ZONING RESOLUTION OF KNOX COUNTY

APPENDIX G

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Effective July 24, 2024

As amended to August 26, 2026

ENERGY STORAGE SYSTEMS ORDINANCE

I. AUTHORITY.

This ordinance is adopted pursuant to Sections 5/5-12001 et al. and 5/5-12024 of the Illinois Counties Code (55 ILCS 5/5-12001 and 55 ILCS 5/5-12024).

II. PURPOSE.

This ordinance is adopted to advance and protect the public health, safety, morals, comfort, and general welfare of the county and its residents by creating regulations for the installation and use of battery energy storage systems (energy storage system), with the following objectives:

A. To provide a regulatory framework for the designation of properties suitable for the location, construction, and operation of any energy storage system;
B. To ensure compatible land uses in the vicinity of the areas affected by any energy storage system;
C. To mitigate the impacts of any energy storage system on environmental resources such as important agricultural lands, forests, wetlands, wildlife, and other protected lands and resources; and
D. To create synergy between energy storage system development and other goals of the county and its comprehensive plan.
E. To comply with the requirements of 5/5-12024 of the Illinois Counties Code.

III. DEFINITIONS.

As used in this ordinance, the following terms shall have the meaning indicated:

A. **"Energy Storage System"** means a facility with an aggregate energy capacity that is greater than 1,000 kilowatts and that is capable of absorbing energy and storing it for use at a later time, including, but not limited to, electrochemical and electromechanical technologies. "Energy storage system" does not include technologies that require combustion. "Energy storage system" also does not include energy storage systems associated with commercial solar energy facilities or commercial wind energy facilities as defined in Section 5-12020.

B. **"Excused service interruption"** means any period during which an energy storage system does store or discharge electricity and that is planned or reasonably foreseeable for standard commercial operation, including any unavailability caused by a buyer; storage capacity tests; system emergencies; curtailments; including curtailment orders; transmission system outages; compliance with any operating restriction; serial defects; and planned outages.

C. **"Facility owner"** means (i) a person with a direct ownership interest in an energy storage system, regardless of whether the person is involved in acquiring the necessary rights, permits, and approvals or otherwise planning for construction and operation of the facility and (ii) a person who, at the time the facility is being developed, is acting as a developer of the facility by acquiring the necessary rights, permits, and approvals or by planning for the construction operation of the facility, regardless of whether the person will own or operate the facility.

D. **"Force majeure"** means any event or circumstance that delays or prevents an energy storage system from timely performing all or a portion of its commercial operations if the act or event, despite the exercise of commercially reasonable efforts, cannot be avoided by and is beyond the reasonable control, whether direct or indirect, of, and without the fault or negligence of, a facility owner or operator or any of its assignees. "Force majeure" includes, but is not limited to:

(1) fire, flood, tornado, or other natural disasters or acts of God;
(2) war, civil strife, terrorist attack, or other similar acts of violence;
(3) unavailability of materials, equipment, services, or labor, including unavailability due to global supply chain shortages;
(4) utility or energy shortages or acts or omissions of public utility providers;
(5) any delay resulting from a pandemic, epidemic, or other public health emergency or related restrictions; and
(6) litigation or a regulatory proceeding regarding a facility.

E. **"NFPA"** means the National Fire Protection Association.

F. **"Nonparticipating property"** means real property that is not a participating property.

G. **"Nonparticipating residence"** means a residence that is located on nonparticipating property and that exists and is occupied on the date that the application for a permit to develop an energy storage system is filed with the county.

H. **"Occupied community building"** means a school, place of worship, day care facility, public library, or community center that is occupied on the date that the application for a permit to develop an energy storage system is filed with the county in which the building is located.

I. **"Participating property"** means real property that is the subject of a written agreement between a facility owner and the owner of the real property and that provides the facility owner an easement, option, lease, or license to use the real property for the purpose of constructing an energy storage system or supporting facilities.

J. **"Protected lands"** means real property that is: (i) subject to a permanent conservation right consistent with the Real Property Conservation Rights Act; or (ii) registered or designated as a nature preserve, buffer, or land and water reserve under the Illinois Natural Areas Preservation Act.

K. **"Conditional use permit"** means a permit approved by the county board, after public hearing on a complete written application, allowing a particular use at a specified location subject to compliance with certain specified special conditions as may be required by the county board.

L. **"Supporting facilities"** means the transmission lines, substations, switchyard, access roads, meteorological towers, storage containers, and equipment associated with the generation, storage and dispatch of electricity by an energy storage system.

IV. APPLICABILITY.

A. The requirements of this ordinance shall apply to any energy storage system permitted, installed, or modified in the county after the effective date of this ordinance. Any energy storage system connected or integrated into a commercial solar energy facility or commercial wind energy facility shall be governed by the requirements of the applicable solar or wind ordinances.

B. This ordinance shall apply to all areas in the county that are not within the zoning jurisdiction of a municipality.

V. PROHIBITION.

A. No energy storage system governed by this ordinance shall be constructed, erected, installed, located, or operated within the county, unless:

1. A conditional use permit has been granted by the county board and a building permit has been issued for the energy storage system.

2. All road use agreements and decommissioning agreements have been entered into with each applicable governmental agency.

B. No energy storage system shall be constructed or operated except upon granting of a conditional use permit and building permit and only upon property zoned to allow agricultural or industrial uses.

C. A facility owner may undertake periodic augmentation to maintain the approximate original capacity of the energy storage system. Periodic augmentation shall not include adding additional properties or parcels to the energy storage system, or expanding the footprint of the energy storage system approved pursuant to the conditional use permit process.

VI. GENERAL REQUIREMENTS.

A. Building Permit Required. Following the granting of a conditional use permit by the county board, and compliance with any conditions, the applicant is eligible to apply for a building permit(s) for the project.

B. Expiration of Conditional Use Permit. A building permit must be issued, or actual on-site construction must have commenced prior to the expiration of three (3) years from the granting of the conditional use permit. If a building permit or actual on-site construction has not commenced within the applicable time period, then the conditional use permit shall be revoked without further action of the county. An extension of time to obtain the building permit or to commence actual on-site construction may be granted upon a showing of good cause.

C. Compliance with NFPA Standard. The energy storage facility must comply with NFPA 855 "Standard for the Installation of Stationary Energy Storage Systems" in effect on the date of the filing of the conditional use permit application.

D. **Setbacks.**

1. 150 feet from the nearest point of the outside wall of any occupied community building or nonparticipating residence.

2. 50 feet to the nearest point on the property line of the occupied community building or nonparticipating property.

3. 50 feet from the nearest edge of any right-of-way.

4. The setback provisions of this subsection (D) may be waived upon the written consent of the owner of each affected nonparticipating property or nonparticipating residence.

E. **Fencing.** The energy storage system's perimeter must be surrounded by fencing of at least 7 feet and no more than 25 feet.

F. **Sound limitation.** The energy storage system must comply with the Illinois Pollution Control Board Standards, 35 Ill. Adm. Code Parts 900, 901, and 910. Within 1 year of the commercial operation date, the facility owner shall provide the octave band sound pressure level measurements from locations chosen by the county at the perimeter of the energy storage system to demonstrate compliance with this Section.

G. **Farmland drainage plan.** The facility owner shall file a farmland drainage plan with the county and impacted drainage districts that outlines how the surface and subsurface drainage of farmland will be restored during and following the construction or deconstruction of the energy storage system. The plan shall be created independently by the facility owner and shall include the location of any potentially impacted drainage district facilities to the extent the information is publicly available from the county or the drainage district and the plans to repair any subsurface drainage affected during the construction or deconstruction using procedures outlined in the decommissioning plan. All surface and subsurface damage shall be repaired as soon as reasonably practicable.

H. **Crop loss or other agricultural damages.** The facility owner shall compensate landowners for crop losses or other agricultural damages resulting from damage to a drainage system caused by the construction of an energy storage system. The facility owner shall repair or pay for the repair of all damage to the subsurface drainage system caused by the construction of the energy storage system. The facility owner shall repair or pay for the repair and restoration of surface drainage caused by the construction or deconstruction of the energy storage facility as soon as reasonably practicable.

I. **Decommissioning plan.** The facility shall provide a decommissioning plan, including all requirements for decommissioning plans in NFPA 855 and the facility owner shall:

1. State how the energy storage system will be decommissioned, including removal to a depth of 3 feet of all structures that have no ongoing purpose and all debris and restoration of the soil and any vegetation to a condition as close as reasonably practicable to the soils and vegetation's

preconstruction condition within 18 months of the end of project life or facility abandonment;

2. Include provisions related to commercially reasonable efforts to reuse or recycle equipment and components associated with the commercial offsite energy storage system;
3. Include financial assurance in the form of a reclamation bond or other commercially available financial assurance that is acceptable to the county, with the county or participating property owner as beneficiary;
4. Update the amount of the financial assurance at least every 5 years for the duration of the commercial operations. The amount shall be calculated by a professional engineer licensed to practice engineering in Illinois with expertise in decommissioning, hired by the facility owner;
5. Decommission the energy storage system, in accordance with the approved decommissioning plan, within 18 months after abandonment. An energy storage system that has not stored electrical energy for 12 consecutive months or that fails, for a period of 6 months, to pay a property owner who is party to a written agreement, including, but not limited to, an easement, option, lease, or license under the terms of which an energy storage system is constructed on the property, amounts owed in accordance with the written agreement shall be considered abandoned, except when the inability to store energy is the result of an event of force majeure or excused service interruption; and
6. Prior to the issuance of a building permit, the county shall require a decommissioning agreement to be entered into between the county and the facility owner.

J. **Illinois Department of Natural Resources Ecological Compliance Assessment Tool.** A facility owner shall provide the results and recommendations from the consultation with the Illinois Department of Natural Resources (IDNR) that are obtained through the Ecological Compliance Assessment Tool (EcoCAT) or a comparable successor tool.

K. **Compliance with EcoCAT.** The facility owner shall adhere to the recommendations provided by IDNR in any Agency Action Report under 17 Ill. Adm. Code 1075.

L. **Protected lands.** The facility owner shall (1) demonstrate avoidance of protected lands as identified by the Department of Natural Resources and the Illinois Nature Preserves Commission, or (2) consider the recommendations of the Department of Natural Resources for setbacks from protected lands, including areas identified by the Illinois Nature Preserves.

M. **Illinois Historic Preservation Division.** The facility owner shall provide evidence of consultation with the Illinois Historic Preservation Division to assess potential impacts on State-registered historic sites under the Illinois State Agency Historic Resources Preservation Act.

N. **Commercial Operation Date.** Prior to the commercial operation date, the facility owner shall:

1. Submit to the county a commissioning report meeting the requirements of NFPA 855 Sections 4.2.4, 6.1.3, and 6.1.5.5, as published in 2023, or the most recent version of NFPA 855;

2. Submit the county a hazard mitigation analysis meeting the requirements of NFPA 855 Section 4.4 or the applicable Sections in the most recent version of NFPA 855;
3. The facility owner shall submit to the county an emergency operations plan meeting the requirements of NFPA 855 Section 4.3.2.1.4, published in 2023, or application Sections in the most recent version of NFPA 855; and
4. The facility owner shall offer to provide training for local fire departments and emergency responders in accordance with the facility emergency operations plan. A copy of the emergency operations plan shall be given to the facility owner, the local fire department, and the emergency responders. All batteries integrated within an energy storage system shall be listed under the UL 1973 Standard. All batteries integrated within energy storage systems shall be listed in accordance with UL 9540 Standard either from the manufacturer or by a field evaluation.

O. Warnings. The facility owner shall comply with the requirements of NFPA 855 Section 4.7.4, published in 2023, or applicable sections in the most recent version of NFPA 855.

P. Lighting. The energy storage system shall adhere to the principles of responsible outdoor lighting provided by the International Dark-Sky Association and shall limit outdoor lighting to that which is minimally required for safety and operational purposes. Any outdoor lighting shall be reasonably shielded and downcast from all residences and adjacent properties.

Q. NFPA Fire and Safety Standards. If lithium-ion battery systems will be utilized, the energy storage system shall comply with the fire and safety standards and guidance established for the installation for lithium-ion battery energy storage systems set by the NFPA.

R. Road Use Agreement(s). Prior to the issuance of the building permit, the facility owner shall enter into road use agreements with any impacted road authority requiring the facility owner to be responsible for (1) the reasonable cost of improving, if necessary, roads used by the facility owner to construct the energy storage system and (2) the reasonable cost of repairing roads used by the facility owner during construction of the energy storage system so that those roads are in a condition that is safe for the driving public after the completion of the facility's construction. A roadway improved in preparation for and during the construction of the energy storage system shall be repaired and restored to the improved condition at the reasonable cost of the developer if the roadways have degraded or were damaged as a result of the construction-related activities.

S. Annual report. The facility owner of any energy storage system must submit, on an annual basis on or before February 1st of each calendar year following its commercial operation date, a report to the county zoning administrator containing the following information: (i) a general description of any physical repairs, replacements, or modifications to the energy storage system and/or its infrastructure; (ii) complaints pertaining to setbacks, noise, appearance, safety, lighting, and use of any public roads received by the owner or operation concerning the energy storage system and the resolution of such complaints; (iii) calls for emergency services; (iv) certificates of insurance; and (v) a general summary of service calls to the energy storage system facility. In addition to the annual report, the owner or operator of any energy storage system must also furnish such report upon direct request by the county. Failure to provide the annual report or report directly

requested by the county (within 30 days) shall be considered a material violation of this ordinance subject to the remedies provision of this ordinance.

VII. CONDITIONAL USE PERMIT APPLICATION AND REVIEW.

A. Complete application. An applicant must submit a complete conditional use permit application to the county zoning office for review, public hearing, and recommendation by the county's zoning board of appeals (ZBA) pursuant to 55 ILCS 5/5-12009.5. Approval or denial of all applications shall be made by the county board.

B. Material changes. Material changes to the application are not permitted once the notice of public hearing has been published, unless requested or otherwise permitted by the county.

C. Copies. Eight (8) paper copies and one (1) electronic copy of the application must be submitted to the county's zoning office.

D. Conditional use permit fee. The facility owner shall submit application fees for an energy storage system which shall be the lesser of (i) $5,000 per each megawatt of nameplate capacity of the energy storage system or (ii) $50,000. The calculation of fees shall be based on the direct current nameplate capacity. The facility owner shall be responsible for any costs or fees that exceed the submitted application fee.

E. Application materials. The application shall contain or be accompanied by the following information (all technical submissions shall be compliant with state law):

1. A description of the property lines and physical features, including roads, for the facility site;
2. A description of the proposed changes to the landscape of the facility site, including vegetation clearing and planting, exterior lighting, and screening or structures; and
3. A description of the zoning district designation for the parcel of land comprising the facility site; and
4. All documents, reports, modeling and studies demonstrating compliance with the requirements of this ordinance, state and federal law and regulation, including but not limited to the following:
    a. Detailed engineering drawings demonstrating compliance with all setback requirements;
    b. All applicable NFPA standards governing the facility and referenced in this ordinance and 55 ILCS 5/5-12024;
    c. A farmland drainage plan and proof the farmland drainage plan has been provided to any impacted drainage district pursuant to Section VI(D);
    d. Sound modeling showing compliance with sound requirements of Section VI(F)
    e. A decommissioning plan with detailed cost estimations, and proposed financial assurance form pursuant to Section VI(I);
    f. IDNR EcoCAT pursuant to Section VI(J);
    g. Results of the IDNR consultation pursuant to 17 Ill. Adm. Code 1075 pursuant to Section VI(K);

h. Demonstration of avoidance of protected lands and nature preserves or considerations of setbacks related thereto under Section 6(L) of this ordinance;
i. Evidence of consultation with the state historic preservation division pursuant to Section 6(M) of this ordinance; and
j. A lighting plan pursuant to Section VI(P);

F. Decision on Conditional Use Permit Application:

1. The conditional use permit application shall be approved if the request complies with the standards and conditions imposed by 55 ILCS 5/5-12024, this ordinance, all other state and federal statutes and regulations.
2. The county board may impose conditions upon the construction, operation or decommissioning of the facility.

VIII. BUILDING PERMIT

A. Building Permit Fees. Prior to the issuance of a building permit for the facility and/or supporting facilities, the facility owner must submit a fee equating to the lesser of (i) $5,000 per each megawatt of nameplate capacity of the energy storage system or (ii) $50,000. The calculation of fees shall be based on the direct current nameplate capacity. The facility owner shall be responsible for any costs or fees that exceed the submitted application fee.

B. Building Permit Requirements. Prior to the issuance of a building permit, the facility owner must submit the following documents (all technical submissions must comply with the state law):

1. An electrical diagram detailing the energy storage system layout, associated components, and electrical interconnection methods, with all National Electric Code compliant disconnects and overcurrent devices;
2. An equipment specification sheet;
3. Engineer drawings demonstrating compliance with the requirements of this ordinance; and
4. All documents demonstrating compliance with this ordinance, state or federal law or regulation.

IX. LIABILITY INSURANCE AND INDEMNIFICATION.

A. The owner or operator of the energy storage system shall maintain a current general liability policy covering bodily injury, pollution liability, and property damage with limits of at least $10,000,000 million per occurrence and $20 million in the aggregate, with an annual certificate of insurance being provided to the county zoning office, with the county being added as an additional insured, with the designation of primary and non-contributory.

B. The applicant shall promptly increase such liability insurance if such amount is increased in the energy storage system ordinance and the applicant is notified in writing of same by the county. The applicant shall provide evidence of such increased insurance to the county zoning office.

C. Insurance coverage shall be maintained without interruption from the date of issuance of the building permit through the lifetime of the energy storage system. Certificates of insurance acceptable to the county and in compliance with this ordinance shall be filed with the county prior to the commencement of any work on the energy storage system and thereafter upon renewal or replacement of each required policy of insurance. These certificates and the insurance policies required under this ordinance shall contain a provision that coverages afforded under the policies shall not be cancelled or allowed to expire until at least sixty (60) days written notice has been given to the county.

D. The applicant, owner and/or operator of the energy storage system energy shall defend, indemnify, and hold harmless the county and its officers, appointed and elected officials, employees, attorneys, engineers and agents (collectively and individually, the "indemnified parties") from and against any and all claims, demands, losses, suits, causes of action, damages, injuries, costs, expenses, and liabilities whatsoever, including attorney's fees relating to or arising out of the issuance of the conditional use permit, other permits, or the construction, operation, maintenance and removal of the energy storage system and affiliated equipment, including, without limitation, liability for property damage or personal injury (including death or illness), whether said liability is premised on contract or on tort (including without limitation strict liability or negligence) or any acts or omissions of the applicant, owner, or operator under this ordinance or the conditional use permit/other permits, except to the extent any such claims, demands, losses, suits, causes of action, damages, injuries, costs, expenses and liabilities arise from the negligence or intentional acts of such indemnified parties. This general indemnification shall not be construed as limiting or qualifying the county's other indemnification rights available under the law.

X. HEARING FACILITATOR.

A. The county may engage the services of a hearing facilitator. The hearing facilitator shall be an independent contractor who shall conduct a hearing in accordance with all applicable rules of the ZBA and the county but has no adjudicatory responsibility other than ruling on requests for continuances, procedural matters, admissibility of evidence, and the propriety of any arguments.

B. The hearing facilitator shall be an attorney, licensed to practice in the State of Illinois. The applicant shall reimburse the county for fees and costs charged by the hearing facilitator.

XI. DEFAULTS AND REMEDIES.

A. Any energy storage system declared to be unsafe by the county by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, damage, or abandonment is hereby declared a public safety issue and shall be abated by repair, rehabilitation, demolition, or removal in accordance with the procedures set forth in this ordinance and decommissioning agreement or plan.

B. Failure by the applicant, owner, or operator to comply with any provisions of this ordinance, provisions under the conditional use permit, other permits, any conditions imposed on the project, and/or failure to comply with any law or regulation shall constitute a default under

this ordinance and shall be grounds for revocation of any conditional use permit or other permits granted by the county board or the county.

C. Prior to implementation of the existing county procedures for the resolution of such default(s), the appropriate county body shall first provide written notice to the owner and operator, setting forth the alleged default(s). Such written notice shall provide the owner and operator a reasonable time period, not to exceed thirty (30) days, for good faith negotiations to resolve the alleged default(s).

D. If the county determines that the parties cannot resolve the alleged defaults within the good faith negotiation period, the county shall make application to the circuit court for an injunction requiring conformance with this ordinance or make such other order as the court deems necessary to secure compliance with the ordinance.

E. Any violation of this ordinance shall be an offense punishable by a fine of $1,000.00. Each violation shall be a separate offense. Each day a violation occurs or continues shall be a separate offense, subject to a $1,000.00 fine for each additional day the violation is not corrected. A court may set any additional and appropriate per day fine for each day the infraction exists or until such infraction is remedied. It is the goal of this ordinance to promote structural safety to protect the public. The court has the authority to set any additional appropriate fines and will consider the nature of the offense, the degree of public safety involved, and the efforts of the county and responsible owner or applicant to resolve quickly and safely any and all infractions. It is the intent that any dispute between the parties be resolved promptly and where possible by informal discussions as outlined elsewhere in this ordinance.

F. After the effective date of this ordinance, any persons who, being the owner or agent of the owner of any land, or project developer, located within the territorial jurisdiction of this ordinance, thereafter, proceeds with development of an energy storage system prior to being approved under the terms of this ordinance shall be fined as stated herein.

G. The county reserves the right to hire outside counsel to enforce this ordinance or determine compliance with this ordinance. The owner/operator is liable for payment of reasonable attorney's fees in this regard.

H. Nothing herein shall prevent the county from taking such other lawful action to prevent or remedy violations. All costs connected therewith shall accrue to the applicant, owner, or operator responsible for the project.

XII. INTERPRETATION.

The provisions of this ordinance shall be held to the minimum requirements adopted for the promotion and preservations of public health, safety, and general welfare of the county. These regulations are not intended to repeal, abrogate, annual, or in any manner interfere with existing regulations or laws of the county nor conflict with and laws of the State of Illinois.

XIII. SEVERABILITY.

If any section, clause, or provision of the ordinance is declared unconstitutional or otherwise invalid by a court of competent jurisdiction, said declaration shall not affect the validity of the remainder of the ordinance as a whole or any part thereof, other than the part so declared to be unconstitutional or invalid.

XIV. EFFECTIVE DATE

This Ordinance shall become effective upon passage by the county board.

Reviewed and determined consistent with the Knox County Zoning Ordinances and recommended for approval by the Zoning Board of Appeals.

_____ **Dated:** _____
Chairperson

Reviewed and approved by the Knox County State's Attorney

_____ **Dated:** _____
Knox County State's Attorney

Approved by the Knox County Board

_____ **Dated:** _____
Chairperson

_____ **Dated:** _____
County Clerk

Rejected by the Knox County Board

_____ **Dated:** _____
Chairperson

_____ **Dated:** _____
County Clerk