in Ordinance 16.8.B.e & Ordinance 16.11.G. Solar easements are to follow the State requirements of Recording (IC 32-23-2-5).

Solar Energy System (SES): The components and subsystems required to convert solar energy into electric or thermal energy suitable for use. The area of the system includes all the land inside the perimeter of the system, which extends to any fencing, buffer yard, and landscaping. The term includes solar photovoltaic (PV) systems, solar thermal systems, and solar hot water systems. For the purpose of this Ordinance, the following types of SES are established:

- 1) *Noncommercial (NC-SES)*. A SES that is accessory to the authorized use of the property and which is designed for the purpose of reducing or meeting on-site energy needs. Energy production limit: 1 MW or less.
- 2) *Commercial – small scale (CS-SES)* (includes commercial building solar). A SES that is accessory to the authorized use of the property, and the produced energy may be used both on-site and sold off-site. Energy production limit: 1 MW or less.
- 3) *Commercial – medium scale (CM-SES)*. A utility-scale SES commercial facility that produces electricity with the primary purpose of wholesale or retail sales of generated electricity. Energy production limit: up to 15 MW. Project site limit: up to 75 acres.
- 4) *Commercial – large scale (CL-SES)*. A utility-scale SES commercial facility that produces electricity with the primary purpose of wholesale or retail sales of generated electricity. Energy production: a CL-SES produces 15 MW or more. Project site size: from 75 acres to 400 acres.
- 5) *SES, Ground-Mounted*. A SES with a supporting framework that is placed on, or anchored in, the ground and that is independent of any building or other structure.
- 6) *SES, Roof-Mounted*. A SES that is structurally affixed to the roof of a principal or accessory structure.
- 7) *SES, Wall-Mounted*. A SES that is structurally affixed to or an integral part of a principal or accessory building (e.g., solar panel awnings, solar collectors built into the walls or skylights).

Solar Thermal System (aka Solar Hot Water or Solar Heating Systems): A solar energy system that directly heats water or other liquid using a series of tubes that concentrate sunlight to heat the liquid for purposes such as space heating and cooling, domestic hot water, and heating pool water.

Wind Energy System (WES): A conversion system designed to generate electricity from wind, consisting of a wind turbine, wind turbine tower or other mounting device, foundation, and other structural components.

- 1) *Wind Energy System (WES) – Non-Commercial (NC-WES):* A WES with a nameplate capacity of up to 100 kW per turbine that is primarily used to produce energy for on-site consumption, with the maximum energy output of 1 MW within the project site.
- 2) *Wind Energy System (WES) - Commercial (C-WES):* Means all necessary devices that together convert wind energy into electricity and deliver the electricity to a utility's transmission lines, if applicable, including but not limited to the rotor, nacelle, generator, WES tower, electrical components, WES foundation, transformer, and electrical cabling from the WES tower to the substations, switching stations, meteorological towers, communications facilities, and other required facilities and equipment, as related to the WES project.

2. SOLAR ENERGY SYSTEMS (SES)

- a. **Purpose and Intent.** The intent of this article is to protect the public health, safety, and general welfare of the community while accommodating alternative energy needs by establishing requirements and regulations for the placement, construction, modification, and removal of solar energy systems.
- b. **Applicability.**
 - 1) This article applies to Medium and Large Commercial SES (CM-SES, CL-SES) proposed to be constructed after the effective date of this Ordinance. When an abbreviation "SES" is used in this section, it refers to CM-SES and CL-SES types of SES only.
 - 2) CM-SES and CL-SES are regulated and permitted pursuant to this article and are not regulated or permitted as essential services, public utilities, or private utilities.
 - 3) Non-commercial (NC-SES) and small commercial (CL-SES) are permitted accessory structures per Section 4.Z.1 of this Ordinance. Requirements of this article do not apply to NC-SES and CL-SES.
- c. **Use Permissions**
 - 1) CM-SES and CL-SES are permitted through special exception approval within the Energy Overlay District.
 - 2) Concentrated Solar Thermal Power (CST) is prohibited within unincorporated areas of Boone County.
 - 3) special exception approval of a petition lasts up to 30 years. At the end of the approval period, a new special exception approval is required to continue the use.
 - 4) If ownership of the SES or property changes, the special exception approval remains in effect if the successor owner or operator assumes in writing all of the approval obligations of the special exception, Development Plan, ILP, building permit, and decommissioning plan. The new owner or operator must provide written notice of the ownership change to the Executive Director within 60 days of the change. The special exception and all other local approvals for the SES are void if a new owner or operator fails to provide written notification to the Executive Director in the required time frame. Reinstatement of a void special exception requires review and approval as a new application.

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d. Overlay Rezone Prerequisites

- 1) **Base Zoning.** Energy Overlay is permitted in the General Agricultural (AG), Light Industry (I1), and General Industry (I2) zoning districts, and prohibited in all other zoning districts, including a PUD district.
- 2) **Minimum Project Acreage:** 5 acres.
- 3) **Maximum Project Acreage:** 400 acres.

e. Design and Development Requirements for Medium and Large Commercial SES

1) Siting Requirements

- a) **Prime Farmland.** No more than 5% of a SES may be located on Prime Farmland as designated on the Soil Data Access (SDA) Prime and other Important Farmlands report for Boone County in the "Farm Class" column as "All areas are prime farmland" or "Farmland of statewide importance". A letter from the Boone County Soil and Water Conservation District or another qualified source stating that no more than 5% of the proposed project is on Prime Farmland must be included with the Development Plan and Improvement Location Permit applications. Boone County reserves the right to use its own Geographic Information System mapping to verify the stated percentage.
- b) **Easements and ROW.** Ground-mounted SES cannot be placed within any legal easement or right-of-way location, or be placed within any stormwater conveyance system, regulated or legal drain easement, or in any other manner that would alter or impede stormwater runoff from collecting in a constructed storm water conveyance system except by written permissions granted by the Boone County Drainage Board, property owner, easement holders, and the Highway Department for rights-of-way. This includes state, county, and/or privately owned waterways, ditches, drainage tiles, retention areas, and designated swales.
- c) **Flood.** No SES structure may be placed in the Special Flood Hazard Areas.
- d) **Substation.** SES must be within 2 miles of a substation with a minimum 33 kV grid connection and enough spare capacity to support energy being generated.
- e) **Non-Participating Property.** A SES project may not surround more than 2 sides of a non-participating property.
- f) **Aquifers.** No SES structure may be placed above the following unconsolidated aquifer systems:
 - i) Tipton Complex Aquifer System with less than 40 feet of surficial clay deposits.
 - ii) White River Outwash Aquifer System.
 - iii) Wabash River Aquifer System.

2) Setbacks & Separations

a) Setbacks

i) Participating Property:

- (1) The minimum distance between a SES structure and any adjoining property lot line, road right-of-way, or railroad right-of-way is 500 feet.
- (2) SES occupying multiple parcels may have internal property line setbacks waived by execution of a written document signed by all landowners sharing such a property line. All such documents must be recorded in the office of the Boone County Recorder within 45 days of the signing of each solar lease agreement, and said document must be cross-referenced to the current recorded deed. The solar developer may not submit a memorandum of lease containing multiple lease contracts to the Boone County Recorder. Signed

solar lease contracts not submitted to the Boone County Recorder's office within 45 days of signing are null and void in Boone County.

- ii) **Non-Participating Property.** The minimum distance between a SES structure and any property lot line of a non-participating property 1,000 feet.
- b) **Municipalities.** The minimum required separation from a corporate boundary is 2 miles.
- c) **Separation between SES projects.** No CM-SES/CL-SES project may be placed within 3 miles of another separate and unique CM-SES or CL-SES project measured from the property lines of the projects.
- 3) **Height:**
 - a) Ground-mounted SES cannot exceed a height of 15 feet.
 - b) Building-mounted SES cannot exceed the height limits of a base zoning district.
- 4) **Ingress/Egress and Perimeter Access**
 - a) A minimum 24-foot wide access easement containing a graveled or paved road at least 12 feet wide must be provided from a public street or legally established access drive into the site. The design is approved by the Executive Director after receiving written approval from the local Fire Department with primary jurisdiction. Approvals must meet all state and federal regulations.
 - b) A minimum 12-foot-wide access road must be provided around the perimeter of the SES between the solar arrays and the required fence to allow access for maintenance vehicles and emergency management vehicles, including fire apparatus and emergency vehicles. Part of this access may be a well-maintained grass lane. The local Fire Department must approve the design of the access way before the Executive Director or the Plan Commission may approve the project.
- 5) **Fence.** Razor wire and barbed wire fencing are prohibited.
- 6) **Foundations.** A qualified engineer must certify, before application for building permits, that the foundation and design of the solar panel racking and support are within accepted professional standards, given local soil and climate conditions.
- 7) **Screening and Buffering.** A screening buffer with a minimum 80% opacity year-round must be provided around the entire perimeter of the site to obscure the solar equipment from exterior view from rights-of-way and adjoining non-participating properties. The buffer may be comprised of a combination of landscaped berms, fencing, and landscaping, and must be of sufficient height to screen solar panels from view.
- 8) **Color, Finish, and Glare**
 - a) The property owner has the burden of mitigating any glare produced to prevent significant adverse impact on adjacent uses. Solar energy panels, regardless of how they are mounted, must be oriented and/or screened year-round so glare is directed away from adjacent properties and streets. Mitigation is accomplished by siting, panel orientation, landscaping, and/or other means.
 - b) SES must be designed using such features as colors, materials, textures, screening, and landscaping to blend into their settings. The SES must remain painted or finished in the color or finish that was originally applied by the manufacturer. The exterior surface of any visible components is non-reflective, a neutral color like white, gray, or another non-obtrusive color. Finishes are matte or non-reflective.
- 9) **Electrical Components**
 - a) All electrical components of the SES must conform to applicable local, state, and national codes and relevant national and international standards.

- b) All SES electrical collection cables between each SBS must be located underground.
- c) All transmission lines must be buried and have at least 10 feet of cover until they reach the property line or a substation adjacent to the property line.
- d) Inverters must be located toward the center of the site and encapsulated.
- e) Underground wiring must be encased in conduit.

10) **Signage**

- a) No portion of the SES may contain or be used to display advertising. The manufacturer's name and equipment information, or indication of ownership, is allowed on any equipment of the SES, if they comply with the other sign regulations in this Ordinance.
- b) A reasonably visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and substations.

11) **Utility Interconnection** The SES, if interconnected to a utility system, must meet the requirements for interconnection and operate as outlined in the electrical utility's then-current service regulations applicable to SES.

12) **Sewer and Water**

- a) Any facility must comply with the septic and well regulations of the Boone County Health Department and the State of Indiana Department of Health.
- b) **Well Water Testing** Water from wells within one mile of a facility must be tested by a Drinking Water Laboratory certified by the State of Indiana at the following intervals:
 - Prior to construction of the facility.
 - After construction is complete and prior to issuance of a Certificate of Occupancy for the facility.
 - Intermittently during the operation of the facility not to exceed 5 years between tests.
 - Within 30 days of the completion of all decommissioning work on the site.

The SES developer or operator is responsible for all expenses associated with these tests. Any pollution caused by the construction, operation, or decommissioning of SES must be repaired at the expense of the facility developer or operator within 30 days of discovering the issue. The facility developer or operator must provide commercial water tanks and potable water to affected properties until an investigation is complete and the damage caused by SES construction, operation, or decommissioning is mitigated.

13) **Drainage and Erosion Control**

- a) A detailed drainage plan compliant with the requirements of the Boone County Stormwater Ordinance and the Boone County Stormwater Technical Standards Manual must be submitted and approved. In addition to the typical drainage plan requirements, the plan must include the location of all private tiles and legal drains.
- b) If the project is required to comply with IDEM erosion control regulations, proper approvals must be submitted indicating that the plans have been approved. If the project does not require IDEM approval, an erosion control plan showing how any disturbance will be controlled on site, as required under the Boone County Stormwater Ordinance and the Boone County Stormwater Technical Standards Manual, must be submitted.

- c) If an existing closed legal drain is located where an SES is proposed, the legal drain must be relocated and reconstructed so solar panels and other SES appurtenances do not block access to the legal drain.
- d) All damages to waterways, drainage ditches, field tiles, or any other infrastructures caused by the construction or maintenance of the SES must be completely repaired to near original condition to not impede the natural flow of water. All repairs must be completed within a reasonable amount of time agreed upon by the Boone County Surveyor.

14) **Maintenance of Soil Health.** To ensure that the underlying soil on the properties comprising an SES will remain viable for productive agricultural operations following its decommissioning and that the ongoing SES operation and maintenance activities do not contaminate the soil and underlying aquifers throughout the lifetime of the project, the following standards must be complied with before, during, and after construction of an SES.

- a) Top soils must not be removed during development, except when necessary to remediate chemicals or hazardous substances from a prior use of the property.
- b) **Groundcover.** Apart from the required footers used to secure solar panels and paved or gravel driveways necessary to transport vehicles and equipment around the SES during regular maintenance work, all areas of soil that underly and surround clusters of solar arrays must be planted and maintained in vegetation to prevent erosion, manage stormwater runoff, and maintain overall soil health. The developer, project owner, or project operator may use one or more methods of providing vegetative groundcover as outlined below:
 - i) To the maximum extent feasible for site conditions, perennial vegetation ground cover is based on a diverse seed mix of native species consistent with guidance specific to the local area provided by the Boone County Soil and Water Conservation District office or the Indiana Native Plant Society. Seeds should include a mix of grasses and wildflowers, ideally native to Indiana, resulting in a short-stature prairie surrounding the solar array clusters.
 - ii) If co-location of agricultural uses is proposed, then the applicant/project owner/project operator must provide the plan for proposed activities and the extent of the co-located agricultural use on the property.
 - iii) SES that proposes to install, establish, and maintain pollinator-friendly vegetative cover must demonstrate the quality of their habitat by using guides such as Purdue University 2020 Indiana Solar Site Pollinator Habitat Planning Scorecard, or other third-party solar-pollinator scorecards designed for Midwestern ecosystems, soils, and habitat.
 - iv) The applicant must submit information on the chosen methods of plantings on site during the Development Plan review.
- c) **Insecticides**
 - i) No insecticide use is permitted on the site. This provision does not apply to the insecticide use in on-site buildings, in and around electrical boxes, spot control of noxious weeds, or as otherwise necessary to protect public health and safety.
 - ii) Plant material must not have been treated with systemic insecticides, particularly neonicotinoids.
- d) **Panel Cleaning.** During SES operations, all chemicals or solvents used to clean solar panels must minimize the use of volatile organic compounds, and the operator must

use recyclable or biodegradable products to the greatest extent possible. The Operations and Maintenance Plan must include information on the types of cleaning solutions to be used during SES operation.

e) **Soil Testing**

- i) **Baseline Test.** A baseline soil sample must be taken before the initial construction of the SES and used as a reference for future samples taken during its operation. A report detailing the results of the baseline sample must be provided to the Technical Advisory Commission before the approval of an ILP (or Development Plan). Soil samples must be tested for the presence of any of the eight (8) metals identified by the Resource Conservation and Recovery Act (RCRA), including arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. Also, soil samples must be tested for zinc and aluminum.
- ii) **Operational Test.** Once an SES has commenced operations, surface-level soil samples must be taken at regular intervals (no less than once every 3 years), to test for the presence of any of the 8 metals identified by the Resource Conservation and Recovery Act (RCRA), including arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. Also, soil samples must be tested for zinc and aluminum. The first operational test is conducted within three years of obtaining a Certificate of Occupancy. All consequent tests will be conducted within 3 years of the previous test. The final test is completed after decommissioning.
- iii) Samples are taken at a rate of one sample for every 100 acres of land, evenly distributed throughout the SES.
- iv) Soil sampling is conducted in accordance with SW-846 ('Test Methods for Evaluating Solid Waste: Physical/Chemical Methods Compendium'), from the U.S. Environmental Protection Agency (EPA).
- v) **Contamination.** If contamination from any of the 8 RCRA metals, aluminum, or zinc, is identified in any operational tests, and the amount exceeds the amounts found in the baseline test, the SES operator must notify the Plan Commission and Executive Director within 60 days of lab results via a certified mail letter. The operator must also provide an action plan to address the issue within 150 days of the lab results. This plan must specify the efforts that will be undertaken to remove the existing contamination and to prevent further contamination from occurring in the future.

15) **Wildlife and Environmental Impact Mitigation**

- a) SES development and operation have minimal impact on wildlife.
- b) SES design and operation must ensure that the connections between existing wildlife habitats remain unobstructed and open for wildlife movement through the project site.
- c) **Assessment Report.** The petitioner must provide a third-party professional analysis that identifies and assesses potential impacts on wildlife and the natural environment both at the project site and within one mile of it, and includes recommendations to incorporate into the project design. The scope of the study must include potential impacts on wooded areas, riparian buffers, wetlands, avian and wildlife (migratory bird patterns and bat population effects), other fragile ecosystems, historical/cultural sites, and antiquities.

- d) **Impact Mitigation Plan.** The petitioner must prepare and submit a plan for how the negative impacts found at the assessment stage, if any, will be mitigated and how habitat corridors will be preserved and/or created. If mitigation recommendations include measures that require certain physical development features like special revegetation or creation of natural habitat corridors, the applicant must provide a site plan and any supporting documents showing the location and design of those features. The level of detail in the analysis is determined during the pre-application meeting between the developer and the Executive Director, and is based on the level of potential impacts outlined in the Assessment Report.
- 16) **Property Value Guarantee.** Property Value Guarantee will be offered by the solar developer to all residents and landowners within 2 miles of a proposed SES project site. The Boone County Plan Commission will choose at least 2 reputable appraisers to conduct a fair market evaluation of the property values and establish the baseline property values at the solar developer's expense. If a property owner is unable to sell their property, and the property's appraised value decreases in comparison to the baseline due to the constructed SES project, the SES project owner/operator will pay that landowner the difference or buy the property at the baseline fair market value determined before the construction of the solar project.
- 17) **Solar Easements.** Solar easements may be provided as part of the SES development proposal. Said easements must be in writing and are subject to the conveyance and instrument recording requirements prescribed in IC 32-23-2-5 or subsequent amendment. Any such easements must be appurtenant, run with the land benefited and burdened, and be defined and limited by conditions stated in the instrument of conveyance. If necessary, an SES owner and/or operator must obtain any solar easements necessary to guarantee unobstructed solar access by separate civil agreements with adjacent property owners. Copies of such easements must be submitted as part of the application process with proof of recording in the Boone County Recorder's Office.

f. **Construction Requirements**

- 1) **Use of Roads.** The SES developer ensures that the construction traffic does not have negative impacts on the existing traffic patterns and that the roads used to access the SES project site remain in good condition after the construction is complete. To ensure safe traffic patterns and road conditions during and after construction, the applicant, owner, or operator is required to provide certain information, plans, and enter into a Road Agreement with the County as outlined in this subsection.
 - a) **Road Use Plan**
 - i) An applicant, owner, or operator proposing to use any county roads to transport parts or equipment for construction, operation, or maintenance of the SES or substations must identify the roads to be used prior to commencing construction. The proposed route must be approved by the Boone County Highway Director. The Highway Director will conduct a pre-construction survey to determine the existing road conditions which will be used as a baseline to assess potential future damage.
 - ii) The location of all SES access roads must be approved by the Boone County Highway Director and may not be located closer than 2,000 feet from any residence as measured from the center of the access road to the corner of the residence.
 - iii) Newly constructed SES access roads cannot impede the flow of water.

- b) **Road Agreement**
 - i) Any road damage caused by the construction of the SES project equipment, the SES installation, or its removal, must be repaired to the satisfaction of the Boone County Highway Director. The Director may choose to require either remediation of road repair upon completion of the project, or is authorized to collect fees for oversized load permits. Further, a surety bond in an amount to be fixed by a Professional Engineer may be required by the Director to ensure that future repairs are completed to the satisfaction of the County. The applicant pays for the surety.
 - ii) All repairs must be completed in the time agreed upon with the Boone County Highway Director.
 - iii) As repairs to SES are made throughout the project life, road repairs will be completed each time the company's equipment traverses Boone County roads if the Boone County Highway Director deems repairs to be necessary, at the solar project owner/operator's expense.
- 2) **Dust Control.** Reasonable dust control measures are required by the County during the construction of the SES.
- 3) **Noise.** During construction, the noise near a residence or public use must be kept to a minimum during the hours of 7 pm to 7 am.
- 4) **Construction Work Time.** Construction activities may happen only Monday through Friday between 8 am and 5 pm and may not happen at any time on Saturdays and Sundays.
- 5) **Soil.** Topsoil must remain on the site. Soil compaction and stabilizers are prohibited.

g. **Operations and Maintenance**

- 1) **Repair.** The SES owner and/or operator repairs, maintains, and replaces the SES and related solar equipment during the term of the permit in a manner consistent with industry standards as needed to keep the SES in good repair and operating condition.
- 2) **Operations and Maintenance Plan.** The applicant must submit a plan for the operation and maintenance of the SES that includes measures for maintaining safe access to the installation, stormwater controls, solar panels' cleaning procedures, control of noxious weeds and invasive species, and other typical procedures for operation and maintenance of the SES.
- 3) **Physical Modifications.** Any physical modification to any SES or a part thereof that materially alters the mechanical load, mechanical load path, or major electrical components requires recertification by all appropriate regulatory authorities. Like-kind replacements do not require recertification, unless required by a regulatory authority. Before making any material physical modification, other than a like-kind modification, the owner or operator of such SES confers with the Executive Director, County Surveyor, County Engineer, and any other appropriate regulatory authority as to whether the proposed physical modification requires re-certification of such SES.
- 4) **Inspections.** Inspections, at a fee to be determined from time to time by the Boone County Planning Commission and paid by the SES applicant, owner, or operator, may be made by the Boone County Planning Commission twice a year to certify the safety and maintenance of the SES and any accessory structures.
- 5) **Coordination with Local Fire Department**
 - a) If requested, the SES applicant, owner, or operator must submit a digital copy of the as-built site plan to all emergency services providers serving the SES.

- b) Upon request by the local fire department, the owner or operator must cooperate with the local fire department to develop the fire department's emergency response plan.
- c) Nothing in this section alleviates the need to comply with all other applicable fire laws and regulations.
- 6) **Materials Handling, Storage, and Disposal**
 - a) All solid waste related to the construction, operation, and maintenance of the SES must be removed from the site promptly and disposed of according to all federal, state, and local laws.
 - b) All hazardous materials or waste related to the construction, operation, and maintenance of the SES must be handled, stored, transported, and disposed of according to all applicable local, state, and federal laws.
- 7) **Annual Maintenance Log Submission.** An ongoing log of maintenance activities performed on all SES must be submitted to the Boone County Executive Director on an annual basis.
- 8) **Liability Insurance.** The owner or operator of the SES must maintain a current general liability policy covering bodily injury and property damage, naming Boone County as an additional insured, with limits of at least \$2,000,000 per occurrence and \$5,000,000 aggregate with a deductible of no more than \$5,000.
- 9) **Ownership Change.** A current or subsequent SES owner or operator must provide written notice to the County Commissioners and Executive Director of any ownership change in the SES. The written notice must be personally delivered or sent by certified mail to the County Commissioners and the Executive Director. The owner or operator is responsible for the cost of any required recording fees or other fees associated with the change in ownership.
- h. **Nuisance Prevention**
 - 1) **Noise.** SES may not produce noise that, when measured at any point along the property line surrounding the project site, exceeds forty-five decibels (45 dBA).
 - 2) **Illumination.** Project site lighting and light trespass to any non-participating property line must comply with the Lighting Standards of this Ordinance.
 - 3) **Glare.** SES may not create glare on any non-participating landowner's property.
 - 4) **Vibration.** SES or associated features may not produce vibrations humanly perceptible beyond the property on which it is located or cause vibrations that could be detected in nearby structures or damage underground wells during construction or upon operation.
 - 5) **Signal Interference.** Any solar arrays are constructed and operated so that they do not interfere with television, microwave, GPS for agricultural use, military defense radar, navigation, or radio reception to neighboring areas.
- i. **Decommissioning Plan and Surety.** A decommissioning plan approved by the Boone County Technical Advisory Committee providing for the method and payment of the anticipated cost of removing a SES at the end of its serviceable life or upon it becoming a discontinued or abandoned use to ensure that the SES is properly decommissioned. The Decommissioning Plan must include, but not be limited to:
 - 1) The physical removal of all solar energy systems, structures, and equipment from the site.
 - 2) Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.
 - 3) Stabilization or revegetation of the site as necessary to minimize erosion. The Boone County Area Plan Commission may permit the owner to leave landscaping or designated below-grade foundations to minimize erosion and disruption to vegetation.

- 4) Written statement detailing the timeline for decommissioning, not exceeding six (6) months after the date of documented discontinued operations. The owner must notify the Boone County Area Plan Commission upon the discontinuation of the operations.
- 5) Written assurance that the SES will be properly decommissioned upon the expiration of its serviceable life or in the event of its discontinuation or abandonment.
- 6) Cost estimates for all SES include an estimate of the costs of decommissioning and removing the SES upon the expiration of its useful life or in the event of its discontinuance or abandonment. The cost estimates are made by a professional engineer, contractor, or other person with expertise or experience in decommissioning and removal of SES and must be updated every five (5) years for approval by the Boone County Area Plan Commission.
- 7) **Surety:** Financial assurance that the cost of removal and site restoration is the full responsibility of the applicant, owner, or operator. To provide the greatest possible financial assurance that there will be sufficient funds to remove the SES and to restore the site, the following steps must be followed:
 - a) For each SES, the applicant, owner, or operator must determine an amount of money equal to the estimated removal and restoration cost.
 - b) The Planning Commission may require independent verification of the adequacy of this amount. The estimated cost of decommissioning is determined by a third-party expert hired by the County at the expense of the owner/operator of the SES.
 - c) This money must be secured in the form of a surety, such as a surety bond, letter of credit, or other financial promise, and is determined by the Boone County Area Plan Commission. The surety must meet the following standards:
 - i) *Favor:* Run to and be in favor of the County Commissioners.
 - ii) *Amount:* Be at least 150% of the estimated cost of decommissioning.
 - iii) *Duration:* Run for the lifetime of the SES.
 - iv) *Transferable:* Be transferable to a new owner/operator and/or County Commissioners, where applicable.
 - v) *Right of Entry:* Permit the Plan Commission, County Commissioners, and County-authorized appointees the right to enter the SES property.
 - vi) *Recuperation:* Permit the Plan Commission, County Commissioners, or their designated representatives the right to recuperate funds from the County Commissioner-approved surety equal to the amount incurred by the County in the decommissioning of the commercial solar energy system.
 - vii) *Release:* The surety will be released by the County Commissioners upon receipt of approval from the Building Inspector, County Surveyor, County Highway Department, Executive Director, and any other department necessary, indicating that decommissioning is complete.
 - viii) *Provider:* The provider of the surety must be (1) if a surety, a company listed in the latest version of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reimbursing Companies" or (2) if a letter, a bank with an "A3" or higher rating from Moody's Investor Service, Inc., or a comparable rating from Standard & Poors.
 - d) If the developer defaults on the proper decommissioning, the County or its agent retains the right, after an appropriate court order, to enter the property and remove

any abandoned, hazardous, or decommissioned solar energy system with funds from the surety on file.

j. Discontinuation and Abandonment

- 1) **Discontinuation.** Any SES that has reached the end of its useful life or has been abandoned must be removed by the owner. The owner must physically remove the installation no more than 12 months after the date of documented discontinued operations. The owner must notify the Boone County Area Plan Commission upon the discontinuation of the operations. Decommissioning consists of:
 - a) Physical removal of all solar energy systems, structures, and equipment from the site.
 - b) Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.
 - c) Stabilization or revegetation of the site as necessary to minimize erosion. The Boone County Area Plan Commission may permit the owner to leave landscaping or designated below-grade foundations to minimize erosion and disruption to vegetation.
- 2) **Abandonment.** A commercial SES is considered abandoned 6 months after the date it last generated electricity, and there has been no preparation or action toward decommissioning the system.
- 3) **Unsafe.** Any SES or component found to be unsafe or not in compliance with the special exception conditions violates this ordinance or the special exception approval.
- 4) The owner of any SES that is abandoned or in violation of the special exception approval must remove the SES within 6 months of receipt of notice from the Area Plan Commission of such abandonment or violation.
- 5) The owner must restore the site to its pre-development condition (excluding replanting of original vegetation and trees), subject to reasonable wear and tear, and stabilize soils through vegetative ground cover. All concrete and rebar must be removed from the soil.
- 6) Failure to remove an abandoned SES within the 6 months period provided in this subsection is grounds for the Boone County Area Plan Commission to pursue the violation as prescribed under *Chapter X. Administration and Enforcement* of this Zoning Ordinance.
- 7) Abandonment Verification under penalties for perjury, that all easements and/or leases for the SES contain terms that provide financial assurances to the property owners to ensure that the SES are properly decommissioned within one year of the expiration of its serviceable life or in the event of its discontinuance or abandonment.
- 8) In the event of abandonment of a commercial SES, Boone County has the authority to use the surety and right of entry to perform the decommissioning of the SES. The owner/operator is responsible for all attorney costs and associated fees in the enforcement of the terms of this ordinance.

k. Nuisance

- 1) **Declaration of Public Nuisance.** Any SES declared unsafe by the County Commissioners by being in breach of, or out of compliance with, its SES permit may seek to be rehabilitated and declared safe by appropriate repairs and other essential steps necessary to eliminate the breach to comply with such SES permit. An SES may be declared a public nuisance by the County Commissioners due to inadequate maintenance, dilapidation, obsolescence, fire hazard, damage, abandonment, or determined unsafe as provided by this Zoning Ordinance. The SES owner or operator must submit a Rehabilitation Plan to the County Commissioners within 60 days. This plan must provide

procedures to rehabilitate the SES within 12 months. In the event of force majeure (including unavailability of components or parts, strikes, and moratoriums), the time period is extended an additional 6 months or a reasonable extension agreed to by the County Commissioners. In the absence of an approved Rehabilitation Plan, meeting the agreed-upon schedule, or failure to execute the required repairs, the SES will be demolished and removed in accordance with the Decommissioning Plan in a time determined reasonable by the County Commissioners.

- 2) **Public Nuisance Waiver.** In the instance that an unavoidable Act of God inhibits, damages, or destroys part of, or the majority of, the SES, the 12 month public nuisance removal timeline may be waived if the SES owner or operator provides a Rehabilitation Plan to remedy the damage and the plan is submitted to, and approved by, the County Commissioners. The plan must outline the protocol and schedule for returning the SES to energy production and be submitted to the Executive Director within 60 days of the date the damage was incurred, or a time determined reasonable by the County Commissioners.
- 3) **Adverse Effects.** The SES owner or operator must minimize and mitigate adverse effects created by the development of a SES.
 - a) If the parties do not reach an agreement to remedy a known adverse effect within 180 days from the date of the written complaint, or if they reach an agreement but the SES owner or operator fails to fully implement the remedy within 30 days of that agreement, the complainant may file a complaint with the Executive Director—unless all parties agree in writing to a time extension. Upon receiving the complaint, the Executive Director will investigate and determine whether it has merit. If the complaint is meritorious, the Executive Director will refer it to the BZA to determine what remedies to pursue, which may include fines and/or injunctive relief (temporary or permanent) that could result in an order prohibiting the offending SES from operating.
 - b) To make a valid complaint, specific evidence must be presented to the Executive Director. This complaint cannot exceed the standards specified in the Design and Development, Operation and Maintenance, and Nuisance Prevention Standards of this ordinance. The Executive Director will make this evidence part of the investigation of the complaint.

3. COMMERCIAL WIND ENERGY SYSTEMS (WES)

- a. **Purpose and Intent.** The intent of this section is to protect the public health, safety, and general welfare of the community while accommodating alternative energy needs by establishing requirements and regulations for the placement, construction, modification, and removal of wind energy systems.
- b. **Applicability.** This article applies to Commercial Wind Energy Systems (WES) proposed to be constructed after the effective date of this Ordinance. These systems are not regulated or permitted as essential services, public utilities, or private utilities.
- c. **Use Permissions**
 - 1) Commercial WES is prohibited within unincorporated Boone County.
 - 2) Non-commercial WES is a permitted accessory use as prescribed and regulated under Section 4.Z.2 (*Section 4. Property Development Standards*) of this Zoning Ordinance.

4. BATTERY ENERGY STORAGE SYSTEMS (BESS)

- a. **Purpose and Intent.** The intent of this section is to protect the public health, safety, and general welfare of the community while accommodating alternative energy needs by establishing requirements and regulations for the placement, construction, modification, and removal of the utility-grade battery energy storage systems (BESS), with the following goals:
 - 1) To designate properties suitable for the location, construction, and operation of BESS.
 - 2) To ensure compatible land uses in the vicinity of the areas affected by BESS.
 - 3) To create synergy between battery energy storage system development and other stated goals of the community according to the County's Comprehensive Plan.
- b. **Applicability**
 - 1) This section applies to utility-grade applications of Tier 2 BESS proposed to be constructed after the effective date of this Ordinance.
 - 2) Tier 2 BESS is regulated and permitted pursuant to this Section of the Zoning Ordinance and is not regulated or permitted as essential services, public utilities, or private utilities.
 - 3) Tier 1 BESS is a permitted accessory use as prescribed and regulated under Section 4.Z.3 (*Section 4. Property Development Standards*) of this Ordinance. Requirements of this Section 5.D (*Section 5. Overlay Districts*) do not apply to Tier 1 BESS.
 - 4) Modifications to, retrofits, or replacements of an existing BESS that increase the total designed discharge duration or power rating are subject to this Ordinance.
- c. **Use Permissions**
 - 1) BESS is permitted through special exception approval.
 - 2) Special exception approval of a petition lasts up to 30 years. At the end of the approval period, a new special exception is required to continue the use.
 - 3) If the owner of the BESS changes or the owner of the property changes, the special exception approval remains in effect, provided that the successor owner or operator assumes in writing all the obligations of the special exception, Development Plan, ILP, building permit approvals, and Decommissioning Plan. A new owner or operator of the BESS must notify the Executive Director in writing of such a change in ownership or operator within 60 days of the ownership change. The special exception and all other local approvals for the BESS are considered void if a new owner or operator fails to provide written notification to the Executive Director within the required time.

Reinstatement of a void special exception will be subject to the same review and approval processes for new applications under this Zoning Ordinance.
- d. **Overlay Rezone Prerequisites**

The Energy Overlay is permitted in the General Agricultural (AG), Light Industry (I1), and General Industry (I2) zoning districts, and is prohibited in all other zoning districts, including a PUD district.
- e. **Design and Development Requirements**
 - 1) BESS must comply with all applicable national and state safety, fire, building, and electric codes, including the latest edition of NFPA 855 (Standard for the Installation of Stationary Energy Storage Systems) and NFPA 70.
 - 2) **Siting Requirements**
 - a) **Easements and ROW.** BESS may not be placed within any legal easement, right-of-way location, any stormwater conveyance system, regulated drain easement, or in any other manner that would alter or impede stormwater runoff from collecting in a constructed stormwater conveyance system except by written permissions granted by

the Boone County Drainage Board, and the owner of the land and/or right-of-way and/or easement. This includes state, county, and/or privately owned waterways, ditches, drainage tiles, retention areas, and designated swales.

- b) **Flood.** BESS may not be placed in the Special Flood Hazard Areas.
- c) **Non-Participating Property.** A BESS project cannot surround more than 2 sides of a non-participating property.
- d) **Aquifers.** BESS cannot be placed above the following unconsolidated aquifer systems:
 - i) Tipton Complex Aquifer System with less than 40 feet of surficial clay deposits.
 - ii) White River Outwash Aquifer System.
 - iii) Wabash River Aquifer System.
- 3) **Setbacks**
 - a) BESS follows the same minimum setback requirements as principal structures in the base zoning district.
 - b) Any part of BESS must be located at least 1,000 feet from a property line abutting a residential use or a residential zoning district.
- 4) **Signage**
 - a) Signage must comply with ANSI Z535 and include the type of technology associated with the BESS, any special hazards associated, the type of suppression system installed in the vicinity of BESS, and 24-hour emergency contact information.
 - b) Disconnect and other emergency shut-off information must be clearly displayed on a light-reflective surface. A clearly visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and substations.
- 5) **Lighting.** Lighting of the BESS is limited to that minimally required for safety and operational purposes, is reasonably shielded and downcast from abutting properties, and must comply with the standards in the Lighting Standards section of this Zoning Ordinance.
- 6) **Height.** The maximum permitted height for BESS located outside is 12 feet.
- 7) **Screening.** When BESS is located outside, it must comply with the following screening standards:
 - a) **Fence/wall.** Any BESS, including all mechanical equipment, must be screened by an opaque fence or wall around the entire perimeter and have a self-locking gate to prevent unauthorized access. The fence/wall must be at least 7 feet tall.
 - b) **Landscaping.** No woody plants may be installed within 10 feet of BESS to avoid combustion hazard.
- 8) **Vegetation Clearing.** Areas within 10 feet of BESS must be cleared of combustible vegetation. BESS must be placed at least 10 feet away from the tree trunks to minimize tree removal.
- 9) **Noise.** The 1-hour average noise generated from the BESS, components, and associated accessory equipment may not exceed a noise level of 45 dBA as measured at the subject site's property lines.
- f. **Operations and Maintenance**
 - 1) **Repair.** The BESS owner and/or operator must repair, maintain, and replace the BESS and related equipment consistent with industry standards as needed to keep the BESS in good repair and operating condition.
 - 2) **Operations and Maintenance Plan.** The applicant must submit a plan for the operation and maintenance of the BESS including measures for maintaining safe access to the

installation, stormwater controls, and other general procedures for operation and maintenance of the installation.

- 3) **Physical Modifications.** Any physical modification to all or part of a BESS that materially alters the mechanical load, mechanical load path, or major electrical components requires recertification by all appropriate regulatory authorities. Like-kind replacements do not require recertification, unless required by a regulatory authority. Before making any material physical modification, other than a like-kind modification, the owner or operator of such BESS confers with the Executive Director, County Surveyor, County Engineer, and any other appropriate regulatory authority as to whether the proposed physical modification requires re-certification of such BESS.
- 4) **Inspections.** Inspections, at a fee to be determined from time to time by the Boone County Planning Commission and paid by the applicant, may be made by the Boone County Planning Commission no more than twice a year to certify the safety and maintenance of the BESS and any accessory structures.
- 5) **Coordination with Local Fire Department**
 - a) If requested, the BESS applicant, owner, or operator must submit a digital copy of the as-built site plan to all providers of emergency services serving the BESS.
 - b) Upon request by the local fire department, the owner or operator cooperates with the local fire department to develop the fire department's emergency response plan.
 - c) Nothing in this section alleviates the need to comply with all other applicable fire laws and regulations.
- 6) **Materials Handling, Storage, and Disposal**
 - a) All solid waste related to the construction, operation, and maintenance of the BESS must be removed from the site promptly and disposed of in accordance with all federal, state, and local laws.
 - b) All hazardous materials or waste related to the construction, operation, and maintenance of the BESS must be handled, stored, transported, and disposed of in accordance with all applicable local, state, and federal laws.
- 7) **Annual Maintenance Log Submission.** An ongoing log of maintenance activities performed on all BESS must be submitted to the Boone County Executive Director on an annual basis.
- 8) **Liability Insurance.** The owner or operator of the BESS must maintain a current general liability policy covering bodily injury and property damage, and naming Boone County as an additional insured, with limits of at least \$2,000,000 per occurrence and \$5,000,000 aggregate with a deductible of no more than \$5,000.
- 9) **Ownership Change.** A current or subsequent SES owner or operator must provide written notice to the County Commissioners and Executive Director of any ownership change in the BESS. The written notice must be personally delivered or sent by certified mail to the County Commissioners and the Executive Director. The owner or operator is responsible for the cost of any required recording fees or other fees associated with the change in ownership.

g. **Decommissioning Plan and Surety**

- 1) **Decommissioning Plan.** The applicant must submit a decommissioning plan developed according to this Ordinance, containing a narrative description of the activities to be accomplished for removing the battery energy storage system from service and from the facility in which it is located. The decommissioning plan must include:

- a) A narrative description of the activities to be accomplished, including who will perform that activity and at what point in time, for complete physical removal of all BESS components, structures, equipment, security barriers, and transmission lines from the site.
- b) Disposal of all solid and hazardous waste according to local, state, and federal waste disposal regulations.
- c) The anticipated life of the BESS.
- d) The estimated decommissioning costs and how the estimate was determined.
- e) The method of ensuring that funds will be available for decommissioning and restoration.
- f) The method by which the decommissioning cost will be kept current.
- g) The manner in which the site will be restored, including a description of how any changes to the surrounding areas and other systems adjacent to the BESS, such as, but not limited to, structural elements, building penetrations, means of egress, and required fire detection suppression systems, will be protected during decommissioning and confirmed as being acceptable after the system is removed; and
- h) A listing of any contingencies for removing an intact operational energy storage system from service, and for removing an energy storage system from service that has been damaged by a fire or other event.

2) **Decommissioning Fund.** The applicant, or successors, must continuously maintain a fund, bond, or security payable to the County, in a form approved by the County, for the removal of the BESS, in an amount to be determined by the County, for the period of the life of the facility. The applicant, owner, or operator bears the financial security cost.

3) **Surety.** The applicant must provide assurance that the cost of removal and site restoration is the full responsibility of the applicant, owner, or operator. To provide the greatest possible financial assurance that there will be sufficient funds to remove the BESS and to restore the site, the following steps are followed:

- a) For each BESS, the applicant, owner, or operator determines an amount of money equal to the estimated removal and restoration cost.
- b) The Planning Commission requires independent verification of the adequacy of this amount. The estimated cost of decommissioning must be determined by a third-party expert hired by the County at the expense of the owner/operator of the BESS.
- c) This money is secured in the form of a surety, such as a surety bond, letter of credit, or other financial promise, and is determined by the Boone County Area Plan Commission. The surety must meet the following standards:
 - i) *Favor:* Run to and be in favor of the County Commissioners.
 - ii) *Amount:* Be at least 150% of the estimated cost of decommissioning.
 - iii) *Duration:* Run for the lifetime of the BESS.
 - iv) *Transferable:* Be transferable to a new owner/operator and/or County Commissioners, where applicable.
 - v) *Right of Entry:* Permit the Plan Commission, County Commissioners, and County-authorized appointees the right to enter the BESS property.
 - vi) *Recuperation:* Permit the Plan Commission, County Commissioners, or their designated representatives the right to recuperate funds from the County Commissioner-approved surety equal to the amount incurred by the County in the decommissioning of the commercial solar energy system.

- vii) *Release*: The surety is released by the County Commissioners upon receipt of approval from the Building Inspector, County Surveyor, County Highway Department, and Executive Director, and any other department necessary, indicating that decommissioning is complete.
- viii) *Provider*: The provider of the surety must be (1) if a surety, a company listed in the latest version of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reimbursing Companies" or (2) if a letter, a bank with an "A3" or higher rating from Moody's Investor Service, Inc., or a comparable rating from Standard & Poors.
- d) If the developer defaults on the proper decommissioning, the County or its agent retains the right, after an appropriate court order, to enter the property and remove any abandoned, hazardous, or decommissioned BESS with funds from the surety on file.

h. Discontinuation and Abandonment

- 1) **Discontinuation**. Any BESS that has reached the end of its useful life or has been abandoned must be removed by the owner. The owner must physically remove the installation no more than 12 months after the date of documented discontinued operations. The owner must notify the Boone County Area Plan Commission upon the discontinuation of the operations. Decommissioning consists of:
 - a) Physical removal of all BESS, structures, and equipment from the site.
 - b) Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.
 - c) Stabilization or revegetation of the site as necessary to minimize erosion. The Boone County Area Plan Commission may permit the owner to leave landscaping or designated below-grade foundations to minimize erosion and disruption to vegetation.
- 2) **Abandonment**. A commercial BESS is considered abandoned 6 months after the date it last stored electricity, and there has been no preparation or action toward decommissioning the system.
- 3) **Unsafe**. Any BESS or component found to be unsafe or not in compliance with the special exception conditions violates this Zoning Ordinance or the special exception approval.
- 4) The owner of any BESS that is abandoned or in violation of the special exception approval must remove the BESS within 6 months of receipt of notice from the Area Plan Commission of the abandonment or violation.
- 5) The owner must restore the site to its pre-development condition (excluding replanting of original vegetation and trees), subject to reasonable wear and tear, and stabilize soils by using vegetative ground cover. All concrete and rebar must be removed from the soil.
- 6) Failure to remove an abandoned BESS within the 6 months period provided in this subsection is grounds for the Boone County Area Plan Commission to pursue the violation as prescribed under *Chapter X. Administration and Enforcement* of this ordinance.
- 7) Abandonment Verification under penalties for perjury, that all easements and/or leases for the BESS contain terms that provide financial assurances to the property owners to ensure that the BESS are properly decommissioned within one year of the expiration of its serviceable life or in the event of its discontinuance or abandonment.

8) In the event of abandonment of a commercial BESS, Boone County has the authority to use the surety and right of entry to perform the decommissioning of the BESS. The owner/operator is responsible for all attorney costs and associated fees in the enforcement of the terms of this Zoning Ordinance.

i. **Nuisance**

- 1) **Declaration of Public Nuisance.** Any BESS declared unsafe by the County Commissioners by being in breach of, or out of compliance with, its BESS permit may seek to be rehabilitated and declared safe by appropriate repairs and other essential steps necessary to eliminate the breaches to comply with such BESS permit. A BESS may be declared a public nuisance by the County Commissioners due to inadequate maintenance, dilapidation, obsolescence, fire hazard, damage, abandonment, or determined unsafe according to this Zoning Ordinance. The BESS owner or operator must submit a Rehabilitation Plan to the County Commissioners within 60 days. This plan must provide procedures to rehabilitate the BESS within 12 months. In the event of force majeure (including unavailability of components or parts, strikes, and moratoriums) the time period is extended up to 6 months or a reasonable extension agreed to by the County Commissioners. In the absence of an approved Rehabilitation Plan, meeting the agreed-upon schedule, or failure to execute the required repairs, the BESS will be demolished and removed in accordance with the Decommissioning Plan in a time determined reasonable by the County Commissioners.
- 2) **Public Nuisance Waiver.** In the instance that an unavoidable Act of God inhibits, damages, or destroys part of, or the majority of, the BESS, the 12 month public nuisance removal timeline may be waived if the BESS owner or operator provides a Rehabilitation Plan to remedy the damage and the plan is submitted to, and approved by, the County Commissioners. The plan must outline the protocol and schedule for returning the BESS to operation and must be submitted to the County within 60 days of the date the damage was incurred, or a time determined reasonable by the County Commissioners.
- 3) **Adverse Effects.** The BESS owner or operator must minimize and/or mitigate adverse effects created by the development of a BESS.
 - a) If the parties do not reach an agreement to remedy a known adverse effect within 180 days from the date of the written complaint, or if they reach an agreement but the BESS owner or operator fails to fully implement the remedy within 30 days of that agreement, the complainant may file a complaint with the Executive Director—unless all parties agree in writing to a time extension. Upon receiving the complaint, the Executive Director will investigate and determine whether it has merit. If the complaint is meritorious, the Executive Director will refer it to the BZA to determine what remedies to pursue, which may include fines and/or injunctive relief (temporary or permanent) that could result in an order prohibiting the offending BESS from operating.
 - b) To make a valid complaint, specific evidence must be presented to the Executive Director. This complaint cannot exceed the standards specified in the Design and Development, Operation and Maintenance, and Nuisance Prevention Standards of this ordinance. The Executive Director will make this evidence part of the investigation of the complaint.

5. APPLICATION REQUIREMENTS

Before the construction of a commercial energy system regulated by this article, the applicant must obtain approvals for:

- Change of Zoning application to apply the Energy Overlay District to the property,
- Special exception application,
- Development Plan application,
- Improvement Location Permit, and
- Any other permits required from federal, state, and county departments.

a. **Pre-Application Notification.** Before meeting with landowners in Boone County to secure leases and holding private meetings with residents, the applicant must notify every household and landowner within 5 miles of a planned project of their development intentions via certified letter. The applicant must also contact the Boone County Executive Director and inform the Boone County Planning Commission of their intent to develop an energy system in Boone County at least 90 days before notice is sent to residents and landowners and before meeting with landowners to secure lease contracts in Boone County.

b. **Rezoning.** The applicant may initiate a proposal to change the zoning map to establish the Energy Overlay District according to the requirements in *Chapter X. Administration and Enforcement* and this Section. If several property owners are participating in one project, these owners may be listed as co-applicants. The applicant provides the following items:

- 1) A general description of the project:
 - a) SES: SES total generating capacity, the type of SES, the number of SES panels, a total nameplate showing generating capacity of each SES panel, the maximum height of the SES, the minimum spacing of the SES panels, and the specific location of the project.
 - b) BESS: BESS total storage capacity, the type, number, and approximate nameplate storage capacity (in MW and MWh) of every BESS, maximum height of BESS, and the specific location of the project.
- 2) A description of substations, maintenance structures, storage yards, permanent meteorological towers and equipment, and other buildings that are a direct functional part of the project. These structures, within the proposed overlay district, are considered accessory uses.
- 3) A topographic map with contours at no greater than 5-foot intervals illustrating the project site and the area within at least a quarter-mile of the site property lines.
- 4) A map showing boundaries of incorporated communities within 2.1 miles of the site property lines.
- 5) A map showing the location of other commercial energy projects located within 3.1 miles of the site property lines.
- 6) The names, addresses, and phone numbers of the applicants/owners/operators, and all co-applicants.
- 7) A description of the applicant/owner/operator, including their respective business structures.

c. **Special Exception.** No commercial energy system may be constructed in Boone County unless a special exception approval is obtained for the facility per *Chapter X. Administration and Enforcement* and this Section. The special exception may not be approved until the rezone is approved by the County Commissioners. In addition to the special exception application requirements, the applicant must provide the following items:

- 1) A project summary, including, to the extent available:
 - a) **SES:** Every array's point location; SES name plate generating capacity, the make and model of the SES that will be installed; the maximum height of the SES arrays measured from the base to the tip of the panel when at max height position.
 - b) **BESS:** Location of every BESS, BESS's nameplate storage capacity, height, make, and model.
- 2) A topographic map of the project site and the surrounding area that encompasses an area at least a quarter-mile radius from the proposed district with contours of five-foot intervals.
- 3) A site plan on a 24" x 36" sheet at a scale of 1"=20' (unless otherwise approved by the Executive Director) showing:
 - a) The proposed location of the Energy System, including planned locations of each solar array, BESS, access roads, substations, electrical cabling, and ancillary equipment.
 - b) Primary structures within one mile of any Energy System.
 - c) Property lines, including identification of adjoining properties.
 - d) Setback lines.
 - e) Public roads.
 - f) Recognized historic or heritage sites as noted by the Division of Historic Preservation and Archeology of the Indiana Department of Natural Resources.
 - g) Delineated special flood hazard areas and any wetlands.
 - h) Location of all existing underground utility lines within and near the project site.
- 4) Wildlife and Environmental Impact Assessment Report
- 5) The names, addresses, and phone numbers of the applicants/owners/operators, and all co-applicants.
- 6) A description of the applicant/owner/operator, including their respective business structures.
- d. **Development Plan.** No commercial energy system, or addition to an existing commercial energy system, may be constructed in Boone County unless development plan approval of the facility under *Chapter VII. Review and Approval of Development Plans*, and this Section, has been obtained. The development plan may not be approved until the special exception is approved by the BZA.
 - 1) Any new commercial energy system, physical modification to an existing and permitted commercial energy system that materially alters the size, type, and number of solar panels, number of BESS, and their individual and cumulative storage capacity, or other equipment by more than 20%, or any change to required screening, requires a development plan approval under *Chapter VII. Review and Approval of Development Plans* and this Section. Like-kind replacements do not require approval.
 - 2) In addition to the application requirements of *Chapter VII. Review and Approval of Development Plans*, the development plan application includes the following:
 - a) Site plan showing the following:
 - i) Identification of adjoining properties.
 - ii) Setback lines.
 - iii) Public roads.
 - iv) County-regulated drains.
 - v) Open ditches.
 - vi) All water bodies and streams.

- vi) Location of all above-ground utility lines on the project site and within a quarter mile of the project boundary.
- vii) Location of all existing underground utility lines associated with the project site.
- ix) Recognized historic or heritage sites as noted by the Indiana Department of Natural Resources.
- x) Delineated special flood hazard areas and any wetlands.
- xi) Fencing and landscaping.
- xii) For SES, the location of every solar panel, access roads, and turn-around locations, substations, electrical cabling from the SES to the substations, ancillary equipment, associated transmission lines, and any solar easements.
- xiii) For BESS, the location of every BESS, access roads, and turn-around locations, substations, electrical cabling from the BESS to the substations, ancillary equipment, and associated transmission lines.
- b) Copies of all secured leases of participating properties.
- c) A transportation plan showing how vehicles would access the site and describing the impacts of the proposed energy project on the local and regional road system during construction and operation.
- d) A drainage and erosion control plan for construction and operation must be developed according to the standards of the Boone County Stormwater Ordinance and the Boone County Stormwater Technical Standards Manual.
- e) Wildlife and Environmental Impact Mitigation Plan
- f) Decommissioning Plan
- g) Surety
- h) Other relevant studies, reports, certifications, and approvals, as may be reasonably requested by Boone County to ensure compliance with this Zoning Ordinance.
- e. **Improvement Location Permit & Building Permit.** No new commercial energy system, or the expansion or modifications to an existing system, may be installed or modified before obtaining approval of the Improvement Location Permit and a Building Permit. applicants wishing to install or modify a commercial energy system must apply for an Improvement Location Permit and a Building Permit.
 - 1) If a Development Plan approval is required for a commercial energy project, no ILP or building permit may be issued until the approval is granted for the Development Plan.
 - 2) In addition to the typically required application documents for an ILP, the applicant provides the following information:
 - a) **SES:**
 - i) Dimensional representation of the structural components of the array construction, including the base and footings, and all associated accessory structures.
 - ii) Schematic of electrical systems associated with the SES, including all existing and proposed electrical connections.
 - iii) Manufacturer's specifications and installation and operation instructions, and an un-redacted operations safety manual for the model of SES that will be installed.
 - b) **BESS:**
 - i) An electrical diagram detailing the battery energy storage system layout, associated components, and electrical interconnection methods, with all National Electrical Code-compliant disconnects and overcurrent devices.

- ii) An equipment specification sheet that documents the proposed battery energy storage system components, inverters, and associated electrical equipment proposed to be installed.
- c) Necessary recorded access easements and necessary recorded utility easements, with copies submitted to the Executive Director.
- d) A revegetation plan for restoring areas temporarily disturbed during construction.
- e) Fire Prevention and Emergency Response Plan: The applicant must provide a plan, including but not limited to the project summary, electrical schematic, and site plan, to the appropriate local safety officials, including the Boone County Emergency Management, Sheriff Department, the corresponding Fire Department, and the Building Inspector. Upon request, the owner or operator must cooperate with local safety officials in developing an emergency response plan. Any specialized training necessary will be provided at the operator's expense. Knox boxes and keys must be provided at locked entrances for emergency personnel access. All means of shutting down the solar photovoltaic installation must be clearly marked. The owner or operator must identify a person responsible for public inquiries throughout the life of the installation. The plan also includes:
 - i) Description of the potential fire and emergency scenarios that may require a response from fire, emergency medical services, police, or other emergency responders.
 - ii) Designation of the specific agencies that would respond to potential fire or other emergencies.
 - iii) Description of all emergency response training and equipment needed to respond to a fire or other emergency, including an assessment of the training.
 - iv) For BESS:
 - (1) Procedures for safe shutdown, de-energizing, or isolation of equipment and systems under emergency conditions to reduce the risk of fire, electric shock, and personal injuries, and for safe start-up following cessation of emergency conditions.
 - (2) Procedures for inspection and testing of associated alarms, interlocks, and controls.
 - (3) Procedures to be followed in response to notifications from the Battery Energy Storage Management System, when provided, that could signify potentially dangerous conditions, including shutting down equipment, summoning service and repair personnel, and providing agreed-upon notification to fire department personnel for potentially hazardous conditions in the event of a system failure.
 - (4) Emergency procedures to be followed in case of fire, explosion, release of liquids or vapors, damage to critical moving parts, or other potentially dangerous conditions. Procedures can include sounding the alarm, notifying the fire department, evacuating personnel, de-energizing equipment, and controlling and extinguishing the fire.
 - (5) Response considerations similar to a safety data sheet (SDS) that will address response safety concerns and extinguishment when an SDS is not required.
 - (6) Procedures for dealing with battery energy storage system equipment damaged in a fire or other emergency event, including maintaining contact

information for personnel qualified to safely remove damaged battery energy storage system equipment from the facility.

- (7) Other procedures as determined necessary by the County to provide for the safety of occupants, neighboring properties, and emergency responders.
- (8) Procedures and schedules for conducting drills of these procedures and for training local first responders on the contents of the plan and appropriate response procedures.
- f) **Operation and Maintenance Plan.** The applicant must submit a plan for the operation and maintenance of the energy, and include the following:
 - i) **SES:** Measures for maintaining safe access to the installation; operational soil testing procedures; general procedures for operation and maintenance of the facility; maintenance of vegetation in the project area.
 - ii) **BESS:** Measures for maintaining safe access to the installation; general procedures for operation and maintenance of the facility; maintenance of vegetation in the project area.

ACCESSORY ENERGY SYSTEMS

Add the following text to Chapter 4

Z. ACCESSORY ENERGY SYSTEMS. Accessory-scale energy systems are permitted in all zoning districts provided the requirements below have been met. For definitions of specific words used in this section, refer to Chapter V(D)(1)(b).

1. SOLAR ENERGY SYSTEMS

- a. **Applicability.** These standards apply to the accessory non-commercial Solar Energy Systems (NC-SES) and accessory small commercial Solar Energy Systems (CS-SES).
- b. **Use Permissions.** Solar energy systems are a permitted accessory use in all zoning districts, subject to the requirements of this section. Solar carports and associated electric vehicle charging equipment are a permitted accessory use on surface parking lots in all districts, regardless of the existence of another building. Ground-mounted systems do not count toward the maximum number of accessory structures permitted.
- c. **Application Requirements.** No SES may be installed before obtaining approval of the Improvement Location Permit and a Building Permit. applicants wishing to install SES must apply for an Improvement Location Permit and a Building Permit. A site plan is required to be submitted with the permit application.
- d. SES does not count toward the maximum number or square footage of accessory structures permitted.
- e. **Design and Development Requirements**
 - 1) **Roof-mounted and Wall-mounted SES**
 - a) **Setbacks**
 - i) A roof- or wall-mounted SES must meet the primary structure setback for the zoning district where it is located.
 - ii) The collector surface and mounting devices for roof-mounted solar energy systems cannot extend beyond the exterior perimeter of the building where the system is mounted or built, unless the collector and mounting system have been explicitly engineered to safely extend beyond the edge, and setback standards are not violated. Exterior piping for solar hot water systems is allowed to extend beyond the perimeter of the building in a side yard. Solar collectors mounted on the sides of buildings and serving as awnings are considered building-integrated systems and are regulated as awnings.
 - b) **Height**
 - i) Wall- or roof-mounted solar energy systems cannot exceed the maximum height allowed in the zoning district. For purposes of height measurement, solar energy systems other than building-integrated systems are permitted the same height exceptions as building-mounted mechanical equipment.
 - ii) Solar carports in non-residential districts cannot exceed 20 feet in height.
 - 2) **Ground-mounted SES**
 - a) **Setbacks.** Minimum setbacks are:
 - i) AG (General Agriculture) zoning district: 40 feet
 - ii) All other zoning districts: 25 feet
 - iii) Ground-mounted solar energy systems cannot extend into a side or rear yard setback when oriented at the minimum design tilt.

- b) **Height.** Ground- or pole-mounted solar energy systems cannot exceed 15 feet in height when oriented at maximum tilt.
- c) **Placement Restrictions**
 - i) **Easements and ROW.** Ground-mounted SES may not be placed within any legal easement or right-of-way location, or be placed within any stormwater conveyance system, regulated or legal drain easement, or in any other manner that would alter or impede stormwater runoff from collecting in a constructed stormwater conveyance system except by written permissions granted by the Boone County Drainage Board and the easement holder. This includes state, county, and/or privately owned waterways, ditches, drainage tiles, retention areas, and designated swales.
 - ii) **Flood.** No SES structure may be placed within a Special Flood Hazard Area.
- 3) **Aesthetics.** Solar energy systems in Residential Districts must minimize visual impacts from the public rights-of-way without adversely affecting the cost or efficacy of the system, consistent with IC 36-7-2-8.
 - a) **Building-Integrated Photovoltaic Systems.** Building-integrated photovoltaic solar energy systems are allowed even if the system is visible from the public right-of-way, if the building component where the system is integrated meets all required setbacks, land use, or performance standards for the district where the building is located.
 - b) **Aesthetic Restrictions.** Roof-mounted or ground-mounted solar energy systems cannot be restricted for aesthetic reasons if:
 - i) The system is not visible from the closest edge of any public right-of-way other than an alley.
 - ii) Roof-mounted systems on pitched roofs visible from the right-of-way have the same pitch as the roof and are no more than 10 inches above the roof.
 - iii) Roof-mounted systems on flat roofs visible from the right-of-way are not more than 5 feet above the finished roof. Such systems are exempt from any rooftop equipment or mechanical system screening requirements.
 - c) **Reflectors.** Solar energy systems using a reflector to enhance solar production must minimize the glare from the reflector onto adjacent or nearby properties.
- 4) **Utility Interconnections.** For grid-tied solar energy systems, the interconnection application must be submitted to the utility prior to applying for required permits. Off-grid systems are exempt from this interconnection application requirement.
- 5) **Signage.** Signs must comply with the Sign Standards provided in the Boone County Zoning Ordinance.
 - a) **Safety & Warning Signage.** Safety and warning signage that comes with the SES system is permitted on SES.
 - b) **Other Signage.** No portion of the SES may contain or be used to display advertising. The manufacturer's name and equipment information, or indication of ownership, is allowed on any SES equipment, provided they comply with the Sign Standards of this Zoning Ordinance.
- 6) Electric solar energy system components must have an Underwriters Laboratory (UL), or equivalent listing, and solar hot water systems must have a Solar Rating and Certification Corporation (SRCC) or equivalent rating.
- 7) **Other Codes.** Solar energy systems require approval of local building code officials, consistent with the State of Indiana Building Code. Solar thermal systems must comply

with HVAC-related requirements of the Energy Code and applicable Indiana State Plumbing Code requirements. Photovoltaic systems must comply with the Indiana State Electric Code.

2. WIND ENERGY SYSTEMS

- a. **Applicability.** These standards apply to the non-commercial accessory uses of Wind Energy Systems (WES).
- b. **Use Permissions.**
 - 1) Non-commercial wind energy systems are a permitted accessory use in all zoning districts, subject to the requirements of this section.
 - 2) Roof-mounted wind turbines are not permitted.
 - 3) Most of the energy produced by an accessory WES should be consumed only on the property where it is located.
- c. **Application Requirements.** No WES may be installed before obtaining approval of the Improvement Location Permit and a Building Permit.
 - 1) applicants wishing to install WES must apply for an Improvement Location Permit and a Building Permit.
 - 2) Wind energy conversion systems require approval of local building code officials, consistent with the State of Indiana Building Code.
 - 3) A site plan is required to be submitted with the permit application.
 - 4) The following information must be submitted with the permit application: the number and type of turbines, generating capacity, tower design and height, blade arc diameter, total height, means of connection with the electrical grid, potential equipment manufacturers, and all related accessory structures.
 - 5) The manufacturer's engineer or another qualified professional engineer must certify that the turbine, foundation, and tower design are within accepted professional standards, given local soil and climate conditions.
- d. WES does not count toward the maximum number of accessory structures permitted.
- e. **Design and Development Requirements:**
 - 1) An accessory WES must be:
 - a) Installed on a certified tubular free-standing tower, a lattice tower, or a monopole tower. Towers may be guyed or self-supporting.
 - b) Filtered, shielded, or otherwise designed and constructed not to cause electromagnetic interference.
 - c) Grounded to protect against lightning strikes.
 - d) Designed with automatic overspeed control to render the system inoperable when winds are blowing at higher speeds than the machine's capability.
 - e) Equipped with a redundant braking system, including both aerodynamic overspeed controls and mechanical brakes. Mechanical brakes must be operated in a fail-safe mode. Stall regulation is not a sufficient braking system for overspeed protection.
 - 2) **Setbacks.** Minimum setbacks are:
 - a) AG (General Agriculture) zoning district: 40 feet
 - b) All other zoning districts: 25 feet
 - 3) **Height.** The maximum permitted height for a self-supporting wind turbine, including blades and supporting structure, is:
 - a) Residential zoning districts: 60 feet

- b) Non-residential zoning districts: 150 feet
- 4) **Placement Restrictions**
 - a) **Easements and ROW.** WES may not be placed within any legal easement, right-of-way location, stormwater conveyance system, regulated or legal drain easement, or in any other manner that would alter or impede stormwater runoff from collecting in a constructed storm water conveyance system unless written permission is granted by the Boone County Drainage Board and the easement holder. This includes state, county, and/or privately owned waterways, ditches, drainage tiles, retention areas, and designated swales.
 - b) **Flood.** WES may not be placed within a Special Flood Hazard Area.
- 5) **Minimum Rotor Wind Vane or Blade Clearance.** The minimum distance between the ground and any protruding blades utilized on all WES must be 15 feet, as measured at the lowest point of the arc of the blades.
- 6) **Shadow Flicker.** The WES owner and operator must make reasonable efforts to minimize shadow flicker to any occupied building on a non-participating landowner's property.
- 7) **Electrical Components.** Electric WES components must have an Underwriters Laboratory (UL) or equivalent listing.
- 8) **Aesthetics.** WES must be white, light gray, or another non-obtrusive color. Blades may be black to facilitate deicing. Finishes must be matte or non-reflective and meet Federal Aviation Administration color requirements.
- 9) **Utility Interconnections.** For grid-tied wind energy systems, the interconnection application must be submitted to the utility prior to applying for required permits. The WES must be designed to meet the utility's requirements for interconnection and operation. Automatic and manual controls that render the system inoperable in case of loss of utility power are required. Off-grid systems are exempt from this interconnection application requirement.
- 10) **Signage.** Signs must comply with the Sign Standards of the Boone County Zoning Ordinance.
 - a) **Safety & Warning.** Signage. Safety and warning signage that comes with the WES system is permitted on WES.
 - b) **Other Signage.** No portion of the WES may contain or be used to display advertising. The manufacturer's name and equipment information, or indication of ownership, is allowed on any equipment of the WES, provided they comply with the Sign Standards of this Zoning Ordinance.

3. BATTERY ENERGY STORAGE SYSTEMS

a. **Applicability**

- 1) These standards apply to the accessory uses of Tier 1 BESS.
- 2) The requirements of this Section apply to all BESS permitted, installed, or modified in the County after the effective date of this Ordinance.
- 3) BESS constructed or installed before the effective date of this Ordinance are not required to meet the requirements of this Ordinance.
- 4) Modifications to, retrofits, or replacements of an established battery energy storage system that increase the total battery energy storage system's designed discharge duration or power rating are subject to this Ordinance.

b. Use Permissions

- 1) Tier 1 BESS, Residential type is permitted in all zoning districts as an accessory use.
- 2) Tier 1 BESS, Non-residential, is permitted in all zoning districts as an accessory use, except for the residential districts and residential uses in non-residential zoning districts.

c. Application Requirements. No BESS may be installed before obtaining approval of the Improvement Location Permit and/or a Building Permit as outlined in this subsection.

- 1) **Improvement Location Permit.** ILP is required if BESS is proposed to be installed outside of a principal or accessory building or structure.
- 2) **Building / Electric Permit.** A building permit and/or an electrical permit is required for the installation of any BESS, as well as for their modifications/expansions that increase the total storage capacity of BESS.
- 3) BESS routine maintenance and repairs that don't increase its storage capacity do not require a permit.

d. BESS does not count toward the maximum number of accessory structures permitted.**e. Design and Development Requirements**

- 1) **Height.** If located outside: 7 feet.
- 2) **Setbacks.** Minimum setbacks are:
 - a) AG (General Agriculture) zoning district: 40 feet
 - b) All other zoning districts: 25 feet
- 3) **Placement Restrictions**
 - a) **Easements and ROW.** BESS may not be placed within any legal easement or right-of-way location, or be placed within any stormwater conveyance system, regulated or legal drain easement, or in any other manner that would alter or impede stormwater runoff from collecting in a constructed storm water conveyance system except by written permissions granted by the Boone County Drainage Board and the easement holder. This includes state, county, and/or privately owned waterways, ditches, drainage tiles, retention areas, and designated swales.
 - b) **Flood.** BESS may not be placed within a Special Flood Hazard Area.
- 4) **Screening.** When BESS is located outside, it must comply with the following screening standards:
 - a) **Fence/wall.** Any BESS, including all mechanical equipment, must be screened by an opaque fence or wall around the entire perimeter and have a self-locking gate to prevent unauthorized access. The fence/wall must be at least 7 feet tall.
 - b) **Landscaping.** No woody plants may be installed within 10 feet of BESS to avoid combustion hazard.
- 5) **Vegetation Clearing.** Areas within 10 feet of BESS must be cleared of combustible vegetation. BESS must be placed at least 10 feet away from the tree trunks to minimize tree removal.
- 6) **Noise.** The 1-hour average noise generated from the battery energy storage systems, components, and associated accessory equipment may not exceed a noise level of 45 dBA as measured at the subject site's property lines.

EXHIBIT A. BOONE COUNTY, IN, UNCONSOLIDATED AQUIFER MAP

UNCONSOLIDATED AQUIFER SYSTEMS OF BOONE COUNTY, INDIANA

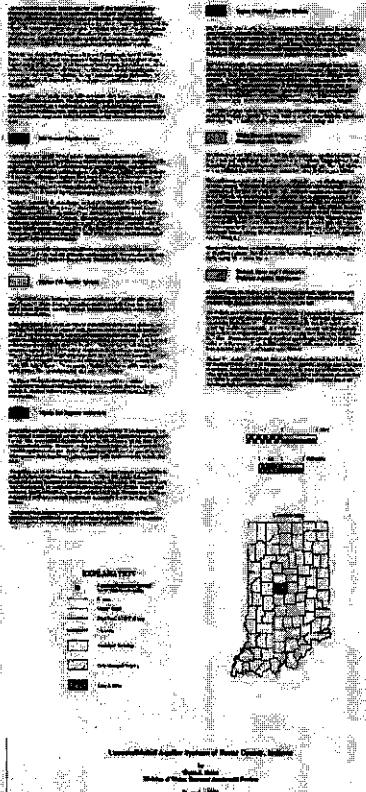
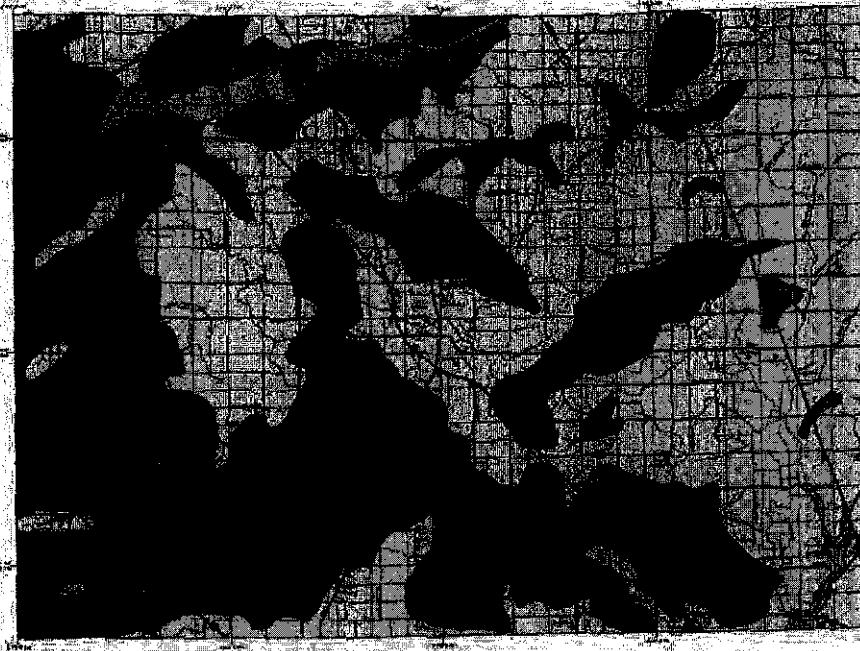


EXHIBIT B. BOONE COUNTY, IN, PRIME FARMLAND MAP