

**REVISED DRAFT**  
**130-AT-24**  
**FINDING OF FACT**  
**AND FINAL DETERMINATION**  
**of**  
**Champaign County Zoning Board of Appeals**

---

Final Determination: ***{RECOMMEND ENACTMENT/RECOMMEND DENIAL}***

Date: ***{July 17, 2025}***

Petitioner: **Zoning Administrator**

Request: **Amend the Champaign County Zoning Ordinance as follows regarding Battery Energy Storage Systems (BESS):**

- 1. Add the following definitions to Section 3.0 Definitions: BATTERY ENERGY STORAGE MANAGEMENT SYSTEM (BESMS), BATTERY ENERGY STORAGE SYSTEM (BESS), TIER-1 BATTERY ENERGY STORAGE SYSTEMS, TIER-2 BATTERY ENERGY STORAGE SYSTEMS.**
- 2. Add new paragraph 4.2.1 C.8. to provide that a BATTERY ENERGY STORAGE SYSTEM may be authorized as a SPECIAL USE Permit in the AG-1 and AG-2 Agriculture Districts as a second PRINCIPAL USE on a LOT with another PRINCIPAL USE.**
- 3. Amend Section 5.2 as follows:**
  - a. Add “BATTERY ENERGY STORAGE SYSTEM” to be allowed by Special Use Permit in the AG-1 Agriculture, AG-2 Agriculture, B-1 Rural Trade Center, B-4 General Business, I-1 Light Industry and I-2 Heavy Industry Zoning Districts.**
  - b. Add Footnotes 32 and 33 regarding TIER-1 and TIER-2 requirements.**
- 4. Add new paragraph 5.4.3 G. to prohibit any dwelling a Rural Residential Overlay Zoning District from being established within one-quarter mile of a TIER-2 BATTERY ENERGY STORAGE SYSTEM.**
- 5. Add new Section 6.1.8 TIER-2 BATTERY ENERGY STORAGE SYSTEMS to establish regulations including but not limited to:**
  - a. General standard conditions**
  - b. Minimum lot standards**
  - c. Minimum separations**
  - d. Standard conditions for design and installation**
  - e. Standard conditions to mitigate damage to farmland**
  - f. Standard conditions for use of public streets**
  - g. Standard conditions for coordination with local fire protection district**

- h. Standard conditions for allowable noise level
  - i. Standard conditions for endangered species consultation
  - j. Standard conditions for historic and archaeological resources review
  - k. Standard conditions for acceptable wildlife impacts
  - l. Screening and fencing
  - m. Standard condition for liability insurance
  - n. Operational standard conditions
  - o. Standard conditions for Decommissioning and Site Reclamation Plan
  - p. Complaint hotline
  - q. Standard conditions for expiration of Special Use Permit
  - r. Application requirements
6. Regarding BATTERY ENERGY STORAGE SYSTEMS fees, revise Section 9 as follows:
- a. Add new paragraph 9.3.1 K. to add application fees for a BATTERY ENERGY STORAGE SYSTEMS Zoning Use Permit.
  - b. Add new subparagraph 9.3.3 B.(9) to add application fees for a BATTERY ENERGY STORAGE SYSTEMS SPECIAL USE permit.

---

**CONTENTS**

Finding of Fact .....	2 - 15
Summary Finding of Fact .....	16
Documents of Record.....	17- 19
Final Determination.....	20
Proposed Amendment .....	21 - 57

**REVISED DRAFT**

**FINDING OF FACT**

From the documents of record and the testimony and exhibits received at the public hearing conducted on **March 28, 2024; July 16, 2024; December 12, 2024; March 13, 2025; May 15, 2025; and July 17, 2025**, the Zoning Board of Appeals of Champaign County finds that:

1. The petitioner is the Zoning Administrator.
2. The proposed amendment is intended to introduce requirements for BATTERY ENERGY STORAGE SYSTEMS in the Zoning Ordinance.
3. Municipalities with zoning and townships with planning commissions have protest rights on all text amendments and they are notified of such cases.

**SUMMARY OF THE PROPOSED AMENDMENT**

4. The proposed amendment is attached to this Finding of Fact as it will appear in the Zoning Ordinance.

**GENERALLY REGARDING THE LRMP GOALS, OBJECTIVES, AND POLICIES**

5. The *Champaign County Land Resource Management Plan* (LRMP) was adopted by the County Board on April 22, 2010. The LRMP Goals, Objectives, and Policies were drafted through an inclusive and public process that produced a set of ten goals, 42 objectives, and 100 policies, which are currently the only guidance for amendments to the *Champaign County Zoning Ordinance*, as follows:
  - A. The Purpose Statement of the LRMP Goals, Objectives, and Policies is as follows:

“It is the purpose of this plan to encourage municipalities and the County to protect the land, air, water, natural resources and environment of the County and to encourage the use of such resources in a manner which is socially and economically desirable. The Goals, Objectives and Policies necessary to achieve this purpose are as follows:...”
  - B. The LRMP defines Goals, Objectives, and Policies as follows:
    - (1) Goal: an ideal future condition to which the community aspires
    - (2) Objective: a tangible, measurable outcome leading to the achievement of a goal
    - (3) Policy: a statement of actions or requirements judged to be necessary to achieve goals and objectives
  - C. The Background given with the LRMP Goals, Objectives, and Policies further states, “Three documents, the *County Land Use Goals and Policies* adopted in 1977, and two sets of *Land Use Regulatory Policies*, dated 2001 and 2005, were built upon, updated, and consolidated into the LRMP Goals, Objectives and Policies.

**REGARDING LRMP GOALS**

6. LRMP Goal 1 is entitled “Planning and Public Involvement” and states that as follows:

**Champaign County will attain a system of land resource management planning built on broad public involvement that supports effective decision making by the County.**

Goal 1 has 4 objectives and 4 policies. The proposed amendment **WILL NOT IMPEDE** the achievement of Goal 1.

7. LRMP Goal 2 is entitled “Governmental Coordination” and states as follows:

**Champaign County will collaboratively formulate land resource and development policy with other units of government in areas of overlapping land use planning jurisdiction.**

Goal 2 has two objectives and three policies. The proposed amendment **WILL NOT IMPEDE** the achievement of Goal 2.

8. LRMP Goal 3 is entitled “Prosperity” and states as follows:

**Champaign County will encourage economic growth and development to ensure prosperity for its residents and the region.**

Goal 3 has three objectives and no policies. Objective 3.1 is most relevant to the proposed text amendment. The proposed amendment will **HELP ACHIEVE** Goal 3 as follows:

- A. Objective 3.1 states, “Champaign County will seek to ensure that it maintains comparable tax rates and fees, and a favorable business climate relative to similar counties.”

The proposed amendment will **HELP ACHIEVE** Objective 3.1 as follows:

- (1) The proposed text amendment will allow further development of renewable energy, which will allow newer technologies to improve Champaign County’s business climate.

9. LRMP Goal 4 is entitled “Agriculture” and states as follows:

**Champaign County will protect the long-term viability of agriculture in Champaign County and its land resource base.**

Goal 4 has 9 objectives and 22 policies. Objectives 4.4, 4.5, 4.7, 4.8 and their policies do not appear to be relevant to the proposed text amendment. The proposed amendment will **HELP ACHIEVE** Goal 4 for the following reasons:

- A. Objective 4.1 states as follows: “**Champaign County will strive to minimize the fragmentation of the County’s agricultural land base and conserve farmland, generally applying more stringent development standards on *best prime farmland*.**”

The proposed amendment will **HELP ACHIEVE** Objective 4.1 for the following reasons:

- (1) The proposed amendment **WILL NOT IMPEDE** the achievement of Policies 4.1.2, 4.1.3, 4.1.4, 4.1.5, 4.1.7, 4.1.8, and 4.1.9.
- (2) Policy 4.1.1 states: “**Commercial agriculture is the highest and best use of land in the areas of Champaign County that are by virtue of topography, soil and drainage, suited to its pursuit. The County will not accommodate other land uses except under very restricted conditions or in areas of less productive soils.**”

**REVISED DRAFT**

The proposed amendment will **HELP ACHIEVE** Policy 4.1.1 for the following reasons:

- a. The standard conditions for BATTERY ENERGY STORAGE SYSTEMS will ensure the following:
  - (a) The proposed amendment requires minimum separations between any BATTERY ENERGY STORAGE SYSTEM and existing adjacent use to minimize issues of land use compatibility.
  - (b) No BATTERY ENERGY STORAGE SYSTEM shall interfere with agricultural operations (see Objective 4.2).
  - (c) No BATTERY ENERGY STORAGE SYSTEM shall be located at any location that is not well-suited for that BATTERY ENERGY STORAGE SYSTEM (see Objective 4.3).
  - (d) The proposed amendment establishes standard conditions to ensure that the allowable noise level created by a BATTERY ENERGY STORAGE SYSTEM is consistent with the Illinois Pollution Control Board regulations that are the same for all rural land uses.
  - (e) The proposed amendment requires BATTERY ENERGY STORAGE SYSTEMS to have an approved Decommissioning and Site Reclamation Plan to ensure that funds will be available to remove a BATTERY ENERGY STORAGE SYSTEM should it ever become non-functional.
- (3) Policy 4.1.6 states: **“Provided that the use, design, site and location are consistent with County policies regarding:**
  - i. Suitability of the site for the proposed use;
  - ii. Adequacy of infrastructure and public services for the proposed use;
  - iii. Minimizing conflict with agriculture;
  - iv. Minimizing the conversion of farmland; and
  - v. Minimizing the disturbance of natural areas; then
  - a) On best prime farmland, the County may authorize discretionary residential development subject to a limit on total acres converted which is generally proportionate to tract size and is based on the January 1, 1998 configuration of tracts, with the total amount of acreage converted to residential use (inclusive of by-right development) not to exceed three acres plus three acres per each 40 acres (including any existing right-of-way), but not to exceed 12 acres in total; or
  - b) On best prime farmland, the County may authorize non-residential discretionary development; or
  - c) The County may authorize discretionary review development on tracts consisting of other than best prime farmland.”

The proposed amendment will **HELP ACHIEVE** Policy 4.1.6 for the following reasons:

**Commented [SB1]:** Without an AIMA, what can we put in sections 4.2 and 4.3?

- a. The ZBA has recommended that the proposed amendment will **HELP ACHIEVE** Objective 4.3 regarding location at a suitable site and adequacy of infrastructure and public services.
- b. The ZBA has recommended that the proposed amendment will **HELP ACHIEVE** Objective 4.2 regarding no interference with agricultural operations.
- c. The proposed amendment will **HELP ACHIEVE** the County's policies regarding minimizing the conversion of best prime farmland as follows:
  - (a) The only policy regarding conversion of best prime farmland by non-residential discretionary development is Policy 4.1.6b., which states, "On best prime farmland the County may authorize non-residential development." Policy 4.1.6.b. has no limit on the conversion of best prime farmland for non-residential discretionary development and is merely a statement of fact and therefore, the proposed amendment does help achieve Policy 4.1.6b.

- B. Objective 4.2 is entitled "Development Conflicts with Agricultural Operations" and states, "Champaign County will require that each *discretionary review* development will not interfere with agricultural operations."

The proposed amendment will **HELP ACHIEVE** Objective 4.2 because of the following:

- (1) **Policy 4.2.1 states, "The County may authorize a proposed business or other non-residential *discretionary review* development in a rural area if the proposed development supports agriculture or involves a product or service that is better provided in a *rural* area than in an urban area."**

The proposed amendment will **HELP ACHIEVE** Policy 4.2.1 for the following reasons:

- a. The Land Resource Management Plan (LRMP) provides no guidance regarding what products or services are better provided in a rural area and therefore that determination must be made in each zoning case.
  - b. BATTERY ENERGY STORAGE SYSTEMS **ARE** services better provided in a rural area as evidenced by the following:
    - (a) BATTERY ENERGY STORAGE SYSTEMS do not require access to most utilities.
    - (b) BATTERY ENERGY STORAGE SYSTEMS are not compatible with principal structures within the minimum separation distance established by the Zoning Ordinance.
- (2) **Policy 4.2.2 states, "The County may authorize *discretionary review* development in a rural area if the proposed development:**
- a) **is a type that does not negatively affect agricultural activities; or**
  - b) **is located and designed to minimize exposure to any negative affect caused by agricultural activities; and**

**REVISED DRAFT**

- c) **will not interfere with agricultural activities or damage or negatively affect the operation of agricultural drainage systems, rural roads, or other agriculture-related infrastructure.”**

The proposed amendment will **HELP ACHIEVE** Policy 4.2.2 for the following reasons:

- a. The proposed Special Use Permit requirements for BATTERY ENERGY STORAGE SYSTEMS include minimum separations, standard conditions to mitigate damage to farmland, a signed Roadway Upgrade and Maintenance agreement, and a Decommissioning and Site Reclamation Plan.

- (3) **Policy 4.2.3 states, “The County will require that each proposed discretionary development explicitly recognize and provide for the right of agricultural activities to continue on adjacent land.”**

The proposed amendment will **HELP ACHIEVE** Policy 4.2.3 for the following reason:

- a. The proposed Special Use Permit requirements for BATTERY ENERGY STORAGE SYSTEMS include minimum separations, standard conditions to mitigate damage to farmland

- (4) **Policy 4.2.4 states, “To reduce the occurrence of agricultural land use and non-agricultural land use nuisance conflicts, the County will require that all discretionary review consider whether a buffer between existing agricultural operations and the proposed development is necessary.”**

The proposed amendment will **HELP ACHIEVE** Policy 4.2.4 for the following reason:

- a. The proposed amendment requires minimum separations from adjacent uses and structures as a standard condition.

- C. Objective 4.3 is entitled “Site Suitability for Discretionary Review Development” and states: “Champaign County will require that each discretionary review development is located on a suitable site.”

The proposed amendment will **HELP ACHIEVE** Objective 4.3 because of the following:

- (1) **Policy 4.3.1 states “On other than best prime farmland, the County may authorize a discretionary review development provided that the site with proposed improvements is suited overall for the proposed land use.”**

The proposed amendment will **HELP ACHIEVE** Policy 4.3.1 for the following reasons:

- a. See the discussion under Policy 4.3.2 regarding achievement of Policy 4.3.2. If the proposed amendment achieves Policy 4.3.2, it will also achieve Policy 4.3.1.

- (2) **Policy 4.3.2 states, “On best prime farmland, the County may authorize a discretionary review development provided the site with proposed improvements is well-suited overall for the proposed land use.**

The proposed amendment will *HELP ACHIEVE* Policy 4.3.2 for the following reasons:

- a. Because so much of Champaign County consists of best prime farmland soils, any development of a BATTERY ENERGY STORAGE SYSTEM is likely to be on best prime farmland.
- b. Standard conditions for BATTERY ENERGY STORAGE SYSTEMS will ensure that they shall not be approved on any location that is not well-suited as follows:
  - (a) The proposed amendment identifies areas where BATTERY ENERGY STORAGE SYSTEMS should not be located.
  - (b) The proposed amendment requires and Endangered Species Consultation with the IDNR and IDNR recommendations will be included in the Agency Action Report submitted with the Special Use Permit Application.
  - (c) The proposed amendment requires consultation with the State Historic Preservation Officer of IDNR and IDNR recommendations will be included in the Agency Action Report submitted with the Special Use Permit Application.

- (3) **Policy 4.3.3 states, “The County may authorize a discretionary review development provided that existing public services are adequate to support to the proposed development effectively and safely without undue public expense.”**

The proposed amendment will *HELP ACHIEVE* Policy 4.3.3. for the following reason:

- a. A BESS will only be allowed as a Special Use Permit and it is assumed that a Special Use Permit will not be allowed if there is any undue public expense.

**Commented [SB2]:** Is it possible to agree with this if it is unknown what kinds of resources it would take to extinguish a fire at a BESS?

**Commented [JH3R2]:** The intent of the amendment is for the ZBA to ensure that any concerns about adequacy of public services are addressed as needed in a special condition. For lithium ion BESS, any fire will be allowed to burn.

- (4) **Policy 4.3.4 states, “The County may authorize a discretionary review development provided that existing public infrastructure, together with proposed improvements, is adequate to support the proposed development effectively and safely without undue public expense.”**

The proposed amendment will *HELP ACHIEVE* Policy 4.3.4 for the following reasons:

- a. The proposed amendment requires a Roadway Upgrade and Maintenance Agreement with the relevant highway authority.

- (5) **Policy 4.3.5 states, “On best prime farmland, the County will authorize a business or other non-residential use only if:**



**REVISED DRAFT**

- a. It also serves surrounding agricultural uses or an important public need; and cannot be located in an urban area or on a less productive site; or
- b. the use is otherwise appropriate in a rural area and the site is very well suited to it.”

The proposed amendment will **HELP ACHIEVE** Policy 4.3.5 for the following reasons:

- a. As reviewed for Policy 4.2.1 in this Finding of Fact:
  - (a) BATTERY ENERGY STORAGE SYSTEMS **ARE** services better provided and therefore **ARE** appropriate in a rural area.
- b. Regarding location of a BATTERY ENERGY STORAGE SYSTEM on a less productive site, the following is reviewed under Policy 4.3.2 in this Finding of Fact:
  - (a) It is unlikely that a BATTERY ENERGY STORAGE SYSTEM in Champaign County will be located on less than best prime farmland.

10. LRMP Goal 5 is entitled “Urban Land Use” and states as follows:

**Champaign County will encourage urban development that is compact and contiguous to existing cities, villages, and existing unincorporated settlements.**

Goal 5 has 3 objectives and 15 policies. The proposed amendment is **NOT RELEVANT** to Goal 5 in general.

**Commented [SB4]:** How does policy 5.1.4 fit here?

**Commented [JH5R4]:** A BESS is not "urban development" as defined in the LRMP so is Goal 5 relevant?

11. LRMP Goal 6 is entitled “Public Health and Safety” and states as follows:

**Champaign County will ensure protection of the public health and public safety in land resource management decisions.**

Goal 6 has 4 objectives and 7 policies. Objectives 6.2, 6.3, and 6.4 are not relevant to the proposed amendment. The proposed amendment will **HELP ACHIEVE** Goal 6 for the following reasons:

- A. Objective 6.1 states, “**Champaign County will seek to ensure that development in unincorporated areas of the County does not endanger public health or safety.**”

Objective 6.1 has four subsidiary policies but none are directly relevant to BATTERY ENERGY STORAGE SYSTEMS however the proposed amendment will **HELP ACHIEVE** Goal Objective 6.1 for the following reasons:

- (1) Supplemental Memorandum #2 dated 12/12/24 included many revisions intended to provide for public safety. The principal changes for safety were the following:
  - a. The National Fire Protection Association 855 Standard for Installation of Stationary Energy Storage Systems requirement for a “Hazard Mitigation Analysis” was added. The Hazard Mitigation Analysis must be approved by the relevant fire protection district. The Zoning Administrator is to receive a copy of the approved Hazard Mitigation Analysis with the Zoning Use Permit Application.

**Commented [SB6]:** There's plenty to say about BESS regarding public health and safety, but none of the objectives and policies are applicable to BESS. It would be unfortunate to say Goal 6 is not relevant just because we can't find linkages to the objectives and policies.

**Commented [JH7R6]:** We could deal with by bypassing the Objectives and just deal with the facts about safety- the 500 feet separation and the various safety requirements that we have are all intended to "help achieve" this Goal even though not specific to any Objective. Objective 6.3 is very closely related but this amendment does not involve adopting a building code.

- b. The NFPA 855 requirement for a “Commissioning Report” prior to the BESS going into operation were added. Both the relevant fire protection district and the Zoning Administrator are to receive copies of the Commissioning Report.
  - c. Access drive requirements were added. Any part of the TIER-2 BESS must be within 100 feet from an access drive.
  - d. NFPA 855 requirements for smoke and fire detection systems were added. Smoke and fire detection systems are not required for outdoor locations.
  - e. NFPA 855 requirements for fire control and suppression (including water availability) were added. Fire control and suppression (including water availability) are not required for outdoor locations more than 100 feet from other buildings and property lines unless recommended by the relevant fire protection district or otherwise required by the Board.
  - f. NFPA 855 requirements for explosion control were added. NFPA 855 requires explosion control for nearly all BESS.
  - g. General NFPA 855 requirements were added for TIER-2 BESS proposed to be in or on a building.
  - h. NFPA 855 requirements for “Remediation Measures” were added. NFPA 855 requires the BESS owner to provide authorized service personnel to assist emergency responders and allows for the “authority having jurisdiction” to also require the owner to provide “hazard support personnel” to monitor the BESS for possible ignition or reignition
  - i. Because of the safety concerns, the Special Use Permit requirement was also changed to a County Board Special Use Permit.
- (2) NFPA 855 is due to be updated in 2026 and it would behoove Champaign County to review the BESS requirements for any necessary changes based on the 2026 NFPA 855.
- (3) Supplemental Memorandum #3 dated 3/13/25 reviewed best practice recommendations for minimum separations of BESS facilities including the use of “air plume simulation modeling” to study the down-wind impacts of a BESS failure. The authors of one paper recommended “...to complete a plume dispersion study of the BESS and surrounding area, especially if there are occupied buildings within .25 mile.” The authors also recommended that in the absence of a site-specific plume dispersion study, that evacuation or shelter-in-place be implemented within a quarter mile of a BESS site with a BESS fire or battery failure.
- (4) Supplemental Memorandum #4 dated 3/13/25 reviewed an air plume simulation modeling exercise that analyzed two hypothetical situations, one involving a simulated thermal runaway of a .25 MWh BESS battery over a one-hour period and a second involving a simulated combustion of a .25 MWh BESS battery over one

**REVISED DRAFT**

hour and eight hours. All simulations assumed a low wind speed of 6 m/s (4.9 mph). The thermal runaway simulation included two different assumptions about state of charge of the battery (high charge and low charge) and two different assumptions about the volume of gas released from the thermal runaway (low volume and high volume). **The thermal runaway simulation resulted in levels of hydrogen fluoride that were “well above” the USEPA Acute Exposure Guideline Levels for a distance of 300 meters (975 feet) downwind. This exposure would be a significant concern for firefighters and surrounding populations.** The combustion simulation included various assumptions about the amount of heat released (low and high) and the burn time (1 hour and 8 hours) and whether individual battery racks burn in series or the entire battery container all at once. The combustion simulation results did not exceed the USEPA Acute Exposure Guideline Levels because the heat from combustion in all simulations made the plume rise high enough that concentrations at the ground surface were not a problem.

- (5) After reviewing Supplemental Memorandums #3 and #4 at the 3/13/25 public hearing, the ZBA was interested in revising the proposed amendment to require a ¼ mile separation from a proposed TIER-2 BESS to the nearest principal building.
- (6) Supplemental Memorandum #5 dated 5/08/25 reviewed two alternative separations with one being a one-quarter mile separation to property lines and the other being a hybrid approach with a ¼ mile separation to the nearest principal building and a minimum separation of 825 feet to non-participating property lines. Testimony was offered at the 5/15/25 public hearing from a prospective BESS developer about the anticipated difficulty of meeting either the 825 feet or the 1/4 mile separation to non-participating property lines.
- (7) Supplemental Memorandum #7 dated 7/17/25 proposed adding the ¼ mile separation from a TIER-2 BESS to the nearest principal building.

12. LRMP Goal 7 is entitled “Transportation” and states as follows:

**Champaign County will coordinate land use decisions in the unincorporated area with the existing and planned transportation infrastructure and services.**

Goal 7 has 2 objectives and 7 policies. The proposed amendment is **NOT RELEVANT** to Goal 7 in general.

13. LRMP Goal 8 is entitled “Natural Resources” and states as follows:

**Champaign County will strive to conserve and enhance the County’s landscape and natural resources and ensure their sustainable use.**

Goal 8 has 9 objectives and 36 policies. Objectives 8.1, 8.3, 8.5, 8.6, 8.7, 8.8, and 8.9 and their policies do not appear to be relevant to the proposed text amendment. The proposed amendment will **HELP ACHIEVE** Goal 8 for the following reasons:

- A. Objective 8.2 is entitled “Soil” and states, “Champaign County will strive to conserve its soil resources to provide the greatest benefit to current and future generations.”

The proposed amendment will **HELP ACHIEVE** Objective 8.2 because of the following:

- (1) **Policy 8.2.1 states, “The County will strive to minimize the destruction of its soil resources by non-agricultural development and will give special consideration to the protection of best prime farmland. Best prime farmland is that comprised of soils that have a Relative Value of at least 91 and includes land parcels with mixed soils that have a Land Evaluation score of 91 or greater as defined in the LESA.”**

The proposed amendment will **HELP ACHIEVE** Policy 8.2.1 for the following reason:

- a. The Board considers soil resources for any Special Use Permit.

- B. Object 8.4 is entitled “Surface Water Protection” and states, “Champaign County will work to ensure that new development and ongoing land management practices maintain and improve surface water quality, contribute to stream channel stability, and minimize erosion and sedimentation.”

The proposed amendment will **HELP ACHIEVE** Objective 8.4 because of the following:

- (1) **Policy 8.4.2 states, “The County will require stormwater management designs and practices that provide effective site drainage, protect downstream drainage patterns, minimize impacts on adjacent properties and provide for stream flows that support healthy aquatic ecosystems.”**

The proposed amendment will **HELP ACHIEVE** Policy 8.4.2 for the following reason:

- a. The Board considers surface water protection for any Special Use Permit.

14. LRMP Goal 9 is entitled “Energy Conservation” and states as follows:

**Champaign County will encourage energy conservation, efficiency, and the use of renewable energy sources.**

Goal 9 has 5 objectives and 5 policies. Objectives 9.1, 9.2, 9.3, and 9.4 and their policies do not appear to be relevant to the proposed text amendment. The proposed amendment will **HELP ACHIEVE** the achievement of Goal 9 for the following reason:

- A. Objective 9.5, which has no subsidiary policies, states, “**Champaign County will encourage the development and use of renewable energy sources where appropriate and compatible with existing land uses.**”

The proposed amendment will **HELP ACHIEVE** Objective 9.5 as follows:

- (1) BESS integrated within PV SOLAR FARMS can optimize use of renewable energy while achieving the desired setbacks that PV SOLAR FARMS already provide through the Zoning Ordinance.

**REVISED DRAFT**

15. LRMP Goal 10 is entitled “Cultural Amenities” and states as follows:

**Champaign County will promote the development and preservation of cultural amenities that contribute to a high quality of life for its citizens.**

Goal 10 has 1 objective and 1 policy. The proposed amendment is **NOT RELEVANT** to Goal 10 in general.

**REGARDING THE PURPOSE OF THE ZONING ORDINANCE**

16. The proposed amendment will **HELP ACHIEVE** the purpose of the Zoning Ordinance as established in Section 2 of the Ordinance for the following reasons:

- A. Paragraph 2.0 (a) of the Ordinance states that one purpose of the zoning regulations and standards that have been adopted and established is to secure adequate light, pure air, and safety from fire and other dangers.

The proposed amendment is consistent with this purpose. See the discussion under LRMP Goal 6.

- B. Paragraph 2.0 (b) of the Ordinance states that one purpose of the zoning regulations and standards that have been adopted and established is to conserve the value of land, BUILDINGS, and STRUCTURES throughout the COUNTY.

The proposed amendment is consistent with this purpose.

- C. Paragraph 2.0 (c) of the Ordinance states that one purpose of the zoning regulations and standards that have been adopted and established is to lessen and avoid congestion in the public STREETS.

The proposed amendment is not directly related to this purpose.

- D. Paragraph 2.0 (d) of the Ordinance states that one purpose of the zoning regulations and standards that have been adopted and established is to lessen and avoid hazards to persons and damage to property resulting from the accumulation of runoff of storm or flood waters.

The proposed amendment is not directly related to this purpose.

- E. Paragraph 2.0 (e) of the Ordinance states that one purpose of the zoning regulations and standards that have been adopted and established is to promote the public health, safety, comfort, morals, and general welfare.

The proposed amendment is consistent with this purpose. See the discussion under LRMP Goal 6.

- F. Paragraph 2.0 (f) of the Ordinance states that one purpose of the zoning regulations and standards that have been adopted and established is to regulate and limit the height and bulk of BUILDINGS and STRUCTURES hereafter to be erected.

The proposed amendment is consistent with this purpose.

- G. Paragraph 2.0 (g) of the Ordinance states that one purpose of the zoning regulations and standards that have been adopted and established is to establish, regulate, and limit the building or setback lines on or along any street, trafficway, drive or parkway.

The proposed amendment is consistent with this purpose.

- H. Paragraph 2.0 (h) of the Ordinance states that one purpose of the zoning regulations and standards that have been adopted and established is to regulate and limit the intensity of the use of LOT areas, and regulating and determining the area of open spaces within and surrounding BUILDINGS and STRUCTURES.

The proposed amendment is consistent with this purpose.

- I. Paragraph 2.0 (i) of the Ordinance states that one purpose of the zoning regulations and standards that have been adopted and established is to classify, regulate, and restrict the location of trades and industries and the location of BUILDINGS, STRUCTURES, and land designed for specified industrial, residential, and other land USES.

The proposed amendment is consistent with this purpose.

- J. Paragraph 2.0 (j) of the Ordinance states that one purpose of the zoning regulations and standards that have been adopted and established is to divide the entire County into DISTRICTS of such number, shape, area, and such different classes according to the USE of land, BUILDINGS, and STRUCTURES, intensity of the USE of LOT area, area of open spaces, and other classification as may be deemed best suited to carry out the purpose of the ordinance.

The proposed amendment is not directly related to this purpose.

- K. Paragraph 2.0 (k) of the Ordinance states that one purpose of the zoning regulations and standards that have been adopted and established is to fix regulations and standards to which BUILDINGS, STRUCTURES, or USES therein shall conform.

The proposed amendment is consistent with this purpose.

- L. Paragraph 2.0 (l) of the Ordinance states that one purpose of the zoning regulations and standards that have been adopted and established is to prohibit USES, BUILDINGS, or STRUCTURES incompatible with the character of such DISTRICTS.

The proposed amendment is consistent with this purpose.

- M. Paragraph 2.0 (m) of the Ordinance states that one purpose of the zoning regulations and standards that have been adopted and established is to prevent additions to and alteration or remodeling of existing BUILDINGS, STRUCTURES, or USES in such a way as to avoid the restrictions and limitations lawfully imposed under this ordinance.

The proposed amendment is not directly related to this purpose.

**REVISED DRAFT**

- N. Paragraph 2.0 (n) of the Ordinance states that one purpose of the zoning regulations and standards that have been adopted and established is to protect the most productive agricultural lands from haphazard and unplanned intrusions of urban USES.

The proposed amendment is consistent with this purpose.

- O. Paragraph 2.0 (o) of the Ordinance states that one purpose of the zoning regulations and standards that have been adopted and established is to protect natural features such as forested areas and watercourses.

The proposed amendment is consistent with this purpose.

- P. Paragraph 2.0 (p) of the Ordinance states that one purpose of the zoning regulations and standards that have been adopted and established is to encourage the compact development of urban areas to minimize the cost of development of public utilities and public transportation facilities.

The proposed amendment is not directly related to this purpose.

- Q. Paragraph 2.0 (q) of the Ordinance states that one purpose of the zoning regulations and standards that have been adopted and established is to encourage the preservation of agricultural belts surrounding urban areas, to retain the agricultural nature of the County, and the individual character of existing communities.

The proposed amendment is consistent with this purpose.

- R. Paragraph 2.0 (r) of the Ordinance states that one purpose of the zoning regulations and standards that have been adopted and established is to provide for the safe and efficient development of renewable energy sources in those parts of the COUNTY that are most suited to their development.

The proposed amendment is consistent with this purpose.

17. The proposed text amendment **WILL** improve the text of the Zoning Ordinance because it **WILL** provide:

- A. A classification which allows BATTERY ENERGY STORAGE SYSTEMS to be developed while establishing minimum requirements that ensure the purposes of the Zoning Ordinance will be met.
- B. A means to regulate an activity for which there is demonstrated demand.

**Commented [SB8]:** BESS will generally be located proximate to urban areas that have substations and solar. While solar can be converted back to ag, I'm not sure that is the same for BESS. How deep are the foundation pads for BESS, and do they ruin the soil below them?

**Commented [JH9R8]:** BESS in shipping containers should not harm the soil but I don't think that is relevant to this purpose.

**SUMMARY FINDING OF FACT**

From the documents of record and the testimony and exhibits received at the public hearing conducted on **March 28, 2024; July 16, 2024; December 12, 2024; March 13, 2025; May 15, 2025; and July 17, 2025**, the Zoning Board of Appeals of Champaign County finds that:

1. The proposed Zoning Ordinance text amendment ***IS NECESSARY TO ACHIEVE*** the Land Resource Management Plan because:
  - A. The proposed Zoning Ordinance text amendment will ***HELP ACHIEVE*** LRMP Goals 3, 4 and 6.
  - B. The proposed Zoning Ordinance text amendment ***WILL NOT IMPEDE*** the achievement of LRMP Goals 1, 2 and 9.
  - C. The proposed Zoning Ordinance text amendment is ***NOT RELEVANT*** to LRMP Goals 5, 7, 8 and 10.
2. The proposed text amendment ***WILL*** improve the Zoning Ordinance because it will:
  - A. ***HELP ACHIEVE*** the purpose of the Zoning Ordinance (see Item 16).
  - B. ***IMPROVE*** the text of the Zoning Ordinance (see Item 17).



DOCUMENTS OF RECORD

1. Legal advertisement for Case 130-AT-24
2. Preliminary Memorandum for Case 130-AT-24 dated March 20, 2024, with attachments:
  - A Legal advertisement
  - B ELUC Memorandum dated December 22, 2024, with attachment:
    - Draft BESS Text Amendment to the Champaign County Zoning Ordinance
  - C National Fire Protection Association (NFPA). (June 2020) *Energy Storage Systems Safety Fact Sheet*. <https://www.nfpa.org>.
  - D The American Clean Power Association. (July 2023) *First Responder's Guide to Lithium-Ion Battery Energy Storage System Incidents*. <https://cleanpower.org/resources/first-responders-guide-to-bess-incidents/>
  - E National Renewable Energy Laboratory (NREL). (September 2019). *Grid Scale Battery Storage Frequently Asked Questions*. <https://www.nrel.gov>
  - F New York State Energy Research and Development Authority (NYSERDA). (May 2021) *Battery Energy Storage Systems 101* presentation. <https://www.nyserda.ny.gov> (on ZBA meetings website)
  - G New York State Energy Research and Development Authority (NYSERDA). (October 2020) *New York Battery Energy Storage System Guidebook for Local Governments*. <https://www.nyserda.ny.gov> (on ZBA meetings website)
  - H DeKalb County. (March 15, 2023) Ordinance O2023-009: An ordinance amending Section 52-E-12, "Sustainable Energy Systems," of the DeKalb County Code to add a new subsection C, "Battery Energy Storage Systems." <https://dekalbcounty.org/>
  - I Exeter Associates. (February 2022) *Siting and Safety Best Practices for Battery Energy Storage Systems*.
  - J Velocity EHS. (July 2021) *Morris Lithium Battery Fire Highlights Emergency Planning, Hazardous Chemical Management*. <https://www.ehs.com> (on ZBA meetings website)
  - K Michael Urbanec. (July 2021) *No evacuation for battery fire at energy storage facility east of Grand Ridge*. <https://www.shawlocal.com>. (on ZBA meetings website)
  - L Julian Spector. (August 2020) *What Sparked the Arizona Battery Fire? LG Chem has a different version*. <https://www.greentechmedia.com> (on ZBA meetings website)
  - M Andy Colthorpe. (February 2022) *World's biggest lithium battery storage now completely offline*. <https://www.energy-storage.news> (on ZBA meetings website)
  - N Pacific Northwest National Laboratory. (October 2023) *Energy Storage in Local Zoning Ordinances*. <https://www.pnnl.gov/publications/energy-storage-local-zoning-ordinances>

- O Comments received regarding the proposed text amendment as of March 20, 2024
- P Preliminary Finding of Fact, Summary Finding of Fact, and Final Determination for Case 130-AT-24 dated March 28, 2024, with attachment:
  - Exhibit A: Proposed Amendment dated March 28, 2024
- 3. Supplemental Memorandum #1 for Case 130-AT-24 dated July 3, 2024
- 4. Supplemental Memorandum #2 for Case 130-AT-24 dated December 12, 2024, with attachments:
  - A Legal Advertisement
  - B Revised Draft Amendment
  - C Excerpt of NFPA 855 pages 1 -42
  - D Cordelio Power BESS 101 presentation to Illinois Renewable Energy Conference October 2024
- 5. Supplemental Memorandum #3 for Case 130-AT-24 dated March 13, 2025, with attachments:
  - A Changes to Case 130-AT-24 Version 12/12/2024 based on Tenaska Comments
  - B Lessons Learned from Air Plume Modeling of Battery Energy Storage System Failure Incidents. EPRI, Palo Alto, CA. 2024
  - C Hazards of lithium-ion battery energy storage systems (BESS), mitigation strategies, minimum requirements, and best practices. Mylenbusch, Ian S., Kieran Claffey, and Benjamin Chu. Process Safety Progress 2023; 42:664-673
  - D Air Quality Report SDG& E Battery Fire, 571 Enterprise Street, Escondido CA. 2024
  - E Water Quality Report SDG& E Battery Fire, 571 Enterprise Street, Escondido CA. 2024
  - F Battery Storage Fire in California Sparks Widespread Safety Concerns. The Energy Mix. June 7, 2024
  - G Incidents similar to Moss Landing battery fire are unlikely but stricter regulations proposed. pv-magazine.com. January 28, 2025
  - H Moss Landing fire leads to emergency regulations. pv-magazine.com. February 7, 2025
  - I Legal advertisement
- 6. Supplemental Memorandum #4 for Case 130-AT-24 dated March 13, 2025, with attachment:
  - A *Air Modeling Simulations of Battery Energy Storage System Fires*. EPRI, Palo Alto CA. 2022
- 7. Supplemental Memorandum #5 for Case 130-AT-24 dated May 8, 2025, with attachments:
  - A Legal Advertisement
  - B Revised Draft Amendment dated 05/08/2025
  - C
    1. Diagram of ¼ Mile Separation to Principal Building
    2. Proposed text for ¼ Mile Separation to Principal Building

- D
    - 1. Diagram of ¼ Mile Separation to Non-Participating Property Lines
    - 2. Map Exhibit of ¼ Mile Separation to Non-Participating Property Lines
    - 3. Proposed text for ¼ Mile Separation to Non-Participating Property Lines
  - E
    - 1. Diagram of Hybrid Separation
    - 2. Map Exhibit of Hybrid Separation
    - 3. Proposed text for Hybrid Separation
- 8. Supplemental Memorandum #6
- 9. Supplemental Memorandum #7 for Case 130-AT-24 dated July 17, 2025, with attachments:
  - A Legal Advertisement
  - B Revised Sections 5.4.3 G., 6.1.8A.(2) and 6.1.8C.(3)
- 10. Supplemental Memorandum #8 for Case 130-AT-24 dated July 17, 2025, with attachments:
  - A Legal Advertisement
  - B Revised Finding of Fact, Summary Finding of Fact, and Final Determination for Case 130-AT-24 dated July 17, 2025, with attachment:
    - Exhibit A: Proposed Amendment dated March 28, 2024

**REVISED DRAFT**

**Case 130-AT-24**  
Page 20 of 57

**FINAL DETERMINATION**

Pursuant to the authority granted by Section 9.2 of the Champaign County Zoning Ordinance, the Zoning Board of Appeals of Champaign County recommends that:

The Zoning Ordinance Amendment requested in **Case 130-AT-24** should ***{BE ENACTED / NOT BE ENACTED}*** by the County Board in the form attached hereto.

The foregoing is an accurate and complete record of the Findings and Determination of the Zoning Board of Appeals of Champaign County.

SIGNED:

Ryan Elwell, Chair  
Champaign County Zoning Board of Appeals

ATTEST:

Secretary to the Zoning Board of Appeals

Date

**1. Add the following to Section 3. Definitions:**

**BATTERY ENERGY STORAGE SYSTEM (BESS):** an electrochemical energy storage system that collects energy from the electrical grid or other electrical resource and then discharges that energy at a later time to provide electricity when needed.

- A. TIER-1 BATTERY ENERGY STORAGE SYSTEMS have an aggregate energy capacity less than or equal to 600kWh and, if in a room or enclosed area, consist of only a single energy storage system technology.
- B. TIER-2 BATTERY ENERGY STORAGE SYSTEMS have an aggregate energy capacity greater than 600kWh or are comprised of more than one storage battery unit in a room or enclosed area.

**2. Add new paragraph 4.2.1 C.8. as follows:**

C. It shall be unlawful to erect or establish more than one MAIN or PRINCIPAL STRUCTURE or BUILDING per LOT or more than one PRINCIPAL USE per LOT in the AG-1, Agriculture, AG-2, Agriculture, CR, Conservation-Recreation, R-1, Single Family Residence, R-2, Single Family Residence, and R-3, Two Family Residence DISTRICTS other than in PLANNED UNIT DEVELOPMENTS except as follows:

8. A BATTERY ENERGY STORAGE SYSTEM may be authorized as a County Board SPECIAL USE Permit in the AG-1 Agriculture and AG-2 Agriculture Zoning Districts as a second PRINCIPAL USE on a LOT with another PRINCIPAL USE.

**3. Amend Section 5.2 as follows:**

## SECTION 5.2 TABLE OF AUTHORIZED PRINCIPAL USES

[illegible]

Principal USES	Zoning DISTRICTS														
	CR	AG-1	AG-2	R-1	R-2	R-3	R-4	R-5	B-1	B-2	B-3	B-4	B-5	I-1	I-2
BATTERY ENERGY STORAGE SYSTEM, TIER-2 <sup>33</sup>		B	B						B			B		B	B



= Permitted on individual LOTS as a Special Use Permit



= County Board Special Use Permit



= Permitted by right

**4. Add new Footnotes 31 and 32 under Section 5.2 as follows:**

31. A TIER-1 BATTERY ENERGY STORAGE SYSTEM is permitted by-right in all zoning districts, subject to the setback and yard requirements in Section 5.3 of the Zoning Ordinance. No Zoning Use Permit shall be required if the area occupied by the TIER-1 BESS is less than 150 square feet.
32. A TIER-2 BATTERY ENERGY STORAGE SYSTEM is subject to the requirements of Section 6.1.8 of the Zoning Ordinance.

**5. Add new paragraph 5.4.3 G. as follows:**

- G. Any DWELLING in a Rural Residential Overlay Zoning District is prohibited from being established within one-quarter mile of a TIER-2 BATTERY ENERGY STORAGE SYSTEM.

**6. Add new Section 6.1.8 as follows:**

**6.1.8 TIER-2 BATTERY ENERGY STORAGE SYSTEMS**

A TIER-2 BATTERY ENERGY STORAGE SYSTEM SPECIAL USE Permit may only be authorized in the AG-1 Agriculture Zoning DISTRICT, the AG-2 Agriculture Zoning DISTRICT, B-1 Rural Trade Center, B-4 General Business, I-1 Light Industry Zoning District, or the I-2 Heavy Industry Zoning District subject to the following standard conditions.

**A. General Standard Conditions**

**(1) Right to farm**

- a. The owners of the subject property and the Applicant, its successors in interest, and all parties to the decommissioning plan and site reclamation plan hereby recognize and provide for the right of agricultural activities to continue on adjacent land consistent with the Right to Farm Resolution 3425.

**(2) The TIER-2 BATTERY ENERGY STORAGE SYSTEM (TIER-2 BESS) County BOARD SPECIAL USE Permit shall not be located in the following areas:**

- a. Less than one and three-quarter miles from an incorporated municipality that has a zoning ordinance except for any power lines of 34.5 kVA or less and any related proposed connection to an

**REVISED DRAFT**

existing substation. Any request for a waiver of this minimum separation shall include the following:

- (a) No part of a TIER-2 BESS shall be located within one-quarter mile of a contiguous urban growth area (CUGA) as indicated in the most recent update of the CUGA in the Champaign County Land Resource Management Plan, and there shall be a separation of one-half mile from a proposed TIER-2 BESS to a municipal boundary at the time of application for the SPECIAL USE Permit.
- (b) The ZONING ADMINISTRATOR shall notify in writing any municipality that is located within one and three-quarter miles from any proposed TIER-2 BESS upon the receipt of any substantial TIER-2 BESS SPECIAL USE permit application in addition to any notice otherwise required.
- (c) The TIER-2 BESS SPECIAL USE Permit application shall include documentation that the applicant has provided a complete copy of the SPECIAL USE Permit application to any municipality within one and three-quarter miles of the proposed TIER-2 BESS .
- (d) Municipal subdivision approval for any TIER-2 BESS land lease exceeding five years may be required by any relevant municipal authority that has an adopted comprehensive plan and when required said subdivision approval shall be necessary for compliance with Section 13.2.1.
- (e) The public hearing for any proposed TIER-2 BESS that is located within one and three-quarter miles of a municipality that has a zoning ordinance shall occur at a minimum of two Board meetings that are not less than 28 days apart to provide time for municipal comments during the public hearing, unless the 28-day comment period is waived in writing by any relevant municipality.
- (f) For any proposed TIER-2 BESS that is located within one and three-quarter miles of a municipality that has a zoning ordinance, the ZONING ADMINISTRATOR shall notify said municipality of the recommendation by the BOARD after the close of the public hearing.
- (g) After the initial review of the BOARD recommendation for the TIER-2 BESS SPECIAL USE Permit by the Environment and Land Use Committee of the COUNTY BOARD, if the Environment and Land Use Committee makes a preliminary determination to accept the BOARD recommendation, the TIER-2 BESS SPECIAL USE Permit

shall remain at the Environment and Land Use Committee for a maximum 30-day comment period, or until the next regularly scheduled meeting, to allow comments regarding the TIER-2 BESS SPECIAL USE Permit to be received from any relevant municipal authority prior to the Environment and Land Use Committee recommendation to the COUNTY BOARD, unless the municipal comment period is waived in writing by any relevant municipality. If a TIER-2 BESS is not located within one and three-quarter miles of a municipality the Environment and Land Use Committee recommendation can be referred to the COUNTY BOARD without a comment period.

- (h) If no municipal resolution regarding the TIER-2 BESS is received from any municipality located within one and three-quarter miles of the TIER-2 BESS prior to the consideration of the TIER-2 BESS SPECIAL USE Permit by the Champaign COUNTY BOARD, the ZONING ADMINISTRATOR shall provide documentation to the COUNTY BOARD that any municipality within one and three-quarter miles of the TIER-2 BESS was provided notice of the meeting dates for consideration of the proposed TIER-2 BESS SPECIAL USE Permit for both the Environment and Land Use Committee and the COUNTY BOARD.

**B. Minimum LOT Standards**

- (1) There are no minimum LOT AREA, AVERAGE LOT WIDTH, or maximum LOT COVERAGE requirements for a TIER-2 BATTERY ENERGY STORAGE SYSTEM.
- (2) There is no maximum LOT AREA requirement on BEST PRIME FARMLAND.

**C. Minimum Standard Conditions for Separations for a TIER-2 BATTERY ENERGY STORAGE SYSTEM from adjacent USES and STRUCTURES**

The location of each TIER-2 BATTERY ENERGY STORAGE SYSTEM shall provide the following required separations as measured from the BATTERY ENERGY STORAGE SYSTEM fencing:

- (1) The perimeter fencing shall be set back from the street centerline a minimum of 40 feet from a MINOR STREET and a minimum of 55 feet from a COLLECTOR STREET and a minimum of 60 feet from a MAJOR STREET unless a greater separation is required for screening pursuant to Section 6.1.8L.(2) but in no case shall the perimeter fencing be less than 10 feet from the RIGHT OF WAY of any STREET nor shall the TIER-2 BESS equipment be less than 55 feet from the centerline of a MINOR STREET and a minimum of 75 feet from the centerline of a COLLECTOR STREET



**REVISED DRAFT**

and a minimum of 85 feet from the centerline of a MAJOR STREET. The location of perimeter fencing relative to a STREET can also be affected by the presence of a DWELLING or PRINCIPAL BUILDING per 6.1.8C.(2).

- (2) For properties participating in the TIER-2 BESS: More than 100 feet required separation from any existing DWELLING or existing PRINCIPAL BUILDING unless fire control and suppression are provided for the TIER-2 BESS per Section 6.1.8D.h. in which case the minimum required separation is 10 feet and otherwise, except as required to ensure that a minimum zoning LOT is provided for the existing DWELLING or PRINCIPAL BUILDING.
- (3) For properties not participating in the TIER-2 BESS, the minimum separation to the nearest NONPARTICIPATING PRINCIPAL BUILDING shall be 1,320 feet measured from the nearest BESS equipment to the PRINCIPAL BUILDING. This separation may be reduced by a PRIVATE WAIVER signed by the owner of the PRINCIPAL BUILDING. No minimum separation shall be required to a building on an electrical substation property or to a building on a PARTICIPATING PV SOLAR FARM or a PARTICIPATING WIND FARM.
- (4) When a TIER-2 BATTERY ENERGY STORAGE SYSTEM is included in a PV SOLAR FARM or a SOLAR ARRAY or a WIND FARM, the separations required in Sections 6.1.8C.(2) and (3) shall only apply to the TIER-2 BATTERY ENERGY STORAGE SYSTEM, except for the interconnection point and driveway for the TIER-2 BATTERY ENERGY STORAGE SYSTEM, and shall not apply to any part of the PV SOLAR FARM or a SOLAR ARRAY or a WIND FARM.

D. Standard Conditions for Design and Installation of any TIER-2 BATTERY ENERGY STORAGE SYSTEM.

- (1) Any building that is part of a TIER-2 BATTERY ENERGY STORAGE SYSTEM shall include as a requirement for a Zoning Compliance Certificate, a certification by an Illinois Professional Engineer or Illinois Licensed Structural Engineer or other qualified professional that the constructed building conforms to Public Act 101-369 regarding building code compliance and conforms to the Illinois Accessibility Code.
- (2) Electrical Components
  - a. All electrical components of the TIER-2 BATTERY ENERGY STORAGE SYSTEM shall conform to the National Electrical Code as amended.
  - b. All on-site utility lines shall be placed underground to the extent feasible and as permitted by the serving utility, with the exception of the main service connection at the utility company right-of-way and

any new interconnection equipment, including without limitation any poles, with new easements and right-of-way.

- (3) Maximum Height. The height limitation established in Section 5.3 shall not apply to a TIER-2 BATTERY ENERGY STORAGE SYSTEM. The maximum height of all above ground STRUCTURES shall be identified in the application and as approved in the SPECIAL USE Permit.
- (4) Warnings
  - a. A reasonably visible warning sign shall be installed and shall include the type of technology associated with the BATTERY ENERGY STORAGE SYSTEM, any special hazards associated, the type of suppression system installed in the area of BATTERY ENERGY STORAGE SYSTEMS, and 24-hour emergency contact information, including reach-back phone number.
  - b. As required by the National Electric Code (NEC), disconnect and other emergency shutoff information shall be clearly displayed on a light reflective surface. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations.
- (5) No construction may intrude on any easement or right-of-way for a GAS PIPELINE or HAZARDOUS LIQUID PIPELINE, an underground water main or sanitary sewer, a drainage district ditch or tile, or any other public utility facility unless specifically authorized by a crossing agreement that has been entered into with the relevant party.
- (6) Safety
  - a. Standards. BATTERY ENERGY STORAGE SYSTEMS and equipment shall be listed by a Nationally Recognized Testing Laboratory to UL 9540 (Standard for battery energy storage systems and Equipment) and UL 9540A (Standard for Testing Methods for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems) with subcomponents meeting each of the following standards as applicable:
    - (a) IEEE 1578 (Institute of Electrical and Electronics Engineers; Recommended Practice for Stationary Battery Electrolyte Spill Containment and Management; only required for installations using lead-acid batteries);
    - (b) NFPA 13 (Standard for Installation of Sprinkler Systems);

**REVISED DRAFT**

- (c) NFPA 68 (Standard on Explosion Prevention by Deflagration Venting);
  - (d) NFPA 69 (Standard on Explosion Prevention Systems);
  - (e) NFPA 855 (Standard for the Installation of Stationary Energy Storage Systems)
  - (f) NFPA 1142 (Standard on Water Supplies for Suburban and Rural Firefighting);
  - (g) NFPA 2010 (Standard for Fixed Aerosol Fire Extinguishing Systems);
  - (h) UL 1973 (Standard for Batteries for Use in Stationary, Vehicle Auxiliary Power and Light Electric Rail Applications);
  - (i) UL 1642 (Standard for Lithium Batteries);
  - (j) UL 1741 or UL 62109 (Inverters and Power Converters);
  - (j) Alternatively, field evaluation by an approved testing laboratory for compliance with UL 9540 and applicable codes, regulations and safety standards may be used to meet system certification requirements.
- b. Hazard Mitigation Analysis
- (a) The Special Use Permit Application shall include a commitment to the provision of a Hazard Mitigation Analysis that will comply with the requirements of NFPA 855 and an approved Special Use Permit shall include a special condition of approval requiring compliance with NFPA 855 requirements for a Hazard Mitigation Analysis.
  - (b) Prior to application for a Zoning Use Permit, the TIER-2 BESS Owner shall provide to the relevant fire protection district or department a Hazard Mitigation Analysis of the proposed BESS that meets the requirements of NFPA 855.
  - (c) The relevant fire protection district or department shall document their approval of the Hazard Mitigation Analysis in writing if the Hazard Mitigation Analysis meets the requirements for approval in Section 4.4.3 of NFPA 855.
  - (d) The Zoning Use Permit Application for the proposed TIER-2 BESS shall include documentation that the relevant fire

protection district or department has approved the Hazard Mitigation Analysis and a copy of the approved Hazard Mitigation Analysis shall be submitted with the Zoning Use Permit Application.

- c. Commissioning Report
  - (a) Prior to requesting a Zoning Compliance Certificate to authorize operation of the TIER-2 BESS, the TIER-2 BESS Owner shall provide to the relevant fire protection district or department a Commissioning Report that meets the requirements of NFPA 855.
  - (b) A Zoning Compliance Certificate for a TIER-2 BESS shall not be issued unless the Zoning Administrator receives written documentation that the relevant fire protection district or department has received the Commissioning Report and a copy of the Commissioning Report shall be submitted to the Zoning Administrator.
- d. Vegetation control.
  - (a) Areas within 10 feet on each side of outdoor TIER-2 BESS equipment shall be cleared of combustible vegetation except that grass may be used as a ground cover provided it is maintained such that it does not form a means of readily transmitting fire.
- e. Access drives.
  - (a) For TIER-2 BESS that are located outdoors, no part of the TIER-2 BESS shall be located more than 100 feet from an access drive that is a minimum of 20 feet wide and made of eight inches of compacted aggregate and with corner radii that meets the requirements of the relevant fire protection district or department.
- f. BATTERY ENERGY STORAGE MANAGEMENT SYSTEM
  - (a) When thermal runaway protection is required by NFPA 855 for the type of TIER-2 BESS that is proposed, the TIER-2 BESS shall include a BATTERY ENERGY STORAGE MANAGEMENT SYSTEM to protect the energy storage systems from operating outside of the safe operating parameters and that will disconnect electrical power to the energy storage system or place it in a safe condition if potentially hazardous temperatures or other conditions are detected and prevent thermal runaway.

**REVISED DRAFT**

- (b) Both the Special Use Permit Application and the Zoning Use Permit Application shall include a basic description of the proposed BATTERY ENERGY STORAGE MANAGEMENT SYSTEM.
- g. Smoke and fire detection systems.
  - (a) Smoke and fire detection systems shall not be required for TIER-2 BESS that are installed outdoors (not on or inside a building or in a walk-in unit no larger than 53 feet by 8.5 feet by 9.5 feet) unless smoke and fire detection systems are recommended to the BOARD in writing by the relevant fire protection district or department or unless the BOARD requires smoke and fire detection systems as a special condition of approval.
  - (b) Smoke and fire detection systems shall be required for TIER-2 BESS that are installed on or inside a building or in a walk-in unit larger than 53 feet by 8.5 feet by 9.5 feet.
  - (c) When smoke and fire detection systems are required by NFPA 855 for the type of TIER-2 BESS that is proposed, the following descriptions shall be provided at relevant times in the zoning approval process:
    - i. The Special Use Permit Application shall include a basic description of the proposed smoke and fire detection systems.
    - ii. The Zoning Use Permit Application shall include a description of the proposed smoke and fire detection systems by an Illinois Licensed Professional Engineer including both text and drawings.
- h. Fire control and suppression
  - (a) Fire control and suppression systems and water supply for fire fighting shall not be required for TIER-2 BESS that are installed outdoors (not on or inside a building or in a walk-in unit no larger than 53 feet by 8.5 feet by 9.5 feet) and located more than 100 feet from other buildings, lot lines, public ways, stored combustible materials, hazardous materials, high-piled stock, and other exposure hazards not associated with electrical grid infrastructure unless fire suppression systems and water supply are recommended to the BOARD in writing by the relevant fire protection district or department or unless the BOARD requires fire suppression systems and/ or water supply as a special condition of approval.

- (b) Fire control and suppression systems and water supply for fire fighting shall be required for TIER-2 BESS that are installed outdoors (not located on or inside a building or in a walk-in unit larger than 53 feet by 8.5 feet by 9.5 feet) and located less than 100 feet from other buildings, lot lines, public ways, stored combustible materials, hazardous materials, high-piled stock, and other exposure hazards not associated with electrical grid infrastructure or located on or inside a building or a walk-in unit that is larger than 53 feet by 8.5 feet by 9.5 feet).
  - (c) When fire control and suppression systems and water supply for fire fighting are required by NFPA 855 for the type of TIER-2 BESS that is proposed, the following descriptions shall be provided at relevant times in the zoning approval process:
    - i. The Special Use Permit Application shall include a basic description of the proposed fire control and suppression systems and water supply.
    - ii. The Zoning Use Permit Application shall include a description of the proposed fire control and suppression systems and water supply, by an Illinois Licensed Professional Engineer including both text and drawings.
  - (d) The relevant fire protection district or department shall be the authority having jurisdiction per NFPA 855 for approving TIER-2 BESS to be installed in open parking garages and/or dedicated-use BESS buildings and/or outdoor walk-in enclosures without the protection of automatic fire control and suppression systems where authorized by NFPA 855 and such approvals shall be documented in writing and a copy of the approval shall be submitted with the Zoning Use Permit Application.
- i. Explosion control.
- (a) Explosion prevention or deflagration venting shall be provided that will comply with the requirements of NFPA 855 for the type of TIER-2 BESS that is proposed.
  - (b) The Special Use Permit Application shall include a commitment to the provision of explosion prevention and/ or deflagration venting that will comply with the requirements of NFPA 855 and an approved Special Use Permit shall include a special condition of approval requiring compliance with NFPA 855 requirements for explosion prevention and/ or deflagration venting.

**REVISED DRAFT**

- (c) The actual description of the explosion prevention or deflagration venting to be provided shall be part of the Hazard Mitigation Analysis required by Sec. 6.1.8D.(6)b.
- j. Ground-fault protection
  - (a) Three-phase installations shall have adequate ground-fault protection.
  - (b) Systems with little or no impedance shall be designed to trip off-line automatically.
  - (c) In systems that have high levels of impedance the overvoltage shall be controlled with grounding banks, other forms of impedance grounding, or surge arresters. The electrical components at risk of overvoltage shall also have phase-to-phase level insulation.
  - (d) The Zoning Use Permit Application shall include a description of the ground-fault protection by an Illinois Licensed Professional Engineer.
- k. Control of electrolyte spill.
  - (a) When spill control is required by NFPA 855 for the type of TIER-2 BESS that is proposed, the Special Use Permit Application shall include a general description and written discussion for the proposed control of electrolyte spill that will meet NFPA 855 requirements.
  - (b) The Zoning Use Permit Application shall include a description of the proposed spill control by an Illinois Licensed Professional Engineer .
- l. Neutralization of spills from free-flowing electrolyte.
  - (a) When neutralization of free-flowing electrolyte is required by NFPA 855 for the type of TIER-2 BESS that is proposed, the Special Use Permit Application shall include a written discussion of the proposed neutralization that meets the requirements of NFPA 855.
  - (b) The Zoning Use Permit Application shall include a written discussion of the proposed neutralization by an Illinois Licensed Professional Engineer that meets the requirements of NFPA 855.

- m. Safety caps. When safety caps are required by NFPA 855 for the type of TIER-2 BESS that is proposed, both the Special Use Permit Application and the Zoning Use Permit Application shall include a description of the proposed safety caps that meets the requirements of NFPA 855.
- n. Exhaust ventilation.
  - (a) When exhaust ventilation is required by NFPA 855 for the type of TIER-2 BESS that is proposed, the following descriptions shall be provided at relevant milestones:
    - i. The Special Use Permit Application shall include a basic description of the proposed exhaust ventilation.
    - ii. The Zoning Use Permit Application shall include a description of the proposed exhaust ventilation by an Illinois Licensed Professional Engineer including both text and drawings.
- o. TIER-2 BESS in or on buildings.
  - (a) When a TIER-2 BESS is proposed to be located in or on a building or in a walk-in unit larger than 53 feet by 8.5 feet by 9.5 feet, compliance with all relevant NFPA 855 requirements shall be explained in general in the Special Use Permit Application with more detailed description submitted at the time of Zoning Use Permit Application including text and drawings by an Illinois Licensed Architect and/or an Illinois Licensed Professional Engineer.
- p. Remediation measures.
  - (a) As required by NFPA 855, in the event that a fire or other event has damaged the TIER-2 BESS and ignition or reignition of the TIER-2 BESS is possible, the owner of the TIER-2 BESS shall provide authorized service personnel to be dispatched to assist emergency first responders to mitigate the hazard or remove damaged equipment from the premises within a response time approved by the relevant fire protection district or department in the approved emergency response plan.
  - (b) When required by the relevant fire protection district or department, the owner of the TIER-2 BESS shall provide hazard support personnel at the expense of the owner of the TIER-2 BESS to respond to possible ignition or re-ignition of the damaged TIER-2 BESS within a response time approved by the relevant fire protection district or department in the approved emergency response plan, as required by NFPA 855.



**REVISED DRAFT**

- (c) The trained hazard support personnel shall be approved by the relevant fire protection district or department.
  - (d) The authorized service personnel shall be permitted to perform the duties of the hazard support personnel.
  - (e) Required hazard support personnel shall monitor the TIER-2 BESS continuously in a method approved by the relevant fire protection district or department until the hazard is mitigated and the relevant fire protection district or department gives authorization to the owner or authorized agent that onsite hazard support personnel are no longer required.
  - (f) On-duty hazard support personnel shall have the responsibilities listed in NFPA 855.
  - (g) The Special Use Permit application shall include a commitment to the provision of authorized service personnel and/or hazard support personnel that will comply with the requirements of NFPA 855 and an approved Special Use Permit shall include a special condition of approval requiring compliance with NFPA 855 requirements for the provision of authorized service personnel and/or hazard support personnel.
- (7) Cooling of a TIER-2 BESS shall not use groundwater other than for closed-loop geothermal cooling. The application shall include a description of the proposed cooling system of the TIER-2 BESS.

E. Standard Conditions to Mitigate Damage to Farmland

- (1) All underground wiring or cabling for the TIER-2 BATTERY ENERGY STORAGE SYSTEM shall be at a minimum depth of 5 feet below grade or deeper if required to maintain a minimum one foot of clearance between the wire or cable and any agricultural drainage tile.
- (2) Protection of agricultural drainage tile
  - a. The applicant shall endeavor to locate all existing agricultural drainage tile prior to establishing any construction staging areas, construction of any necessary TIER-2 BATTERY ENERGY STORAGE SYSTEM access lanes or driveways, construction of any TIER-2 BATTERY ENERGY STORAGE SYSTEM STRUCTURES, any equipment, underground wiring, or cabling. The applicant shall contact affected landowners and tenants and the Champaign County Soil and Water Conservation District and any relevant drainage district for their knowledge of tile line locations prior to the proposed construction. Drainage districts shall be notified at least two weeks prior to disruption of tile.

- b. The location of drainage district tile lines shall be identified prior to any construction and drainage district tile lines shall be protected from disturbance as follows:
  - (a) All identified drainage district tile lines and any known existing drainage district tile easement shall be staked or flagged prior to construction to alert construction crews of the presence of drainage district tile and the related easement.
  - (b) Any drainage district tile for which there is no existing easement shall be protected from disturbance by a 30 feet wide no-construction buffer on either side of the drainage district tile. The no-construction buffer shall be staked or flagged prior to the start of construction and shall remain valid for the lifetime of the TIER-2 BATTERY ENERGY STORAGE SYSTEM SPECIAL USE Permit and during any deconstruction activities that may occur pursuant to the TIER-2 BATTERY ENERGY STORAGE SYSTEM SPECIAL USE Permit.
  - (c) Construction shall be prohibited within any existing drainage district easement and also prohibited within any 30 feet wide no-construction buffer on either side of drainage district tile that does not have an existing easement unless specific construction is authorized in writing by all commissioners of the relevant drainage district. A copy of the written authorization shall be provided to the Zoning Administrator prior to the commencement of construction.
- c. Any agricultural drainage tile located underneath construction staging areas, access lanes, and driveways shall be replaced as required in Section 6.3 of the Champaign County Storm Water Management and Erosion Control Ordinance.
- d. Any agricultural drainage tile that must be relocated shall be relocated as required in the *Champaign County Storm Water Management and Erosion Control Ordinance*.
- e. Conformance of any relocation of drainage district tile with the *Champaign County Storm Water Management and Erosion Control Ordinance* shall be certified by an Illinois Professional Engineer. Written approval by the drainage district shall be received prior to any backfilling of the relocated drain tile and a copy of the approval shall be submitted to the Zoning Administrator. As-built drawings shall be provided to both the relevant drainage district and the Zoning Administrator of any relocated drainage district tile.

**REVISED DRAFT**

- f. All tile lines that are damaged, cut, or removed shall be staked or flagged in such manner that they will remain visible until the permanent repairs are completed.
  - g. All exposed tile lines shall be screened or otherwise protected to prevent the entry into the tile of foreign materials, loose soil, small mammals, etc.
  - h. Permanent tile repairs shall be made within 14 days of the tile damage provided that weather and soil conditions are suitable or a temporary tile repair shall be made. Immediate temporary repair shall also be required if water is flowing through any damaged tile line. Temporary repairs are not needed if the tile lines are dry and water is not flowing in the tile provided the permanent repairs can be made within 14 days of the damage.
  - i. All damaged tile shall be repaired so as to operate as well after construction as before the construction began.
  - j. Following completion of the TIER-2 BATTERY ENERGY STORAGE SYSTEM construction, the Applicant shall be responsible for correcting all tile line repairs that fail, provided that the failed repair was made by the Applicant.
- (3) All soil conservation practices (such as terraces, grassed waterways, etc.) that are damaged by TIER-2 BATTERY ENERGY STORAGE SYSTEM construction, maintenance, and/or decommissioning shall be restored by the applicant to the pre- TIER-2 BATTERY ENERGY STORAGE SYSTEM construction condition.
- (4) Topsoil replacement
- For any open trenching required pursuant to TIER-2 BATTERY ENERGY STORAGE SYSTEM construction, the topsoil shall be stripped and replaced as follows:
- a. The top 12 inches of topsoil shall first be stripped from the area to be trenched and from an adjacent area to be used for subsoil storage. The topsoil shall be stored in a windrow parallel to the trench in such a manner that it will not become intermixed with subsoil materials.
  - b. All subsoil material that is removed from the trench shall be placed in the second adjacent stripped windrow parallel to the trench but separate from the topsoil windrow.
  - c. In backfilling the trench, the stockpiled subsoil material shall be placed back into the trench before replacing the topsoil.

- d. The topsoil must be replaced such that after settling occurs, the topsoil's original depth and contour (with an allowance for settling) will be restored.
- (5) Mitigation of soil compacting and rutting
  - a. The Applicant shall not be responsible for mitigation of soil compaction and rutting if exempted by the TIER-2 BATTERY ENERGY STORAGE SYSTEM lease.
  - b. Unless specifically provided for otherwise in the TIER-2 BATTERY ENERGY STORAGE SYSTEM lease, the Applicant shall mitigate soil compaction and rutting for all areas of farmland that were traversed with vehicles and construction equipment or where topsoil is replaced in open trenches.
- (6) Land leveling
  - a. The Applicant shall not be responsible for leveling of disturbed land if exempted by the TIER-2 BATTERY ENERGY STORAGE SYSTEM lease.
  - b. Unless specifically provided for otherwise in the TIER-2 BATTERY ENERGY STORAGE SYSTEM lease, the Applicant shall level all disturbed land as follows:
    - (a) Following the completion of any open trenching, the applicant shall restore all land to its original pre-construction elevation and contour.
    - (b) Should uneven settling occur or surface drainage problems develop as a result of the trenching within the first year after completion, the applicant shall again restore the land to its original pre-construction elevation and contour.
- (7) Permanent Erosion and Sedimentation Control Plan
  - a. Prior to the approval of any Zoning Use Permit, the Applicant shall provide a permanent soil erosion and sedimentation plan for the TIER-2 BATTERY ENERGY STORAGE SYSTEM including any access road that conforms to the relevant Natural Resources Conservation Service guidelines and that is prepared by an Illinois Licensed Professional Engineer.
  - b. As-built documentation of all permanent soil erosion and sedimentation improvements for the TIER-2 BATTERY ENERGY STORAGE SYSTEM including any access road prepared by an Illinois Licensed Professional Engineer shall be submitted and

**REVISED DRAFT**

accepted by the Zoning Administrator prior to approval of any Zoning Compliance Certificate.

(8) Retention of all topsoil

No topsoil may be removed, stripped, or sold from the proposed SPECIAL USE Permit site pursuant to or as part of the construction of the TIER-2 BATTERY ENERGY STORAGE SYSTEM.

(9) Minimize disturbance to BEST PRIME FARMLAND

- a. Any TIER-2 BATTERY ENERGY STORAGE SYSTEM to be located on BEST PRIME FARMLAND shall minimize the disturbance to BEST PRIME FARMLAND as follows:
  - (a) The disturbance to BEST PRIME FARMLAND caused by construction and operation of the TIER-2 BATTERY ENERGY STORAGE SYSTEM shall be minimized at all times consistent with good engineering practice.

F. Standard Conditions for Use of Public Streets

Any TIER-2 BATTERY ENERGY STORAGE SYSTEM applicant proposing to use any County Highway or a township or municipal STREET for the purpose of transporting TIER-2 BATTERY ENERGY STORAGE SYSTEM equipment for construction, operation, or maintenance of the TIER-2 BATTERY ENERGY STORAGE SYSTEM shall identify all such public STREETS and pay the costs of any necessary permits and the costs to repair any damage to the STREETS caused by the TIER-2 BATTERY ENERGY STORAGE SYSTEM construction, as follows:

- (1) Prior to the close of the public hearing before the BOARD, the Applicant shall enter into a Roadway Upgrade and Maintenance agreement approved by the County Engineer and State's Attorney; or Township Highway Commissioner; or municipality where relevant, except for any TIER-2 BATTERY ENERGY STORAGE SYSTEM for which the relevant highway authority has agreed in writing to waive the requirements of subparagraphs 6.1.8 F.1, 6.1.8 F.2, and 6.1.8 F.3, and the signed and executed Roadway Upgrade and Maintenance agreements must provide for the following minimum conditions:
  - a. The applicant shall agree to conduct a pre- TIER-2 BATTERY ENERGY STORAGE SYSTEM construction baseline survey to determine existing STREET conditions for assessing potential future damage including the following:
    - (a) A videotape of the affected length of each subject STREET supplemented by photographs if necessary.

- (b) Pay for costs of the County to hire a consultant to make a study of any structure on the proposed route that the County Engineer feels may not carry the loads likely during the TIER-2 BATTERY ENERGY STORAGE SYSTEM construction.
  - (c) Pay for any strengthening of STREET structures that may be necessary to accommodate the proposed traffic loads caused by the BATTERY ENERGY STORAGE SYSTEM construction.
- b. The Applicant shall agree to pay for costs of the County Engineer to hire a consultant to make a study of any structure on the proposed route that the County Engineer feels may not carry the loads likely during the TIER-2 BATTERY ENERGY STORAGE SYSTEM construction and pay for any strengthening of structures that may be necessary to accommodate the proposed traffic loads caused by the TIER-2 BATTERY ENERGY STORAGE SYSTEM construction.
- c. The Applicant shall agree upon an estimate of costs for any other necessary roadway improvements prior to construction.
- d. The Applicant shall obtain any necessary approvals for the STREET improvements from the relevant STREET maintenance authority.
- e. The Applicant shall obtain any necessary Access Permits including any required plans.
- f. The Applicant shall erect permanent markers indicating the presence of underground cables.
- g. The Applicant shall install marker tape in any cable trench.
- h. The Applicant shall become a member of the Illinois statewide One-Call Notice System (otherwise known as the Joint Utility Locating Information for Excavators or "JULIE") and provide JULIE with all of the information necessary to update its record with respect to the TIER-2 BATTERY ENERGY STORAGE SYSTEM.
- i. The Applicant shall use directional boring equipment to make all crossings of County Highways for the cable collection system.
- j. The Applicant shall notify the STREET maintenance authority in advance of all oversize moves and crane crossings.
- k. The Applicant shall provide the County Engineer with a copy of each overweight and oversize permit issued by the Illinois Department of Transportation for the TIER-2 BATTERY ENERGY STORAGE SYSTEM construction.

***REVISED DRAFT***

- l. The Applicant shall transport the TIER-2 BATTERY ENERGY STORAGE SYSTEM loads so as to minimize adverse impact on the local traffic including farm traffic.
- m. The Applicant shall schedule TIER-2 BATTERY ENERGY STORAGE SYSTEM construction traffic in a way to minimize adverse impacts on emergency response vehicles, rural mail delivery, school bus traffic, and local agricultural traffic.
- n. The Applicant shall provide as much advance notice as is commercially reasonable to obtain approval of the STREET maintenance authority when it is necessary for a STREET to be closed due to a crane crossing or for any other reason. Notwithstanding the generality of the aforementioned, the Applicant will provide 48 hours' notice to the extent reasonably practicable.
- o. The Applicant shall provide signs indicating all highway and STREET closures and work zones in accordance with the Illinois Department of Transportation Manual on Uniform Traffic Control Devices.
- p. The Applicant shall establish a single escrow account and a single Irrevocable Letter of Credit for the cost of all STREET upgrades and repairs pursuant to the TIER-2 BATTERY ENERGY STORAGE SYSTEM construction.
- q. The Applicant shall notify all relevant parties of any temporary STREET closures.
- r. The Applicant shall obtain easements and other land rights needed to fulfill the Applicant's obligations under this Agreement.
- s. The Applicant shall agree that the County shall design all STREET upgrades in accordance with the most recent edition of the IDOT Bureau of Local Roads and Streets Manual.
- t. The Applicant shall provide written Notice to Proceed to the relevant STREET maintenance authority by December 31 of each year that identifies the STREETS to be upgraded during the following year.
- u. The Applicant shall provide dust control and grading work to the reasonable satisfaction of the County Engineer on STREETS that become aggregate surface STREETS.
- v. The Applicant shall conduct a post- TIER-2 BATTERY ENERGY STORAGE SYSTEM construction baseline survey similar to the pre- TIER-2 BATTERY ENERGY STORAGE SYSTEM

construction baseline survey to identify the extent of repairs necessary to return the STREETS to the pre- TIER-2 BATTERY ENERGY STORAGE SYSTEM construction condition.

- w. The Applicant shall pay for the cost of all repairs to all STREETS that are damaged by the Applicant during the construction of the TIER-2 BATTERY ENERGY STORAGE SYSTEM and restore such STREETS to the condition they were in at the time of the pre-TIER-2 BATTERY ENERGY STORAGE SYSTEM construction inventory.
  - x. All TIER-2 BATTERY ENERGY STORAGE SYSTEM construction traffic shall exclusively use routes designated in the approved Transportation Impact Analysis.
  - y. The Applicant shall provide liability insurance in an acceptable amount to cover the required STREET construction activities.
  - z. The Applicant shall pay for the present worth costs of life consumed by the construction traffic as determined by the pavement management surveys and reports on the roads which do not show significant enough deterioration to warrant immediate restoration.
  - aa. Provisions for expiration date on the agreement.
  - bb. Other conditions that may be required.
- (2) A condition of the County Board SPECIAL USE Permit approval shall be that the Zoning Administrator shall not authorize a Zoning Use Permit for the TIER-2 BATTERY ENERGY STORAGE SYSTEM until the County Engineer and State's Attorney, or Township Highway Commissioner, or municipality where relevant, has approved a Transportation Impact Analysis provided by the Applicant and prepared by an independent engineer that is mutually acceptable to the Applicant and the County Engineer and State's Attorney, or Township Highway Commissioner, or municipality where relevant, that includes the following:
- a. Identify all such public STREETS or portions thereof that are intended to be used by the Applicant during construction of the TIER-2 BATTERY ENERGY STORAGE SYSTEM as well as the number of loads, per axle weight of each load, and type of equipment that will be used to transport each load.
  - b. A schedule of the across road culverts and bridges affected by the project and the recommendations as to actions, if any, required with respect to such culverts and bridges and estimates of the cost to replace such culverts and bridges.



**REVISED DRAFT**

- c. A schedule of the anticipated STREET repair costs to be made in advance of the TIER-2 BATTERY ENERGY STORAGE SYSTEM construction and following construction of the TIER-2 BATTERY ENERGY STORAGE SYSTEM.
  - d. The Applicant shall reimburse the County Engineer, or Township Highway Commissioner, or municipality where relevant, for all reasonable engineering fees including the cost of a third-party consultant, incurred in connection with the review and approval of the Transportation Impact Analysis.
- (3) At such time as decommissioning takes place, the Applicant or its successors in interest shall enter into a Roadway Use and Repair Agreement with the appropriate highway authority.
- G. Standard Conditions for Coordination with Local Fire Protection District
  - (1) The Applicant shall submit to the local fire protection district a copy of the site plan.
  - (2) The Owner or Operator shall cooperate with the local fire protection district to develop the fire protection district's emergency response plan. The emergency response plan shall include the following information:
    - a. 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.
    - b. Procedures for inspection and testing of associated alarms, interlocks, and controls.
    - c. Procedures to be followed in response to notifications from the TIER-2 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.
    - d. 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.

- e. Response considerations similar to a safety data sheet (SDS) that will address response safety concerns and extinguishment when an SDS is not required.
  - f. Procedures for dealing with TIER-2 BATTERY ENERGY STORAGE SYSTEM equipment damaged in a fire or other emergency event, including maintaining contact information for personnel qualified to safely remove damaged TIER-2 BATTERY ENERGY STORAGE SYSTEM equipment from the facility.
  - g. Other procedures as determined necessary by the relevant Fire Protection District to provide for the safety of occupants, neighboring properties, and emergency responders.
  - h. 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.
  - i. An explanation of the arrangements for the TIER-2 BESS owner to provide authorized service personnel and/ or hazard support personnel to assist first responders to mitigate the hazard or remove damaged equipment from the premises within an acceptable response time.
- (3) Documentation that the relevant fire protection district or department has accepted the emergency response plan shall be submitted with the Zoning Use Permit Application.
  - (4) Nothing in this section shall alleviate the need to comply with all other applicable fire laws and regulations.
- H. Standard Conditions for Allowable Noise Level
- (1) Noise levels from any TIER-2 BATTERY ENERGY STORAGE SYSTEM shall be in compliance with the applicable Illinois Pollution Control Board (IPCB) regulations (*35 Illinois Administrative Code*, Subtitle H: Noise, Parts 900, 901, 910).
  - (2) The Applicant shall submit manufacturer's sound power level characteristics and other relevant data regarding noise characteristics of proposed TIER-2 BATTERY ENERGY STORAGE SYSTEM equipment necessary for a competent noise analysis.
  - (3) The Applicant, through the use of a qualified professional, as part of the siting approval application process, shall appropriately demonstrate compliance with the above noise requirements as follows:

**REVISED DRAFT**

- a. The SPECIAL USE Permit application for a TIER-2 BATTERY ENERGY STORAGE SYSTEM shall include a noise analysis that includes the following:
  - (a) The pre-development 24-hour ambient background sound level shall be identified at representative locations near the site of the proposed TIER-2 BATTERY ENERGY STORAGE SYSTEM.
  - (b) Computer modeling shall be used to generate the anticipated sound level resulting from the operation of the proposed TIER-2 BATTERY ENERGY STORAGE SYSTEM within 1,500 feet of the proposed TIER-2 BATTERY ENERGY STORAGE SYSTEM.
  - (c) Results of the ambient background sound level monitoring and the modeling of anticipated sound levels shall be clearly stated in the application and the application shall include a map of the modeled noise contours within 1,500 feet of the proposed TIER-2 BATTERY ENERGY STORAGE SYSTEM.
  - (d) The application shall also clearly state the assumptions of the computer model's construction and algorithms so that a competent and objective third party can as simply as possible verify the anticipated sound data and sound levels.
- (4) The Zoning Use Permit Application shall include an updated noise analysis if there are any changes in BESS equipment or any changes in BESS equipment locations from the approved Special Use Permit.
- (5) After construction of the TIER-2 BATTERY ENERGY STORAGE SYSTEM, the Zoning Administrator shall take appropriate enforcement action as necessary to investigate noise complaints in order to determine the validity of the complaints and take any additional enforcement action as proves warranted to stop any violation that is occurring, including but not limited to the following:
  - a. The Zoning Administrator shall make the Environment and Land Use Committee aware of complaints about noise.
  - b. If the Environment and Land Use Committee determines that the noise is excessive, the Environment and Land Use Committee shall require the Owner or Operator to take responsible steps to mitigate the excessive noise.

I. Standard Conditions for Endangered Species Consultation

The Applicant shall apply for consultation with the Endangered Species Program of the Illinois Department of Natural Resources. The Application shall include a copy of the Agency Action Report from the Endangered Species Program of the Illinois Department of Natural Resources or, if applicable, a copy of the Detailed Action Plan Report submitted to the Endangered Species Program of the Illinois Department of Natural Resources and a copy of the response from the Illinois Department of Natural Resources.

J. Standard Conditions for Historic and Archaeological Resources Review

The Applicant shall apply for consultation with the State Historic Preservation Officer of the Illinois Department of Natural Resources. The Application shall include a copy of the Agency Action Report for the State Historic Preservation Officer of the Illinois Department of Natural Resources.

K. Standard Conditions for Acceptable Wildlife Impacts

The TIER-2 BATTERY ENERGY STORAGE SYSTEM shall be located, designed, constructed, and operated so as to avoid and if necessary mitigate the impacts to wildlife to a sustainable level of mortality.

L. Screening and Fencing

(1) Perimeter fencing

- a. TIER-2 BATTERY ENERGY STORAGE SYSTEM equipment and structures shall be fully enclosed and secured by a fence with a minimum height of 7 feet.
- b. Knox boxes and keys shall be provided at locked entrances for emergency personnel access.
- c. Vegetation between the fencing and the LOT LINE shall be maintained such that NOXIOUS WEEDS are controlled or eradicated consistent with the Illinois Noxious Weed Law (505 ILCS 100/1 *et. seq.*). Management of the vegetation shall be explained in the SPECIAL USE Permit Application.

(2) Screening

- a. Areas within 10 feet on each side of the TIER-2 BATTERY ENERGY STORAGE SYSTEM shall be cleared of combustible vegetation and other combustible growth.
- b. A visual screen shall be provided around the perimeter of the TIER-2 BATTERY ENERGY STORAGE SYSTEM as follows:

**REVISED DRAFT**

- (a) The visual screen shall be provided for any part of the TIER-2 BATTERY ENERGY STORAGE SYSTEM that is visible to and located within 1,000 feet of an existing DWELLING or residential DISTRICT except that the visual screen may not be required within the full 1,000 feet of an existing DWELLING or residential DISTRICT provided the Applicant submits a landscape plan prepared by an Illinois Registered Landscape Architect and the BOARD finds that the visual screen in the landscape plan provides adequate screening. However, the visual screen shall not be required if the TIER-2 BATTERY ENERGY STORAGE SYSTEM is not visible to a DWELLING or residential DISTRICT by virtue of the existing topography.
- (b) The visual screen shall be waived if the owner(s) of a relevant DWELLING(S) have agreed in writing to waive the screening requirement and a copy of the written waiver is submitted to the BOARD or GOVERNING BODY.
- (c) The visual screen shall be a vegetated buffer as follows:
  - i. A vegetated visual screen buffer that shall include a continuous line of native evergreen foliage and/or native shrubs and/or native trees and/or any existing wooded area and/or plantings of tall native greases and other native flowering plants and/or an area of agricultural crop production that will conceal the TIER-2 BATTERY ENERGY STORAGE SYSTEM from view from adjacent abutting property may be authorized as an alternative visual screen subject to specific conditions.
  - ii. Any vegetation that is part of the approved visual screen buffer shall be maintained in perpetuity of the TIER-2 BATTERY ENERGY STORAGE SYSTEM. If the evergreen foliage below a height of 7 feet disappears over time, the screening shall be replaced.
  - iii. The continuous line of native evergreen foliage and/or native shrubs and/or native trees shall be planted at a minimum height of 5 feet tall and shall be planted in multiple rows as required to provide a 50% screen within 2 years of planting. The planting shall otherwise conform to Natural Resources Conservation Service Practice Standard 380 Windbreak/Shelterbreak Establishment except that the planting shall be located as close as possible to the BATTERY ENERGY STORAGE SYSTEM

fence while still providing adequate clearance for maintenance.

- iv. A planting of tall native grasses and other native flowering plants may be used as a visual screen buffer provided that the width of planting shall be authorized by the BOARD and the planting shall otherwise be planted and maintained per the recommendations of the Natural Resources Conservation Service Practice Standard 327 Conservation Cover and further provided that the BATTERY ENERGY STORAGE SYSTEM perimeter fence is opaque.
- v. An area of agricultural crop production may also be authorized by the BOARD as an alternative visual screen buffer with a width of planting as authorized by the BOARD provided that the TIER-2 BATTERY ENERGY STORAGE SYSTEM perimeter fence is opaque. Any area of crop production that is used as a vegetated visual screen shall be planted annually and shall be replanted as necessary to ensure a crop every year regardless of weather or market conditions.
- vi. Any vegetated screen buffer shall be detailed in a landscape plan drawing that shall be included with the TIER-2 BATTERY ENERGY STORAGE SYSTEM SPECIAL USE Permit application.

**M. Standard Condition for Liability Insurance**

- (1) The Owner or Operator of the TIER-2 BATTERY ENERGY STORAGE SYSTEM shall maintain a current general liability policy covering bodily injury and property damage with minimum limits of at least \$5 million per occurrence and \$5 million in the aggregate.
- (2) The general liability policy shall identify landowners in the SPECIAL USE Permit as additional insured.

**N. Operational Standard Conditions**

- (1) Maintenance
  - a. Any physical modification to the TIER-2 BATTERY ENERGY STORAGE SYSTEM that increases the number of batteries or structures and/or the land area occupied by the TIER-2 BATTERY ENERGY STORAGE SYSTEM shall require a new SPECIAL USE Permit. Like-kind replacements shall not require recertification nor

**REVISED DRAFT**

will replacement of equipment provided replacement is done in fashion similar to the original installation.

- (2) Materials Handling, Storage and Disposal
  - a. All solid wastes related to the construction, operation and maintenance of the TIER-2 BATTERY ENERGY STORAGE SYSTEM shall be removed from the site promptly and disposed of in accordance with all Federal, State and local laws.
  - b. All hazardous materials related to the construction, operation, maintenance, and decommissioning of the TIER-2 BATTERY ENERGY STORAGE SYSTEM shall be handled, stored, transported and disposed of in accordance with all applicable local, State and Federal laws.
- (3) Vegetation management
  - a. The TIER-2 BATTERY ENERGY STORAGE SYSTEM SPECIAL USE Permit application shall include a weed control plan for the total area of the SPECIAL USE Permit including areas both inside of and outside of the perimeter fencing.
  - b. The weed control plan shall ensure the control and/or eradication of NOXIOUS WEEDS consistent with the Illinois Noxious Weed Law (55 ILCS 100/1 *et. seq.*).
  - c. The weed control plan shall be explained in the application.

O. Standard Conditions for Decommissioning and Site Reclamation Plan

- (1) The Applicant shall submit a signed decommissioning and site reclamation plan conforming to the requirements of paragraph 6.1.1A.
- (2) In addition to the purposes listed in subparagraph 6.1.1A.4., the decommissioning and site reclamation plan shall also include provisions for anticipated repairs to any public STREET used for the purpose of reclamation of the TIER-2 BATTERY ENERGY STORAGE SYSTEM and all costs related to removal of access driveways.
- (3) The decommissioning and site reclamation plan required in paragraph 6.1.1A. shall also include the following:
  - a. A stipulation that the applicant or successor shall notify the GOVERNING BODY by certified mail of the commencement of voluntary or involuntary bankruptcy proceeding, naming the applicant as debtor, within ten days of commencement of proceeding.

- b. A stipulation that the applicant shall agree that the sale, assignment in fact or law, or such other transfer of applicant's financial interest in the TIER-2 BATTERY ENERGY STORAGE SYSTEM shall in no way affect or change the applicant's obligation to continue to comply with the terms of this plan. Any successor in interest, assignee, and all parties to the decommissioning and site reclamation plan shall assume the terms, covenants, and obligations of this plan and agrees to assume all reclamation liability and responsibility for the TIER-2 BATTERY ENERGY STORAGE SYSTEM.
- c. Authorization for the GOVERNING BODY and its authorized representatives for right of entry onto the TIER-2 BATTERY ENERGY STORAGE SYSTEM premises for the purpose of inspecting the methods of reclamation or for performing actual reclamation if necessary.
- d. A stipulation that at such time as decommissioning takes place the Applicant, its successors in interest, and all parties to the decommissioning and site reclamation plan are required to enter into a Roadway Use and Repair Agreement with the relevant highway authority.
- e. A stipulation that the Applicant, its successors in interest, and all parties to the decommissioning and site reclamation plan shall provide evidence of any new, additional, or substitute financing or security agreement to the Zoning Administrator throughout the operating lifetime of the project.
- f. A stipulation that the Applicant, its successors in interest, and all parties to the decommissioning and site reclamation plan shall be obliged to perform the work in the decommissioning and site reclamation plan before abandoning the TIER-2 BATTERY ENERGY STORAGE SYSTEM or prior to ceasing operations of the TIER-2 BATTERY ENERGY STORAGE SYSTEM, after it has begun, other than in the ordinary course of business. This obligation shall be independent of the obligation to pay financial assurance and shall not be limited by the amount of financial assurance. The obligation to perform the reclamation work shall constitute a covenant running with the land.
- g. The decommissioning and site reclamation plan shall provide for payment of any associated costs that Champaign COUNTY may incur in the event that decommissioning is actually required. Associated costs include all administrative and ancillary costs associated with drawing upon the financial assurance and performing the reclamation work and shall include but not be limited to: attorney's fees; construction management and other professional fees; and, the costs of preparing requests for proposals



**REVISED DRAFT**

and bidding documents required to comply with State law or Champaign COUNTY purchasing policies.

- h. Provisions for the removal of structures, debris, cabling, and associated equipment on the surface and to a level of not less than five feet below the surface, and the sequence in which removal is expected to occur.
  - i. A stipulation that should the decommissioning and site reclamation plan be deemed invalid by a court of competent jurisdiction the TIER-2 BATTERY ENERGY STORAGE SYSTEM SPECIAL USE Permit shall be deemed void.
  - j. A stipulation that the Applicant's obligation to complete the decommissioning and site reclamation plan and to pay all associated costs shall be independent of the Applicant's obligation to provide financial assurance.
  - k. A stipulation that the liability of the Applicant's failure to complete the decommissioning and site reclamation plan or any breach of the decommissioning and site reclamation plan requirement shall not be capped by the amount of financial assurance.
  - l. If the Applicant desires to remove equipment or property credited to the estimated salvage value without the concurrent replacement of the property with property of equal or greater salvage value, or if the Applicant installs equipment or property increasing the cost of decommissioning after the TIER-2 BATTERY ENERGY STORAGE SYSTEM begins operations, at any point, the Applicant shall first obtain the consent of the Zoning Administrator. If the Applicant's lien holders remove equipment or property credited to the salvage value, the Applicant shall promptly notify the Zoning Administrator. In either of these events, the total financial assurance shall be adjusted to reflect any change in total salvage value and total decommissioning costs resulting from any such removal or installation.
  - m. 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.
  - n. The Decommissioning and Site Reclamation Plan shall comply with the requirements of NFPA 855.
- (4) To comply with paragraph 6.1.1A.5., the Applicant shall provide financial assurance in the form of an irrevocable letter of credit as follows:

- a. At the time of SPECIAL USE Permit approval, the amount of financial assurance to be provided for the decommissioning and site reclamation plan shall be 125% of the decommissioning cost as determined in the independent engineer's cost estimate to complete the decommissioning work described in Section 6.1.1A.4.a. and 6.1.1A.4.b., and 6.1.1A.4c. and shall otherwise be compliant with Section 6.1.1A.5. except that if the TIER-2 BATTERY ENERGY STORAGE SYSTEM has a limited power warranty to provide not less than 80% nominal power output up to 25 years and proof of that warranty is provided at the time of Zoning Use Permit approval, financial assurance may be provided for the decommissioning and site reclamation plan as follows:
  - (a) No Zoning Use Permit to authorize construction of the TIER-2 BATTERY ENERGY STORAGE SYSTEM shall be authorized by the Zoning Administrator until the TIER-2 BATTERY ENERGY STORAGE SYSTEM owner shall provide the COUNTY with financial assurance to cover 12.5% of the decommissioning cost as determined in the independent engineer's cost estimate to complete the decommissioning work described in Sections 6.1.1A.4.a. and 6.1.1A.4.b. and 6.1.1A.4.c. and otherwise compliant with Section 6.1.1A.5.
  - (b) On or before the sixth anniversary of the Commercial Operation Date, the TIER-2 BATTERY ENERGY STORAGE SYSTEM Owner shall provide the COUNTY with Financial Assurance to cover 62.5% of the decommissioning cost as determined in the independent engineer's cost estimate to complete the decommissioning work described in Sections 6.1.1A.4.a. and 6.1.1A.4.b. and 6.1.1A.4.c. and otherwise compliant with Section 6.1.1A.5.
  - (c) On or before the eleventh anniversary of the Commercial Operation Date, the TIER-2 BATTERY ENERGY STORAGE SYSTEM Owner shall provide the COUNTY with Financial Assurance to cover 125% of the decommissioning cost as determined in the independent engineer's cost estimate to complete the decommissioning work described in Sections 6.1.1A.4.a. and 6.1.1A.4.b. and 6.1.1A.4.c. and otherwise compliant with Section 6.1.1A.5.
- b. Net salvage value may be deducted for decommissioning costs as follows:
  - (a) One of the following standards shall be met:
    - i. The Applicant, its successors in interest, and all parties to the decommissioning and site reclamation

**REVISED DRAFT**

plan shall maintain the TIER-2 BATTERY ENERGY STORAGE SYSTEM free and clear of liens and encumbrances, including financing liens and shall provide proof of the same prior to issuance of the SPECIAL USE Permit; or

- ii. The Applicant, its successors in interest, and all parties to the decommissioning and site reclamation plan shall deduct from the salvage value credit the amount of any lien or encumbrance on the TIER-2 BATTERY ENERGY STORAGE SYSTEM; or
  - iii. Any and all financing and/or financial security agreements entered into by the Applicant, its successors in interest, and all parties to the decommissioning and site reclamation plan shall expressly provide that the agreements are subject to the covenant required by Section 6.1.1A.2 that the reclamation work be done.
- (b) The Applicant, its successors in interest, and all parties to the decommissioning and site reclamation plan shall provide proof of compliance with paragraph 6.1.8 O.(4).b.(a) prior to the issuance of any Zoning Use Permit and upon every renewal of the financial assurance and at any other time upon the request of the Zoning Administrator.
  - (c) The Applicant, its successors in interest, and all parties to the decommissioning and site reclamation plan shall provide in the decommissioning and site reclamation plan for legal transfer of the STRUCTURE to the demolisher to pay the costs of reclamation work, should the reclamation work be performed.
  - (d) The net estimated salvage value that is deducted from the estimated decommissioning costs shall be the salvage value that results after all related costs for demolition and any required preparation for transportation for reuse or recycling or for simple disposal and other similar costs including but not limited to the decommissioning of the TIER-2 BATTERY ENERGY STORAGE SYSTEM STRUCTURES, equipment, and access roads.
  - (e) Estimated salvage value shall be based on the average salvage price of the past five years as published in a reputable source for salvage values and shall reflect sound engineering judgement as to anticipated changes in salvage prices prior to the next update of estimated net salvage value.

- (f) The total financial assurance after deduction of the net estimated salvage value shall not be less than \$1,000 per acre.
  - (g) The credit for net estimated salvage value attributable to any TIER-2 BATTERY ENERGY STORAGE SYSTEM may not exceed the estimated cost of removal of the above-ground portion of that TIER-2 BATTERY ENERGY STORAGE SYSTEM on the subject site.
- c. The GOVERNING BODY has the right to require multiple letters of credit based on the regulations governing federal insurance for deposits.
- d. The Applicant, its successors in interest, and all parties to the decommissioning and site reclamation plan shall adjust the amount of the financial assurance to ensure that it reflects current and accurate information as follows:
  - (a) On the tenth anniversary of the financial assurance and at least once every five years thereafter, the Applicant, its successors in interest, and all parties to the decommissioning and site reclamation plan shall use an independent Illinois Licensed Professional Engineer to provide updated estimates of decommissioning costs and salvage value, by including any changes due to inflation and/or change in salvage price. The Applicant, its successors in interest, and all parties to the decommissioning and site reclamation plan shall, upon receipt, provide a copy of the adjusted Professional Engineer's report to the Zoning Administrator.
  - (b) At all times, the value of the irrevocable letter of credit shall equal or exceed the amount of the independent engineer's cost estimate as increased by known and documented rates of inflation based on the Consumer Price Index since the TIER-2 BATTERY ENERGY STORAGE SYSTEM was approved.
- e. The long term corporate debt (credit) rating of the letter of credit issuing financial institution by both Standard & Poor's Financial Services LLC (S&P) and Moody's Investors Service (Moody's) shall be equal to or greater than the minimum acceptable long term corporate debt (credit) rating, as follows:
  - (a) The Zoning Administrator shall verify the long term corporate debt (credit) rating of the proposed financial institution by Standard and Poor's Financial Services LLC (S&P) and/or Moody's Investors Service (Moody's) and/or the Kroll Bond Rating Agency.

**REVISED DRAFT**

- (b) The minimum acceptable long term corporate debt (credit) rating of the proposed financial institution shall be a rating of “A-” by S&P or a rating of “A3” by Moody’s, or a rating of “A-” by Kroll Bond Rating Agency.
    - (c) Whenever the most current long term corporate debt (credit) rating of the proposed financial institution by either S&P, Moody’s, or Kroll Bond Rating Agency is lower than the minimum acceptable long term corporate debt (credit) rating, the letter of credit shall be replaced with a new irrevocable letter of credit from an issuing financial institution whose most current long term corporate debt (credit) rating by either S&P, Moody’s, or Kroll Bond Rating Agency meets or exceeds the minimum acceptable long term corporate debt (credit) rating.
  - f. Should the salvage value of components be adjusted downward or the decommissioning costs adjusted upward pursuant to paragraph 6.1.8 O.(4)d., the amount of the irrevocable letter of credit pursuant to this paragraph 6.1.8 O.(4) shall be increased to reflect the adjustment, as if the adjusted estimate were the initial estimate.
  - g. Unless the Governing Body approves otherwise, the Champaign County State’s Attorney’s Office shall review and approve every Letter of Credit prior to acceptance by the Zoning Administrator.
- (5) In addition to the conditions listed in subparagraph 6.1.1A.9. the Zoning Administrator may also draw on the funds for the following reasons:
- a. In the event that any TIER-2 BATTERY ENERGY STORAGE SYSTEM or component thereof ceases to be functional for more than six consecutive months after the Zoning Compliance Certificate is issued and the Owner is not diligently repairing such TIER-2 BATTERY ENERGY STORAGE SYSTEM or component.
  - b. In the event that the Owner declares the TIER-2 BATTERY ENERGY STORAGE SYSTEM or any TIER-2 BATTERY ENERGY STORAGE SYSTEM component to be functionally obsolete for tax purposes.
  - c. There is a delay in the construction of any TIER-2 BATTERY ENERGY STORAGE SYSTEM of more than 6 months after construction on that TIER-2 BATTERY ENERGY STORAGE SYSTEM begins.
  - d. Any TIER-2 BATTERY ENERGY STORAGE SYSTEM or component thereof that appears in a state of disrepair or imminent

collapse and/or creates an imminent threat to the health or safety of the public or any person.

- e. Any TIER-2 BATTERY ENERGY STORAGE SYSTEM or component thereof that is otherwise derelict for a period of 6 months.
  - f. The TIER-2 BATTERY ENERGY STORAGE SYSTEM is in violation of the terms of the TIER-2 BATTERY ENERGY STORAGE SYSTEM SPECIAL USE Permit for a period exceeding ninety (90) days.
  - g. The Applicant, its successors in interest, and all parties to the decommissioning and site reclamation plan has failed to maintain financial assurance in the form and amount required by the SPECIAL USE Permit or compromised the COUNTY's interest in the decommissioning and site reclamation plan.
  - h. The COUNTY discovers any material misstatement of fact of misleading omission of fact made by the Applicant in the course of the SPECIAL USE Permit Zoning Case.
- (6) The Zoning Administrator may, but is not required to, deem the TIER-2 BATTERY ENERGY STORAGE SYSTEM abandoned, or the standards set forth in Section 6.1.8 O.(5) met, with respect to some, but not all, of the TIER-2 BATTERY ENERGY STORAGE SYSTEM. In that event, the Zoning Administrator may draw upon the financial assurance to perform the reclamation work as to that portion of the TIER-2 BATTERY ENERGY STORAGE SYSTEM only. Upon completion of that reclamation work, the salvage value and reclamation costs shall be recalculated as to the remaining TIER-2 BATTERY ENERGY STORAGE SYSTEM.
- (7) The decommissioning and site reclamation plan shall be included as a condition of approval by the Board and the signed and executed irrevocable letter of credit and evidence of the escrow account must be submitted to the Zoning Administrator prior to any Zoning Use Permit approval.

**P. Complaint Hotline**

- (1) Prior to the commencement of construction on the TIER-2 BATTERY ENERGY STORAGE SYSTEM and during the entire term of the COUNTY Board SPECIAL USE Permit and any extension, the Applicant and Owner shall establish a telephone number hotline for the general public to call with any complaints or questions.
- (2) The telephone number hotline shall be publicized and posted at the operations and maintenance center and the construction marshalling yard.

**REVISED DRAFT**

- (3) The telephone number hotline shall be manned during usual business hours and shall be an answering recording service during other hours.
- (4) Each complaint call to the telephone number hotline shall be logged and identify the name and address of the caller and the reason for the call.
- (5) All calls shall be recorded, and the recordings shall be saved for transcription for a minimum of two years.
- (6) A copy of the telephone number hotline log shall be provided to the Zoning Administrator on a monthly basis.
- (7) The Applicant and Owner shall take necessary actions to resolve all legitimate complaints.

Q. Standard Conditions for Expiration of TIER-2 BATTERY ENERGY STORAGE SYSTEM SPECIAL USE Permit

A TIER-2 BATTERY ENERGY STORAGE SYSTEM SPECIAL USE Permit designation shall expire in 10 years if no Zoning Use Permit is granted.

R. Application Requirements

- (1) In addition to all other information required on the SPECIAL USE Permit application and required by Section 9.1.11A.3., the application shall contain or be accompanied by the following information:
  - a. A TIER-2 BATTERY ENERGY STORAGE SYSTEM Project Summary, including, to the extent available:
    - (a) A general description of the project, the proposed BESS technology (type of BESS); the proposed BESS capacity at the point of interconnection; the maximum number and type of battery devices; the maximum area occupied by the BESS development; the expected lifetime of the battery devices; any planned capacity maintenance (augmentation); the proposed project features to respond to any BESS technology specific requirements of NFPA 855; and the potential equipment manufacturer(s). The maximum number and type of battery devices may be different at the time of application for a Zoning Use Permit based on the actual equipment manufacturer but the BESS technology and the proposed BESS capacity at the point of interconnection and the maximum area occupied by the BESS development should not exceed that approved in the SPECIAL USE Permit.
    - (b) The specific proposed location of the TIER-2 BATTERY ENERGY STORAGE SYSTEM including all tax parcels on

which the BATTERY ENERGY STORAGE SYSTEM will be constructed.

- (c) A description of the Applicant, Owner and Operator, including their respective business structures.
- b. The name(s), address(es), and phone number(s) of the Applicant(s), Owner and Operator, and all property owner(s) for the TIER-2 BATTERY ENERGY STORAGE SYSTEM SPECIAL USE Permit.
- c. A site plan for the TIER-2 BATTERY ENERGY STORAGE SYSTEM indicating the following:
  - (a) The approximate planned location of all TIER-2 BATTERY ENERGY STORAGE SYSTEMS, property lines (including identification of adjoining properties), required separations, public access roads and turnout locations, access driveways, battery devices, electrical inverter(s), electrical transformer(s), electrical cabling, ancillary equipment, screening and fencing, third party transmission lines, maintenance and management facilities, and layout of all structures within the geographical boundaries of any applicable setback.
  - (b) The site plan shall clearly indicate the area of the proposed TIER-2 BATTERY ENERGY STORAGE SYSTEM SPECIAL USE Permit.
  - (c) The general location of below-ground wiring.
  - (d) The location, height, and appearance of all above-ground wiring and wiring structures.
  - (e) The separation of all TIER-2 BATTERY ENERGY STORAGE SYSTEM structures from adjacent DWELLINGS and/or PRINCIPAL BUILDINGS or uses shall be dimensioned on the approved site plan and that dimension shall establish the effective minimum separation that shall be required for any Zoning Use Permit. Greater separation and somewhat different locations may be provided in the approved site plan for the Zoning Use Permit provided that the greater separation does not increase the noise impacts that were approved in the TIER-2 BATTERY ENERGY STORAGE SYSTEM SPECIAL USE Permit.
- d. All other required studies, reports, certifications, and approvals demonstrating compliance with the provisions of this Ordinance.



**REVISED DRAFT**

- (2) The Applicant shall notify the COUNTY of any changes to the information provided above that occurs while the SPECIAL USE Permit application is pending.
- (3) The Zoning Use Permit Application shall include the following:
  - a. Any updates or changes to the information that was submitted for the SPECIAL USE Permit but any changes must be consistent with the approved SPECIAL USE Permit.
  - b. Any information specifically required in Section 6.1.8 for a Zoning Use Permit Application.
  - c. Any other information necessary to document the authorized construction including an electrical diagram detailing the TIER-2 BATTERY ENERGY STORAGE SYSTEM layout, associated components, and electrical interconnection methods with all National Electrical Code compliant disconnects and overcurrent devices.

**7. Add new paragraph 9.3.1 K. as follows:**

- K. TIER-1 BATTERY ENERGY STORAGE SYSTEM.....no fee
- TIER-2 BATTERY ENERGY STORAGE SYSTEM.....\$1800 per megawatt

**8. Add new subparagraph 9.3.3 B.(9) as follows:**

- (9) TIER-1 BATTERY ENERGY STORAGE SYSTEM.....no fee
- TIER-2 BATTERY ENERGY STORAGE SYSTEM.....\$1,320 per megawatt