Champaign County
Department of

PLANNING & ZONING

Brookens Administrative Center

1776 E. Washington Street Urbana, Illinois 61802

(217) 384-3708 zoningdept@co.champaign.il.us www.co.champaign.il.us/zoning

CASE 086-AT-23

SUPPLEMENTAL MEMORANDUM #5 AUGUST 9, 2023

Petitioner: Zoning Administrator

Request: Amend the Champaign County Zoning Ordinance as follows in order to ensure compliance with Public Act 102-1123:

- 1. Add the following definitions to Section 3.0 Definitions: FACILITY OWNER, NON-PARTICIPATING PROPERTY, OCCUPIED COMMUNITY BUILDING, PARTICIPATING PROPERTY.
- 2. Revise the following definitions in Section 3.0 Definitions: PARTICIPATING DWELLING, NON-PARTICIPATING DWELLING, COMMUNITY PV SOLAR FARM
- 3. Revise Section 6.1.4 WIND FARM SPECIAL USE PERMIT to establish an effective date for regulating previously authorized WIND FARMS.
- 4. Add new Section 6.1.5 PROPOSED WIND FARM SPECIAL USE PERMIT to establish regulations applicable after an effective date for proposed WIND FARMS, including but not limited to:
 - a. Establish a separation from each WIND FARM TOWER of 1.1 times the maximum blade tip height to the nearest PARTICIPATING DWELLING, to the center point of a public street right-of-way, to the nearest non-participating property line, and to third-party transmission lines.
 - b. Establish a separation from each WIND FARM TOWER of 2.1 times the maximum blade tip height to the nearest NON-PARTICIPATING DWELLING or OCCUPIED COMMUNITY BUILDING, and to the nearest point on the property line of fish and wildlife areas and Illinois Nature Preserve Commission protected lands.
 - c. Establish that the total WIND FARM TOWER HEIGHT (measured to the tip of the highest rotor blade) must receive a Determination of No Hazard to Air Navigation by the Federal Aviation Administration under 14 CFR Part 77.
 - d. Establish that the financial assurance for WIND FARMS will be based on the requirements in the Agricultural Impact Mitigation Agreement but will be required to be an Escrow Account.
 - e. Add other new standard conditions consistent with Public Act 102-1123.
- 5. Renumber existing Section 6.1.5 to new Section 6.1.6 PHOTOVOLTAIC (PV) SOLAR FARM and establish an effective date for regulating previously authorized PHOTOVOLTAIC (PV) SOLAR FARMS.
- 6. Add new Section 6.1.7 PROPOSED PHOTOVOLTAIC (PV) SOLAR FARM to establish regulations applicable after an effective date for proposed PHOTOVOLTAIC (PV) SOLAR FARMS, including but not limited to:
 - a. Establish a separation of 50 feet between the PV SOLAR FARM fencing and the street centerline.
 - b. Establish a separation of 50 feet between the nearest edge of any component of the PV SOLAR FARM and the nearest point on the property line of the non-participating property.
 - c. Establish a separation of 150 feet from the nearest edge of any component of the PV SOLAR FARM and the nearest point on the outside wall of an OCCUPIED COMMUNITY BUILDING or NON-PARTICIPATING DWELLING.

d. Establish that the financial assurance for PV SOLAR FARMS will be based on the requirements in the Agricultural Impact Mitigation Agreement.

e. Add other new standard conditions consistent with Public Act 102-1123.

Location: Unincorporated Champaign County

Time Schedule for Development: As soon as possible

Prepared by: Susan Burgstrom, Senior Planner **John Hall**, Zoning Administrator

STATUS

The hearing for Case 086-AT-23 was continued from the May 25, 2023 ZBA meeting. At the May 25th meeting, text was added to the amendment regarding open trench inspections by drainage district commissioners for both wind and solar farms.

Attachment B is the revised Finding of Fact, Summary Finding of Fact and Final Determination for Case 086-AT-23 recommending approval of the proposed text amendment.

Attachment C is the revised Finding of Fact, Summary Finding of Fact and Final Determination for Case 086-AT-23 recommending denial of the proposed text amendment.

Attachment D is the "less strict" interpretation of the proposed amendment that would be included with the chosen Finding of Fact.

Attachments E, F, and G are redline comparisons of the current Zoning Ordinance and the proposed amendment for sections 6.1.1, 6.1.5 (wind), and 6.1.7 (solar).

NEXT STEPS

The Board needs to determine whether they are forwarding a recommendation for approval (Attachment B) or a recommendation for denial (Attachment C). Should the Board decide to make no recommendation, Staff recommends forwarding Attachment C with minor modifications.

ATTACHMENTS

- A Legal advertisement
- B Revised Finding of Fact, Summary Finding of Fact and Final Determination for Case 086-AT-23 recommending approval dated August 17, 2023
- C Revised Finding of Fact, Summary Finding of Fact and Final Determination for Case 086-AT-23 recommending denial dated August 17, 2023
- D Exhibit A: Proposed amendment dated August 17, 2023 Less strict interpretation
- E Redline comparison of Section 6.1.1 revisions
- F Redline comparison of wind revisions
- G Redline comparison of solar revisions
- H Email from Ted Hartke received August 3, 2023, with attachment: *If Solar Panels Are So Clean, Why Do They Produce So Much Toxic Waste?* Forbes.com, May 2018

LEGAL PUBLICATION: WEDNESDAY, MARCH 15, 2023 CASE: 086-AT-23

NOTICE OF PUBLIC HEARING IN REGARD TO AN AMENDMENT TO THE TEXT OF THE CHAMPAIGN COUNTY ZONING ORDINANCE

CASE 086-AT-23

The Champaign County Zoning Administrator, 1776 East Washington Street, Urbana, has filed a petition to amend the text of the Champaign County Zoning Ordinance. The petition is on file in the office of the Champaign County Department of Planning and Zoning, 1776 East Washington Street, Urbana, IL.

A public hearing will be held **Thursday, March 30, 2023 at 6:30 p.m.** prevailing time in the Shields-Carter Meeting Room, Brookens Administrative Center, 1776 East Washington Street, Urbana, IL, at which time and place the Champaign County Zoning Board of Appeals will consider a petition for the following:

Amend the Champaign County Zoning Ordinance as follows in order to ensure compliance with Public Act 102-1123:

- 1. Add the following definitions to Section 3.0 Definitions: FACILITY OWNER, NON-PARTICIPATING PROPERTY, OCCUPIED COMMUNITY BUILDING, PARTICIPATING PROPERTY.
- 2. Revise the following definitions in Section 3.0 Definitions: PARTICIPATING DWELLING, NON-PARTICIPATING DWELLING, COMMUNITY PV SOLAR FARM
- 3. Revise Section 6.1.4 WIND FARM SPECIAL USE PERMIT to establish an effective date for regulating previously authorized WIND FARMS.
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 - a. Establish a separation from each WIND FARM TOWER of 1.1 times the maximum blade tip height to the nearest PARTICIPATING DWELLING, to the center point of a public street right-of-way, to the nearest non-participating property line, and to third-party transmission lines.
 - b. Establish a separation from each WIND FARM TOWER of 2.1 times the maximum blade tip height to the nearest NON-PARTICIPATING DWELLING or OCCUPIED COMMUNITY BUILDING, and to the nearest point on the property line of fish and wildlife areas and Illinois Nature Preserve Commission protected lands.
 - c. Establish that the total WIND FARM TOWER HEIGHT (measured to the tip of the highest rotor blade) must receive a Determination of No Hazard to Air Navigation by the Federal Aviation Administration under 14 CFR Part 77.
 - d. Establish that the financial assurance for WIND FARMS will be based on the requirements in the Agricultural Impact Mitigation Agreement but will be required to be an Escrow Account.
 - e. Add other new standard conditions consistent with Public Act 102-1123.

- 5. Renumber existing Section 6.1.5 to new Section 6.1.6 PHOTOVOLTAIC (PV) SOLAR FARM and establish an effective date for regulating previously authorized PHOTOVOLTAIC (PV) SOLAR FARMS.
- 6. Add new Section 6.1.7 PROPOSED PHOTOVOLTAIC (PV) SOLAR FARM to establish regulations applicable after an effective date for proposed PHOTOVOLTAIC (PV) SOLAR FARMS, including but not limited to:
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 - c. Establish a separation of 150 feet from the nearest edge of any component of the PV SOLAR FARM and the nearest point on the outside wall of an OCCUPIED COMMUNITY BUILDING or NON-PARTICIPATING DWELLING.
 - d. Establish that the financial assurance for PV SOLAR FARMS will be based on the requirements in the Agricultural Impact Mitigation Agreement.
 - e. Add other new standard conditions consistent with Public Act 102-1123.

All persons interested are invited to attend said hearing and be heard. If you would like to submit comments or questions before the meeting, please call the P&Z Department at 217-384-3708 or email zoningdept@co.champaign.il.us no later than 4:30 pm the day of the meeting. The hearing may be continued and reconvened at a later time.

Ryan Elwell, Chair Champaign County Zoning Board of Appeals

TO BE PUBLISHED: WEDNESDAY, MARCH 15, 2023, ONLY

Send bill and one copy to: Champaign County Planning and Zoning Dept.

Brookens Administrative Center

1776 E. Washington Street

Urbana, IL 61802 Phone: 384-3708

Our News Gazette account number is 99225860.

086-AT-23

FINDING OF FACT AND FINAL DETERMINATION

of

Champaign County Zoning Board of Appeals

Final Determination: **<u>RECOMMEND ENACTMENT</u>**

Date: {March 30May 11May 25August 17, 2023}

Petitioner: Zoning Administrator

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ensure compliance with Public Act 102-1123:

1. Add the following definitions to Section 3.0 Definitions: FACILITY OWNER, NON-PARTICIPATING PROPERTY, OCCUPIED COMMUNITY BUILDING, PARTICIPATING PROPERTY.

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 - c. Establish that the total WIND FARM TOWER HEIGHT (measured to the tip of the highest rotor blade) must receive a Determination of No Hazard to Air Navigation by the Federal Aviation Administration under 14 CFR Part 77.

- d. Establish that the financial assurance for WIND FARMS will be based on the requirements in the Agricultural Impact Mitigation Agreement but will be required to be an **Escrow Account.**
- Add other new standard conditions consistent with Public e. Act 102-1123.
- 5. Renumber existing Section 6.1.5 to new Section 6.1.6 PHOTOVOLTAIC (PV) SOLAR FARM and establish an effective date for regulating previously authorized PHOTOVOLTAIC (PV) **SOLAR FARMS.**
- 6. Add new Section 6.1.7 PROPOSED PHOTOVOLTAIC (PV) SOLAR FARM to establish regulations applicable after an effective date for proposed PHOTOVOLTAIC (PV) SOLAR FARMS, including but not limited to:
 - Establish a separation of 50 feet between the PV SOLAR a. FARM fencing and the street centerline.
 - b. Establish a separation of 50 feet between the nearest edge of any component of the PV SOLAR FARM and the nearest point on the property line of the non-participating property.
 - Establish a separation of 150 feet from the nearest edge of c. any component of the PV SOLAR FARM and the nearest point on the outside wall of an OCCUPIED COMMUNITY BUILDING or NON-PARTICIPATING DWELLING.
 - d. Establish that the financial assurance for PV SOLAR FARMS will be based on the requirements in the **Agricultural Impact Mitigation Agreement.**
 - Add other new standard conditions consistent with Public e. Act 102-1123.

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FINDING OF FACT

From the documents of record and the testimony and exhibits received at the public hearing conducted on March 30, 2023, May 11, 2023, May 25, 2023 and August 17, 2023, the Zoning Board of Appeals of Champaign County finds that:

- 1. The petitioner is the Zoning Administrator.
- 2. The proposed amendment is intended to revise requirements for WIND FARMS and PV SOLAR FARMS in the Zoning Ordinance to comply with Public Act 102-1123.
- 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 PV SOLAR FARMS, WIND FARMS and WIND TOWERS, 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."

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

- a. The standard conditions for WIND FARM TOWERS and PV SOLAR FARMS will ensure the following:
 - (a) The proposed amendment requires minimum separations between any WIND FARM TOWERS, PV SOLAR FARMS and existing adjacent use to minimize issues of land use compatibility.
 - (b) No WIND FARM TOWER or PV SOLAR FARM shall interfere with agricultural operations (see Objective 4.2).
 - (c) No WIND FARM TOWER or PV SOLAR FARM shall be located at any location that is not well-suited for that WIND FARM TOWER or PV SOLAR FARM (see Objective 4.3).
 - (d) The proposed amendment establishes standard conditions to ensure that the allowable noise level created by a WIND FARM TOWER or PV SOLAR FARM is consistent with the Illinois Pollution Control Board regulations that are the same for all rural land uses.
 - (e) The proposed amendment requires WIND FARMS and PV SOLAR FARMS to have an approved Decommissioning and Site Reclamation Plan to ensure that funds will be available to remove a WIND FARM or PV SOLAR FARM if the WIND FARM or PV SOLAR FARM ever becomes 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:

- 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. WIND FARM TOWERS and PV SOLAR FARM *ARE* services better provided in a rural area as evidenced by the following:
 - (a) WIND FARM TOWERS and PV SOLAR FARMS do not require access to most utilities.
 - (b) WIND FARM TOWERS and PV SOLAR FARMS are not compatible with principal structures within the minimum separation distance established by the Zoning Ordinance.
- c. Even though WIND FARM TOWERS and PV SOLAR FARMS do not serve the surrounding agricultural uses directly, the landowner receives payment from the WIND FARM TOWER and PV SOLAR FARM operator in excess of the value of a crop from that land.

- (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
 - 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 amendment requires that an applicant shall enter into an Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture, including the following:
 - (a) The Applicant shall bear full responsibility for coordinating any special conditions required in the SPECIAL USE Permit in order to ensure compliance with the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.
 - (b) All requirements of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture shall become requirements of the County Board SPECIAL USE Permit.
 - (c) Champaign County shall have the right to enforce all requirements of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.
- (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. WIND FARMS and PV SOLAR FARMS both require Agricultural Impact Mitigation Agreements with the Illinois Department of Agriculture.
- (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:

Policy 4.3.1 states "On other than best prime farmland, the County may (1) 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:

- See the discussion under Policy 4.3.2 regarding achievement of Policy a. 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:

- Because so much of Champaign County consists of best prime farmland a. soils, any development of a WIND FARM or PV SOLAR FARM is likely to be on best prime farmland.
- Standard conditions for WIND FARMS and PV SOLAR FARMS will b. ensure that they shall not be approved on any location that is not well-suited as follows:
 - (a) The proposed amendment identifies areas where WIND FARMS and PV SOLAR FARMS 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.
 - The proposed amendment requires consultation with the State (c) Historic Preservation Officer of IDNR and IDNR recommendations will be included in the Agency Action Report submitted with the Special Use Permit Application.
 - (d) The proposed amendment requires consultation with the United States Fish and Wildlife Service for fish and wildlife impacts.
- Policy 4.3.3 states, "The County may authorize a discretionary review (3) 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 *NOT IMPEDE* Policy 4.3.3.

(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:
 - 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) WIND FARMS and PV SOLAR FARMS *ARE* services better provided and therefore *ARE* appropriate in a rural area.
- b. Regarding location of a WIND FARM or PV SOLAR FARM 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 WIND FARM or PV SOLAR FARM 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.

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; policy 6.1.3 is the only relevant policy, and it states the following:
 - (1) Policy 6.1.3 states, "The County will seek to prevent nuisances created by light and glare and will endeavor to limit excessive night lighting, and to preserve clear views of the night sky throughout as much of the County as possible."

The proposed amendment will *HELP ACHIEVE* Objective 6.1.3 as follows:

- Section 6.1.2 A. of the Zoning Ordinance requires that any SPECIAL USE a. Permit with exterior lighting shall be required to minimize glare onto adjacent properties by the use of full-cutoff type lighting fixtures with maximum lamp wattages.
- b. The proposed amendment requires that landscaping, awnings, or fencing shall be provided for any part of a WIND FARM where shadow flicker exceeds the standards established in the Zoning Ordinance.
- 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.

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

> 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. The proposed amendment is **NOT RELEVANT** to Goal 8 in general.

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. The proposed amendment will **NOT IMPEDE** the achievement of Goal 9.

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

> 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:
 - Paragraph 2.0 (a) of the Ordinance states that one purpose of the zoning regulations and A. 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.

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.
 - (1) The following is a summary of communications received prior to the March 17, 2022 ZBA public hearing for Case 037-AT-22 regarding wind farm regulations which included a proposed WIND FARM TOWER height the same as proposed in this amendment:
 - a. In an email received March 16, 2022, Shannon Reel asked for clarification on several questions related to the proposed wind farm ordinance revisions. She expressed concerns about ensuring her entire property, not just her residence, would not be infringed upon by insufficient setback from turbines. She also mentioned noise, lights, vibrations, and ice shed. She would like a setback that is 6 times the total height for non-participatory property lines. She would like a moratorium of 18 months on special use wind farm applications in Champaign County.
 - b. In an email received March 16, 2022, Jennifer Eisenmenger said that she is opposed to industrial wind farms. She said wind Farms are invasive to wild places, damaging to animals and humans, and require so much fossil fuel in the manufacturing, transportation, maintenance, and disposal that they actually do little to offset it's usage. She is against unlimited heights on wind turbines, and in favor of significantly increased setbacks from households. She asked that consideration be given to what happens (as illustrated in Douglas County) when wind farms go out of business, leaving counties and land owners with the health and safety issues that come with deteriorating turbines.
 - c. In an email received March 17, 2022, Benjamin Rice said he is opposed to having no height restrictions and also to the setback being measured from his home and not his property line. He said his yard would be unenjoyable due to noise and it could be dangerous for his family.

- In an email received March 17, 2022, Heidi Leerkamp said she is opposed to all changes which increase the height allowed for wind turbines or lessen setbacks from non-participating property or dwellings. She said a wind farm project might be considered a win for economic development but would be a long term drain on the health and welfare of our county. She said these projects greatly impact their daily quality of life and enjoyment of their home property. They negatively affect their ability to operate their family farm as well as the values of their home and farm properties. She mentioned negative impacts on area infrastructure and little benefit for local jobs related to the wind farms. She said that both physical and mental health are negatively impacted by living under and around moving structures of an unprecedented size. She expressed concern about decommissioning of the wind turbines. She asked that no more wind projects be approved in our area and no increases be made to the current wind turbine height limits, and no decreases to the turbine setback limits be made.
- In an email received March 17, 2022, Justin Leerkamp said that he is against any increase above the current height restriction on wind turbines. He said that further and larger setbacks from property lines, not just occupied dwellings would be welcome, but increases in height will only add to further problems for rural residences, and property values for rural homes. He expressed concern about the decommissioning of wind turbines. He said his biggest objections to increasing height is both noise and shadows from the blades, both during the day and from the lighting systems at night bouncing off the blades. He said he supports the use of new lighting systems that are activated when aircraft are near, but questions how effective this will be when areas southeast of Willard airport are in the ILS path of its runways.
- In an email received March 17, 2022, David Happ said he supports adding the ADLS lighting requirements to the ordinance. He said he does not support increases to maximum height of the turbines. He said that Champaign County should change their ordinance to specify a separation distance of 3,250 feet from any residence, and one-half mile from any property line, and he does not think a property owner should be allowed to waive these requirements. He said that increasing the maximum tower height and supporting lower separation distances, is exactly the opposite of what people who have lived near windfarms in the past have asked for.
- In an email received March 17, 2022, Todd Horton said that there is insufficient concern to remedy shadow flicker in the Zoning Ordinance.
- In an email received March 17, 2022, Darrel and Regina Rice said it makes no sense to them to take ground in this part of the country out of production for a wind farm. They don't want to see it, hear it, farm around it, and they don't want it near their homes or on their land. They asked for reasonable height limits on the turbines, and to increase the setbacks beyond what is currently being considered.

- i. In an email received March 17, 2022, Donald Carter expressed concern about health impacts due to insufficient setbacks and noise from the turbines. He is concerned about decreased property values due to wind farms, infrastructure damage and harm to productivity of farm ground where turbines are located, and with ongoing maintenance of turbines as deterioration had been experienced in other nearby windfarms.
- j. In an email received March 17, 2022, Cary and Pam Leerkamp said they have concerns about decreasing property values and asked that the ZBA consider the welfare of county residents.
- k. In an email received March 17, 2022, Traci Bosch had concerns about Carle hospital helicopter safety as they maneuver around turbines. She is concerned about her water supply, noise, rural infrastructure during and after construction of the turbines, and permanent scarring of the soil and roads due to turbine construction. She asked for consideration of rural taxpayers and decreasing property values.
- In an email received March 17, 2022, Brandon and Sarah Hastings said they are opposed to having no height restriction on wind turbines. They expressed concern about debris being thrown from turbines, health issues caused by turbines, potential impacts on internet service, reduced property values, damage to fields and drainage tile, and how fee revenues from turbine projects would be used by the County.
- m. In an email received March 17, 2022, Michelle and Scott Wiesbrook said they had concerns about traffic during wind farm construction, having an unlimited height for wind turbines, noise, flicker, vibration, constructing wind farms on productive farmland, and decommissioning the turbines.
- n. In an email received March 17, 2022, Lynn Rice said the proposed unlimited height and short setback restrictions being proposed at tonight's meeting should be denied. She mentioned adverse health and sleep effects due to proximity to wind turbines, and said they should have a maximum height of 500 feet and minimum setback of 1.25 miles from homes.
- o. In an email received March 17, 2022, Josh Kamerer asked what would be done to alleviate any broadband/internet service interruptions as many have school age children who depend on internet access.
- p. In an email received March 17, 2022, Steven Herriott said that wind turbines are a blight on our beautiful countryside. He said turbine companies should be held to standards of fixing the roads they destroy.
- q. In an email received March 17, 2022, Tiffany Byrne said she had concerns about health impacts due to proximity to wind turbines. She also mentioned impacts on wildlife and livestock. She asked that the height limit not exceed the current 500 feet and that homes should be at least 1.25 miles away from wind turbines.

- r. In an email received March 17, 2022, Adam Watson said that he is in complete opposition of changing the wind tower height limit to unlimited and changing the setbacks.
- s. In an email received March 17, 2022, Natalie Thomas said she had concerns about noise from the turbines, having sufficient setbacks from the turbines, impacts on area communities, sleep deprivation and other health issues, travel safety and making sure roads are in good repair, decommissioning of wind turbines, impacts on wildlife, and public welfare.
- t. In an email received March 17, 2022, Jan Niccum said that he had concerns about decommissioning, road conditions, financial benefits to local communities from the wind farms, and reducing flicker and hum from the turbines.
- u. In an email received March 17, 2022, Aaron Fenter said he had concerns about unlimited height and insufficient setbacks from wind turbines. He said the zoning department has a responsibility to the many rural residents to not allow anything that would detract from their quality of life, their comfort in their homes or the value of their properties.
- v. In an email received March 17, 2022, Kate Boyer said she opposes wind farms, especially due to concerns with her health and that of her children.

 She said noise and flickering are major triggers for her seizures and for her children's autistic episodes, and living in the peaceful country has improved their health.
- w. In an email received March 17, 2022, Stephen Smith said he opposes putting a wind farm in the area. He expressed concerns about road conditions, damaged field tiles, the hazard of wind turbines to agricultural air applications of seeds and chemicals, noise, strobe effect/lighting, blade breakage, and traffic increases from turbine construction.
- x. In an email received March 17, 2022, Jennifer Miller, DVM, said she had concerns about the impacts of wind farms on livestock. She said that chronic stress may impact egg laying, rate of gain, milk production, fertility and stereotypies (cribbing and weaving). She said this can impact families raising the livestock. She asked for consideration of setback to property lines and not just to homes, and for noise levels below 39 decibels. She would like the height capped at 500 feet.
- (2) The following is a summary of testimony received at the March 17, 2022 ZBA public hearing for Case 037-AT-22 regarding wind farm regulations:
 - a. Stephen Smith stated that he is against putting wind farms in and has several concerns: roads being destroyed during wind farm construction and not being repaired after, broken drainage tiles that are not always repaired, the hazard of wind turbines to agricultural air applications of seeds and chemicals, noise, turbine blade breakage, shadow flicker, and ice/snow

- shed. He said the turbines should be set back farther and setback should be measured from the property line.
- b. William Boyer spoke on behalf of his mother, Kate Boyer. He said they have health concerns related to the wind turbines. She suffers from temporal lobe epilepsy, and several of her children are on the autism spectrum. One of the main reasons they purchased an isolated country house was to bring relief to their health. Noise and flickering lights are major triggers for both her epileptic seizures and her children's autistic episodes. She said moving to the peaceful country was such an amazing transformation of mental and physical health. She asked that the County not allow wind turbines in the area.
- c. Dirk Rice said that the setback for non-participating residences should be at least twice that of participating residences. He spoke in favor of the Aircraft Detection Lighting System. He recommended against the proposed setbacks and said the turbines need to be much farther away from residences.
- d. Sarah Hastings said she opposed the unlimited height restriction. She provided articles, one of which said that a 300-foot wind turbine could throw debris 1,200 feet. She said that another article stated that wind turbines can cause health issues and interfere with radio, TV, satellite and radar signals. She also expressed concern about decreased property values.
- e. Kirk Allen said he was with Edgar County Watchdogs, expressed concern about property rights, and how the Zoning Act in the Illinois County Code stipulates the "authority to regulate and restrict location and use of structures for the purpose of promoting the public health, safety, morals, comfort, general welfare, conserving the value of property throughout the County." He suggested that the Board review Zoning Ordinances from Christian County and Edgar County.
- f. Brian Armstrong, Attorney with the firm of Luetkehans, Brady, Garner & Armstrong, said he was speaking on behalf of numerous people in the audience and some who could not attend the meeting. He expressed concerns about noise, the insufficient setbacks proposed, and how turbine height should have a limit. He provided eight exhibits for the Board. He provided data from noise analyses done by Dr. Paul Schomer, acoustician. He encouraged the Board to adopt a setback of no less than 3,250 feet from a wind turbine. The following is a synopsis of those exhibits:
 - (a) Exhibit 1 was a publication by Health Canada (the department of the Government of Canada responsible for health policy) titled *Wind Turbine Noise and Health Study: Summary of Results* published 11/6/2014. The study was undertaken in two Canadian provinces, Ontario and Prince Edward Island, and included responses from 1,283 households in the vicinity of 18 wind turbine developments with a total of 399 wind turbines. The study consisted of three primary components which were as follows and with the following results:

- An in-person questionnaire to randomly selected participants living at varying distances from wind turbine installations regarding self-reported sleep; self-reported illnesses and chronic diseases; self-reported stress; quality of life indicators; and annoyance. Wind turbine noise exposure was not found to be associated with self-reported sleep quality or with self-reported illnesses or self-reported stress or with any significant change in quality of life. Annoyance towards several wind turbine features (i.e. noise, shadow flicker, blinking lights, vibrations, and visual impacts) were statistically associated with increasing levels of wind turbine noise
- Collection of objectively measured outcomes that assessed hair cortisol, blood pressure, and sleep quality. Exposure to wind turbine noise was not observed to be related to hair cortisol concentrations, blood pressure, resting heart rate, or measured sleep. Note that
- More than 4,000 hours of wind turbine noise measurement that supported the calculation of wind turbine noise at the residences in the study. The 1,283 residences were grouped into different categories of calculated outdoor A-weighted wind turbine noise levels of less than 25 dBA; 25 to <30DBA; 30 to <35dBA; 35 to < 40 dBA; and greater than</p> 40dBA (but an inadequate sample size above 46dBA).
- Exhibit 2 was a January 2017 paper in the journal Sound & Vibration titled *Health Effects from Wind Turbine Low Frequency Noise & Infrasound* by authors George Hessler (George Hessler Associates, Inc., Haymarket VA), Geoff Leventhall (consultant, Ashtead, Surrey, UK), Paul Schomer (Schomer and Associates, Inc., Champaign IL), and Bruce Walker (Channel Islands Acoustics, Camarillo, CA). This study by four experts concluded that infrasound (0 to 20 Hz) can almost be ruled as a potential mechanism for stimulating motion sickness symptoms but some additional research was recommended. Pending those results, the four authors recommended that an acceptable A-weighted noise level is all that should be required. In the paper the four authors also share their recommended noise limits for wind farms which are 35 to 39 dBA (Schomer) and 40 dBA (Leventhall and Hessler with Hessler having a 45 dBA maximum) and 45dBA (Walker).
- Exhibit 3 was a paper titled *The Results of an Acoustic Testing* Program, Cape Bridgewater Wind Farm Prepared for Energy Pacific by Steve Cooper, The Acoustic Group, A Review of this Study and Where it is Leading by Paul D. Schomer, PhD., P.E.; Schomer and Associates, Inc.; Standards Director, Acoustical Society of America, and George Hessler, Hessler Associates, Inc.

The paper is dated 10 February 2015. This paper reviewed a very limited study regarding the perceived effects of noise on three couples who lived between 650 meters and 1600 meters from the Cape Bridgewater wind farm in Australia. The Cape Bridgewater study found that the three couples could sense the operation of wind turbines in the wind farm even when there was no acoustical or visual stimulus from wind turbine operation and their reactions were correlated with the power output of the wind turbines. One of the couples was so affected by the wind farm emissions that they abandoned their home. The Cape Bridgewater study was too limited for the results to be generalized to the population, but the study did demonstrate a cause and effect relation at these locations.

- (d) Exhibit 4 was an excerpt of McLean County Zoning Board of
 Appeals minutes from 1/24/2018. The excerpt is the questioning of
 Dr. Schomer by Attorney Luetkehans and members of the Zoning
 Board of Appeals. The questioning focused on the various wind
 farm noise limits and the Cape Bridgewater study. Dr. Schomer
 stated his recommended noise limit for wind farm noise to be 38 to
 40 dB.
- Exhibit 5 is a report titled A Cooperative Measurement Survey and Analysis of Low Frequency and Infrasound at the Shirley Wind Farm in Brown County, Wisconsin that was partially funded by the Wisconsin Public Service Commission and by Clean Wisconsin, a nonprofit environmental advocacy organization. Although the study was about the Shirley Wind Farm the results of the study were to be used in a pending wind farm proposed for St. Croix County, WI. The report was issued on 12/24/2012. Four acoustical consulting firms jointly conducted the study. The firms were Channel Islands Acoustics (principal Dr. Bruce Walker); Hessler Associates, Inc. (principals George and David Hessler); Rand Acoustics (principal Robert Rand); and Schomer and Associates, Inc, (principal Dr. Paul Schomer). Each consultant presented their individual findings in a separate Appendix but all agreed that in regards to the Shirley Wind Farm there was "...enough evidence and hypotheses given to classify low frequency noise and infrasound as a serious issue...it should be addressed beyond the present practice of showing that wind turbine levels are magnitudes below the threshold of hearing at low frequencies." Hessler Associates, Inc. recommended a noise limit of 39.5 dBA or less for the proposed St. Croix wind farm. Schomer and Associates recommended additional testing and if that was not possible they recommended a noise limit of 33.5 dBA or less for the proposed St. Croix wind farm, based on a 6 dB decrease in noise that the Navy used when dealing with severe noise induced nausea. Neither Channel Islands Acoustic nor Rand Acoustics made recommendations for the proposed St. Croix wind farm.

- Exhibit 6 is an undated report titled *Proposed minimum siting* (f) distances for Livingston County Wind Farms prepared by Schomer and Associates, Inc. The paper is an analysis of separation distances and calculated noise levels from existing wind turbines for the 1,283 dwellings in the Health Canada publication titled *Wind Turbine Noise and Health Study: Summary of Results* published 11/6/2014. The report divides the separations for 745 dwellings in the Health Canada study into nine separation categories from 1,500 feet to 3,750 feet. 493 dwellings in the Health Canada study were located further than 3,750 feet from a turbine and those dwellings are not included in this analysis. The 745 dwellings in this analysis were divided into 6 noise levels from 35 dB(A) to 40 dB(A). The report also included the results of a study by Minnesota Department of Commerce regarding international wind turbine noise limits for residences and the requirements of the American National Standards Institute (ANSI). The report concludes with a recommendation for a noise limit of 38dB(A) and a minimum separation of 3,250 feet.
- Exhibit 7 is a report titled Alta Farm Wind Project II, LLC, Dewitt (g) County, Illinois, Property Value Impact Analysis: Residential *improved and vacant agricultural land properties* by Kurt C. Kielisch of Forensic Appraisal Group of Neenah, Wisconsin, dated February 18, 2019. The report is a summary of a study contracted by DeWitt County Residents Against Wind Turbines group, represented by Atty. Phillip A. Luetkehans, Schirott, Luetkehans & Garner, LLC, Itasca, Illinois, to study the impacts that the proposed Alta Farms Wind Project II, LLC, would have on improved residential and vacant agricultural land values. The report has four parts: a literature study regarding wind farms and land use; a summary of wind farm value impact studies; an analysis of how residential property values are being impacted by a wind farm using paired sales analysis in the Twin Groves II wind farm in McLean, Illinois; and a multiple regression analysis on the impact of agricultural land values being impacted by the Twin Groves II wind farm. The impact studies found little to no evidence of an impact in wind industry and government supported studies, but found a "significant impact" from independent studies using a variety of valuation methods from paired sales analysis to multi-regression analysis. Losses amongst the nine independent studies that were completed between 2007 and 2015 ranged from 7.7% to 50% in value, with distances ranging from adjacent to a wind farm to within 3 miles of a wind farm. The report also indicated that "Agricultural land also is impacted by the presence of a wind farm losing -6.3% to -8.5% of its overall value if located within a wind farm." For the proposed wind farm, the report concluded that "the presence of wind turbines in close proximity to residential properties and agricultural land will have a negative impact on property value and this impact is permanent. The magnitude of that impact will be dependent on the

proximity of the wind turbines to the property, the disruption of the viewshed and disruption of the land use."

- (h) Exhibit 8 is a PowerPoint presentation authored by Jerry Punch,
 Ph.D., titled "Wind Turbine Noise: Effects on Human Health" that
 was given to the Christian County, Illinois Zoning Board of Appeals
 on June 23, 2020. The presentation covered the following topics:
 - Physical nature of wind turbine noise
 - Common health effects of wind turbine noise exposure
 - Research evidence that wind turbine noise causes adverse health effects
 - Methods of limiting wind turbine noise
 - Standards and guidelines relevant to wind turbine noise

Recommendations included maximizing setback distance and minimizing noise levels. Dr. Punch provided numerous citations for recommended setback and noise levels, but did not make recommendations himself.

- caused him and his family to move from a perfectly good home in Vermilion County. He recommended that Champaign County adopt a setback of no less than 3,250 feet from a wind turbine based on Dr. Schomer's noise analyses. He said he supports a 500 foot limit on the turbine height.
- h. Darrell Rice said that it makes no sense to them to take ground in this part of the country out of production for a wind farm; they don't want to see it, hear it, farm around it, have it near their homes or on their land. He asked the Board to place reasonable height limits on turbines and increase the setbacks beyond what is being considered.
- i. Benjamin Rice said that he wants his family to be able to enjoy their entire seven acres of land. He expressed concerns about noise, safety from turbines breaking apart and throwing ice, and the height of the turbines. He asked for consideration of their rights and getting to enjoy peace and quiet in the country.
- j. Brad Shotton asked the Board to give them a voice in order to preserve the properties they have. He would like increased setbacks, a limit on the wind turbine height, and asked the Board not to accept the proposal before them. He expressed concern about noise, vibrations, and shadow flicker.
- k. Ed Decker said it would be totally irresponsible to give the wind turbine an unlimited height, and he would like the Board to keep it at the 500 feet height limit. He said he thinks the 3,250 feet has come up several times tonight for the setback, and he thinks that would be a reasonable setback,

- and he thinks that needs to be from each property line as well as each dwelling. He expressed concern about noise and property values.
- 1. Kelly Vetter said that she thinks there is a conflict of interest that the wind company's engineer oversees the decommissioning estimates for the existing wind farm. She asked that Champaign County do what other counties have done, which is to make ordinances that prevent a wind farm from even coming in.
- m. Todd Horton said that he is really concerned that an incompatible land use would be something, that creates flickering lights coming through the windows of their homes. He said when it comes to shadow flicker, there is no standard for what an acceptable reduction of shadow flicker is, but they don't have anything in the current Zoning Ordinance that says anything is enforceable, other than the wind farm project developer provides a shadow flicker study, but it doesn't say the wind farm project developer has to follow the study. He said that he hopes the wind turbines are not allowed to be taller.
- n. Don Carter said that there is a company, NextEra Energy, that is planning a wind farm on 50,000 acres south of Philo, Sidney and Homer. He said the Board members are the residents' champions; the Board is the one that stands between the residents and people that many of the residents feel would ill-use that land out there. He asked the Board to take up their case, take up their cause by passing responsible aspects of this ordinance that is before them.
- o. Charlie Mitsdarfer said he is really worried about the height, and even more concerned about the setbacks. He said these are an eyesore, and he is worried about property values and mitigating existing land problems caused by wind farm construction. He said roads are in poor shape and there are broken field tiles, and the land will never be what it was before that construction. He said he has heard of issues with well water. He questioned the unlimited height proposed, and asked for a one-mile setback from turbines.
- p. Justin Leerkamp said he farms in the Douglas County area adjacent to many of these windmills, and he feels that the setback multiplier is not large enough having worked under these 600 foot towers. He said if we do use a multiplier, to increase the height, it should not be linear, it should be exponential as the height increases. He said the purpose of that would be to reduce the shadow flicker. He said he really doesn't feel that the height increase is warranted at this time; he feels that the 500 foot limit has worked for this county. He said he is in favor of lighting mitigation.
- q. William Mitsdarfer said he hears people complain about the railroad a lot,
 or living next to a grain elevator. He said he understands that it's probably
 noisy and dirty or whatever, but that elevator or railroad were there before
 the house was or the town, so people knew that when they moved there. He

- said their homes are there now and there's no windmills. He saw no good in having windmills.
- r. Traci Bosch said she is just 3-3/4 miles from the Douglas County windmills. She said they sound like a constant blowtorch, and urged the Board to drive out to a windmill and listen before making any decisions. She said that the Board should talk to residents of northern Champaign County about what it is like when a turbine blows apart. She expressed concerns about road conditions, property values, and impacts on school and fire station revenues.
- S. Daniel Herriott asked the Board to consider Dekalb County's wind farm ordinance, which has a setback that is six times the turbine height and allows zero flicker on non-participating neighbors. He said the height limit should be kept at 500 feet.
- (3) The following is a summary of communications received between March 18 and April 1, 2022 for Case 037-AT-22 regarding wind farm regulations:
 - a. In an email received March 18, 2022, Mick & Mary Schumacher said they had concerns about the height of the towers, designed setbacks, and setbacks from neighboring property owners.
 - b. In an email received March 29, 2022, Ted Hartke provided citations
 supporting a 39 dBA maximum noise limit because 40 dBA begins adverse health impacts.
 - c. In an email received March 29, 2022, Don Carter stated he is opposed to the proposed changes in turbine heights and setbacks. He would like to maintain the current 500 foot height limitation in the ordinance, and increase the setback to the property line of non-participating land owners to 3,250 feet. He agrees with the adoption of county-level AIMA standards and adding aircraft detection lighting systems for wind turbines. He agrees with the proposed increase in turbine fees, and thinks the fee should be even higher.
 - d. In an email received March 29, 2022, Michael Mooney is opposed to having more wind farms in the county. He expressed concerns about damage to field tiles and ruined roads due to wind farm construction.
 - e. In an email received March 29, 2022, Gary Place expressed concerns about wind farms effects on safety and quality of life. He would like to keep the current 500 foot height limit, would like to have a 3,250 foot setback to non-participating landowners' property lines, and have a noise limit of 38 dBA.
 - f. In an email received March 30, 2022, Shannon Reel expressed concerns about noise, sleep deprivation, loss of home value, and flicker from the wind turbines. She is against removing the 500 foot height restriction and in

- <u>favor of setback to a non-participating property line of 6 times the height of</u> a turbine.
- g. In a second email received March 30, 2022, Shannon Reel expressed concerns about roads not getting repaired and the County not having enough money to repair the roads once wind farm construction has occurred. She urged the County to deny the proposed changes.
- h. In an email received March 30, 2022, Drs. Andrew & Jennifer Miller stated they are opposed to changing the setbacks and the height of wind turbines.

 They feel the setback from property lines should be 3,250 feet and the height of turbines limited to 500 feet.
- i. In an email received March 30, 2022, Darrel Rice expressed concern about water quality related to bedrock damage caused by wind turbine installation and underground vibrations from turbines. He also mentioned concerns about shadow flicker, effects on bats and honeybees, adverse health impacts of wind turbines. He asked that the 500 foot height limit be maintained and that the setback requirements be extended to the property lines and be extended in distance.
- in an email received March 31, 2022, Justin Leerkamp said he does not support an unlimited height for turbines. He thinks setbacks should increase in distance and also be measured from property lines, not residences. He supports the adoption of the Agricultural Impact Mitigation Agreement and suggested that the proposed fee increases be increased even more. He said he supports the adoption of the ADLS lighting system.
- k. In an email received March 31, 2022, Todd and Sharon Herbert said they would like the 500 foot wind turbine height maintained, and the setback to be increased to 3,250 feet from the neighboring property lines. They are also in favor of the aircraft detection system. They expressed concerns about broken drainage tiles and roads caused by wind farm construction.
- In an email received March 31, 2022, Michelle and Scott Wiesbrook asked to maintain the current wind turbine height limit at 500 feet. She supports the adoption of the county-level Agricultural Impact Mitigation Agreement and aircraft lighting detection systems. She thinks the fees should be increased even higher than what is currently proposed. She expressed concern about groundwater quality.
- m. In an email received March 31, 2022, David Happ said he supports the Right to Farm Resolution. He does not support changing the maximum allowable wind turbine height of 500 feet. He does not think that the minimum required separation should be a factor of tower height; it should be 3,250 feet. He said he supports aircraft lighting detection systems and Agricultural Impact Mitigation Agreements. He supports the proposed fee increase.

- n. In an email received March 31, 2022, Tiffany Byrne said that she supports a setback of 6,600 feet from non-participating dwellings. She said that the height limit should remain unchanged.
- o. In an email received March 31, 2022, Brandon and Sarah Hastings asked that the height limit for wind turbines be kept at 500 feet. They expressed concern about groundwater quality, ice throw, noise, and flicker. They support aircraft lighting detection systems and Agricultural Impact Mitigation Agreements. They support the proposed increase in fees and think they could be even higher.
- p. In an email received March 31, 2022, Traci Bosch expressed concern about safety of pilots who spray crops and fly emergency helicopters in wind turbine areas.
- q. In an email received March 31, 2022, Stephen Smith asked that height of turbines be limited to 200 feet. He supports an increase in the setback to the non-participating landowners' property lines. He expressed concern about shadow flicker.
- r. In an email received March 31, 2022, Doug Downs said he opposes changing the height limitation. He would like to see the setback increased to 3,250 feet.
- s. In an email received March 31, 2022, Kris Petersen described flying conditions and the dangers wind turbines impose on their aerial application service. He said allowing the turbines to be taller will make their jobs more dangerous and less efficient. He said he had concerns about the aircraft lighting detection systems and how they might impact pilot safety.
- t. In an email received March 31, 2022, Mike Lockwood expressed concern about possibly being surrounded by wind turbines, light pollution, and impacts on his quality of life. He favors longer setbacks than those proposed, and favors keeping the current 500 foot height limitation.
- u. In an email received April 1, 2022, Heidi Leerkamp asked that the ZBA abandon the proposed changes to special use permits for industrial wind energy complexes. She asked that wildlife and best prime farmland be more thoroughly studied before allowing any more wind turbines in the County.
- (4) The following is a summary of testimony received at the March 31, 2022 ZBA public hearing for Case 037-AT-22 regarding wind farm regulations:
 - a. Jed Gerdes stated he is opposed to having wind farms in Champaign

 County, and that our area's prime farmland should be protected from that kind of development. He said he supports a 1.25 to 1.5 mile setback. He expressed concern about broken drainage tiles, noise, and decreased property values.

- b. Michael Mooney said that he does not think it prudent to put wind farms on prime farmland. He expressed concern about broken drainage tiles and bad roads caused by wind farm construction.
- Kelly Vetter offered to put together a citizen's taskforce to assist the
 County Board with their decision making regarding wind turbines.
- d. Dennis Riggs said that the 500 foot height limit should be maintained, and a setback of at least 3,250 feet from property lines should be established to protect against the problem of unsightliness, noise, air pressure fluctuations, and light flicker. He expressed concerns for broken drainage tiles and bad roads, and supports strong Agricultural Impact Mitigation Agreements and decommissioning agreements.
- e. David Reel asked for a moratorium on any new wind turbines for at least 18 months in order to ensure that any revisions to the wind ordinance are not hastily done without due diligence as to what is in the best interest of the county. He said he does not feel the current setback requirements are sufficient.
- f. Kris Petersen said he is a pilot and expressed concerns for pilot safety in wind farms and more so if taller turbines are allowed.
- g. Roger Negangard expressed concerns about decommissioning and letting the wind companies keep anything in the ground below 46 inches; he thinks they should remove all they put into the ground. He said there needs to be a longer setback and that the height of the turbines needs to be limited.
- Jennifer Eisenmenger said she is very concerned about the environment.
 She asked what would happen to mitigation plans when wind farms go out of business.
- i. Heidi Leerkamp asked that the ZBA abandon the proposed changes to
 special use permits for industrial wind energy complexes. She asked that
 wildlife and best prime farmland be more thoroughly studied before
 allowing any more wind turbines in the County.
- j. Brian Schluter said he is the Compromise Township Road Commissioner.
 He expressed concern about sufficient setbacks and height, and he does not favor a blanket ordinance.
- k. Aaron Fenter said that height limitations should be reviewed periodically rather than allowing an unlimited height. He believes that property values will decrease for residences in a wind farm area. He believes that Champaign County should look at Livingston County's ordinance as an example if they are going to change the current requirements.
- Adam Watson said he believes changing to an unlimited height would be irresponsible. He said that he feels their county should be the most

- concerned about the health and safety of its residents. He said he is in agreement with needing to use aircraft detection lighting systems.
- m. Stephen Smith said he would like to recommend would be keeping these windmills under 200 feet if they do put them in the area, which would reduce harmful, environmental, and aesthetic impact, and it would also keep from the shadow flicker occurring.
- n. Dirk Rice said that as he looks at the proposal for these changes in the regulation and there is no science behind it. He expressed concern for property values, setback and height requirements.
- O. Charlie Mitsdarfer said that he has a couple concerns with the Agriculture Impact Mitigation Agreement, and he agrees that it is important, but he has a lot of reservations about how it is going to get enforced. He expressed concerns about returning the soil to its prior condition once wind turbines are removed. He also was concerned about drainage and about crop productivity if the wind turbines affect his ability to spray, and about declining property values due to wind turbines.
- p. Justin Leerkamp said he generally supports the Agricultural Impact

 Mitigation Agreement, but was concerned about its ability to be enforced.

 He suggested increasing the fees even more and to use part of those fees to enforce the AIMA. He expressed concern for having enough money in the escrow for decommissioning wind turbines. He said that he doesn't support an increase in height, and he doesn't feel their current setbacks are large enough. He said he would like to see more studies on property values.
- q. Darrell Rice asked the Board to give them the best possible restrictions to ensure their lives are the most pleasant they could have living within a wind farm footprint, including lower height limits and larger setbacks. He expressed concern for shadow flicker, road conditions and drainage related to construction of wind turbines.
- r. Ted Hartke began a presentation, but due to time limits, he agreed to do his presentation at the next meeting on April 14th.
- (5) The following is a summary of communications received between April 2, 2022 and April 14, 2022 for Case 037-AT-22 regarding wind farm regulations:
 - a. In an email received April 12, 2022, Kim Decker provided a list of some locations, sources, or reports that have or are recommending more than one mile setbacks from wind turbines.
 - b. In an email received April 14, 2022, Matthew Herriott said he was opposed to wind turbine height limits above 500 feet. He said the proposed setback is insufficient to protect the safety and wellbeing of residents. He suggested using Livingston County's ordinance as an example. He said he supported the aircraft lighting detection system, but wondered how well it would work due to the airport. He suggested that the proposed fee increase could be

higher and could be used to ensure complaints are addressed. He said he supports the Agricultural Impact Mitigation Agreement if the guidelines are enforced.

- (6) The following is a summary of testimony received at the April 14, 2022 ZBA public hearing for Case 037-AT-22 regarding wind farm regulations:
 - a. Ted Hartke said the ICPB noise limits don't address health issues, only annoyance. He said Dr. Schomer, who helped make these standards, said the ICPB noise levels do not protect health and he said the maximum noise limit from wind turbines should be 39 dB or less. Mr. Hartke gave a presentation citing various sources and testified about his family's negative experience with noise from wind turbines that forced them out of their home. He said that if the Board put the setback at 3,250 feet away and the wind company would want to make the setback at 2,500 or 3,000 feet away, this would put the citizens who live in the wind farm in control, and they would get to decide if they would want to sign off on noise, shadow flicker, and property value loss the citizens could negotiate that themselves.

Regarding turbine height limits, Mr. Hartke said the taller wind turbines have a longer blade and the blade would flex more causing the low frequency increase along with the thumping and pulsation noise, which is going to be more disturbing.

- b. Margie Kolter recommended that people go out to a wind farm area and listen to the noise and feel the vibration that turbines cause. She expressed concern about decommissioning costs and the possibility that the wind companies will go bankrupt and leave the equipment behind. She said that the wind farms are taking prime farm ground and putting concrete in, affecting the drainage, and then they are affecting these peoples' lives.
- c. Phil Luetkehans stressed the importance of having sufficient setbacks to protect the health, safety, and welfare of residents and their property values. He said that he thinks anywhere in that setback range of 3,000 feet to 3,250 feet they would probably give a significant protection to residents. He spoke of the probable decrease in property values attributable to proximity to wind turbines. He made a few recommendations for changing the County wind farm ordinance to better protect the County and its residents.
- d. Steve Littlefield, a real estate agent, provided five examples of property values for lots that had sold between 2012 and the present in the California Ridge wind farm area. His overall takeaway was that property values are negatively impacted by proximity to wind turbines.
- e. Kim Decker said that she would like to have a longer setback, and that the setback should be measured between the turbine and the property line, not to the residence. She provided a list of several dozen setbacks that have been adopted in the US and abroad. She said she is asking the Board to do the responsible thing and in her opinion that is to vote down the proposition

- they have before them and hopefully revamp this whole process of setbacks and wind height.
- f. Matthew Herriott said he is opposed to a tower height taller than 500 feet and suggested that Champaign County take a closer look at Livingston County's ordinance for height and setback. He expressed support for the ALDS lighting, but questioned how often the lights would actually be off given airport traffic. He suggested that the fee increase should be even higher, and that the higher amount be used in part to have an enforcement officer dealing with complaints about wind and solar farms. He said he supports the Agricultural Impact Mitigation Agreement if it is correctly enforced. He recommended that the Champaign County Zoning Board deny the current proposed changes to the ordinance regarding turbine height and setback distance.
- g. Brandon Hastings said the height restriction should stay at 500 feet, setbacks should be 3,250 feet or six times the height, whichever is greater to match Livingston County regulations, but it should measure setback from the property line rather than from the residence. He said he thinks the zoning should eliminate the chance of shadow flicker for non-participating parcels. He expressed concern about how big an issue drainage is, and that the Agricultural Impact Mitigation Agreement should include that. He said that fees should be huge, and escrow accounts should be established not only for decommissioning, but for drainage issues and road repair.
- h. Kelly Vetter urged the Board to consider the possibilities of the unintended consequence as related to protecting water resources from wind farm development.
- i. Steven Herriott said he thinks the height needs to be maintained at 500 feet.

 He said he feels that sometimes we are doing things to encourage or bend over backwards to help these wind companies, and he doesn't think it is our responsibility to encourage them to come but to let them conform to what we need out there in the country. He said if by chance the turbines get higher, we need to go with six times the height in setback, and measure from the property line and not the residence.
- (7) The following is a summary of communications received between April 15, 2022 and May 26, 2022 for Case 037-AT-22 regarding wind farm regulations:
 - a. In an email received May 2, 2022, Ted Hartke provided four documents that he asked to be distributed to the ZBA and ELUC members. The documents were distributed and added to the Documents of Record.
 - b. At the May 5, 2022 ELUC meeting, Mary King distributed three handouts, which have been distributed to the ZBA and added to the Documents of Record.
 - c. In an email received May 26, 2022, Mike Lockwood said he favored significantly increased setback distances. He said he was opposed to

increasing the allowed height of wind turbines. He asked for more power for homeowners in the approval process and less power for those landowners who do not live in the area.

- (8) The following is a summary of testimony received at the May 26, 2022 ZBA public hearing for Case 037-AT-22 regarding wind farm regulations:
 - a. Stephen R. Smith read a statement on behalf of his neighbor, Kelly Vetter, who said it is time to slow down the current monstrosities of wind turbines trying to come into their backyard and think this through. She supported taking a legacy view that fits the landscape, their values, and generations to come. Mr. Smith said he supports a minimum separation of 3,250 feet from the property line and keeping the 500 foot maximum height for wind turbines.
 - b. Randy Wells shared his experience with the Douglas County windmills that are as close as .75 mile from his home. He talked about construction issues and bad road conditions due to the wind turbine development. He is concerned that money will not be there for decommissioning when the time comes. While he has not experienced adverse health impacts, he has experienced the noise and flashing lights from the turbines.
 - c. Lisa Ellis said she is an Edgar County Board member, and offered advice about revising the wind ordinance. She said that Edgar County adopted a 3,250 foot setback to the structure, but the wind company can negotiate with individual landowners to have a reduced separation that cannot be less than 1,000 feet. She said the ordinance should consider local roads, drainage tile, and emergency services. She said Edgar County does not have a height restriction on wind turbines. She said she lives about 25 miles from the nearest turbine, and can hear it and see it from her home.
 - d. Ted Hartke reviewed the four documents he submitted that were distributed as part of Supplemental Memo #2 dated May 17, 2022. He referred to testimony by Dr. Schomer that a limit of 39 dba is needed to mitigate adverse health effects. He said that Dr. Schomer testified that taller turbines will cause more infrasound, and that turbines are louder at night than during the day, with a difference of 3 to 6 dba. He testified about his own story of having to leave his home due to the wind turbines built near his home. He summarized by saying he supports a noise level of less than 39 dba, supports setbacks at 3,250 feet or 6.5 times the blade tip height, supports waivers for setbacks for individual landowners, and wants more consideration for infrasound.
 - e. Roger Henning Jr said that he supports a setback of 3,250 feet. He has bought property for future development by family members, and wants them to be able to build on any part of the property, so he supports the setback being to the property line and not the structure.
 - f. Todd Herbert supports maintaining a less than 500 foot height maximum, and supports a setback of 3250 feet or 6 times the height measured from the

property line. He thinks it is a bad decision to allow individual waivers to allow a setback of 1,000 feet. He agrees that a setback of 1.25 miles would be best. He supports the aircraft lighting detection system. He expressed concern about drainage tile and supports a setback from the very fragile Drainage District tiles. He said there would be no farming if there was no tile.

- (9) This text amendment includes minimum required separations to NONPARTICIPATING DWELLINGS and NON-PARTICIPATING PROPERTY LINES
 that are actually less than those proposed in Case 037-AT-22 and a maximum allowed
 WIND FARM TOWER height similar to that in Case 037-AT-22. This text
 amendment is motivated by the requirements of Public Act 102-1123 and, to the extent
 that the State Legislature has determined that the requirements of Public Act 102-1123
 are adequate to protect the public, the proposed amendment is consistent with this
 purpose.
- 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 not directly related to 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 not directly related to 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.

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 not directly related to 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 PV SOLAR FARMS and WIND FARMS 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.
- 18. Public Act 102-1123 requires that a final determination be made regarding a wind farm or solar farm project within 30 days of the close of the public hearing. In Champaign County, wind farms and solar farms require a County Board decision after the ZBA hearing and one ELUC meeting.

 Due to standard meeting schedules for ZBA, ELUC, and County Board, there are three months of the year when Champaign County would not be able to meet the 30-day statutory deadline: February, June, and September.
- 19. The Champaign County State's Attorney's Office opined that including requirements that are stricter than what Public Act 102-1123 allows creates a risk of litigation to Champaign County, but the State's Attorney's Office is not opposed to the County approving the proposed amendment.
- 20. Three villages protest the approval of the text amendment prompted by Public Act 102-1123:
 - A. The Village of Philo sent a letter of protest received March 28, 2023. The letter cites that the proposed text amendment would affect Village of Philo's control of its extraterritorial jurisdiction; would create increased noise levels; noise intrusion; visual blight; diminished television, radio and internet reception; negative effects on birds and other wildlife; compromised public safety particularly during storm events; and nuisances.
 - B. The Village of St. Joseph sent a letter of protest received March 30, 2023. The letter cites that the proposed text amendment would affect Village of St. Joseph's control of its extraterritorial jurisdiction.
 - C. The Village of Mahomet sent a letter of protest received March 30, 2023. The letter cites that the proposed text amendment removes the language requiring subdivision for leasing situations. The proposed amendment would impact the Village's ability to secure proper easements or the construction of infrastructure for utility systems. The Village strongly opposes solar and wind farms as a special use in the AG-2 Agriculture Zoning District due to the proximity of the zone to its municipal boundaries. They suggest that rezoning lands within ETJs could assure freedom for urban, contiguous, and incremental expansion for municipalities.
- 21. The mandated separation of 1.1 times the WIND FARM tower height to public streets and non-participating property lines does not adequately mitigate the risk of ice throw from WIND FARM tower blades. A safe distance of 1.5 times WIND FARM tower height is typically considered a safe distance to mitigate the risk of ice throw.

- 22. Regarding public participation during this case:
 - The following is a summary of testimony received at the March 30, 2023 ZBA public hearing for Case 086-AT-23 regarding changes to the Zoning Ordinance prompted by Public Act 102-1123:
 - Darrel Rice expressed his appreciation to the Board for listening to the people of (1) the county over the last year or so. He asked if it is true still if a wind farm comes to Champaign County, they still have to get a Special Use Permit and there is still an opportunity for public testimony on each project. He asked if this Board had any power over the Agricultural Impact Mitigation Agreement on what the Board's requirements would be for drainage and if the Board could still require an open trench for the wiring, so that it can be inspected for drainage tile breakage before it is covered up with dirt. He said it makes a huge difference, because it allows them to see the problems before the drainage tiles are covered up with dirt and they can address them as construction is going on. He said some of these problems can show up years later and they wouldn't know the problem is there until everybody is done and gone.
 - Ted Hartke said he doesn't think there was a single thing listed in the solar portion where it talks about solar panel distances to homes. He thinks the County probably wouldn't get much push back or lawsuits like they are afraid of, if the Board simply said that all the noise making inverters have a setback of 800 feet away, the solar farms could put the solar panels as close as they want, but the inverters that make noise have a setback of 800 feet away. He said if something is unconstitutional, whether it be another law, dumb rule, or unfunded mandate, if they thought it was the job of a board to refuse to go along with something that is unconstitutional and, in this case, it is unconstitutional for taking of land without compensation. He said what is happening is, they are getting an unpaid for free easement given to a private wind company to make money on land that they don't own, rent, or compensate; it is a giveaway. He said the State of Illinois has stepped in and become the middleman to take that away from a person who just wants to live and be left alone on their own land. Regarding the Illinois Pollution Control Board noise level standards, that is why the State of Illinois is pushing that level upon us. He said that the only living person alive today that helped establish those octave band limits is Dr. Paul Schomer, he said that those noise levels are not suitable for wind turbines. He said if those levels are not suitable for wind turbines, he believes that is an excellent defense when a wind developer, the State of Illinois, or whoever it is that is going to come and file a lawsuit against them. He said when they show up and file the lawsuit, exhibit one should be Dr. Schomer's presentation to Boone County, Illinois from 2012 or 2013, he doesn't remember when, and in that testimony, it says that the Illinois Pollution Control Board noise level limits are not intended for wind turbines; therefore, that is a great defense and they could show to the judge in court that those are not appropriate noise level limits. Mr. Hartke said the next thing about the Illinois Pollution Control Board noise level limit rules is that those noise levels are supposed to be at the property line.
 - Roger Henning Jr., stated that he had heard the comment earlier at tonight's meeting about notifying people within a 250 feet range for upcoming cases. He asked if people wanted to get that distance enlarged, then who would they need to go to, because he has a piece of property within 600 feet from where they threw a

- solar farm on it and was never told about the solar farm. He said the person next to his piece of property didn't know about it, because there is another piece of property in between that. He asked how somebody who lives within the setbacks of that same section could get notified.
- (4) Justin Leerkamp said it is taking away rights of the County, the individual, and it's not right. He feels like they were on the right track in this county three or four months ago, they had made progress and had a bunch of public hearing meetings. He said this move by the State has taken the wind out of those sails, but he doesn't think they need to forget the points that were made and the direction they were going, because things may change at the State, then if they adopted this law as their standards, then the State changes politically or gets enough feedback from constituents to where they make some changes. He said depending on what the State does with any amendments to this, then are they were stuck with the less stringent standards at that point. He would hate to rush in adopt this very lenient minimum separation requirement and have that become the new Champaign County Zoning Ordinance, then the State does something else six months to a year down the road, then they are stuck with something that nobody in the room really wanted.
- (5) Jan Carter-Niccum, Village Board of Savoy, stated that the first response to the question about the 250 feet range is the 250 feet range for notifying adjacent residents of a proposed Special Use Permit is less than half the height of one wind turbine, so that gives them an idea about how far they are talking about. He asked what kind of restrictions this new law will have on the University of Illinois or will there be no restrictions for them.
- B. The following is a summary of testimony received at the May 11, 2023 ZBA public hearing for Case 086-AT-23 regarding changes to the Zoning Ordinance prompted by Public Act 102-1123:
 - (1) Justin Leerkamp suggested that the testimony from Case 037-AT-22 regarding wind farm ordinance requirements should be included in the Finding of Fact for Case 086-AT-23.
 - (2) Roger Henning asked if it is up to the County to police the State's requirements. He asked who would pay for the noise study.
 - (3) Darrel Rice is a Drainage District commissioner and said that drainage is so important. He would like the Agriculture Impact Mitigation Agreement to require an open trench inspection of drainage tile during construction of a solar or wind farm. He said that damaged tile can affect crops.
 - (4) Ted Hartke spoke about the detrimental impacts of wind turbines being too close to his home, which forced his family to vacate the home. Repeated complaints about sleep disturbance were to no avail. He referred to noise levels that were below Illinois Pollution Control Board requirements yet were detrimental to his family. He questioned noise impact studies that were done around his home and had supporting evidence to show that the noise study was not done correctly, to his family's disadvantage.

- (5) Todd Herbert said the Illinois Drainage District Association would be a good contact to get language to use in the ordinance.
- (6) Josh Kamerer asked how the County would recoup its expenses for noise studies it might have to undertake.
- C. The following is a summary of testimony received at the May 25, 2023 ZBA public hearing for Case 086-AT-23 regarding changes to the Zoning Ordinance prompted by Public Act 102-1123:
 - (1) Darrel Rice supported the proposed revision regarding open trench inspections for drainage district tile. He advocated for requiring open trenching to install wind farm cables rather than plowing or knifing them in.
- 23. Text Amendment Case 075-AT-22 had been authorized by ELUC on October 6, 2022 but the text amendment was withdrawn upon the passage of Public Act 102-1123. Case 075-AT-22 was proposed to do the following:
 - A. Revise Section 6. 1.4 C.2. to increase the minimum required separation to a participating principal structure to 1,600 feet and 2,000 feet for a non-participating principal structure.
 - B. Revise Section 6.1.4 D.5. to increase the maximum allowed wind turbine tower height to 600 feet.
 - C. Revise Section 6.1.4 I. to lower the Allowable Noise Level to 45 dB(A). and to require a wind farm owner to pay for an independent post-construction noise study to demonstrate compliance with the allowable noise level.
 - D. Revise Section 9.3.3 B.(6) to add a fee to pay for the post-construction noise study.

SUMMARY FINDING OF FACT

From the documents of record and the testimony and exhibits received at the public hearing conducted on March 30, 2023, May 11, 2023, May 25, 2023 and August 17, 2023, 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 086-AT-23
- 2. Preliminary Memorandum for Case 086-AT-23, with attachments:
 - A Legal advertisement
 - B ELUC Memorandum dated February 27, 2023
 - Exhibit A: Proposed Amendment dated February 27, 2023
 - Exhibit B: Public Act 102-1123 excerpt
 - C Redline comparison of Champaign County Zoning Ordinance Section 6.1.1. A.
 - D Redline comparison of Champaign County wind farm ordinance section
 - E Redline comparison of Champaign County solar farm ordinance section
 - F Agricultural Impact Mitigation Agreement for Commercial Wind Energy Facilities by the Illinois Department of Agriculture
 - G Agricultural Impact Mitigation Agreement for Commercial Solar Energy Facilities by the Illinois Department of Agriculture
 - H Land Resource Management Plan (LRMP) Goals & Objectives (available on ZBA meetings website)
 - I Preliminary Finding of Fact, Summary Finding of Fact, and Final Determination for Case 086-AT-23 dated March 30, 2023, with attachment:
 - Exhibit A: Proposed Amendment dated March 30, 2023
- 3. Village of Philo Letter of Protest received March 28, 2023
- 4. Village of St. Joseph Letter of Protest received March 30, 2023
- 5. Village of Mahomet Letter of Protest received March 30, 2023
- 6. Supplemental Memorandum #1 for Case 086-AT-23, with attachments:
 - A Legal advertisement
 - B Proposed amendment dated May 3, 2023 Strict interpretation
 - C Proposed amendment dated May 3, 2023 Less strict interpretation
 - D Sample Wind Ordinance by the Illinois Association of County Board Members

 (on ZBA meetings website)
 - E Sample Solar Ordinance by the Illinois Association of County Board Members (on ZBA meetings website)
 - F Revised Finding of Fact, Summary Finding of Fact, and Final Determination for Case 086-AT-23 dated May 11, 2023
- 7. Supplemental Memorandum #2 for Case 086-AT-23 dated May 11, 2023
- 8. Supplemental Memorandum #3 for Case 086-AT-23 dated May 17, 2023, with attachments:
 - A Legal advertisement
 - <u>B</u> Revised Finding of Fact, Summary Finding of Fact and Final Determination for Case 086-AT-23 recommending approval dated May 25, 2023
 - C Revised Finding of Fact, Summary Finding of Fact and Final Determination for Case 086-AT-23 recommending denial dated May 25, 2023
 - D Exhibit A: Proposed amendment dated May 17, 2023 Less strict interpretation

- 9. Supplemental Memorandum #4 for Case 086-AT-23 dated May 25, 2023, with attachments:
 - A Legal advertisement
 - B Email from Ted Hartke received May 23, 2023, with attachment:
 - Ford County proposed text amendment regarding Public Act 102-1123
 - C Email from Ted Hartke received May 24, 2023, with attachment:
 - Illinois Department of Agriculture 2023 Agricultural Impact Mitigation Agreement template
 - D Email from Ted Hartke received May 24, 2023 regarding ice throw
 - E Ice throw from wind turbines: assessment and risk management. National Wind Watch,

 January 6, 2023 (on ZBA meetings website)

 $\frac{https://www.wind-watch.org/documents/ice-throw-from-wind-turbines-assessment-and-risk-management/}{}$

- <u>F</u> *Ice shedding and ice throw risk and mitigation.* GE Energy, April 2006. (on ZBA meetings website)
 - https://www.ge.com/content.dam/gepower-new/global/en_US/downloads/gas-new-site/resources/reference/ger-4262-ice-shedding-ice-throw-risk-mitigation.pdf
- G International Energy Agency (IEA) Wind Technology Collaboration Programme (TCP)

 Task 19 Technical Report International Recommendations for Ice Fall and Ice Throw Risk

 Assessments dated April 2022. (on ZBA meetings website)
- H Fact sheet: Icing and wind energy systems. Center for Rural Affairs, 2019.

 (on ZBA meetings website)

 https://www.cfra.org/sites/default/files/publications/icing-and-wind-energy-systems.pdf
- 10. Handout with proposed amendment language regarding open trench inspections near drainage district tiles created by P&Z Staff on May 25, 2023
- 11. Supplemental Memorandum #5 dated August 9, 2023, with attachments:
 - A Legal advertisement
 - B Revised Finding of Fact, Summary Finding of Fact and Final Determination for Case 086-AT-23 recommending approval dated August 17, 2023
 - C Revised Finding of Fact, Summary Finding of Fact and Final Determination for Case 086-AT-23 recommending denial dated August 17, 2023
 - D Exhibit A: Proposed amendment dated August 17, 2023 Less strict interpretation
 - E Redline comparison of Section 6.1.1 revisions
 - F Redline comparison of wind revisions
 - G Redline comparison of solar revisions
 - H Email from Ted Hartke received August 3, 2023, with attachment: *If Solar Panels Are So Clean, Why Do They Produce So Much Toxic Waste?* Forbes.com, May 2018

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 086-AT-23** 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:	ATTEST:
Ryan Elwell, Chair Champaign County Zoning Board of Appeals	Secretary to the Zoning Board of Appeals
	Date

086-AT-23

FINDING OF FACT AND FINAL DETERMINATION

of

Champaign County Zoning Board of Appeals

Final Determination: <u>RECOMMEND DENIAL</u>

Date: {March 30May 11May 25August 17, 2023}

Petitioner: **Zoning Administrator**

Request: Amend the Champaign County Zoning Ordinance as follows in order to

ensure compliance with Public Act 102-1123:

1. Add the following definitions to Section 3.0 Definitions: FACILITY OWNER, NON-PARTICIPATING PROPERTY, OCCUPIED COMMUNITY BUILDING, PARTICIPATING PROPERTY.

- 2. Revise the following definitions in Section 3.0 Definitions: PARTICIPATING DWELLING, NON-PARTICIPATING DWELLING, COMMUNITY PV SOLAR FARM
- 3. Revise Section 6.1.4 WIND FARM SPECIAL USE PERMIT to establish an effective date for regulating previously authorized WIND FARMS.
- 4. Add new Section 6.1.5 PROPOSED WIND FARM SPECIAL USE PERMIT to establish regulations applicable after an effective date for proposed WIND FARMS, including but not limited to:
 - a. Establish a separation from each WIND FARM TOWER of 1.1 times the maximum blade tip height to the nearest PARTICIPATING DWELLING, to the center point of a public street right-of-way, to the nearest non-participating property line, and to third-party transmission lines.
 - b. Establish a separation from each WIND FARM TOWER of 2.1 times the maximum blade tip height to the nearest NON-PARTICIPATING DWELLING or OCCUPIED COMMUNITY BUILDING, and to the nearest point on the property line of fish and wildlife areas and Illinois Nature Preserve Commission protected lands.
 - c. Establish that the total WIND FARM TOWER HEIGHT (measured to the tip of the highest rotor blade) must receive a Determination of No Hazard to Air Navigation by the Federal Aviation Administration under 14 CFR Part 77.

- d. Establish that the financial assurance for WIND FARMS will be based on the requirements in the Agricultural Impact Mitigation Agreement but will be required to be an Escrow Account.
- e. Add other new standard conditions consistent with Public Act 102-1123.
- 5. Renumber existing Section 6.1.5 to new Section 6.1.6 PHOTOVOLTAIC (PV) SOLAR FARM and establish an effective date for regulating previously authorized PHOTOVOLTAIC (PV) SOLAR FARMS.
- 6. Add new Section 6.1.7 PROPOSED PHOTOVOLTAIC (PV) SOLAR FARM to establish regulations applicable after an effective date for proposed PHOTOVOLTAIC (PV) SOLAR FARMS, including but not limited to:
 - a. Establish a separation of 50 feet between the PV SOLAR FARM fencing and the street centerline.
 - b. Establish a separation of 50 feet between the nearest edge of any component of the PV SOLAR FARM and the nearest point on the property line of the non-participating property.
 - c. Establish a separation of 150 feet from the nearest edge of any component of the PV SOLAR FARM and the nearest point on the outside wall of an OCCUPIED COMMUNITY BUILDING or NON-PARTICIPATING DWELLING.
 - d. Establish that the financial assurance for PV SOLAR FARMS will be based on the requirements in the Agricultural Impact Mitigation Agreement.
 - e. Add other new standard conditions consistent with Public Act 102-1123.

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FINDING OF FACT

From the documents of record and the testimony and exhibits received at the public hearing conducted on March 30, 2023, May 11, 2023, May 25, 2023 and August 17, 2023, the Zoning Board of Appeals of Champaign County finds that:

- 1. The petitioner is the Zoning Administrator.
- 2. The proposed amendment is intended to revise requirements for WIND FARMS and PV SOLAR FARMS in the Zoning Ordinance to comply with Public Act 102-1123.
- 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:

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

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

- The proposed text amendment will allow further development of PV SOLAR FARMS, WIND FARMS and WIND TOWERS, 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 **NOT HELP ACHIEVE** Goal 4 for the following reasons:

Objective 4.1 states as follows: "Champaign County will strive to minimize the Α. 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 **NOT HELP ACHIEVE** Objective 4.1 for the following reasons:

- The proposed amendment **WILL NOT IMPEDE** the achievement of Policies 4.1.2, (1) 4.1.3, 4.1.4, 4.1.5, 4.1.7, 4.1.8, and 4.1.9.
- Policy 4.1.1 states: "Commercial agriculture is the highest and best use of land (2) 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."

The proposed amendment will **NOT HELP ACHIEVE** Policy 4.1.1 for the following reasons:

- a. The standard conditions for WIND FARM TOWERS and PV SOLAR FARMS will ensure the following:
 - (a) The proposed amendment requires <u>inadequate</u> minimum separations between any WIND FARM TOWERS, PV SOLAR FARMS and existing adjacent use to minimize issues of land use compatibility.
 - (b) No WIND FARM TOWER or PV SOLAR FARM shall interfere with agricultural operations (see Objective 4.2).
 - (c) No-A WIND FARM TOWER or PV SOLAR FARM shall can be located at any a location that is not well-suited for that WIND FARM TOWER or PV SOLAR FARM (see Objective 4.3).
 - (d) The proposed amendment establishes standard conditions to ensure that the allowable noise level created by a WIND FARM TOWER or PV SOLAR FARM is consistent with the Illinois Pollution Control Board regulations that are the same for all rural land uses.
 - (e) The proposed amendment requires WIND FARMS and PV SOLAR FARMS to have an approved Decommissioning and Site Reclamation Plan to ensure that funds will be available to remove a WIND FARM or PV SOLAR FARM if the WIND FARM or PV SOLAR FARM ever becomes 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 **NOT HELP ACHIEVE** Policy 4.1.6 for the following reasons:

- a. The ZBA has recommended that the proposed amendment will **NOT 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. WIND FARM TOWERS and PV SOLAR FARM *ARE* services better provided in a rural area as evidenced by the following:
 - (a) WIND FARM TOWERS and PV SOLAR FARMS do not require access to most utilities.
 - (b) WIND FARM TOWERS and PV SOLAR FARMS are not compatible with principal structures within the minimum separation distance established by the Zoning Ordinance.
- c. Even though WIND FARM TOWERS and PV SOLAR FARMS do not serve the surrounding agricultural uses directly, the landowner receives payment from the WIND FARM TOWER and PV SOLAR FARM operator in excess of the value of a crop from that land.

- (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
 - 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 amendment requires that an applicant shall enter into an Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture, including the following:
 - (a) The Applicant shall bear full responsibility for coordinating any special conditions required in the SPECIAL USE Permit in order to ensure compliance with the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.
 - (b) All requirements of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture shall become requirements of the County Board SPECIAL USE Permit.
 - (c) Champaign County shall have the right to enforce all requirements of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.
- (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. WIND FARMS and PV SOLAR FARMS both require Agricultural Impact Mitigation Agreements with the Illinois Department of Agriculture.
- (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 **NOT 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. <u>In the opinion of the Zoning Board of Appeals, suitable sites have a greater separation from the property line of the non-participating property than what is proposed in the text amendment.</u>

 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 **NOT 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 WIND FARM or PV SOLAR FARM is likely to be on best prime farmland.
- b. Standard conditions for WIND FARMS and PV SOLAR FARMS 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 WIND FARMS and PV SOLAR FARMS should not be located.
 - (b) The proposed amendment requires an 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.
 - (d) The proposed amendment requires consultation with the United States Fish and Wildlife Service for fish and wildlife impacts.
- c. In the opinion of the Zoning Board of Appeals, suitable sites have a greater separation from the property line of the non-participating property than what is proposed in the text amendment.

(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 **NOT IMPEDE** Policy 4.3.3.

(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:
 - 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 **NOT HELP ACHIEVE** Policy 4.3.5 for the following reasons:

- a. As reviewed for Policy 4.2.1 in this Finding of Fact:
 - (a) WIND FARMS and PV SOLAR FARMS *ARE* services better provided and therefore *ARE* appropriate in a rural area.
- b. Regarding location of a WIND FARM or PV SOLAR FARM 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 WIND FARM or PV SOLAR FARM in Champaign County will be located on less than best prime farmland.
- c. In the opinion of the Zoning Board of Appeals, suitable sites have a greater separation from the property line of the non-participating property than what is proposed in the text amendment.
- 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.

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; policy 6.1.3 is the only relevant policy, and it states the following:
 - Policy 6.1.3 states, "The County will seek to prevent nuisances created by light and glare and will endeavor to limit excessive night lighting, and to preserve clear views of the night sky throughout as much of the County as possible."

The proposed amendment will *HELP ACHIEVE* Objective 6.1.3 as follows:

- a. Section 6.1.2 A. of the Zoning Ordinance requires that any SPECIAL USE Permit with exterior lighting shall be required to minimize glare onto adjacent properties by the use of full-cutoff type lighting fixtures with maximum lamp wattages.
- b. The proposed amendment requires that landscaping, awnings, or fencing shall be provided for any part of a WIND FARM where shadow flicker exceeds the standards established in the Zoning Ordinance.
- 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. The proposed amendment is *NOT RELEVANT* to Goal 8 in general.

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. The proposed amendment will *NOT IMPEDE* the achievement of Goal 9.

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 **NOT 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.
 - 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.

- (1) The following is a summary of communications received prior to the March 17, 2022 ZBA public hearing for Case 037-AT-22 regarding wind farm regulations which included a proposed WIND FARM TOWER height the same as proposed in this amendment:
 - a. In an email received March 16, 2022, Shannon Reel asked for clarification on several questions related to the proposed wind farm ordinance revisions.
 She expressed concerns about ensuring her entire property, not just her residence, would not be infringed upon by insufficient setback from

turbines. She also mentioned noise, lights, vibrations, and ice shed. She would like a setback that is 6 times the total height for non-participatory property lines. She would like a moratorium of 18 months on special use wind farm applications in Champaign County.

- b. In an email received March 16, 2022, Jennifer Eisenmenger said that she is opposed to industrial wind farms. She said wind Farms are invasive to wild places, damaging to animals and humans, and require so much fossil fuel in the manufacturing, transportation, maintenance, and disposal that they actually do little to offset it's usage. She is against unlimited heights on wind turbines, and in favor of significantly increased setbacks from households. She asked that consideration be given to what happens (as illustrated in Douglas County) when wind farms go out of business, leaving counties and land owners with the health and safety issues that come with deteriorating turbines.
- c. In an email received March 17, 2022, Benjamin Rice said he is opposed to having no height restrictions and also to the setback being measured from his home and not his property line. He said his yard would be unenjoyable due to noise and it could be dangerous for his family.
- d. In an email received March 17, 2022, Heidi Leerkamp said she is opposed to all changes which increase the height allowed for wind turbines or lessen setbacks from non-participating property or dwellings. She said a wind farm project might be considered a win for economic development but would be a long term drain on the health and welfare of our county. She said these projects greatly impact their daily quality of life and enjoyment of their home property. They negatively affect their ability to operate their family farm as well as the values of their home and farm properties. She mentioned negative impacts on area infrastructure and little benefit for local jobs related to the wind farms. She said that both physical and mental health are negatively impacted by living under and around moving structures of an unprecedented size. She expressed concern about decommissioning of the wind turbines. She asked that no more wind projects be approved in our area and no increases be made to the current wind turbine height limits, and no decreases to the turbine setback limits be made.
- e. In an email received March 17, 2022, Justin Leerkamp said that he is against any increase above the current height restriction on wind turbines. He said that further and larger setbacks from property lines, not just occupied dwellings would be welcome, but increases in height will only add to further problems for rural residences, and property values for rural homes. He expressed concern about the decommissioning of wind turbines. He said his biggest objections to increasing height is both noise and shadows from the blades, both during the day and from the lighting systems at night bouncing off the blades. He said he supports the use of new lighting systems that are activated when aircraft are near, but questions how effective this will be when areas south east of Willard airport are in the ILS path of its runways.

- f. In an email received March 17, 2022, David Happ said he supports adding the ADLS lighting requirements to the ordinance. He said he does not support increases to maximum height of the turbines. He said that Champaign County should change their ordinance to specify a separation distance of 3,250 feet from any residence, and one-half mile from any property line, and he does not think a property owner should be allowed to waive these requirements. He said that increasing the maximum tower height and supporting lower separation distances, is exactly the opposite of what people who have lived near windfarms in the past have asked for.
- g. In an email received March 17, 2022, Todd Horton said that there is insufficient concern to remedy shadow flicker in the Zoning Ordinance.
- h. In an email received March 17, 2022, Darrel and Regina Rice said it makes no sense to them to take ground in this part of the country out of production for a wind farm. They don't want to see it, hear it, farm around it, and they don't want it near their homes or on their land. They asked for reasonable height limits on the turbines, and to increase the setbacks beyond what is currently being considered.
- i. In an email received March 17, 2022, Donald Carter expressed concern about health impacts due to insufficient setbacks and noise from the turbines. He is concerned about decreased property values due to wind farms, infrastructure damage and harm to productivity of farm ground where turbines are located, and with ongoing maintenance of turbines as deterioration had been experienced in other nearby windfarms.
- j. In an email received March 17, 2022, Cary and Pam Leerkamp said they have concerns about decreasing property values and asked that the ZBA consider the welfare of county residents.
- k. In an email received March 17, 2022, Traci Bosch had concerns about Carle hospital helicopter safety as they maneuver around turbines. She is concerned about her water supply, noise, rural infrastructure during and after construction of the turbines, and permanent scarring of the soil and roads due to turbine construction. She asked for consideration of rural taxpayers and decreasing property values.
- In an email received March 17, 2022, Brandon and Sarah Hastings said they are opposed to having no height restriction on wind turbines. They expressed concern about debris being thrown from turbines, health issues caused by turbines, potential impacts on internet service, reduced property values, damage to fields and drainage tile, and how fee revenues from turbine projects would be used by the County.
- m. In an email received March 17, 2022, Michelle and Scott Wiesbrook said they had concerns about traffic during wind farm construction, having an unlimited height for wind turbines, noise, flicker, vibration, constructing wind farms on productive farmland, and decommissioning the turbines.

- n. In an email received March 17, 2022, Lynn Rice said the proposed unlimited height and short setback restrictions being proposed at tonight's meeting should be denied. She mentioned adverse health and sleep effects due to proximity to wind turbines, and said they should have a maximum height of 500 feet and minimum setback of 1.25 miles from homes.
- o. In an email received March 17, 2022, Josh Kamerer asked what would be done to alleviate any broadband/internet service interruptions as many have school age children who depend on internet access.
- p. In an email received March 17, 2022, Steven Herriott said that wind turbines are a blight on our beautiful countryside. He said turbine companies should be held to standards of fixing the roads they destroy.
- q. In an email received March 17, 2022, Tiffany Byrne said she had concerns about health impacts due to proximity to wind turbines. She also mentioned impacts on wildlife and livestock. She asked that the height limit not exceed the current 500 feet and that homes should be at least 1.25 miles away from wind turbines.
- r. In an email received March 17, 2022, Adam Watson said that he is in complete opposition of changing the wind tower height limit to unlimited and changing the setbacks.
- s. In an email received March 17, 2022, Natalie Thomas said she had concerns about noise from the turbines, having sufficient setbacks from the turbines, impacts on area communities, sleep deprivation and other health issues, travel safety and making sure roads are in good repair, decommissioning of wind turbines, impacts on wildlife, and public welfare.
- t. In an email received March 17, 2022, Jan Niccum said that he had concerns about decommissioning, road conditions, financial benefits to local communities from the wind farms, and reducing flicker and hum from the turbines.
- u. In an email received March 17, 2022, Aaron Fenter said he had concerns about unlimited height and insufficient setbacks from wind turbines. He said the zoning department has a responsibility to the many rural residents to not allow anything that would detract from their quality of life, their comfort in their homes or the value of their properties.
- v. In an email received March 17, 2022, Kate Boyer said she opposes wind farms, especially due to concerns with her health and that of her children. She said noise and flickering are major triggers for her seizures and for her children's autistic episodes, and living in the peaceful country has improved their health.
- w. In an email received March 17, 2022, Stephen Smith said he opposes putting a wind farm in the area. He expressed concerns about road

- conditions, damaged field tiles, the hazard of wind turbines to agricultural air applications of seeds and chemicals, noise, strobe effect/lighting, blade breakage, and traffic increases from turbine construction.
- x. In an email received March 17, 2022, Jennifer Miller, DVM, said she had concerns about the impacts of wind farms on livestock. She said that chronic stress may impact egg laying, rate of gain, milk production, fertility and stereotypies (cribbing and weaving). She said this can impact families raising the livestock. She asked for consideration of setback to property lines and not just to homes, and for noise levels below 39 decibels. She would like the height capped at 500 feet.
- (2) The following is a summary of testimony received at the March 17, 2022 ZBA public hearing for Case 037-AT-22 regarding wind farm regulations:
 - a. Stephen Smith stated that he is against putting wind farms in and has several concerns: roads being destroyed during wind farm construction and not being repaired after, broken drainage tiles that are not always repaired, the hazard of wind turbines to agricultural air applications of seeds and chemicals, noise, turbine blade breakage, shadow flicker, and ice/snow shed. He said the turbines should be set back farther and setback should be measured from the property line.
 - b. William Boyer spoke on behalf of his mother, Kate Boyer. He said they have health concerns related to the wind turbines. She suffers from temporal lobe epilepsy, and several of her children are on the autism spectrum. One of the main reasons they purchased an isolated country house was to bring relief to their health. Noise and flickering lights are major triggers for both her epileptic seizures and her children's autistic episodes. She said moving to the peaceful country was such an amazing transformation of mental and physical health. She asked that the County not allow wind turbines in the area.
 - c. Dirk Rice said that the setback for non-participating residences should be at least twice that of participating residences. He spoke in favor of the Aircraft Detection Lighting System. He recommended against the proposed setbacks and said the turbines need to be much farther away from residences.
 - d. Sarah Hastings said she opposed the unlimited height restriction. She provided articles, one of which said that a 300-foot wind turbine could throw debris 1,200 feet. She said that another article stated that wind turbines can cause health issues and interfere with radio, TV, satellite and radar signals. She also expressed concern about decreased property values.
 - e. Kirk Allen said he was with Edgar County Watchdogs, expressed concern about property rights, and how the Zoning Act in the Illinois County Code stipulates the "authority to regulate and restrict location and use of structures for the purpose of promoting the public health, safety, morals, comfort, general welfare, conserving the value of property throughout the

County." He suggested that the Board review Zoning Ordinances from Christian County and Edgar County.

- f. Brian Armstrong, Attorney with the firm of Luetkehans, Brady, Garner & Armstrong, said he was speaking on behalf of numerous people in the audience and some who could not attend the meeting. He expressed concerns about noise, the insufficient setbacks proposed, and how turbine height should have a limit. He provided eight exhibits for the Board. He provided data from noise analyses done by Dr. Paul Schomer, acoustician. He encouraged the Board to adopt a setback of no less than 3,250 feet from a wind turbine. The following is a synopsis of those exhibits:
 - (a) Exhibit 1 was a publication by Health Canada (the department of the Government of Canada responsible for health policy) titled *Wind Turbine Noise and Health Study: Summary of Results* published 11/6/2014. The study was undertaken in two Canadian provinces, Ontario and Prince Edward Island, and included responses from 1,283 households in the vicinity of 18 wind turbine developments with a total of 399 wind turbines. The study consisted of three primary components which were as follows and with the following results:
 - i. An in-person questionnaire to randomly selected participants
 living at varying distances from wind turbine installations
 regarding self-reported sleep; self-reported illnesses and
 chronic diseases; self-reported stress; quality of life
 indicators; and annoyance. Wind turbine noise exposure was
 not found to be associated with self-reported sleep quality or
 with self-reported illnesses or self-reported stress or with any
 significant change in quality of life. Annoyance towards
 several wind turbine features (i.e. noise, shadow flicker,
 blinking lights, vibrations, and visual impacts) were
 statistically associated with increasing levels of wind turbine
 noise
 - ii. Collection of objectively measured outcomes that assessed hair cortisol, blood pressure, and sleep quality. Exposure to wind turbine noise was not observed to be related to hair cortisol concentrations, blood pressure, resting heart rate, or measured sleep. Note that
 - iii. More than 4,000 hours of wind turbine noise measurement that supported the calculation of wind turbine noise at the residences in the study. The 1,283 residences were grouped into different categories of calculated outdoor A-weighted wind turbine noise levels of less than 25 dBA; 25 to <30DBA; 30 to <35dBA; 35 to <40 dBA; and greater than 40dBA (but an inadequate sample size above 46dBA).
 - (b) Exhibit 2 was a January 2017 paper in the journal Sound & Vibration titled *Health Effects from Wind Turbine Low Frequency*

Noise & Infrasound by authors George Hessler (George Hessler Associates, Inc., Haymarket VA), Geoff Leventhall (consultant, Ashtead, Surrey, UK), Paul Schomer (Schomer and Associates, Inc., Champaign IL), and Bruce Walker (Channel Islands Acoustics, Camarillo, CA). This study by four experts concluded that infrasound (0 to 20 Hz) can almost be ruled as a potential mechanism for stimulating motion sickness symptoms but some additional research was recommended. Pending those results, the four authors recommended that an acceptable A-weighted noise level is all that should be required. In the paper the four authors also share their recommended noise limits for wind farms which are 35 to 39 dBA (Schomer) and 40 dBA (Leventhall and Hessler with Hessler having a 45 dBA maximum) and 45dBA (Walker).

- Exhibit 3 was a paper titled *The Results of an Acoustic Testing* Program, Cape Bridgewater Wind Farm Prepared for Energy Pacific by Steve Cooper, The Acoustic Group, A Review of this Study and Where it is Leading by Paul D. Schomer, PhD., P.E.; Schomer and Associates, Inc.; Standards Director, Acoustical Society of America, and George Hessler, Hessler Associates, Inc. The paper is dated 10 February 2015. This paper reviewed a very limited study regarding the perceived effects of noise on three couples who lived between 650 meters and 1600 meters from the Cape Bridgewater wind farm in Australia. The Cape Bridgewater study found that the three couples could sense the operation of wind turbines in the wind farm even when there was no acoustical or visual stimulus from wind turbine operation and their reactions were correlated with the power output of the wind turbines. One of the couples was so affected by the wind farm emissions that they abandoned their home. The Cape Bridgewater study was too limited for the results to be generalized to the population, but the study did demonstrate a cause and effect relation at these locations.
- (d) Exhibit 4 was an excerpt of McLean County Zoning Board of
 Appeals minutes from 1/24/2018. The excerpt is the questioning of
 Dr. Schomer by Attorney Luetkehans and members of the Zoning
 Board of Appeals. The questioning focused on the various wind
 farm noise limits and the Cape Bridgewater study. Dr. Schomer
 stated his recommended noise limit for wind farm noise to be 38 to
 40 dB.
- (e) Exhibit 5 is a report titled *A Cooperative Measurement Survey and Analysis of Low Frequency and Infrasound at the Shirley Wind Farm in Brown County, Wisconsin* that was partially funded by the Wisconsin Public Service Commission and by Clean Wisconsin, a nonprofit environmental advocacy organization. Although the study was about the Shirley Wind Farm the results of the study were to be used in a pending wind farm proposed for St. Croix County, WI. The report was issued on 12/24/2012. Four acoustical consulting

firms jointly conducted the study. The firms were Channel Islands Acoustics (principal Dr. Bruce Walker); Hessler Associates, Inc. (principals George and David Hessler); Rand Acoustics (principal Robert Rand); and Schomer and Associates, Inc, (principal Dr. Paul Schomer). Each consultant presented their individual findings in a separate Appendix but all agreed that in regards to the Shirley Wind Farm there was "...enough evidence and hypotheses given to classify low frequency noise and infrasound as a serious issue...it should be addressed beyond the present practice of showing that wind turbine levels are magnitudes below the threshold of hearing at low frequencies." Hessler Associates, Inc. recommended a noise limit of 39.5 dBA or less for the proposed St. Croix wind farm. Schomer and Associates recommended additional testing and if that was not possible they recommended a noise limit of 33.5 dBA or less for the proposed St. Croix wind farm, based on a 6 dB decrease in noise that the Navy used when dealing with severe noise induced nausea. Neither Channel Islands Acoustic nor Rand Acoustics made recommendations for the proposed St. Croix wind farm.

- Exhibit 6 is an undated report titled *Proposed minimum siting* (f) distances for Livingston County Wind Farms prepared by Schomer and Associates, Inc. The paper is an analysis of separation distances and calculated noise levels from existing wind turbines for the 1,283 dwellings in the Health Canada publication titled Wind Turbine *Noise and Health Study: Summary of Results* published 11/6/2014. The report divides the separations for 745 dwellings in the Health Canada study into nine separation categories from 1,500 feet to 3,750 feet. 493 dwellings in the Health Canada study were located further than 3,750 feet from a turbine and those dwellings are not included in this analysis. The 745 dwellings in this analysis were divided into 6 noise levels from 35 dB(A) to 40 dB(A). The report also included the results of a study by Minnesota Department of Commerce regarding international wind turbine noise limits for residences and the requirements of the American National Standards Institute (ANSI). The report concludes with a recommendation for a noise limit of 38dB(A) and a minimum separation of 3,250 feet.
- Exhibit 7 is a report titled Alta Farm Wind Project II, LLC, Dewitt County, Illinois, Property Value Impact Analysis: Residential *improved and vacant agricultural land properties* by Kurt C. Kielisch of Forensic Appraisal Group of Neenah, Wisconsin, dated February 18, 2019. The report is a summary of a study contracted by DeWitt County Residents Against Wind Turbines group, represented by Atty. Phillip A. Luetkehans, Schirott, Luetkehans & Garner, LLC, Itasca, Illinois, to study the impacts that the proposed Alta Farms Wind Project II, LLC, would have on improved residential and vacant agricultural land values. The report has four parts: a literature study regarding wind farms and land use; a summary of wind farm value impact studies; an analysis of how

residential property values are being impacted by a wind farm using paired sales analysis in the Twin Groves II wind farm in McLean, Illinois; and a multiple regression analysis on the impact of agricultural land values being impacted by the Twin Groves II wind farm. The impact studies found little to no evidence of an impact in wind industry and government supported studies, but found a "significant impact" from independent studies using a variety of valuation methods from paired sales analysis to multi-regression analysis. Losses amongst the nine independent studies that were completed between 2007 and 2015 ranged from 7.7% to 50% in value, with distances ranging from adjacent to a wind farm to within 3 miles of a wind farm. The report also indicated that "Agricultural land also is impacted by the presence of a wind farm losing -6.3% to -8.5% of its overall value if located within a wind farm." For the proposed wind farm, the report concluded that "the presence of wind turbines in close proximity to residential properties and agricultural land will have a negative impact on property value and this impact is permanent. The magnitude of that impact will be dependent on the proximity of the wind turbines to the property, the disruption of the viewshed and disruption of the land use."

- (h) Exhibit 8 is a PowerPoint presentation authored by Jerry Punch,
 Ph.D., titled "Wind Turbine Noise: Effects on Human Health" that
 was given to the Christian County, Illinois Zoning Board of Appeals
 on June 23, 2020. The presentation covered the following topics:
 - Physical nature of wind turbine noise
 - Common health effects of wind turbine noise exposure
 - Research evidence that wind turbine noise causes adverse health effects
 - Methods of limiting wind turbine noise
 - Standards and guidelines relevant to wind turbine noise

Recommendations included maximizing setback distance and minimizing noise levels. Dr. Punch provided numerous citations for recommended setback and noise levels, but did not make recommendations himself.

- g. Ted Hartke communicated his personal experience with how turbine noise caused him and his family to move from a perfectly good home in Vermilion County. He recommended that Champaign County adopt a setback of no less than 3,250 feet from a wind turbine based on Dr. Schomer's noise analyses. He said he supports a 500 foot limit on the turbine height.
- h. Darrell Rice said that it makes no sense to them to take ground in this part of the country out of production for a wind farm; they don't want to see it, hear it, farm around it, have it near their homes or on their land. He asked

- the Board to place reasonable height limits on turbines and increase the setbacks beyond what is being considered.
- Benjamin Rice said that he wants his family to be able to enjoy their entire seven acres of land. He expressed concerns about noise, safety from turbines breaking apart and throwing ice, and the height of the turbines. He asked for consideration of their rights and getting to enjoy peace and quiet in the country.
- Brad Shotton asked the Board to give them a voice in order to preserve the properties they have. He would like increased setbacks, a limit on the wind turbine height, and asked the Board not to accept the proposal before them. He expressed concern about noise, vibrations, and shadow flicker.
- Ed Decker said it would be totally irresponsible to give the wind turbine an unlimited height, and he would like the Board to keep it at the 500 feet height limit. He said he thinks the 3,250 feet has come up several times tonight for the setback, and he thinks that would be a reasonable setback, and he thinks that needs to be from each property line as well as each dwelling. He expressed concern about noise and property values.
- Kelly Vetter said that she thinks there is a conflict of interest that the wind company's engineer oversees the decommissioning estimates for the existing wind farm. She asked that Champaign County do what other counties have done, which is to make ordinances that prevent a wind farm from even coming in.
- Todd Horton said that he is really concerned that an incompatible land use would be something, that creates flickering lights coming through the windows of their homes. He said when it comes to shadow flicker, there is no standard for what an acceptable reduction of shadow flicker is, but they don't have anything in the current Zoning Ordinance that says anything is enforceable, other than the wind farm project developer provides a shadow flicker study, but it doesn't say the wind farm project developer has to follow the study. He said that he hopes the wind turbines are not allowed to be taller.
- Don Carter said that there is a company, NextEra Energy, that is planning a wind farm on 50,000 acres south of Philo, Sidney and Homer. He said the Board members are the residents' champions; the Board is the one that stands between the residents and people that many of the residents feel would ill-use that land out there. He asked the Board to take up their case, take up their cause by passing responsible aspects of this ordinance that is before them.
- Charlie Mitsdarfer said he is really worried about the height, and even more concerned about the setbacks. He said these are an eyesore, and he is worried about property values and mitigating existing land problems caused by wind farm construction. He said roads are in poor shape and there are

broken field tiles, and the land will never be what it was before that construction. He said he has heard of issues with well water. He questioned the unlimited height proposed, and asked for a one-mile setback from turbines.

- p. Justin Leerkamp said he farms in the Douglas County area adjacent to many of these windmills, and he feels that the setback multiplier is not large enough having worked under these 600 foot towers. He said if we do use a multiplier, to increase the height, it should not be linear, it should be exponential as the height increases. He said the purpose of that would be to reduce the shadow flicker. He said he really doesn't feel that the height increase is warranted at this time; he feels that the 500 foot limit has worked for this county. He said he is in favor of lighting mitigation.
- q. William Mitsdarfer said he hears people complain about the railroad a lot, or living next to a grain elevator. He said he understands that it's probably noisy and dirty or whatever, but that elevator or railroad were there before the house was or the town, so people knew that when they moved there. He said their homes are there now and there's no windmills. He saw no good in having windmills.
- r. Traci Bosch said she is just 3-3/4 miles from the Douglas County windmills. She said they sound like a constant blowtorch, and urged the Board to drive out to a windmill and listen before making any decisions. She said that the Board should talk to residents of northern Champaign County about what it is like when a turbine blows apart. She expressed concerns about road conditions, property values, and impacts on school and fire station revenues.
- s. Daniel Herriott asked the Board to consider Dekalb County's wind farm ordinance, which has a setback that is six times the turbine height and allows zero flicker on non-participating neighbors. He said the height limit should be kept at 500 feet.
- (3) The following is a summary of communications received between March 18 and April 1, 2022 for Case 037-AT-22 regarding wind farm regulations:
 - a. In an email received March 18, 2022, Mick & Mary Schumacher said they had concerns about the height of the towers, designed setbacks, and setbacks from neighboring property owners.
 - b. In an email received March 29, 2022, Ted Hartke provided citations
 supporting a 39 dBA maximum noise limit because 40 dBA begins adverse
 health impacts.
 - c. In an email received March 29, 2022, Don Carter stated he is opposed to the proposed changes in turbine heights and setbacks. He would like to maintain the current 500 foot height limitation in the ordinance, and increase the setback to the property line of non-participating land owners to 3,250 feet. He agrees with the adoption of county-level AIMA standards

- and adding aircraft detection lighting systems for wind turbines. He agrees with the proposed increase in turbine fees, and thinks the fee should be even higher.
- d. In an email received March 29, 2022, Michael Mooney is opposed to having more wind farms in the county. He expressed concerns about damage to field tiles and ruined roads due to wind farm construction.
- e. In an email received March 29, 2022, Gary Place expressed concerns about wind farms effects on safety and quality of life. He would like to keep the current 500 foot height limit, would like to have a 3,250 foot setback to non-participating landowners' property lines, and have a noise limit of 38 dBA.
- f. In an email received March 30, 2022, Shannon Reel expressed concerns about noise, sleep deprivation, loss of home value, and flicker from the wind turbines. She is against removing the 500 foot height restriction and in favor of setback to a non-participating property line of 6 times the height of a turbine.
- g. In a second email received March 30, 2022, Shannon Reel expressed concerns about roads not getting repaired and the County not having enough money to repair the roads once wind farm construction has occurred. She urged the County to deny the proposed changes.
- h. In an email received March 30, 2022, Drs. Andrew & Jennifer Miller stated they are opposed to changing the setbacks and the height of wind turbines.

 They feel the setback from property lines should be 3,250 feet and the height of turbines limited to 500 feet.
- i. In an email received March 30, 2022, Darrel Rice expressed concern about water quality related to bedrock damage caused by wind turbine installation and underground vibrations from turbines. He also mentioned concerns about shadow flicker, effects on bats and honeybees, adverse health impacts of wind turbines. He asked that the 500 foot height limit be maintained and that the setback requirements be extended to the property lines and be extended in distance.
- j. In an email received March 31, 2022, Justin Leerkamp said he does not support an unlimited height for turbines. He thinks setbacks should increase in distance and also be measured from property lines, not residences. He supports the adoption of the Agricultural Impact Mitigation Agreement and suggested that the proposed fee increases be increased even more. He said he supports the adoption of the ADLS lighting system.
- k. In an email received March 31, 2022, Todd and Sharon Herbert said they would like the 500 foot wind turbine height maintained, and the setback to be increased to 3,250 feet from the neighboring property lines. They are

- <u>also in favor of the aircraft detection system. They expressed concerns</u> about broken drainage tiles and roads caused by wind farm construction.
- In an email received March 31, 2022, Michelle and Scott Wiesbrook asked to maintain the current wind turbine height limit at 500 feet. She supports the adoption of the county-level Agricultural Impact Mitigation Agreement and aircraft lighting detection systems. She thinks the fees should be increased even higher than what is currently proposed. She expressed concern about groundwater quality.
- m. In an email received March 31, 2022, David Happ said he supports the Right to Farm Resolution. He does not support changing the maximum allowable wind turbine height of 500 feet. He does not think that the minimum required separation should be a factor of tower height; it should be 3,250 feet. He said he supports aircraft lighting detection systems and Agricultural Impact Mitigation Agreements. He supports the proposed fee increase.
- n. In an email received March 31, 2022, Tiffany Byrne said that she supports a setback of 6,600 feet from non-participating dwellings. She said that the height limit should remain unchanged.
- o. In an email received March 31, 2022, Brandon and Sarah Hastings asked that the height limit for wind turbines be kept at 500 feet. They expressed concern about groundwater quality, ice throw, noise, and flicker. They support aircraft lighting detection systems and Agricultural Impact Mitigation Agreements. They support the proposed increase in fees and think they could be even higher.
- p. In an email received March 31, 2022, Traci Bosch expressed concern about safety of pilots who spray crops and fly emergency helicopters in wind turbine areas.
- q. In an email received March 31, 2022, Stephen Smith asked that height of turbines be limited to 200 feet. He supports an increase in the setback to the non-participating landowners' property lines. He expressed concern about shadow flicker.
- r. In an email received March 31, 2022, Doug Downs said he opposes changing the height limitation. He would like to see the setback increased to 3,250 feet.
- s. In an email received March 31, 2022, Kris Petersen described flying conditions and the dangers wind turbines impose on their aerial application service. He said allowing the turbines to be taller will make their jobs more dangerous and less efficient. He said he had concerns about the aircraft lighting detection systems and how they might impact pilot safety.

- t. In an email received March 31, 2022, Mike Lockwood expressed concern about possibly being surrounded by wind turbines, light pollution, and impacts on his quality of life. He favors longer setbacks than those proposed, and favors keeping the current 500 foot height limitation.
- u. In an email received April 1, 2022, Heidi Leerkamp asked that the ZBA abandon the proposed changes to special use permits for industrial wind energy complexes. She asked that wildlife and best prime farmland be more thoroughly studied before allowing any more wind turbines in the County.
- (4) The following is a summary of testimony received at the March 31, 2022 ZBA public hearing for Case 037-AT-22 regarding wind farm regulations:
 - a. Jed Gerdes stated he is opposed to having wind farms in Champaign

 County, and that our area's prime farmland should be protected from that kind of development. He said he supports a 1.25 to 1.5 mile setback. He expressed concern about broken drainage tiles, noise, and decreased property values.
 - b. Michael Mooney said that he does not think it prudent to put wind farms on prime farmland. He expressed concern about broken drainage tiles and bad roads caused by wind farm construction.
 - Kelly Vetter offered to put together a citizen's taskforce to assist the
 County Board with their decision making regarding wind turbines.
 - d. Dennis Riggs said that the 500 foot height limit should be maintained, and a setback of at least 3,250 feet from property lines should be established to protect against the problem of unsightliness, noise, air pressure fluctuations, and light flicker. He expressed concerns for broken drainage tiles and bad roads, and supports strong Agricultural Impact Mitigation Agreements and decommissioning agreements.
 - e. David Reel asked for a moratorium on any new wind turbines for at least 18 months in order to ensure that any revisions to the wind ordinance are not hastily done without due diligence as to what is in the best interest of the county. He said he does not feel the current setback requirements are sufficient.
 - f. Kris Petersen said he is a pilot and expressed concerns for pilot safety in wind farms and more so if taller turbines are allowed.
 - g. Roger Negangard expressed concerns about decommissioning and letting the wind companies keep anything in the ground below 46 inches; he thinks they should remove all they put into the ground. He said there needs to be a longer setback and that the height of the turbines needs to be limited.
 - Jennifer Eisenmenger said she is very concerned about the environment.
 She asked what would happen to mitigation plans when wind farms go out of business.

- i. Heidi Leerkamp asked that the ZBA abandon the proposed changes to special use permits for industrial wind energy complexes. She asked that wildlife and best prime farmland be more thoroughly studied before allowing any more wind turbines in the County.
- j. Brian Schluter said he is the Compromise Township Road Commissioner.
 He expressed concern about sufficient setbacks and height, and he does not favor a blanket ordinance.
- k. Aaron Fenter said that height limitations should be reviewed periodically rather than allowing an unlimited height. He believes that property values will decrease for residences in a wind farm area. He believes that Champaign County should look at Livingston County's ordinance as an example if they are going to change the current requirements.
- 1. Adam Watson said he believes changing to an unlimited height would be irresponsible. He said that he feels their county should be the most concerned about the health and safety of its residents. He said he is in agreement with needing to use aircraft detection lighting systems.
- m. Stephen Smith said he would like to recommend would be keeping these windmills under 200 feet if they do put them in the area, which would reduce harmful, environmental, and aesthetic impact, and it would also keep from the shadow flicker occurring.
- n. Dirk Rice said that as he looks at the proposal for these changes in the regulation and there is no science behind it. He expressed concern for property values, setback and height requirements.
- O. Charlie Mitsdarfer said that he has a couple concerns with the Agriculture

 Impact Mitigation Agreement, and he agrees that it is important, but he has
 a lot of reservations about how it is going to get enforced. He expressed
 concerns about returning the soil to its prior condition once wind turbines
 are removed. He also was concerned about drainage and about crop
 productivity if the wind turbines affect his ability to spray, and about
 declining property values due to wind turbines.
- p. Justin Leerkamp said he generally supports the Agricultural Impact
 Mitigation Agreement, but was concerned about its ability to be enforced.

 He suggested increasing the fees even more and to use part of those fees to enforce the AIMA. He expressed concern for having enough money in the escrow for decommissioning wind turbines. He said that he doesn't support an increase in height, and he doesn't feel their current setbacks are large enough. He said he would like to see more studies on property values.
- q. Darrell Rice asked the Board to give them the best possible restrictions to
 ensure their lives are the most pleasant they could have living within a wind
 farm footprint, including lower height limits and larger setbacks. He

- expressed concern for shadow flicker, road conditions and drainage related to construction of wind turbines.
- r. Ted Hartke began a presentation, but due to time limits, he agreed to do his presentation at the next meeting on April 14th.
- (5) The following is a summary of communications received between April 2, 2022 and April 14, 2022 for Case 037-AT-22 regarding wind farm regulations:
 - a. In an email received April 12, 2022, Kim Decker provided a list of some locations, sources, or reports that have or are recommending more than one mile setbacks from wind turbines.
 - b. In an email received April 14, 2022, Matthew Herriott said he was opposed to wind turbine height limits above 500 feet. He said the proposed setback is insufficient to protect the safety and wellbeing of residents. He suggested using Livingston County's ordinance as an example. He said he supported the aircraft lighting detection system, but wondered how well it would work due to the airport. He suggested that the proposed fee increase could be higher and could be used to ensure complaints are addressed. He said he supports the Agricultural Impact Mitigation Agreement if the guidelines are enforced.
- (6) The following is a summary of testimony received at the April 14, 2022 ZBA public hearing for Case 037-AT-22 regarding wind farm regulations:
 - a. Ted Hartke said the ICPB noise limits don't address health issues, only annoyance. He said Dr. Schomer, who helped make these standards, said the ICPB noise levels do not protect health and he said the maximum noise limit from wind turbines should be 39 dB or less. Mr. Hartke gave a presentation citing various sources and testified about his family's negative experience with noise from wind turbines that forced them out of their home. He said that if the Board put the setback at 3,250 feet away and the wind company would want to make the setback at 2,500 or 3,000 feet away, this would put the citizens who live in the wind farm in control, and they would get to decide if they would want to sign off on noise, shadow flicker, and property value loss the citizens could negotiate that themselves.

Regarding turbine height limits, Mr. Hartke said the taller wind turbines have a longer blade and the blade would flex more causing the low frequency increase along with the thumping and pulsation noise, which is going to be more disturbing.

Margie Kolter recommended that people go out to a wind farm area and listen to the noise and feel the vibration that turbines cause. She expressed concern about decommissioning costs and the possibility that the wind companies will go bankrupt and leave the equipment behind. She said that the wind farms are taking prime farm ground and putting concrete in, affecting the drainage, and then they are affecting these peoples' lives.

- c. Phil Luetkehans stressed the importance of having sufficient setbacks to protect the health, safety, and welfare of residents and their property values. He said that he thinks anywhere in that setback range of 3,000 feet to 3,250 feet they would probably give a significant protection to residents. He spoke of the probable decrease in property values attributable to proximity to wind turbines. He made a few recommendations for changing the County wind farm ordinance to better protect the County and its residents.
- d. Steve Littlefield, a real estate agent, provided five examples of property values for lots that had sold between 2012 and the present in the California Ridge wind farm area. His overall takeaway was that property values are negatively impacted by proximity to wind turbines.
- e. Kim Decker said that she would like to have a longer setback, and that the setback should be measured between the turbine and the property line, not to the residence. She provided a list of several dozen setbacks that have been adopted in the US and abroad. She said she is asking the Board to do the responsible thing and in her opinion that is to vote down the proposition they have before them and hopefully revamp this whole process of setbacks and wind height.
- f. Matthew Herriott said he is opposed to a tower height taller than 500 feet and suggested that Champaign County take a closer look at Livingston County's ordinance for height and setback. He expressed support for the ALDS lighting, but questioned how often the lights would actually be off given airport traffic. He suggested that the fee increase should be even higher, and that the higher amount be used in part to have an enforcement officer dealing with complaints about wind and solar farms. He said he supports the Agricultural Impact Mitigation Agreement if it is correctly enforced. He recommended that the Champaign County Zoning Board deny the current proposed changes to the ordinance regarding turbine height and setback distance.
- g. Brandon Hastings said the height restriction should stay at 500 feet, setbacks should be 3,250 feet or six times the height, whichever is greater to match Livingston County regulations, but it should measure setback from the property line rather than from the residence. He said he thinks the zoning should eliminate the chance of shadow flicker for non-participating parcels. He expressed concern about how big an issue drainage is, and that the Agricultural Impact Mitigation Agreement should include that. He said that fees should be huge, and escrow accounts should be established not only for decommissioning, but for drainage issues and road repair.
- h. Kelly Vetter urged the Board to consider the possibilities of the unintended consequence as related to protecting water resources from wind farm development.
- i. Steven Herriott said he thinks the height needs to be maintained at 500 feet.
 He said he feels that sometimes we are doing things to encourage or bend

over backwards to help these wind companies, and he doesn't think it is our responsibility to encourage them to come but to let them conform to what we need out there in the country. He said if by chance the turbines get higher, we need to go with six times the height in setback, and measure from the property line and not the residence.

- (7) The following is a summary of communications received between April 15, 2022 and May 26, 2022 for Case 037-AT-22 regarding wind farm regulations:
 - a. In an email received May 2, 2022, Ted Hartke provided four documents that he asked to be distributed to the ZBA and ELUC members. The documents were distributed and added to the Documents of Record.
 - b. At the May 5, 2022 ELUC meeting, Mary King distributed three handouts, which have been distributed to the ZBA and added to the Documents of Record.
 - c. In an email received May 26, 2022, Mike Lockwood said he favored significantly increased setback distances. He said he was opposed to increasing the allowed height of wind turbines. He asked for more power for homeowners in the approval process and less power for those landowners who do not live in the area.
- (8) The following is a summary of testimony received at the May 26, 2022 ZBA public hearing for Case 037-AT-22 regarding wind farm regulations:
 - a. Stephen R. Smith read a statement on behalf of his neighbor, Kelly Vetter, who said it is time to slow down the current monstrosities of wind turbines trying to come into their backyard and think this through. She supported taking a legacy view that fits the landscape, their values, and generations to come. Mr. Smith said he supports a minimum separation of 3,250 feet from the property line and keeping the 500 foot maximum height for wind turbines.
 - b. Randy Wells shared his experience with the Douglas County windmills that are as close as .75 mile from his home. He talked about construction issues and bad road conditions due to the wind turbine development. He is concerned that money will not be there for decommissioning when the time comes. While he has not experienced adverse health impacts, he has experienced the noise and flashing lights from the turbines.
 - c. Lisa Ellis said she is an Edgar County Board member, and offered advice about revising the wind ordinance. She said that Edgar County adopted a 3,250 foot setback to the structure, but the wind company can negotiate with individual landowners to have a reduced separation that cannot be less than 1,000 feet. She said the ordinance should consider local roads, drainage tile, and emergency services. She said Edgar County does not have a height restriction on wind turbines. She said she lives about 25 miles from the nearest turbine, and can hear it and see it from her home.

- d. Ted Hartke reviewed the four documents he submitted that were distributed as part of Supplemental Memo #2 dated May 17, 2022. He referred to testimony by Dr. Schomer that a limit of 39 dba is needed to mitigate adverse health effects. He said that Dr. Schomer testified that taller turbines will cause more infrasound, and that turbines are louder at night than during the day, with a difference of 3 to 6 dba. He testified about his own story of having to leave his home due to the wind turbines built near his home. He summarized by saying he supports a noise level of less than 39 dba, supports setbacks at 3,250 feet or 6.5 times the blade tip height, supports waivers for setbacks for individual landowners, and wants more consideration for infrasound.
- e. Roger Henning Jr said that he supports a setback of 3,250 feet. He has bought property for future development by family members, and wants them to be able to build on any part of the property, so he supports the setback being to the property line and not the structure.
- f. Todd Herbert supports maintaining a less than 500 foot height maximum, and supports a setback of 3250 feet or 6 times the height measured from the property line. He thinks it is a bad decision to allow individual waivers to allow a setback of 1,000 feet. He agrees that a setback of 1.25 miles would be best. He supports the aircraft lighting detection system. He expressed concern about drainage tile and supports a setback from the very fragile Drainage District tiles. He said there would be no farming if there was no tile.
- (9) Text Amendment Case 075-AT-22 had been authorized by ELUC on October 6, 2022 but the text amendment was withdrawn upon the passage of Public Act 102-1123. Case 075-AT-22 was proposed to do the following:
 - A. Revise Section 6.1.4 C.2. to increase the minimum required separation to a participating principal structure to 1,600 feet and 2,000 feet for a non-participating principal structure.
 - B. Revise Section 6.1.4 D.5. to increase the maximum allowed wind turbine tower height to 600 feet.
 - C. Revise Section 6.1.4 I. to lower the Allowable Noise Level to 45 dB(A) and to require a wind farm owner to pay for an independent post-construction noise study to demonstrate compliance with the allowable noise level.
 - D. Revise Section 9.3.3 B.(6) to add a fee to pay for the post-construction noise study.
- (10) The following is a summary of testimony received at the March 30, 2023 ZBA public hearing for Case 086-AT-23 regarding changes to the Zoning Ordinance prompted by Public Act 102-1123:
 - a. Darrel Rice expressed his appreciation to the Board for listening to the people of the county over the last year or so. He asked if it is true still if a wind farm comes to Champaign County, they still have to get a Special Use

Permit and there is still an opportunity for public testimony on each project. He asked if this Board had any power over the Agricultural Impact
Mitigation Agreement on what the Board's requirements would be for drainage and if the Board could still require an open trench for the wiring, so that it can be inspected for drainage tile breakage before it is covered up with dirt. He said it makes a huge difference, because it allows them to see the problems before the drainage tiles are covered up with dirt and they can address them as construction is going on. He said some of these problems can show up years later and they wouldn't know the problem is there until everybody is done and gone.

- Ted Hartke said he doesn't think there was a single thing listed in the solar portion where it talks about solar panel distances to homes. He thinks the County probably wouldn't get much push back or lawsuits like they are afraid of, if the Board simply said that all the noise making inverters have a setback of 800 feet away, the solar farms could put the solar panels as close as they want, but the inverters that make noise have a setback of 800 feet away. He said if something is unconstitutional, whether it be another law, dumb rule, or unfunded mandate, if they thought it was the job of a board to refuse to go along with something that is unconstitutional and, in this case, it is unconstitutional for taking of land without compensation. He said what is happening is, they are getting an unpaid for free easement given to a private wind company to make money on land that they don't own, rent, or compensate; it is a giveaway. He said the State of Illinois has stepped in and become the middleman to take that away from a person who just wants to live and be left alone on their own land. Regarding the Illinois Pollution Control Board noise level standards, that is why the State of Illinois is pushing that level upon us. He said that the only living person alive today that helped establish those octave band limits is Dr. Paul Schomer, he said that those noise levels are not suitable for wind turbines. He said if those levels are not suitable for wind turbines, he believes that is an excellent defense when a wind developer, the State of Illinois, or whoever it is that is going to come and file a lawsuit against them. He said when they show up and file the lawsuit, exhibit one should be Dr. Schomer's presentation to Boone County, Illinois from 2012 or 2013, he doesn't remember when, and in that testimony, it says that the Illinois Pollution Control Board noise level limits are not intended for wind turbines; therefore, that is a great defense and they could show to the judge in court that those are not appropriate noise level limits. Mr. Hartke said the next thing about the Illinois Pollution Control Board noise level limit rules is that those noise levels are supposed to be at the property line.
- c. Roger Henning Jr., stated that he had heard the comment earlier at tonight's meeting about notifying people within a 250 feet range for upcoming cases. He asked if people wanted to get that distance enlarged, then who would they need to go to, because he has a piece of property within 600 feet from where they threw a solar farm on it and was never told about the solar farm. He said the person next to his piece of property didn't know about it, because there is another piece of property in between that. He asked how

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- somebody who lives within the setbacks of that same section could get notified.
- d. Justin Leerkamp said it is taking away rights of the County, the individual, and it's not right. He feels like they were on the right track in this county three or four months ago, they had made progress and had a bunch of public hearing meetings. He said this move by the State has taken the wind out of those sails, but he doesn't think they need to forget the points that were made and the direction they were going, because things may change at the State, then if they adopted this law as their standards, then the State changes politically or gets enough feedback from constituents to where they make some changes. He said depending on what the State does with any amendments to this, then are they were stuck with the less stringent standards at that point. He would hate to rush in adopt this very lenient minimum separation requirement and have that become the new Champaign County Zoning Ordinance, then the State does something else six months to a year down the road, then they are stuck with something that nobody in the room really wanted.
- e. Jan Carter-Niccum, Village Board of Savoy, stated that the first response to the question about the 250 feet range is the 250 feet range for notifying adjacent residents of a proposed Special Use Permit is less than half the height of one wind turbine, so that gives them an idea about how far they are talking about. He asked what kind of restrictions this new law will have on the University of Illinois or will there be no restrictions for them.
- (11) The following is a summary of testimony received at the May 11, 2023 ZBA public hearing for Case 086-AT-23 regarding changes to the Zoning Ordinance prompted by Public Act 102-1123:
 - a. Justin Leerkamp suggested that the testimony from Case 037-AT-22 regarding wind farm ordinance requirements should be included in the Finding of Fact for Case 086-AT-23.
 - b. Roger Henning asked if it is up to the County to police the State's requirements. He asked who would pay for the noise study.
 - c. Darrel Rice is a Drainage District commissioner and said that drainage is so important. He would like the Agriculture Impact Mitigation Agreement to require an open trench inspection of drainage tile during construction of a solar or wind farm. He said that damaged tile can affect crops.
 - d. Ted Hartke spoke about the detrimental impacts of wind turbines being too close to his home, which forced his family to vacate the home. Repeated complaints about sleep disturbance were to no avail. He referred to noise levels that were below Illinois Pollution Control Board requirements yet were detrimental to his family. He questioned noise impact studies that were done around his home and had supporting evidence to show that the noise study was not done correctly, to his family's disadvantage.

- e. Todd Herbert said the Illinois Drainage District Association would be a good contact to get language to use in the ordinance.
- f. Josh Kamerer asked how the County would recoup its expenses for noise studies it might have to undertake.
- (12) The following is a summary of testimony received at the May 25, 2023 ZBA public hearing for Case 086-AT-23 regarding changes to the Zoning Ordinance prompted by Public Act 102-1123:
 - a. Darrel Rice supported the proposed revision regarding open trench
 inspections for drainage district tile. He advocated for requiring open
 trenching to install wind farm cables rather than plowing or knifing them in.
- 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 not directly related to 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 not directly related to 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.

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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.

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 not directly related to 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 NOT* improve the text of the Zoning Ordinance because it *WILL NOT* provide:
 - A. A classification which allows PV SOLAR FARMS and WIND FARMS to be developed while establishing minimum requirements that ensure the purposes of the Zoning Ordinance will be metprotecting the public health, safety, comfort and general welfare.
 - B. A means to regulate an activity for which there is demonstrated demand.
- 18. For Case 037-AT-22 regarding wind farm ordinance changes, the Zoning Board of Appeals added findings to the Findings of Fact that are relevant to Case 086-AT-23:
 - A. The ZBA is convinced that the existing minimum required separation to a principal structure is inadequate and should be increased to at least 3,250 feet from property lines.
 - B. The ZBA is convinced that the existing Illinois Pollution Control Board noise limit is inadequate and a noise limit of 39 dBA (audible) at the property line would better protect Champaign County residents.
- 19. For Case 037-AT-22 regarding the proposed change to maximum WIND FARM TOWER

 HEIGHT the Zoning Board of Appeals added findings to the Findings of Fact that are relevant to
 Case 086-AT-23:
 - A. Regarding the existing Zoning Ordinance maximum WIND FARM TOWER HEIGHT:
 - (1) Existing Zoning Ordinance Section 6.1.4D.5. limits maximum WIND FARM

 TOWER HEIGHT to less than 500 feet and was adopted in Ordinance No. 848

 (Zoning Case 634-AT-08 Part A) on 5/21/09.
 - (2) Existing Zoning Ordinance Section 6.1.4D.1.b. requires each Zoning Use Permit Application for a WIND FARM TOWER to include a certification by an Illinois Professional Engineer or Illinois Licensed Structural Engineer that the foundation and tower design of the WIND FARM TOWER is within accepted professional standards given local soil and climate conditions.
 - B. The California Ridge Wind Farm was approved by the Champaign County Board on 11/17/2011 with a hub height of 100 meters (328 feet) and a rotor diameter of 100 feet meters (328 feet) for an overall WIND FARM TOWER HEIGHT of 492 feet.
 - C. The Sapphire Sky Wind Farm was approved by the McLean County Board on 7/14/2021
 with a with a hub height of 105 meters (344.4 feet) and a rotor diameter of 150 meters (492 feet) for an overall WIND FARM TOWER HEIGHT of 591 feet. The Harvest Ridge
 Wind Farm recently approved in Douglas County has a similar height.
 - D. The National Renewable Energy Laboratory (NREL) Technical Report NREL/TP-5000-73629 titled Increasing Wind Turbine Tower Heights: Opportunities and Challenges dated May 2019 reviewed opportunities, challenges, and potential associated with increasing wind turbine tower heights focused on land-based wind energy and concluded the following:
 - (1) Wind resource quality (wind speed) improves significantly with height above ground. Over large portions of the country, annual average wind speed doubles and

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- sometimes triples when moving from 80-meter hub heights to 160-meter hub heights. Hub height is the mid-point of the rotor (blades).
- (2) Wind speed differences translate to sizable capacity factor (actual power output divided by optimal power output) improvements.
- (3) Higher hub heights (110 meter to 140 meter) are often preferred in more moderate wind speed regions. Champaign County is generally considered a moderate wind speed region.
- (4) The highest nameplate capacity turbine considered in the study (4.5 megawatts) has a greater preference for 140-meter hub heights than similar 3-megawatt class turbines.
- (5) The "business-as-usual" (BAU) turbine considered in the study is expected to be the average turbine installed around the United States by 2030. The BAU turbine has a nameplate capacity of 3.3 megawatts and a rotor diameter of 156 meters and was considered at the hub heights of 110 meters with an overall WIND FARM TOWER HEIGHT of 617 feet; a hub height of 140 meters with an overall WIND FARM TOWER HEIGHT of 715 feet; and a hub height of 160 meters with an overall WIND FARM TOWER HEIGHT of 781 feet.
- (6) The analysis found diminishing returns from hub height increases to 140 meter and subsequently to 160 meters.
- (7) The report notes that the analysis was limited to hub heights of 80 meters, 110 meters, 140 meters, and 160 meters but in many cases the real-world preferred tower heights will likely fall between those points.
- (8) To realize taller wind turbine towers, an array of potential concepts remains in play relying on various materials spanning from rolled tubular steel, concrete, lattice steel, and hybrid designs.
- E. Based on current practice in nearby counties and on the National Renewable Energy
 Laboratory (NREL) Technical Report NREL/TP-5000-73629 titled Increasing Wind
 Turbine Tower Heights: Opportunities and Challenges, the following seems clear:
 - (1) Any new wind farm proposed in Champaign County in the next decade will likely have an overall WIND FARM TOWER HEIGHT between 591 feet (the same as the Sapphire Sky and Harvest Ridge wind farms) and 715 feet (assuming a rotor diameter of 156 meters and a hub height of not more than 140 meters).
 - (2) A height of 715 feet is achievable based on the typical limit of 4.3 meters width for tower base diameter (based on transportation requirements) and using conventional tubular steel tower technology.
 - (3) Adopting a maximum WIND FARM TOWER HEIGHT of less than 715 feet at this time would result in an artificial limit on WIND FARM development in Champaign County.

- F. If the proposed no maximum WIND FARM TOWER HEIGHT is adopted, Champaign

 County would not be the only Illinois county to not have a maximum WIND FARM

 TOWER HEIGHT. At least six other Illinois counties (Boone, Fulton, LaSalle, Peoria,

 Woodford, and Vermilion) have no specific height limit for wind farm towers and Logan

 County limits wind farm tower height to 750 feet.
- G. Adopting a no maximum WIND FARM TOWER HEIGHT is the same as the current Zoning Ordinance approach to tower height in general, in which there is no maximum tower height but any tower height over 100 feet must be approved by the Zoning Board of Appeals in a special use permit, the same kind of approval required for a WIND FARM.
- H. Existing Zoning Ordinance Section 6.1.4D.1.b. requires each Zoning Use Permit
 Application for a WIND FARM TOWER to include a certification by an Illinois
 Professional Engineer or Illinois Licensed Structural Engineer that the foundation and tower design of the WIND FARM TOWER is within accepted professional standards given local soil and climate conditions. Safety of wind farm towers will always be an issue and will always be certified regardless of WIND FARM TOWER HEIGHT.
- I. WIND FARM TOWER HEIGHT is not related directly to noise and Zoning Ordinance
 Section 6.1.4I. has limits for the allowable noise level from a WIND FARM. Adopting a
 no maximum WIND FARM TOWER HEIGHT will have no impact on the allowable
 WIND FARM noise level.
- J. WIND FARM TOWER HEIGHT is directly related to shadow flicker and Zoning
 Ordinance Section 6.1.4M. has limits for the allowable shadow flicker. Adopting a no
 maximum WIND FARM TOWER HEIGHT will result in shadow flicker being controlled
 the same as it is today.
- K. Existing Zoning Ordinance Section 6.1.4H includes standard conditions to mitigate electromagnetic interference, including consultation with applicable microwave transmission providers and local emergency service providers.
- L. Existing Zoning Ordinance Sections 6.1.4J. and L. includes standard conditions for endangered species consultation and acceptable wildlife impacts, including consultation with the Illinois Department of Natural Resources and other qualified professionals such as ornithologists and wildlife biologists.
- M. Regarding radar detection of severe weather events including tornadoes, Champaign
 County is far enough from the NWS doppler radar at Lincoln, Illinois that there will be no
 interference from wind turbines. The Lincoln weather station is approximately 50 miles
 (80 km) from the western Champaign County line.
 - (1) The NOAA National Weather Service Radar Operations Center (ROC) has acknowledged that radar interference has occurred due to wind turbines and has created an online resource titled "How the ROC Analyses Wind Turbine Siting Proposals" that outlines how ROC does a case-by-case analysis of proposed wind farm developments. "The ROC has developed a four zone scheme that takes terrain, distance, and the number of elevation angles impacted into account: no build, mitigation, consultation, and notification."

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- a. The No Build Zone is a four kilometer radius around the radar station in order to avoid "the potential for serious impacts, including turbine nacelles blocking the radar beam and potential receiver damage if sited in the radar's near field."
- b. The Mitigation Zone "is the area between 4 km and 36 km where a 160-meter turbine would penetrate more than one elevation angle." There is the "potential for moderate to high impacts" and the ROC "will work with the developer to get detailed project information, do a thorough impact analysis, and discuss potential mitigation solutions."
- c. The Consultation Zone "is the area between 4 km and 36 km where a 160-meter turbine only penetrates the first elevation angle or when a 160-meter tall turbine will penetrate more than one elevation angle between 36 km and 60 km. Due to the increased potential for impact to operations the ROC is requesting consultation with the developer to track the project and acquire additional information for a thorough impact analysis."
- d. The Notification Zone "is the area between 36 km and 60 km where a 160-meter tall turbine will only penetrate one elevation angle, or any area beyond 60 km that a 160-meter tall turbine is in the radar line of site (RLOS). Since impacts are typically minimal beyond 60 km and workarounds are available for penetration of only one elevation angle, the ROC is making consultation optional; however, NOAA would still like to know about the project."
- 20. Public Act 102-1123 requires that a final determination be made regarding a wind farm or solar farm project within 30 days of the close of the public hearing. In Champaign County, wind farms and solar farms require a County Board decision after the ZBA hearing and one ELUC meeting.

 Due to standard meeting schedules for ZBA, ELUC, and County Board, there are three months of the year when Champaign County would not be able to meet the 30-day statutory deadline:

 February, June, and September.
- 21. The Champaign County State's Attorney's Office opined that including requirements that are stricter than what Public Act 102-1123 allows creates a risk of litigation to Champaign County, but the State's Attorney's Office is not opposed to the County approving the proposed amendment.
- 22. Three villages protest the approval of the text amendment prompted by Public Act 102-1123:
 - A. The Village of Philo sent a letter of protest received March 28, 2023. The letter cites that the proposed text amendment would affect Village of Philo's control of its extraterritorial jurisdiction; would create increased noise levels; noise intrusion; visual blight; diminished television, radio and internet reception; negative effects on birds and other wildlife; compromised public safety particularly during storm events; and nuisances.
 - B. The Village of St. Joseph sent a letter of protest received March 30, 2023. The letter cites that the proposed text amendment would affect Village of St. Joseph's control of its extraterritorial jurisdiction.

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- C. The Village of Mahomet sent a letter of protest received March 30, 2023. The letter cites that the proposed text amendment removes the language requiring subdivision for leasing situations. The proposed amendment would impact the Village's ability to secure proper easements or the construction of infrastructure for utility systems. The Village strongly opposes solar and wind farms as a special use in the AG-2 Agriculture Zoning District due to the proximity of the zone to its municipal boundaries. They suggest that rezoning lands within ETJs could assure freedom for urban, contiguous, and incremental expansion for municipalities.
- 23. The mandated separation of 1.1 times the WIND FARM tower height to public streets and non-participating property lines does not adequately mitigate the risk of ice throw from WIND FARM tower blades. A safe distance of 1.5 times WIND FARM tower height is typically considered a safe distance to mitigate the risk of ice throw.

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SUMMARY FINDING OF FACT

From the documents of record and the testimony and exhibits received at the public hearing conducted on March 30, 2023, May 11, 2023, May 25, 2023 and August 17, 2023, the Zoning Board of Appeals of Champaign County finds that:

- 1. The proposed Zoning Ordinance text amendment will **NOT HELP ACHIEVE** the Land Resource Management Plan because:
 - A. The proposed Zoning Ordinance text amendment will **NOT HELP ACHIEVE** LRMP Goals 3, 4 and 6.
 - B. The proposed Zoning Ordinance text amendment will *HELP ACHIEVE* LRMP Goals 3,4 and 6.
 - C. The proposed Zoning Ordinance text amendment *WILL NOT IMPEDE* the achievement of LRMP Goals 1, 2 and 9.
 - D. The proposed Zoning Ordinance text amendment is *NOT RELEVANT* to LRMP Goals 5, 7, 8 and 10.
- 2. The proposed text amendment *WILL <u>NOT</u>* improve the Zoning Ordinance because it will <u>NOT</u>: A. *HELP ACHIEVE* the purpose of the Zoning Ordinance (see Item 16).
 - B. *IMPROVE* the text of the Zoning Ordinance (see Item 17).
 - C. Promote the public health, safety, comfort, and welfare of the community (see Item 18).

DOCUMENTS OF RECORD

- 1. Legal advertisement for Case 086-AT-23
- 2. Preliminary Memorandum for Case 086-AT-23, with attachments:
 - A Legal advertisement
 - B ELUC Memorandum dated February 27, 2023
 - Exhibit A: Proposed Amendment dated February 27, 2023
 - Exhibit B: Public Act 102-1123 excerpt
 - C Redline comparison of Champaign County Zoning Ordinance Section 6.1.1. A.
 - D Redline comparison of Champaign County wind farm ordinance section
 - E Redline comparison of Champaign County solar farm ordinance section
 - F Agricultural Impact Mitigation Agreement for Commercial Wind Energy Facilities by the Illinois Department of Agriculture
 - G Agricultural Impact Mitigation Agreement for Commercial Solar Energy Facilities by the Illinois Department of Agriculture
 - H Land Resource Management Plan (LRMP) Goals & Objectives (available on ZBA meetings website)
 - I Preliminary Finding of Fact, Summary Finding of Fact, and Final Determination for Case 086-AT-23 dated March 30, 2023, with attachment:
 - Exhibit A: Proposed Amendment dated March 30, 2023
- 3. Village of Philo Letter of Protest received March 28, 2023
- 4. Village of St. Joseph Letter of Protest received March 30, 2023
- 5. Village of Mahomet Letter of Protest received March 30, 2023
- 6. Supplemental Memorandum #1 for Case 086-AT-23, with attachments:
 - A Legal advertisement
 - B Proposed amendment dated May 3, 2023 Strict interpretation
 - C Proposed amendment dated May 3, 2023 Less strict interpretation
 - D Sample Wind Ordinance by the Illinois Association of County Board Members (on ZBA meetings website)
 - E Sample Solar Ordinance by the Illinois Association of County Board Members (on ZBA meetings website)
 - F Revised Finding of Fact, Summary Finding of Fact, and Final Determination for Case 086-AT-23 dated May 11, 2023
- 7. Supplemental Memorandum #2 for Case 086-AT-23 dated May 11, 2023
- 8. Supplemental Memorandum #3 for Case 086-AT-23 dated May 17, 2023, with attachments:
 - A Legal advertisement
 - B Revised Finding of Fact, Summary Finding of Fact and Final Determination for Case 086-AT-23 recommending approval dated May 25, 2023
 - C Revised Finding of Fact, Summary Finding of Fact and Final Determination for Case 086-AT-23 recommending denial dated May 25, 2023
 - D Exhibit A: Proposed amendment dated May 17, 2023 Less strict interpretation
- 9. Supplemental Memorandum #4 for Case 086-AT-23 dated May 25, 2023, with attachments:

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- A Legal advertisement
- B Email from Ted Hartke received May 23, 2023, with attachment:
 - Ford County proposed text amendment regarding Public Act 102-1123
- C Email from Ted Hartke received May 24, 2023, with attachment:
 - Illinois Department of Agriculture 2023 Agricultural Impact Mitigation Agreement template
- D Email from Ted Hartke received May 24, 2023 regarding ice throw
- E Ice throw from wind turbines: assessment and risk management. National Wind Watch,

 January 6, 2023 (on ZBA meetings website)

 $\underline{https://www.wind\text{-}watch.org/documents/ice-throw-from\text{-}wind\text{-}turbines\text{-}assessment\text{-}and\text{-}risk\text{-}management/}$

- F Ice shedding and ice throw risk and mitigation. GE Energy, April 2006. (on ZBA meetings website)
 - https://www.ge.com/content.dam/gepower-new/global/en_US/downloads/gas-new-site/resources/reference/ger-4262-ice-shedding-ice-throw-risk-mitigation.pdf
- G International Energy Agency (IEA) Wind Technology Collaboration Programme (TCP)

 Task 19 Technical Report International Recommendations for Ice Fall and Ice Throw Risk

 Assessments dated April 2022. (on ZBA meetings website)
- H Fact sheet: Icing and wind energy systems. Center for Rural Affairs, 2019.

 (on ZBA meetings website)

 https://www.cfra.org/sites/default/files/publications/icing-and-wind-energy-systems.pdf
- 10. Handout with proposed amendment language regarding open trench inspections near drainage district tiles created by P&Z Staff on May 25, 2023
- 11. Supplemental Memorandum #5 dated August 9, 2023, with attachments:
 - A Legal advertisement
 - B Revised Finding of Fact, Summary Finding of Fact and Final Determination for Case 086-AT-23 recommending approval dated August 17, 2023
 - C Revised Finding of Fact, Summary Finding of Fact and Final Determination for Case 086-AT-23 recommending denial dated August 17, 2023
 - D Exhibit A: Proposed amendment dated August 17, 2023 Less strict interpretation
 - E Redline comparison of Section 6.1.1 revisions
 - F Redline comparison of wind revisions
 - G Redline comparison of solar revisions
 - H Email from Ted Hartke received August 3, 2023, with attachment: *If Solar Panels Are So Clean, Why Do They Produce So Much Toxic Waste?* Forbes.com, May 2018

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 086-AT-23 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:	ATTEST:
Ryan Elwell, Chair Champaign County Zoning Board of Appeals	Secretary to the Zoning Board of Appeals
	Date

New since 3/9/23 ELUC meeting

Text to reintroduce based on 3/27/23 IACBM Seminar

New since 3/30/23 ZBA meeting

New since 5/25/23 ZBA meeting

1. Add definitions in Section 3. Definitions:

<u>FACILITY OWNER</u>: (i) a person with a direct ownership interest in a WIND FARM or a PV SOLAR FARM, or both, regardless of whether the person is involved in acquiring the necessary rights, permits, and approvals or otherwise planning for the construction and operation of the facility, and (ii) at the time the facility is being developed, a person who is acting as a developer of the facility by acquiring the necessary rights, permits, and approvals or by planning for the construction and operation of the facility, regardless of whether the person will own or operate the facility.

NON-PARTICIPATING PROPERTY: real property that is not a PARTICIPATING PROPERTY.

OCCUPIED COMMUNITY BUILDING: any one or more of the following buildings that is existing and occupied on the date that the application for a permit to develop the commercial wind energy facility or the commercial solar energy facility is filed with the county: a school, place of worship, day care facility, public library, or community center.

<u>PARTICIPATING PROPERTY</u>: real property that is the subject of a written agreement between a facility owner and the owner of the real property that provides the facility owner an easement, option, lease, or license to use the real property for the purpose of constructing a commercial wind energy facility, a commercial solar energy facility, or supporting facilities. "Participating property" also includes real property that is owned by a facility owner for the purpose of constructing a commercial wind energy facility, a commercial solar energy facility, or supporting facilities.

2. Revise definitions in Section 3. Definitions:

<u>DWELLING-or PRINCIPAL BUILDING</u>, <u>PARTICIPATING</u>: A DWELLING on land that is leased to a WIND FARM or PV SOLAR FARM.

<u>DWELLING or PRINCIPAL BUILDING</u>, NON-PARTICIPATING: A DWELLING on land that is not leased to a WIND FARM or PV SOLAR FARM.

PV SOLAR FARM, COMMUNITY: A PV SOLAR FARM of not more than 2,0005,000 kilowatt nameplate capacity that meets the requirements of 20 ILCS 3855/1-10 for a "community renewable generation project" and provided that two COMMUNITY PV SOLAR FARMS may be co-located on the same or contiguous parcels totaling 5 MW. as either: a) two 2 MW projects on one parcel, or b) one 2 MW project on each of two contiguous parcels, as authorized by the Illinois Commerce Commission in Final Order 17-0838 on April 3, 2018.

3. Add new Section 5.3 Footnote 16 for all Zoning Districts:

16. The Zoning Administrator shall notify applicants for Zoning Use Permits proposing development within a distance from a WIND FARM TOWER equal to 1.5 times the height of the WIND FARM TOWER that there is a risk of ice throw and other incompatibilities with the WIND FARM TOWER and that the WIND FARM developer is required to mitigate the risks of ice throw for that structure and the immediately surrounding area within 100 feet of the structure. The Department of Planning & Zoning shall also notify applicants for Zoning Use Permits proposing development within a distance from a WIND FARM TOWER of between 1.5 and 2.1 times the height of the WIND FARM TOWER that there is a risk of incompatibilities with the WIND TURBINE.

4. Revise Section 6.1.1 A.5.a. and b. as follows:

- 5. No Zoning Use permit for such SPECIAL USE will be issued until the applicant provides the COUNTY with an irrevocable letter of credit to be drawn upon a federally insured financial institution within 200 miles of Urbana, Illinois, or reasonable anticipated travel costs shall be added to the amount of the letter of credit.
 - a. Unless specified elsewhere in this Ordinance, the irrevocable letter of credit shall be in the amount of one hundred fifty percent (150%) of an independent engineer's cost estimate to complete the work described in Section 6.1.1A.4.a., Section 6.1.1A.4.b., and Section 6.1.1A.4.c. This requirement shall not apply to any WIND FARM or SOLAR FARM approved after {effective date}.
 - b. The provisions of this subparagraph notwithstanding, a different amount may be required as a special condition. This requirement shall not apply to any WIND FARM or SOLAR FARM approved after {effective date}.

5. Add new Section 6.1.1 A.7.f. as follows:

f. For any WIND FARM or SOLAR FARM approved after {effective date}, abandonment shall be limited to only when the decommissioning and site reclamation plan has not been completed with 12 months after a SOLAR FARM reaches the end of its useful life or when the decommissioning and site reclamation plan has not been completed within 18 months after a WIND FARM reaches the end of its useful life. A WIND FARM or SOLAR FARM shall be presumed to have reached the end of its useful life if the owner of the WIND FARM or SOLAR FARM fails for a period of six consecutive months to pay the landowner amounts owed in accordance with the underlying agreement and additionally, a WIND FARM shall be presumed to have reached the end of its useful life if no electricity shall have been generated for a continuous period of 12 months.

6. Add new Section 6.1.1 A.9.h. as follows:

h. For any WIND FARM or SOLAR FARM approved after {effective date}, the Zoning Administrator may only draw on the funds only when the decommissioning and site

reclamation plan has not been completed with 12 months after a SOLAR FARM reaches the end of its useful life or when the decommissioning and site reclamation plan has not been completed with 18 months after a WIND FARM reaches the end of its useful life. A WIND FARM or SOLAR FARM shall be presumed to have reached the end of its useful life if the if the owner of the WIND FARM or SOLAR FARM fails for a period of six consecutive months to pay the landowner amounts owed in accordance with the underlying agreement and additionally, a WIND FARM shall be presumed to have reached the end of its useful life if no electricity shall have been generated for a continuous period of 12 months.

7. Revise Section 6.1.1 A.11.b. as follows:

- 11. The proceeds of the letter of credit may only be used by the COUNTY to:
 - a. remove the NON-ADAPTABLE STRUCTURE and return the site to its condition prior to placement of the NON-ADAPTABLE STRUCTURE, in accordance with the most recent decommissioning and site reclamation plan submitted and accepted in relation to the NON-ADAPTABLE STRUCTURE;
 - b. for other than any WIND FARM or SOLAR FARM approved after {effective date}, pay all administrative and ancillary costs associated with drawing upon the financial assurance and performing the reclamation work, which shall include, but not be limited to, attorney's fees; construction management and other professional service fees; and the costs of preparing request for proposal and bidding documents required to comply with State law or Champaign County purchasing policies; and
 - c. remove any covenants placed on the title in conjunction with Section 6.1.1A.2.

The balance of any proceeds remaining after the site has been reclaimed shall be returned to the issuer of the letter of credit.

8. Revise the statement at the beginning of Section 6.1.4 as follows:

<u>Prior to <effective date>, a</u> WIND FARM County BOARD SPECIAL USE Permit may only be authorized in the AG-1, Agriculture Zoning DISTRICT subject to the following conditions:

9. Add new Section 6.1.5 PROPOSED WIND FARM SPECIAL USE PERMIT as follows:

As of <effective date>, a WIND FARM SPECIAL USE Permit may only be authorized in the AG-1, AG-2, I-1, and I-2 Zoning DISTRICTS subject to the following conditions:

- A. General Standard Conditions
 - 1. The area of the WIND FARM County Board SPECIAL USE Permit must include the following minimum areas:

- a. All land that is a distance equal to 1.10 times the total WIND FARM TOWER height (measured to the tip of the highest rotor blade) from the base of that WIND FARM TOWER.
- b. All necessary access lanes or driveways and any required new PRIVATE ACCESSWAYS. For purposes of determining the minimum area of the SPECIAL USE Permit, access lanes or driveways shall be provided a minimum 40 feet wide area.
- c. All necessary WIND FARM ACCESSORY STRUCTURES including electrical distribution lines, transformers, common switching stations, and substations not under the ownership of a PUBLICLY REGULATED UTILITY. For purposes of determining the minimum area of the SPECIAL USE Permit, underground cable installations shall be provided a minimum 40 feet wide area.
- d. All land that is within 1.50 times the total WIND FARM TOWER height (measured to the tip of the highest rotor blade) from the base of each WIND FARM TOWER except any such land that is more than 1,320 feet from any existing public STREET right of way.
- e. All land area within 1,320 feet of a public STREET RIGHT OF WAY that is also within 1,000 feet from the base of each WIND FARM TOWER except that in the case of WIND FARM TOWERS in compliance with the minimum STREET separation required by paragraph 6.1.5 C.4. in which case land on the other side of the public STREET right of way does not have to be included in the SPECIAL USE Permit.
- 2. The WIND FARM County Board SPECIAL USE Permit shall not be located in the following areas:
 - a. Less than one-and-one-half miles from an incorporated municipality that has a zoning ordinance.
 - b. Less than one mile from the CR, Conservation-Recreation Zoning DISTRICT.
 - c. In any area leased for underground gas storage or under easement for same, unless the lease or easement requires that gas injection wells and other above-ground appurtenances be located in conformance with paragraph 6.1.5 C.9.
- 3. All aboveground STRUCTURES and facilities shall be of a type and shall be located in a manner that is consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5 S.

4. 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.

B. Minimum Lot Standards

- 1. There are no minimum LOT AREA, AVERAGE LOT WIDTH, SETBACK, YARD, or maximum LOT COVERAGE requirements for a WIND FARM or for LOTS for WIND FARM TOWERS, substations, and WIND FARM maintenance and management facilities.
- C. Minimum Standard Conditions for Separations for WIND FARM TOWERS from adjacent USES and STRUCTURES.

The location of each WIND FARM TOWER shall provide the following required separations:

- 1. At least 1.1 times the maximum blade tip height of the wind tower from the center of the base of a WIND FARM TOWER to the nearest point on the outside wall of any PARTICIPATING DWELLING provided that the noise level caused by the WIND FARM at the particular building complies with the applicable Illinois Pollution Control Board regulations. This separation is a statutory requirement by 55 ILCS 5/5-12020 and shall not be increased except as may be required to comply with the applicable noise regulations of the Illinois Pollution Control Board.
- 2. At least 2.1 times the maximum blade tip height of the wind tower from the center of the base of a WIND FARM TOWER to the nearest point on the outside wall of any existing NON-PARTICIPATING DWELLING or OCCUPIED COMMUNITY BUILDING provided that the noise level caused by the WIND FARM at the particular building complies with the applicable Illinois Pollution Control Board regulations. This separation is a statutory requirement by 55 ILCS 5/5-12020 and shall not be increased except as may be required to comply with the applicable noise regulations of the Illinois Pollution Control Board.
- 3. The above separations may be reduced to a distance no less than 1.10 times the total WIND FARM TOWER height (measured to the tip of the highest rotor blade) upon submission of a PRIVATE WAIVER signed by the owner of said NON-PARTICIPATING DWELLING or OCCUPIED COMMUNITY BUILDING or adjacent property. The PRIVATE WAIVER must specify the agreed minimum separation and specifically acknowledge that the grantor accepts the resulting noise level caused by the WIND FARM.

- 4. A separation distance equal to 1.1 times the total WIND FARM TOWER height (measured to the tip of the highest rotor blade) from the center of the base of a WIND FARM TOWER to the center point of the public STREET RIGHT OF WAY. This separation is a statutory requirement by 55 ILCS 5/5-12020 and shall not be increased.
- 5. A separation distance equal to 1.1 times the total WIND FARM TOWER height (measured to the tip of the highest rotor blade) from the center of the base of a WIND FARM TOWER to the nearest non-participating property line. This separation may be reduced upon submission of a PRIVATE WAIVER signed by the owner of said non-participating property. The PRIVATE WAIVER must specify the agreed minimum separation. This separation is a statutory requirement by 55 ILCS 5/5-12020 and shall not be increased.
- 6. A separation distance equal to 1.1 times the total WIND FARM TOWER height (measured to the tip of the highest rotor blade) from the center of the base of a WIND FARM TOWER to the nearest easement for a third-party electrical transmission lines. This separation may be reduced upon submission of a PRIVATE WAIVER signed by the owner of said electrical transmission line. The PRIVATE WAIVER must specify the agreed minimum separation. This separation is a statutory requirement by 55 ILCS 5/5-12020 and shall not be increased.
- 7. Any PRIVATE WAIVER establishing an agreement for a lesser minimum separation as authorized above shall be submitted prior to the final determination by the Board and must be recorded as part of the chain of title in the deed to any relevant tract of land prior to authorization of any relevant ZONING USE PERMIT. No waiver of a standard condition shall be required in the event of a duly agreed and signed PRIVATE WAIVER.
- 8. At least 2.1 times the maximum blade tip height of the WIND TOWER to the nearest point on the property line of fish and wildlife areas and Illinois Nature Preserve Commission protected lands. This separation is a statutory requirement by 55 ILCS 5/5-12020 and shall not be increased.
- 9. At least 1,200 feet separation from the exterior above ground center of the base of a WIND FARM TOWER to any wellhead or other above ground fixture that is accessory to a GAS PIPELINE or to any valve or other above ground fixture for any HAZARDOUS LIQUID PIPELINE, provided however, that if the relevant PIPELINE IMPACT RADIUS required by paragraph 4.3.4H. is greater than 1,200 feet then that PIPLELINE IMPACT RADIUS shall be the minimum separation of any of the above. This separation may be reduced upon submission of a PRIVATE WAIVER signed by the owner of said pipeline. The PRIVATE WAIVER must specify the agreed minimum separation.

- 10. At least 1,600 feet separation from the exterior above groundcenter of the base of a WIND FARM TOWER to any Liquefied Natural Gas Storage; or Liquefied Petroleum Gas Storage; or Gasoline and Volatile Oils Storage exceeding 10,000 gallons capacity in the aggregate.
- 11. For any legal RESTRICTED LANDING AREA that existed on or for which there had been a compete SPECIAL USE Permit application received by April 22, 2010, there shall be a separation from the runway to the nearest tip of a blade of the nearest WIND FARM TOWER as follows:
 - a. The separation from the sides and ends of the runway shall be seven horizontal feet for each one foot of overall WIND FARM TOWER HEIGHT.
 - b. An additional separation from the end of the runway shall be 15 feet for each one foot of overall WIND FARM TOWER HEIGHT in a trapezoidal shape that is the width of the runway approach zone based on the requirements of 92 *Ill. Admin Code* 14.520, except as follows:
 - (1) that part of the separation that is more than 3,000 feet from the end of the runway may be a consistent width based on the widest point of the runway approach zone.
- 12. For any legal RESIDENTIAL AIRPORT that existed on or for which there had been a complete SPECIAL USE Permit application received by April 22, 2010 there shall be a separation from the runway to the nearest tip of a blade of the nearest WIND FARM TOWER as follows:
 - a. The separation from the sides and ends of the runway shall be seven horizontal feet for each one foot of overall WIND FARM TOWER HEIGHT.
 - An additional separation from the end of the runway and for a distance of 50 feet on either side of an end of the runway, shall be 20 feet for each one foot of overall WIND FARM TOWER HEIGHT in a trapezoidal shape that is the width of the runway approach zone based on the requirements of 92 *Ill. Admin Code* 14.520, except as follows:
 - (1) that part of the required separation that is more than 3,000 feet from the end of the runway may be consistent width based on the widest part of the runway approach zone.
- D. Standard Conditions for Design and Installation of WIND FARM TOWERS.
 - 1. Design Safety Certification
 - a. WIND FARM TOWERS, turbines, and all related construction shall conform to applicable industry standards, including those of the American National Standards Institute ("ANSI"). Applicants shall submit certificates of design compliance that equipment manufacturers have obtained from Underwriters Laboratories

("UL"), Det Norske Veritas ("DNV"), Germanischer Lloyd Wind Energy ("GL"), or equivalent third party. Documentation of compliance must be submitted prior to receiving a Zoning Compliance Certificate for either the WIND FARM or for any single WIND FARM TOWER.

b. Each Zoning Use Permit Application for a WIND FARM TOWER shall include a certification by an Illinois Professional Engineer of Illinois Licensed Structural Engineer that the foundation and tower design of the WIND FARM TOWER is within accepted professional standards, given local soil and climate conditions.

Controls and Brakes

- a. All WIND FARM TOWER turbines shall be equipped with a redundant braking system. This includes both aerodynamic over speed controls (including variable pitch, tip, and other similar systems) and mechanical brakes.
- b. Mechanical brakes shall be operated in fail-safe mode.
- c. Stall regulation shall not be considered a sufficient braking system for over speed protection.
- 3. Electrical Components. All electrical components of the WIND FARM shall conform to applicable state and national codes including, any relevant national and international standards (e.g. ANSI and International Electrical Commission).
- 4. The WIND FARM TOWER must be a monopole construction.
- 5. The total WIND FARM TOWER height (measured to the tip of the highest rotor blade) must receive a Determination of No Hazard to Air Navigation by the Federal Aviation Administration under 14 CFR Part 77.
- 6. WIND FARM TOWERS, turbine nacelles, and blades shall be painted white or gray or another non-reflective, unobtrusive color as specified in the application and authorized by the Board.
- 7. WIND FARMS shall utilize minimal lighting that is compliant with the applicable FAA regulations, as amended by the FAA. To the extent that such tower lighting is available, and is approved by the FAA for a WIND FARM project, the facility owner shall install Aircraft Detection Lighting Systems (ADLS) or other similar technology to reduce light pollution and visual impacts caused by the WIND FARMS.

8. Warnings

- A reasonably visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and Substations.
- b. Visible, reflective, colored objects, such as flags, reflectors, or tape shall be placed on the anchor points of guy wires and along the guy wires up to a height of 15 feet from the ground.
- 9. All WIND FARM TOWERS must be protected from unauthorized climbing by devices such as fences at least six feet high with locking portals or anti-climbing devices 12 feet vertically from the base of the WIND FARM TOWER.
- E. Standard Conditions to Mitigate Damage to Farmland
 - 1. All underground wiring or cabling for the WIND FARM shall be at a minimum depth as established by the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5 S.
 - 2. Protection of agricultural drainage tile
 - a. Protection of agricultural drainage tile shall comply with the Agriculture Impact Mitigation Agreement with the Illinois Department of Agriculture as required by Section 6.1.5 S.
 - b. The applicant shall endeavor to locate all existing agricultural drainage tile prior to establishing any construction staging areas, construction of any necessary WIND FARM TOWER access lanes or driveways, construction of any WIND FARM TOWERS, any common switching stations, substations, and installation of underground wiring or cabling. The applicant shall contact affected landowners and tenants for their knowledge of the tile line locations prior to the proposed construction. A drainage district shall be notified at least two weeks prior to any likely disruption of a drainage district tile.
 - c. All identified drainage district tile lines shall be staked or flagged prior to construction to alert construction crews of the possible need for tile line repairs unless this requirement is waived in writing by the drainage district.
 - d. Overland crane crossings shall avoid crossing over drainage district tile as much as possible.
 - e. Any agricultural drainage tile located underneath construction stage areas, access lanes, overland crane crossings, driveways, any common switching stations, and substations shall be replaced as

required in paragraph 7.2 6.3 of the Champaign County Stormwater Management Policy and Erosion Control Ordinance.

- f. Any agricultural drainage tile that must be relocated shall be relocated as required in the Champaign County Stormwater Management Policy and Erosion Control Ordinance and consistent with the Agriculture Impact Mitigation Agreement with the Illinois Department of Agriculture.
- g. Any underground WIND FARM wiring to be installed in the vicinity of likely drainage district tiles shall be installed in an open trench rather than installed via plowing or knifed into the ground.
- h. The applicant shall coordinate with the drainage district and provide a drainage district 48 hours to inspect all trenches and/or excavations in the vicinity of suspected drainage district tile locations in order to verify any damage or disturbance to drainage district tile.
- i. 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. In addition, the location of damaged drain tile lines shall be recorded using Global Positioning Systems (GPS) technology.
- j. Conformance of any relocation and/or repair of drainage district tile with the Champaign County Stormwater Management Policy 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 and/or repaired drain tile and a copy of the approval shall be submitted to the Zoning Administrator. As-built drawings of any relocated and/or repaired district tile shall be provided to both the relevant drainage district and the Zoning Administrator of any relocated district tile.
- k. 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.
- 1. 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. All permanent and temporary tile repairs shall be made as detailed in the Agricultural

Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5 S. and shall not be waived or modified except as authorized in the SPECIAL USE Permit.

- m. All damaged tile shall be repaired so as to operate as well after construction as before the construction began.
- n. Following completion of the WIND FARM 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 WIND FARM construction and/or decommissioning shall be restored by the applicant to the pre-WIND FARM construction condition in a manner consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5 S.

4. Topsoil replacement

- a. All topsoil shall be placed in a manner consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5 S.
- 5. Mitigation of soil compaction and rutting
 - a. All mitigation of soil compaction and rutting shall be consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5 S.

6. Land leveling

- a. The applicant shall not be responsible for leveling of disturbed land if exempted by the WIND FARM lease.
- b. All land leveling shall be consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5 S.

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 all WIND FARM TOWER sites and access roads 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 all WIND FARM TOWER sites and access roads prepared by an Illinois Licensed Professional Engineer shall be submitted and accepted by the Zoning Administrator prior to approval of any Zoning Compliance Certificate.

F. Standard Conditions for Use of Public STREETS

Any WIND FARM applicant proposing to use any County Highway or township or municipal STREET for the purpose of transporting WIND FARM TOWERS or Substation parts and/or equipment for construction, operation, or maintenance of the WIND FARM TOWERS or Substation(s), shall identify all such public STREETS and pay the costs of any necessary permits and costs to repair any damage to the STREETS specifically and uniquely attributable to the WIND FARM construction, as follows:

- 1. The Applicant shall enter into a Roadway Upgrade and Maintenance agreement approved by the County Engineer; or Township Highway Commissioner; or municipality where relevant. Agreements with the County Engineer shall not be forwarded to the County Board before the WIND FARM SPECIAL USE permit is forwarded. All other agreements shall be executed prior to the close of the public hearing before the BOARD. 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-WIND FARM construction baseline survey to determine existing STREET conditions for assessing potential future damage including the following:
 - (1) A videotape of the affected length of each subject STREET supplemented by photographs if necessary.
 - (2) 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 WIND FARM construction.
 - (3) Pay for any strengthening of STREET structures that may be necessary to accommodate the proposed traffic loads caused by the WIND FARM 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 WIND FARM construction and pay for any

strengthening of structures that may be necessary to accommodate the proposed traffic loads caused by the WIND FARM 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 WIND FARM.
- i. The applicant shall use directional boring equipment to make all crossings of County Highways for the cable collection systems.
- j. The applicant shall provide plans for the widening of any corner radius that is necessary to facilitate the turning movements of the transport trucks used by the applicant.
- k. The applicant shall pay for the necessary temporary STREET improvements for the widened corner radii and pay for the cost to return the widened radii to their original lines and grades when no longer needed for the WIND FARM construction unless the STREET maintenance authority requests that the widened radii remain as improved.
- 1. The applicant shall notify the STREET maintenance authority in advance of all oversize moves and crane crossings.
- m. The applicant shall provide the County Engineer with a copy of each overweight and oversize permit issued by the Illinois Department of Transportation for WIND FARM construction.

- n. The applicant shall transport the WIND FARM TOWER segments and other oversize loads so as to minimize adverse impact on the local traffic including farm traffic.
- o. The applicant shall schedule WIND FARM construction traffic in a way to minimize adverse impacts on emergency response vehicles, rural mail delivery, school bus traffic, and local agricultural traffic.
- p. 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.
- q. 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.
- r. 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 WIND FARM construction.
- s. The applicant shall notify all relevant parties of any temporary STREET closures.
- t. The applicant shall obtain easements and other land rights needed to fulfill the applicant's obligations under this agreement.
- u. 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.
- v. The applicant shall provide dust control and grading work to the reasonable satisfaction of the County Engineer on STREETS that become aggregate surface STREETS.
- w. The applicant shall conduct a post-WIND FARM construction baseline survey similar to the pre-WIND FARM construction baseline survey to identify the extent of repairs necessary to return the STREET to the pre-WIND FARM construction condition.
- x. The applicant shall pay for the cost of all repairs to all STREETS that are damaged by the applicant during the construction of the

WIND FARM and restore such STREETS to the condition they were in at the time of the pre-WIND FARM construction inventory.

- y. All WIND FARM construction traffic shall exclusively use routes designated in the approved Transportation Impact Analysis.
- z. The applicant shall provide liability insurance in an acceptable amount to cover the required STREET construction activities.
- aa. 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.
- bb. Provisions for expiration date on the agreement.
- cc. 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 WIND FARM 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 WIND FARM 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 access 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.
 - c. A schedule of the anticipated STREET repair costs to be made in advance of the WIND FARM construction and following construction of the WIND FARM.
 - d. The applicant shall reimburse the County Engineer; or Township Highway Commissioner; or municipality where relevant, for all reasonable engineering fees including the costs 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. Upon request by the local fire protection district, the Owner or Operator shall cooperate with the local fire protection district to develop the fire protection district's emergency response plan.
- 3. Nothing in this section shall alleviate the need to comply with all other applicable fire laws and regulations.

H. Standard Conditions to Mitigate Electromagnetic Interference

- 1. The applicant shall provide the applicable microwave transmission providers and local emergency service provider(s) (911 operators) copies of the project summary and site plan.
- 2. To the extent that any relevant microwave transmission provider and local emergency service provider demonstrates a likelihood of interference with its communications resulting from the WIND FARM, the applicant shall take reasonable measures to mitigate such anticipated interference.
- 3. If, after construction of the WIND FARM, the Owner or Operator receives a written complaint related to the above-mentioned interference, the Owner or Operator shall take reasonable steps to respond to the complaint.
- 4. If, after construction of the WIND FARM, the Owner or Operator receives a written complaint related to interference with local broadcast residential television, the Owner or Operator shall take reasonable steps to respond to the complaint.

I. Standard Conditions for Allowable Noise Level

1. Noise levels from each WIND FARM TOWER or WIND FARM shall be in compliance with the applicable Illinois Pollution Control Board (IPCB) regulations (35 *Illinois Administrative Code* Subtitle H: Noise Parts 900, 901, 910). This is a statutory requirement by 55 ILCS 5/5-12020 shall not be changed.

- 2. The applicant shall submit manufacturer's wind turbine sound power level characteristics and other relevant data regarding wind turbine noise characteristics 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.
- 4. The applicant shall submit a map of the relevant noise contours for the proposed WIND FARM and indicate the proposed WIND FARM TOWERS and all existing PRINCIPAL BUILDINGS within at least 1,500 feet of any WIND FARM TOWER or within the coverage of the relevant noise contours.
- 5. If a computer model is used to generate the required noise contours the applicant shall clearly state the assumptions of the model's construction and algorithms so that a competent and objective third party can as simply as possible verify the noise contours and noise data.
- 6. After construction of the WIND FARM 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 may seek authorization from the County Board to hire a noise consultant to determine the noise produced by the WIND FARM in a manner consistent with the Illinois Pollution Control Board (IPCB) regulations (35 *Illinois Administrative Code* Subtitle H: Noise Parts 900, 901, 910).
 - b. The Zoning Administrator may require the WIND FARM owner to cooperate fully with the noise consultant in the enforcement action including shutting down all wind turbines to allow documentation of ambient noise levels.
 - c. In the event that a violation of the IPCB noise regulations is identified the Zoning Administrator may require the WIND FARM owner to take whatever actions are necessary to stop the violation and comply with the noise regulations. The Zoning Administrator may seek direction from the Environment and Land Use Committee regarding the actions necessary to stop the violation.
 - d. Further, in the event that a violation of IPCB noise regulations is identified the WIND FARM owner shall reimburse to the County the cost of the noise consultant.

J. 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 or, if applicable, a copy of the Detailed Action 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.

K. 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 from the State Historic Preservation Officer of the Illinois Department of Natural Resources.

L. Standard Conditions for Fish and Wildlife Impacts

The applicant shall apply for consultation with the United States Fish and Wildlife Service's Information for Planning and Consulting environmental review or a comparable successor tool that is consistent with the "U.S. Fish and Wildlife Service's Land-Based Wind Energy Guidelines." The application shall include a copy of the consultation review from the U.S. Fish and Wildlife Service.

- M. Standard Conditions for Shadow Flicker
 - 1. The applicant shall submit the results of a study on potential shadow flicker. The shadow flicker study shall identify the locations of both summer and winter shadow flicker that may be caused by the project with an expected duration of 30 hours or more per year.
 - 2. Shadow flicker that exceeds the above standards shall be mitigated by any means such as landscaping, awnings, or fencing. No OCCUPIED COMMUNITY BUILDING or NON-PARTICIPATING DWELLING shall experience more than 30 hours per year of shadow flicker under planned operating conditions. This duration is a statutory requirement by 55 ILCS 5/5-12020 and shall not be decreased.

N. Ice Throw

1. As part of the Special Use Permit Application, the Applicant shall provide a current risk level assessment of ice fall and ice throw_for the current turbine model to be used and includes public roads and parts of non-participating properties used for residential purposes and for other structures. The methodology shall be equivalent to that in the International Energy Agency (IEA) Wind Technology Collaboration Programme (TCP) Task 19 Technical Report International Recommendations for Ice Fall and Ice Throw Risk Assessments dated April 2022.

- 2. If the risk of ice fall and ice throw is above 10⁻⁵ (1/100,000) it shall be considered unacceptable and extensive risk reduction measures (e.g., relocation or change of turbine specifications or temporarily shutting down the turbine) shall be taken by the WIND FARM developer. The property owner can waive this requirement. Signed written waivers must be presented with the application for a Zoning Use Permit.
- 3. If a non-participating structure is built within a distance from a WIND FARM TOWER of 1.5 times the height of the WIND FARM TOWER after the Special Use PERMIT approval, the WIND FARM developer shall mitigate ice fall and/or ice throw that could potentially impact the structure and the immediate surrounding area within 100 feet of the structure.

O. Standard Condition for Liability Insurance

- 1. The Owner or Operator of the WIND FARM shall maintain a current general liability policy covering bodily injury and property damage with minimum limits of at least \$5 million per occurrence and \$520 million in the aggregate. The amount of the limit shall be increased annually to account for the effects of inflation.
- 2. The general liability policy shall identify landowners in the SPECIAL USE Permit as additional insured.

P. Operational Standard Conditions

- 1. Maintenance
 - a. The Owner or Operator of the WIND FARM must submit, on an annual basis, a summary of the operation and maintenance reports to the Environment and Land Use Committee and any other operation and maintenance reports as the Environment and Land Use Committee reasonably requests.
 - b. Any physical modification to the WIND FARM that alters the mechanical load, mechanical load path, or major electrical components shall require a new County Board SPECIAL USE Permit. Like-kind replacements shall not require re-certification nor will replacement of transformers, cabling, etc. provided replacement is done in a fashion similar to the original installation. Prior to making any physical modification (other than a like-kind replacement), the Owner or Operator shall confer with a relevant third-party certifying entity identified in subparagraph 6.1.5 D.1.(a) to determine whether the physical modification requires recertification.

- 2. Materials Handling, Storage and Disposal
 - a. All solid wastes related to the construction, operation and maintenance of the WIND FARM 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 and maintenance of the WIND FARM shall be handled, stored, transported and disposed of in accordance with all applicable local, state and federal laws.
- Q. Standard Condition for Decommissioning Plan and Site Reclamation Plan
 - 1. The applicant shall submit a signed site reclamation plan conforming to the requirements of paragraph 6.1.1 A. and matching the overall deconstruction and land restoration requirements of the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture. The decommissioning and deconstruction requirements of the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture are a statutory requirement by 55 ILCS 5/5-12020 and shall not be changed.
 - 2. In addition to the purposes listed in subparagraph 6.1.1 A.4. the reclamation agreement shall also include provisions for anticipated repairs for any public STREET used for the purpose of reclamation of the WIND FARM and all costs related to removal of access driveways.
 - 3. The Site Reclamation Plan required in paragraph 6.1.1 A. shall also include the following:
 - a. A stipulation that the applicant shall notify the GOVERNING BODY by certified mail of the commencement of a voluntary or involuntary bankruptcy proceeding, naming the applicant as debtor, within ten days of commencement of the proceeding.
 - b. A stipulation that the applicant shall agree that the sale, assignment in fact or at law, or such other transfer of applicant's financial interest in the WIND FARM shall in no way affect or change applicant's obligation to continue to comply with the terms of this agreement. Any successor or assignee shall assume the terms, covenants and obligations of this Agreement and agrees to assume all reclamation liability and responsibility for the WIND FARM.
 - c. Authorization for the GOVERNING BODY and its authorized representatives for right of entry onto the WIND FARM 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 or it's successors in interest are required to enter into a Roadway Use and Repair Agreement with the relevant highway authority.
- e. A stipulation that the Applicant 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 shall be obliged to perform the work in the site reclamation plan before abandoning the WIND FARM or prior to ceasing production of electricity from the WIND FARM, 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 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 service fees; and the costs of preparing request for proposals and bidding documents required to comply with State law or Champaign County purchasing policies.
- h. The depth of removal of foundation concrete below ground shall be a minimum of 54 inches as required in the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.

 The depth of removal of foundation concrete shall be certified in writing by an Illinois Licensed Professional Engineer and the certification shall be submitted to the Zoning Administrator.
- i. The hole resulting from the removal of foundation concrete during decommissioning shall be backfilled as follows: as required in the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.
 - (1) The excavation resulting from the removal of foundation concrete shall only be backfilled with subsoil and topsoil in similar depths and similar types as existed at the time of the original WIND FARM construction except that a lesser quality topsoil or a combination of a lesser quality topsoil and a subsoil that is similar to the native subsoil may be

used at depths corresponding to the native subsoil but not less than 12 inches below grade.

- (2) The native soils excavated at the time of the original WIND FARM construction may be used to backfill the concrete foundation excavations at the time of decommissioning provided that the soils are adequately stored throughout the operating lifetime of the WIND FARM. The methods for storing the excavated native soils during the operating lifetime of the WIND FARM shall be included in the site reclamation plan.
- (3) If the excavated native soils are not stored for use for backfilling the concrete foundation excavations, a qualified soil scientist or Illinois Licensed Professional Engineer shall certify that the actual soils used to backfill the concrete foundation excavations are of equal or greater quality than the native soils or that, in the case of subsoil, the backfill soil meets the requirements of this paragraph. The certification shall be submitted to the Zoning Administrator.
- (4) An Illinois Licensed Professional Engineer shall certify in writing that the concrete foundation excavations have been backfilled with soil to such a depth and with a minimum of compaction that is consistent with the restoration of productive agricultural use such that the depth of soil is expected to be no less than 54 inches within one year after backfilling.
- j. A stipulation that should the site reclamation plan be deemed invalid by a court of competent jurisdiction the WIND FARM SPECIAL USE Permit shall be deemed void.
- k. A stipulation that the Applicant's obligation to complete the site reclamation plan and to pay all associated costs shall be independent of the Applicant's obligation to provide financial assurance.
- A stipulation that the liability of the Applicant's failure to complete the site reclamation plan or any breach of the site reclamation plan requirement shall not be capped by the amount of the financial assurance.
- m. 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 WIND FARM begins to produce electricity, 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.

- 4. To comply with paragraph 6.1.1A.5., the Applicant shall provide financial assurance in the form of an irrevocable letter of credit and an escrow account as follows:
 - a. At the time of SPECIAL USE Permit approval the amount of financial assurance to be provided for the site reclamation plan shall be 210% of the decommissioning costs as determined in the independent engineer's cost estimate to complete the decommissioning work described in Section 6.1.1 A.4.a. and 6.1.1A.4.b and 6.1.1A.4.c. No Zoning Use Permit to authorize construction of the WIND FARM shall be authorized by the Zoning Administrator until the WIND FARM owner shall provide the COUNTY with financial assurance to cover 12.5% 10% of the decommissioning and site reclamation 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 WIND FARM Owner shall provide the COUNTY with

 Financial Assurance to cover 62.5%-50% of the decommissioning
 cost and site reclamation 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.
 - On or before the eleventh anniversary of the Commercial Operation Date, the WIND FARM Owner shall provide the COUNTY with Financial Assurance to cover 125% 100% of the decommissioning and site reclamation 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. and as determined in the updated decommissioning and site reclamation plan filed with the County on or before the end of the tenth year of commercial operation.

- bd. Net salvage value may be deducted from decommissioning costs as follows:
 - (1) One of the following standards shall be met:
 - The Applicant shall maintain the WIND FARM TOWERS 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 shall deduct from the salvage value credit the amount of any lien or encumbrance on each WIND FARM TOWER; or
 - iii. Any and all financing and/or financial security agreements entered into by the Applicant shall expressly provide that the agreements are subject to the covenant required by Section 6.1.1 A.2 that the reclamation work be done.
 - (2) The applicant shall provide proof of compliance with paragraph 6.1.5 P.4.d.(1) prior to 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.
 - (3) The Applicant shall provide in the 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.
 - (4) 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 tower, the hub assembly, the bed plate, the nacelle, the turbine, the blades, the tower cabling and internal wiring, the transformers, the foundation, the access roads.
 - (5) 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 judgment as to anticipated changes in salvage prices prior to the next update of estimated net salvage value.

- (6) The deduction from the estimated decommissioning costs for net estimated salvage value shall be capped at 70% of the total net estimated salvage value even though the total actual salvage value shall be available in the event that decommissioning is actually required.
- (7) The credit for net estimated salvage value attributable to any WIND FARM TOWER may not exceed the estimated cost of removal of the above ground portion of that WIND FARM TOWER on the subject site.
- ee. The GOVERNING BODY has the right to require multiple letters of creditescrow accounts based on the regulations governing federal insurance for deposits.
- df. The Applicant and its successors in interest shall adjust the amount of the financial assurance to ensure that it reflects current and accurate information as follows:
 - (1) At least once every three years for the first 12 years of the financial assurance and at least once every year thereafter the Applicant 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 shall, upon receipt, provide a copy of the adjusted Professional Engineer's report to the Zoning Administrator. The Applicant or its successors in interest shall file an updated decommissioning and site reclamation plan with the County on or before the end of the tenth year of commercial operation.
 - (2) The County shall reevaluate the estimated costs of decommissioning and site reclamation every five years after the tenth anniversary of the commercial operation date. The solar farm owner shall provide an updated estimated cost of decommissioning and site reclamation that is provided by an independent Illinois licensed professional engineer.
 - (3) At all times after the tenth anniversary of the commercial operation date, the total combined value of the irrevocable letter of credit and the escrow account shall equal or exceed the amount of the independent engineer's cost estimate as increased by known and documented rates of inflation since the WIND FARM was approved; and an amount for any future years left in the anticipated 25 year life span of the

WIND FARM at an assumed minimum rate of inflation of 3% per year.

- eg. The applicant or WIND FARM owner shall gradually pay down the value of the irrevocable letter of credit by placing cash deposits in an escrow account over the first 13 years of the WIND FARM operation provide an escrow account as follows:
 - (1) The applicant or WIND FARM owner and the GOVERNING BODY shall agree on a mutually acceptable financial institution at which an escrow account shall be established.
 - (2) The GOVERNING BODY shall be the beneficiary of the escrow account for the purpose of the reclamation of the WIND FARM in the event that the WIND FARM owner is incapable of decommissioning the WIND FARM.
 - (3) The applicant or WIND FARM owner shall grant perfected security in the escrow account by use of a control agreement establishing the County as an owner of record, pursuant to the Secured Transit Article of the Uniform Commercial Code, 810 *ILCS* 9/101 *et seq*.
 - (4) The applicant or WIND FARM owner shall make annual deposits to the escrow account over a 12 year period and shall simultaneously provide a replacement irrevocable letter of credit that is reduced accordingly.
 - (5) At all times the total combined value of the irrevocable letter of credit and the escrow account shall be increased annually as necessary to reflect actual rates of inflation over the life span of the WIND FARM and the amount shall be equal to or exceed the following:
 - i. the amount of the independent engineer's cost estimate as increased by known and documented rates of inflation since the WIND FARM was approved; plus
 - ii. an amount for any future years left in the anticipated life span of the WIND FARM at an assumed minimum rate of inflation of 3% per year.
 - (4) Any interest accrued on the escrow account that is over and above the total value required by subparagraph 6.1.5 P.4 shall go to the WIND FARM owner.

- (5) In order to provide funding for decommissioning at the time of decommissioning, the WIND FARM applicant or WIND FARM owner may exchange a new irrevocable letter of credit in an amount equal to the amount in the escrow account in exchange for the GOVERNING BODY agreeing to a release of the full amount of the escrow account.
- fh. Should the salvage value of components be adjusted downward or the decommissioning costs adjusted upward pursuant to paragraph 6.1.5 P.4.(f), the amount to be placed in the escrow account pursuant to this paragraph 6.1.5 P.4. shall be increased to reflect the adjustment, as if the adjusted estimate were the initial estimate.
- gi. Any financial assurance required per the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5 S. shall count towards the total financial assurance required for compliance with paragraph 6.1.1A.5.
- 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:
 - In the event that any WIND FARM TOWER or component thereof ceases to be functional for more than six consecutive months after it starts producing electricity and the Owner is not diligently repairing such WIND FARM TOWER or component.
 - In the event that the Owner declares any wind turbine or other component to be functionally obsolete for tax purposes.
 - e. There is a delay in the construction of any WIND FARM TOWER of more than 6 months after construction on that WIND FARM TOWER begins.
 - d. Any WIND FARM TURBINE 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 WIND FARM TURBINE is otherwise derelict for a period of 6 months.
 - f. The WIND FARM is in violation of the terms of the WIND FARM SPECIAL USE permit for a period exceeding ninety (90) days.
 - g. The Applicant 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 site reclamation plan.

- h. The COUNTY discovers any material misstatement of fact or misleading omission of fact made by the Applicant in the course of the SPECIAL USE Permit zoning case.
- i. The Applicant has either failed to receive a copy of the certification of design compliance required by paragraph 6.1.4D.1.(a) or failed to submit it to the COUNTY within 12 consecutive months of receiving a Zoning Use Permit regardless of the efforts of the Applicant to obtain such certification.
- 65. The Zoning Administrator may, but is not required to, deem the WIND FARM abandoned, or the standards set forth in Section 6.1.5 L.5. met, with respect to some, but not all, of the WIND FARM TURBINES in the WIND FARM. In that event the Zoning Administrator may draw upon the financial assurance to perform the reclamation work as to those WIND FARM TURBINES only. Upon completion of that reclamation work, the salvage value and reclamation costs shall be recalculated as to the remaining WIND FARM TURBINES in the WIND FARM.
- 76. The 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.

R. Complaint Hotline

- 1. Prior to the commencement of construction on the WIND FARM 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.
- 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 recording shall be saved for transcription for a minimum of two years.
- S. Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture
 - 1. The Applicant shall enter into an Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.

- 2. The Applicant shall bear full responsibility for coordinating any special conditions required in the SPECIAL USE Permit in order to ensure compliance with the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.
- 3. All requirements of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture shall become requirements of the COUNTY Board SPECIAL USE Permit.
- 4. Champaign County shall have the right to enforce all requirements of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.

T. Standard Condition for Expiration of WIND FARM County Board SPECIAL USE Permit

A WIND FARM County Board SPECIAL USE Permit designation shall expire pursuant to any time limit included in the Roadway Upgrade and Maintenance agreement required by paragraph 6.1.5 F. or in 10 years if no Zoning Use Permit is granted.

U. Application Requirements

- 1. In addition to all other information required on the SPECIAL USE Permit application and required by Section 9.1.1 A.2. the application shall contain or be accompanied by the following information:
 - a. A WIND FARM Project Summary, including, to the extent available:
 - (1) A general description of the project, including its approximate name plate generating capacity; the potential equipment manufacturer(s), type(s) of wind turbines, number of wind turbines, and name plate generating capacity of each wind turbine; the maximum height of the WIND FARM TOWER(S); and the maximum diameter of the WIND FARM TOWER rotor(s).
 - (2) The specific proposed location of the WIND FARM including all tax parcels on which the WIND FARM will be constructed.
 - (3) The specific proposed location of all tax parcels required to be included in the WIND FARM County Board SPECIAL USE Permit.

- (4) 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 WIND
 FARM County Board SPECIAL USE Permit.
- c. A site plan for the installation of all WIND FARM TOWERS indicating the following:
 - (1) The approximate planned location of each WIND FARM TOWER, other PRINCIPAL STRUCTURES, property lines (including identification of adjoining properties), required separations, public access roads and turnout locations, substation(s), electrical cabling from the WIND FARM TOWER to the Substation(s), ancillary equipment, third party transmission lines, maintenance and management facilities, and layout of all structures within the geographical boundaries of any applicable setback.
 - (2) The site plan shall clearly indicate the area of the proposed WIND FARM County Board SPECIAL USE Permit as required by subparagraph 6.1.5 A.1.
 - (3) The separation of all WIND FARM structures from adjacent NON-PARTICIPATING DWELLINGS OR COMMUNITY BUILDINGS or uses shall be shown or dimensioned on the approved site plan for the SPECIAL USE Permit unless the Board authorizes a lesser separation in a special condition of approval or any required and duly authorized waivers of paragraph 6.1.5 C. Authorization of a separation of less than 90% of that indicated on the approved site plan for the SPECIAL USE Permit shall require an updated noise study meeting the requirements of paragraph 6.1.5 G. to be submitted with the Zoning Use Permit application. WIND FARM structures include WIND FARM TOWERS, substations, third party transmission lines, maintenance and management facilities, or other significant structures.
- d. The Applicant shall include a copy of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture with the Special Use Permit Application to authorize construction.
- e. All other required studies, reports, certifications, and approvals demonstrating compliance with the provisions of this Ordinance.

- 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.
- V. The approval of a WIND FARM shall not be conditioned on a property value guarantee and shall not require a facility owner to pay into a neighboring property devaluation escrow account. This is a statutory requirement by 55 ILCS 5/5-12020 and shall not be changed.
- W. Deadlines for Start of Public Hearing and Governing Body Determination
 - 1. A public hearing for a WIND FARM shall begin within 45 days of filing a complete SPECIAL USE Permit application. This requirement is imposed by Public Act 102-1123 and the number of days shall not be increased or eliminated unless waived by the developer.
 - 2. A decision on the SPECIAL USE Permit shall be made within 30 days after the conclusion of the public hearing. This requirement is imposed by Public Act 102-1123 and the number of days shall not be increased or eliminated unless waived by the developer.
- X. Should the Illinois Supreme Court find P.A. 102-1123 invalid or should an Illinois Appellate Court find P.A. 102-1123 invalid, and that declaration is not appealed to the Illinois Supreme Court or the Illinois Supreme Court declines to hear an appeal of the Appellate Court's finding and no public hearing for a proposed WIND FARM has begun, the text of this amendment shall be stricken and the text adopted by the Champaign County Board on August 18, 2022 shall be reinstated and shall govern WIND FARMS in Champaign County.
- 10. Renumber all references to Section 6.1.5 PHOTOVOLTAIC (PV) SOLAR FARM County BOARD SPECIAL USE Permit to new Section 6.1.6 and add the following statement to the beginning of new Section 6.1.6:

<u>Prior to <effective date></u>, a PHOTOVOLTAIC (PV) SOLAR FARM County BOARD SPECIAL USE Permit may only be authorized in the AG-1, Agriculture, Zoning DISTRICT or the AG-2, Agriculture, Zoning DISTRICT subject to the following standard conditions:

11. Add new Section 6.1.7 PROPOSED PHOTOVOLTAIC (PV) SOLAR FARM SPECIAL USE Permit as follows:

As of <effective date>, a PHOTOVOLTAIC (PV) SOLAR FARM SPECIAL USE Permit may only be authorized in the AG-1, AG-2, I-1, and I-2 Zoning DISTRICTS subject to the following conditions:

A. In what follows, PV SOLAR FARM should be understood to include COMMUNITY PV SOLAR FARM unless specified otherwise in the relevant section or paragraph.

- B. General Standard Conditions
 - (1) The area of the PV SOLAR FARM County BOARD SPECIAL USE Permit must include the following minimum areas:
 - a. All land that will be exposed to a noise level greater than that authorized to Class A land as established by 35 Ill. Admin. Code Parts 900, 901 and 910 under paragraph 6.1.5I.
 - b. All necessary access lanes or driveways and any required new PRIVATE ACCESSWAYS. For purposes of determining the minimum area of the SPECIAL USE Permit, access lanes or driveways shall be provided a minimum 40 feet wide area.
 - c. Al necessary PV SOLAR FARM STRUCTURES and ACCESSORY STRUCTURES including electrical distribution lines, inverters, transformers, common switching stations, and substations not under the ownership of a PUBLICLY REGULATED UTILITY and all waterwells that will provide water for the PV SOLAR FARM. For purposes of determining the minimum area of the SPECIAL USE Permit, underground cable installations shall be provided a minimum 40 feet wide area.
 - d. All aboveground STRUCTURES and facilities shall be of a type and shall be located in a manner that is consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.7 R.
 - (2) The PV SOLAR FARM County BOARD SPECIAL USE Permit shall not be located in the following areas:
 - a. Less than one and one-half 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 existing substation. Any request for a waiver of this minimum separation shall include the following:
 - (a) No part of a PV SOLAR FARM shall be located within a contiguous 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 PV SOLAR FARM 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 one-half miles from any proposed PV SOLAR FARM upon the

receipt of any substantial PV SOLAR FARM SPECIAL USE permit application in addition to any notice otherwise required.

- (c) The PV SOLAR FARM 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 one-half miles of the proposed PV SOLAR FARM.
- (d) Municipal subdivision approval for any PV SOLAR FARM 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 PV SOLAR FARM that is located within one and one-half 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 PV SOLAR FARM that is located within one and one-half 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.
- After the initial review of the BOARD recommendation for (g) the PV SOLAR FARM 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 PV SOLAR FARM 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 PV SOLAR FARM 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 PV SOLAR FARM is not located within one and one-half 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 PV SOLAR FARM is received from any municipality located within one and one-half miles of the PV SOLAR FARM prior to the consideration of the PV SOLAR FARM SPECIAL USE Permit by the Champaign COUNTY BOARD, the ZONING ADMINISTRATOR shall provide documentation to the COUNTY BOARD that any municipality within one and one-half miles of the PV SOLAR FARM was provided notice of the meeting dates for consideration of the proposed PV SOLAR FARM SPECIAL USE Permit for both the Environment and Land Use Committee and the COUNTY BOARD.

(3) Interconnection to the power grid

- a. The PV SOLAR FARM SPECIAL USE Permit application shall include documentation that the applicant or PV SOLAR FARM is in the queue to acquire an interconnection agreement to the power grid.
- b. Documentation of an executed interconnection agreement with the appropriate electric utility shall be provided prior to issuance of a Zoning Compliance Certificate to authorize operation of the PV SOLAR FARM.

(4) Right to farm

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.

C. Minimum LOT Standards

- (1) There are no minimum LOT AREA, AVERAGE LOT WIDTH, SETBACK, YARD, or maximum LOT COVERAGE requirements for a PV SOLAR FARM or for LOTS for PV SOLAR FARM substations and/or for PV SOLAR FARM maintenance and management facilities.
- (2) There is no maximum LOT AREA requirement on BEST PRIME FARMLAND.
- D. Minimum Standard Conditions for Separations for PV SOLAR FARM from adjacent USES and STRUCTURES

The location of each PV SOLAR FARM shall provide the following required separations as measured from the exterior of the above ground portion of the PV SOLAR FARM STRUCTURES and equipment including fencing:

- (1) PV SOLAR FARM fencing shall be set back from the street centerline a minimum of 50 feet. This separation is a statutory requirement by 55 ILCS 5/5-12020 and shall not be increased.
- (2) For properties participating in the solar farm: No required separation from any existing DWELLING or existing PRINCIPAL BUILDING 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 solar farm:
 - a. A separation of 50 feet between the nearest edge of any component of the PV SOLAR FARM and the nearest point on the property line of the non-participating property. This separation is a statutory requirement by 55 ILCS 5/5-12020 and shall not be increased except as may be required to comply with the applicable noise regulations of the Illinois Pollution Control Board.
 - b. A separation of 150 feet from the nearest edge of any component of the PV SOLAR FARM and the nearest point on the outside wall of an OCCUPIED COMMUNITY BUILDING or NON-PARTICIPATING DWELLING. This separation is a statutory requirement by 55 ILCS 5/5-12020 and shall not be increased except as may be required to comply with the applicable noise regulations of the Illinois Pollution Control Board.
 - c. Additional separation may be required to ensure that the noise level required by 35 Ill. Admin. Code Parts 900, 901 and 910 is not exceeded.
- (4) A separation of at least 500 feet from any of the following unless the SPECIAL USE Permit application includes results provided from an analysis using the Solar Glare Hazard Analysis Tool (SGHAT) for the Airport Traffic Control Tower cab and final approach paths, consistent with the Interim Policy, Federal Aviation Administration (FAA) Review of Solar Energy Projects on Federally Obligated Airports, or the most recent version adopted by the FAA, and the SGHAT results show no detrimental affect with less than a 500 feet separation from any of the following:
 - a. any AIRPORT premises or any AIRPORT approach zone within five miles of the end of the AIRPORT runway; or

- b. any RESTRICTED LANDING AREA that is

 NONCONFORMING or which has been authorized by SPECIAL

 USE Permit and that existed on or for which there had been a

 complete SPECIAL USE Permit application received by April 22,

 2010, or any approach zone for any such RESTRICTED

 LANDING AREA; or
- any RESIDENTIAL AIRPORT that existed on or for which there had been a complete SPECIAL USE Permit application received by April 22, 2010, or any approach zone for any such RESIDENTIAL AIRPORT.
- (5) A separation of at least 500 feet between substations and transmission lines of greater than 34.5 kVA to adjacent dwellings and residential DISTRICTS.
- (6) Electrical inverters shall be located as far as possible from property lines and adjacent DWELLINGS consistent with good engineering practice. Inverter locations that are less than 275 feet from the perimeter fence shall require specific approval and may require special sound deadening construction and noise analysis.
- E. Standard Conditions for Design and Installation of any PV SOLAR FARM.
 - (1) Any building that is part of a PV SOLAR FARM 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 96-704 regarding building code compliance and conforms to the Illinois Accessibility Code.
 - (2) Electrical Components
 - a. All electrical components of the PV SOLAR FARM shall conform to the National Electrical Code as amended and shall comply with Federal Communications Commission (FCC) requirements.
 - Burying power and communication wiring underground shall be minimized consistent with best management practice regarding PV SOLAR FARM construction and minimizing impacts on agricultural drainage tile.
 - (3) Maximum Height. The height limitation established in Section 5.3 shall not apply to a PV SOLAR FARM. The maximum height of all above ground STRUCTURES shall be identified in the application and as approved in the SPECIAL USE Permit. No component of a solar panel shall have a height of more than 20 feet above ground when the solar

arrays are at full tilt. This height limit is a statutory requirement by 55 ILCS 5/5-12020 and shall not be increased.

(4) Warnings

- a. A reasonably visible warning sign concerning voltage must 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.
- F. Standard Conditions to Mitigate Damage to Farmland
 - (1) All underground wiring or cabling for the PV SOLAR FARM shall be at a minimum depth as established by the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.7 R.
 - (2) Protection of agricultural drainage tile
 - a. Protection of agricultural drainage tile shall comply with the Agriculture Impact Mitigation Agreement with the Illinois Department of Agriculture as required by Section 6.1.7 R.
 - b. The applicant shall endeavor to locate all existing agricultural drainage tile prior to establishing any construction staging areas, construction of any necessary PV SOLAR FARM access lanes or driveways, construction of any PV SOLAR FARM STRUCTURES, any common switching stations, substations, and installation of 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 any likely disruption of a drainage district tile.
 - c. 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 PV SOLAR FARM SPECIAL USE Permit and during any deconstruction activities that may occur pursuant to the PV SOLAR FARM 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.
- d. Any agricultural drainage tile located underneath construction staging areas, access lanes, driveways, any common switching stations, and substations shall be replaced as required in Section 6.3 of the Champaign County Storm Water Management and Erosion Control Ordinance.
- e. Any agricultural drainage tile that must be relocated shall be relocated as required in the Champaign County Storm Water Management and Erosion Control Ordinance and consistent with the Agriculture Impact Mitigation Agreement with the Illinois Department of Agriculture.
- f. The applicant shall coordinate with the drainage district and provide a drainage district 48 hours to inspect all trenches and/or excavations in the vicinity of suspected drainage district tile locations in order to verify any damage or disturbance to drainage district tile.
- g. Conformance of any relocation <u>and/or repair</u> 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 <u>and/or repaired</u> drain tile and a copy of the approval shall be submitted to the Zoning Administrator. As-built drawings of any relocated

<u>and/or repaired district</u> tile shall be provided to both the relevant drainage district and the Zoning Administrator.

- h. 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. In addition, the location of damaged drain tile lines shall be recorded using Global Positioning Systems (GPS) technology.
- i. 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.
- j. 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. All permanent and temporary tile repairs shall be made as detailed in the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5R. and shall not be waived or modified except as authorized in the SPECIAL USE Permit.
- k. All damaged tile shall be repaired so as to operate as well after construction as before the construction began.
- (3) All soil conservation practices (such as terraces, grassed waterways, etc.) that are damaged by PV SOLAR FARM construction and/or decommissioning shall be restored by the applicant to the pre-PV SOLAR FARM construction condition in a manner consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.7 R.
- (4) Topsoil replacement

All topsoil shall be placed in a manner consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.7 R.

- (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 PV SOLAR FARM lease.

b. All mitigation of soil compaction and rutting shall be consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.7 R.

(6) Land leveling

- a. The Applicant shall not be responsible for leveling of disturbed land if exempted by the PV SOLAR FARM lease.
- b. All land leveling shall be consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.7 R.

(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 PV SOLAR FARM 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 PV SOLAR FARM including any access road prepared by an Illinois Licensed Professional Engineer shall be submitted and 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 PV SOLAR FARM.

- (9) Minimize disturbance to BEST PRIME FARMLAND
 - a. Any PV SOLAR FARM 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 PV SOLAR FARM shall be minimized at all times consistent with good engineering practice.

- (b) Disturbance to BEST PRIME FARMLAND shall be offset by establishment of a vegetative ground cover within the PV SOLAR FARM that includes the following:
 - The vegetative ground cover shall use native plant species as much as possible and shall be based on a site assessment of the site geography and soil conditions.
 - ii. The species selected shall serve a secondary habitat purpose as much as possible.
 - iii. Maintenance of the vegetative ground cover shall use a combination of management approaches to ensure safe, cost-effective, reliable maintenance while minimizing environmental risks.
 - iv. The plan to establish and maintain a vegetative ground cover that includes native plant species as much as possible shall be detailed in a landscape plan included in the PV SOLAR FARM SPECIAL USE Permit application. The landscape plan shall include the weed control plan required by Section 6.1.7 P.3.
- G. Standard Conditions for Use of Public Streets

Any PV SOLAR FARM Applicant proposing to use any County Highway or a township or municipal STREET for the purpose of transporting PV SOLAR FARM or Substation parts and/or equipment for construction, operation, or maintenance of the PV SOLAR FARM or Substation(s), shall identify all such public STREETS and pay the costs of any necessary permits and the costs to repair any damage to the STREETS specifically and uniquely attributable to the PV SOLAR FARM 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 COMMUNITY PV SOLAR FARM for which the relevant highway authority has agreed in writing to waive the requirements of subparagraphs 6.1.7 G.1, 6.1.7 G.2, and 6.1.7 G.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-PV SOLAR FARM 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 PV SOLAR FARM construction.
- (c) Pay for any strengthening of STREET structures that may be necessary to accommodate the proposed traffic loads caused by the PV SOLAR FARM 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 PV SOLAR FARM construction and pay for any strengthening of structures that may be necessary to accommodate the proposed traffic loads caused by the PV SOLAR FARM 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 state wide 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 PV SOLAR FARM.
- 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 PV SOLAR FARM construction.
- 1. The Applicant shall transport the PV SOLAR FARM loads so as to minimize adverse impact on the local traffic including farm traffic.
- m. The Applicant shall schedule PV SOLAR FARM 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 in 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 PV SOLAR FARM 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-PV SOLAR FARM construction baseline survey similar to the pre-PV SOLAR FARM construction baseline survey to identify the extent of repairs necessary to return the STREETS to the pre-PV SOLAR FARM 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 PV SOLAR FARM and restore such STREETS to the condition they were in at the time of the pre-PV SOLAR FARM construction inventory.
- x. All PV SOLAR FARM 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 PV SOLAR FARM 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 PV SOLAR FARM 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.
- c. A schedule of the anticipated STREET repair costs to be made in advance of the PV SOLAR FARM construction and following construction of the PV SOLAR FARM.
- 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.
- H. 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) Upon request by the local fire protection district, the Owner or Operator shall cooperate with the local fire protection district to develop the fire protection district's emergency response plan.
 - (3) Nothing in this section shall alleviate the need to comply with all other applicable fire laws and regulations.
- I. Standard Conditions for Allowable Noise Level
 - (1) Noise levels from any PV SOLAR FARM shall be in compliance with the applicable Illinois Pollution Control Board (IPCB) regulations (*35 Illinois Administrative Code*, Subtitle H: Noise, Parts 900, 901, 910). This is a statutory requirement by 55 ILCS 5/5-12020 and shall not be changed.
 - (2) The Applicant shall submit manufacturer's sound power level characteristics and other relevant data regarding noise characteristics of proposed PV SOLAR FARM 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:

- a. The SPECIAL USE Permit application for other than a COMMUNITY PV SOLAR FARM 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 PV SOLAR FARM.
 - (b) Computer modeling shall be used to generate the anticipated sound level resulting from the operation of the proposed PV SOLAR FARM within 1,500 feet of the proposed PV SOLAR FARM.
 - (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 PV SOLAR FARM.
 - (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.
- b. For a COMMUNITY PV SOLAR FARM the Board may require submission of a noise analysis that meets the standard of paragraph 6.1.7 G.(3)a.
- (4) After construction of the PV SOLAR FARM, 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 that have been received by the Complaint Hotline.
 - 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.
- J. 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.

K. 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.

L. Standard Conditions for Acceptable Fish and Wildlife Impacts

The applicant shall apply for consultation with the United States Fish and Wildlife Service's Information for Planning and Consulting environmental review or a comparable successor tool that is consistent with any applicable United States Fish and Wildlife Service solar wildlife guidelines that have been subject to public review. The application shall include a copy of the consultation review by the U.S. Fish and Wildlife Service.

M. Screening and Fencing

- (1) Perimeter fencing
 - a. PV SOLAR FARM equipment and structures shall be fully enclosed and secured by a fence with a minimum height of 6 feet and no more than 25 feet. This limit on fence height is a statutory requirement by 55 ILCS 5/5-12020 and shall not be changed.
 - 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 ae 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 application.

(2) Screening

- a. A visual screen shall be provided around the perimeter of the PV SOLAR FARM as follows:
 - (a) The visual screen shall be provided for any part of the PV SOLAR FARM 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 PV SOLAR FARM 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 PV SOLAR FARM 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 PV SOLAR FARM. 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 PV SOLAR FARM fence while still providing adequate clearance for maintenance.
 - iv. A planting of tall native grasses and other native flowing plants may be used as a visual screen buffer for any PV module installation that is no more than

8 feet tall 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 PV SOLAR FARM 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 PV SOLAR FARM 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 PV SOLAR FARM SPECIAL USE Permit application.

N. Standard Conditions to Minimize Glare

- (1) The design and construction of the PV SOLAR FARM shall minimize glare that may affect adjacent properties and the application shall include an explanation of how glare will be minimized.
- (2) After construction of the PV SOLAR FARM, the Zoning Administrator shall take appropriate enforcement action as necessary to investigate complaints of glare in order to determine the validity of the complaints and take any additional enforcement action as proves warranted to stop any significant glare 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 glare that have been received by the Complaint Hotline.
 - b. If the Environment and Land Use Committee determines that the glare is excessive, the Environment and Land Use Committee shall require the Owner or Operator to take reasonable steps to mitigate the excessive glare such as the installation of additional screening.

O. Standard Condition for Liability Insurance

(1) The Owner or Operator of the PV SOLAR FARM shall maintain a current general liability policy covering bodily injury and property damage with

minimum limits of at least \$5 million per occurrence and \$520 million in the aggregate.

- (2) The general liability policy shall identify landowners in the SPECIAL USE Permit as additional insured.
- P. Operational Standard Conditions
 - (1) Maintenance
 - a. The Owner or Operator of the PV SOLAR FARM must submit, on an annual basis, a summary of operation and maintenance reports to the Environment and Land Use Committee and any other operation and maintenance reports as the Environment and Land Use Committee reasonably requests.
 - b. Any physical modification to the PV SOLAR FARM that increases the number of solar conversion devices or structures and/or the land area occupied by the PV SOLAR FARM shall require a new County BOARD SPECIAL USE Permit. Like-kind replacements shall not require recertification nor will replacement of transformers, cabling, etc. provided replacement is done in fashion similar to the original installation.
 - the PV SOLAR FARM equipment including an estimation of the daily and annual gallons of water used and the source of the water and management of wastewater. The BOARD may request copies of well records from the Illinois State Water Survey and may require an estimate by a qualified hydrogeologist of the likely impact on adjacent waterwells.
 - (2) Materials Handling, Storage and Disposal
 - a. All solid wastes related to the construction, operation and maintenance of the PV SOLAR FARM 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 and maintenance of the PV SOLAR FARM shall be handled, stored, transported and disposed of in accordance with all applicable local, State and Federal laws.
 - (3) Vegetation management
 - a. The PV SOLAR FARM 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.
- Q. 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. and matching the overall deconstruction and land restoration requirements of the Agricultural Impact Mitigation Agreement with the Illinois

 Department of Agriculture. The decommissioning and deconstruction requirements of the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture is a statutory requirement by 55 ILCS 5/5-12020 and shall not be changed.
 - (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 PV SOLAR FARM 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 PV SOLAR FARM 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 PV SOLAR FARM.
 - c. Authorization for the GOVERNING BODY and its authorized representatives for right of entry onto the PV SOLAR FARM 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 PV SOLAR FARM or prior to ceasing production of electricity from the PV SOLAR FARM, 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 and bidding documents required to comply with State law or Champaign COUNTY purchasing policies.
- h. The depth of removal of foundation concrete below ground shall be a minimum of 54 inches as required in the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture. The depth of removal of foundation concrete shall be certified in writing by an Illinois Licensed Professional Engineer and the certification shall be submitted to the Zoning Administrator.
- i. Underground electrical cables of a depth of 5 feet or greater may be left in place.
- j. The hole resulting from the removal of foundation concrete during decommissioning shall be backfilled as follows: as required in the

Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.

- (a) The excavation resulting from the removal of foundation concrete shall only be backfilled with subsoil and topsoil in similar depths and similar types as existed at the time of the original PV SOLAR FARM construction except that a lesser quality topsoil or a combination of a lesser quality topsoil and a subsoil that is similar to the native subsoil may be used at depths corresponding to the native subsoil but not less than 12 inches below grade.
- (b) The native soils excavated at the time of the original PV SOLAR FARM construction may be used to backfill the concrete foundation excavations at the time of decommissioning provided that the soils are adequately stored throughout the operating lifetime of the PV SOLAR FARM. The methods for storing the excavated native soils during the operating lifetime of the PV SOLAR FARM shall be included in the decommissioning and site reclamation plan.
- (c) If the excavated native soils are not stored for use for backfilling the concrete foundation excavations, a qualified soil scientist of Illinois Licensed Professional Engineer shall certify that the actual soils used to backfill the concrete foundation excavations are of equal or greater quality than the native soils or that, in the case of subsoil, the backfill soil meets the requirements of this paragraph. The certification shall be submitted to the Zoning Administrator.
- (d) An Illinois Licensed Professional Engineer shall certify in writing that the concrete foundation excavations have been backfilled with soil to such a depth and with a minimum of compaction that is consistent with the restoration of productive agricultural use such that the depth of soil is expected to be no less than 54 inches within one year after backfilling.
- k. A stipulation that should the decommissioning and site reclamation plan be deemed invalid by a court of competent jurisdiction the PV SOLAR FARM SPECIAL USE Permit shall be deemed void.
- 1. 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.

- m. 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.
- n. 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 PV SOLAR FARM begins to produce electricity, 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 t 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.
- (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 PV SOLAR FARM modules have an unlimited warranty of at least 10 years and also have 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. (a)—No Zoning Use Permit to authorize construction of the PV SOLAR FARM shall be authorized by the Zoning Administrator until the PV SOLAR FARM owner shall provide the COUNTY with financial assurance to cover 12.5%—10% of the decommissioning and site reclamation 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.

- On or before the sixth anniversary of the Commercial Operation Date, the PV SOLAR FARM Owner shall provide the COUNTY with Financial Assurance to cover 62.5%-50% of the decommissioning and site reclamation 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.
- On or before the eleventh anniversary of the Commercial Operation Date, the PV SOLAR FARM Owner shall provide the COUNTY with Financial Assurance to cover 125% 100% of the decommissioning and site reclamation 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. and as determined in the updated decommissioning and site reclamation plan filed with the County on or before the end of the tenth year of commercial operation.
- bd. 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 plan shall maintain the PV SOLAR FARM 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 vale credit the amount of any lien or encumbrance on the PV SOLAR FARM; 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 6.1.7 M.4.b.(1). 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 PV SOLAR FARM 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 deduction from the estimated decommissioning costs for net estimated salvage value shall be capped at 70% of the total net estimated salvage value even though the total actual salvage value shall be available in the event that decommissioning is actually required.
- (g) The total financial assurance after deduction of the net estimated salvage value shall not be less than \$1,000 per acre.
- (h) The credit for net estimated salvage value attributable to any PV SOLAR FARM may not exceed the estimated cost of removal of the above-ground portion of that PV SOLAR FARM on the subject site.
- ee. The GOVERNING BODY has the right to require multiple letters of credit based on the regulations governing federal insurance for deposits.

- df. 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:
 - At least once every three years for the first 12 years of the (a) financial assurance and at least once every two years thereafter or, if the PV SOLAR FARM modules have an unlimited warranty of a least 10 years and also have 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, then at least once every five years for the first 25 vears of the financial assurance and at least once every two 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. The Applicant or its successors in interest shall file an updated decommissioning and site reclamation plan with the County on or before the end of the tenth year of commercial operation.
 - (b) The County shall reevaluate the estimated costs of decommissioning and site reclamation every five years after the tenth anniversary of the commercial operation date. The solar farm owner shall provide an updated estimated cost of decommissioning and site reclamation that is provided by an independent Illinois licensed professional engineer.
 - (bc) 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 PV SOLAR FARM was approved.
- 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.
- (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.
- At all times the value of the irrevocable letter of credit shall be increased annually as necessary to reflect actual rates of inflation over the life span of the PV SOLAR FARM and the amount shall be equal to or exceed 125% of the amount of the independent engineer's cost estimate as increased by known and documented rates of inflation since the PV SOLAR FARM was approved.
- gh. Should the salvage value of components be adjusted downward or the decommissioning costs adjusted upward pursuant to paragraph 6.1.7 Q.4.d., the amount of the irrevocable letter of credit pursuant to this paragraph 6.1.7 Q.4. shall be increased to reflect the adjustment, as if the adjusted estimate were the initial estimate.
- Any financial assurance required per the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.7 R. shall count towards the total financial assurance required for compliance with paragraph 6.1.1A.5.
- 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 PV SOLAR FARM or component thereof ceases to be functional for more than six consecutive months after it starts producing electricity and the Owner is not diligently repairing such PV SOLAR FARM or component.
- b. In the event that the Owner declares the PV SOLAR FARM or any PV SOLAR FARM component to be functionally obsolete for tax purposes.
- e. There is a delay in the construction of any PV SOLAR FARM of more than 6 months after construction on that PV SOLAR FARM begins.
- d. Any PV SOLAR FARM 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 PV SOLAR FARM or component thereof that is otherwise derelict for a period of 6 months.
- f. The PV SOLAR FARM is in violation of the terms of the PV SOLAR FARM 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.
- i. The Applicant has either failed to receive a copy of the certification of design compliance required by paragraph 6.1.5D. or failed to submit it to the COUNTY within 12 consecutive months of receiving a Zoning Use Permit regardless of the efforts of the Applicant to obtain such certification.
- (6) The Zoning Administrator may, but is not required to, deem the PV SOLAR FARM abandoned, or the standards set forth in Section 6.1.7 M.5. met, with respect to some, but not all, of the PV SOLAR FARM. In that event, the Zoning Administrator may draw upon the financial assurance to perform the reclamation work as to that portion of the PV SOLAR FARM only. Upon completion of that reclamation work, the salvage value and

reclamation costs shall be recalculated as to the remaining PV SOLAR FARM.

- (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.
- R. Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.
 - (1) The Applicant shall enter into an Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.
 - (2) The Applicant shall bear full responsibility for coordinating any special conditions required in the SPECIAL USE Permit in order to ensure compliance with the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.
 - (3) All requirements of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture shall become requirements of the SPECIAL USE Permit.
 - (4) Champaign County shall have the right to enforce all requirements of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.

S. Complaint Hotline

- (1) Prior to the commencement of construction on the PV SOLAR FARM 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.
- (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.
- T. Standard Conditions for Expiration of PV SOLAR FARM COUNTY Board SPECIAL USE Permit

A PV SOLAR FARM COUNTY Board SPECIAL USE Permit designation shall expire in 10 years if no Zoning Use Permit is granted.

- U. Application Requirements
 - (1) In addition to all other information required on the SPECIAL USE Permit application and required by Section 9.1.11 A.2., the application shall contain or be accompanied by the following information:
 - a. A PV SOLAR FARM Project Summary, including, to the extent available:
 - (a) A general description of the project, including its approximate DC and AC generating capacity; the maximum number and type of solar devices, and the potential equipment manufacturer(s).
 - (b) The specific proposed location of the PV SOLAR FARM including all tax parcels on which the PV SOLAR FARM will be constructed.
 - (c) The specific proposed location of all tax parcels required to be included in the PV SOLAR FARM COUNTY Board SPECIAL USE Permit.
 - (d) 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 PV SOLAR FARM SPECIAL USE Permit.
 - c. A site plan for the PV SOLAR FARM indicating the following:
 - (a) The approximate planned location of al PV SOLAR FARM STRUCTURES, property lines (including identification of adjoining properties), required separations, public access roads and turnout locations, access driveways, solar devices, electrical inverter(s), electrical transformer(s),

cabling, switching station, electrical cabling from the PV SOLAR FARM to the Substation(s), ancillary equipment, screening and fencing, third party transmission lines, meteorological station, 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 PV SOLAR FARM SPECIAL USE Permit.
- (c) The location of all below-ground wiring.
- (d) The location, height, and appearance of all above-ground wiring and wiring structures.
- (e) The separation of all PV SOLAR FARM 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 and/or glare that were approved in the PV SOLAR FARM SPECIAL USE Permit. PV SOLAR FARM structures include substations, third party transmission lines, maintenance and management facilities, or other significant structures.
- d. All other required studies, reports, certifications, and approvals demonstrating compliance with the provisions of this Ordinance.
- e. The PV SOLAR FARM 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-one-half miles of the proposed PV SOLAR FARM as required by Section 6.1.7 B.(2)a.(b).
- f. A municipal resolution regarding the PV SOLAR FARM by any municipality located within one-and-one-half miles of the PV SOLAR FARM must be submitted to the Zoning Administrator prior to the consideration of the PV SOLAR FARM SPECIAL USE Permit by the Champaign COUNTY Board or, in the absence of such a resolution, the Zoning Administrator shall provide documentation to the COUNTY Board that any municipality within one-and-one-half miles of the PV SOLAR FARM was provided notice of the meeting dates for consideration of the proposed PV SOLAR FARM SPECIAL USE Permit for both the Environment

and Land Use Committee and the COUNTY Board as required by Section 6.1.7 B.(2)a.(c).

- Documentation of an executed interconnection agreement with the appropriate electric utility shall be provided prior to issuance of a Zoning Compliance Certificate to authorize operation of the PV SOLAR FARM as required by Section 6.1.7 B.(3)b.
- (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 Applicant shall include a copy of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture with the Special Use Permit Application.
- V. The approval of a PV SOLAR FARM shall not be conditioned on a property value guarantee and shall not require a facility owner to pay into a neighboring property devaluation escrow account. This is a statutory requirement by 55 ILCS 5/5-12020 and shall not be changed.
- W. Deadline for Start of Public Hearing and Governing Body Determination
 - (1) A public hearing for a PV SOLAR FARM shall begin within 45 days of filing a complete SPECIAL USE Permit application. This requirement is imposed by Public Act 102-1123 and the number of days shall not be increased or eliminated unless waived by the developer.
 - (2) A decision on the SPECIAL USE Permit shall be made within 30 days after the conclusion of the public hearing. This requirement is imposed by Public Act 102-1123 and the number of days shall not be increased or eliminated unless waived by the developer.
- X. Should the Illinois Supreme Court find P.A. 102-1123 invalid or should an Illinois Appellate Court find P.A. 102-1123 invalid, and that declaration is not appealed to the Illinois Supreme Court or the Illinois Supreme Court declines to hear an appeal of the Appellate Court's finding and no public hearing for a proposed PV SOLAR FARM has begun, the text of this amendment shall be stricken and the text adopted by the Champaign County Board on August 18, 2022 shall be reinstated and shall govern PV SOLAR FARMS in Champaign County.

12. Add new Section 9.1.11. C.5. as follows:

5. Statutory requirements in Section 6.1.5 or Section 6.1.7. shall not be construed to be inadequate in any way and shall not be the basis for negative Findings of Fact for any WIND FARM or PV SOLAR FARM.

13. Add new Section 9.1.11 D.9. as follows:

9. No WIND FARM or PV SOLAR FARM approval shall include any special condition or waiver that changes any statutory requirement in Section 6.1.5 or Section 6.1.7.

			Current Zoning Ordinance		Prop	osed Amendment dated 08/17/23
6.1.1	Stand	ard Con	ditions that May Apply to Specific SPECIAL USES			
6.1.1	A.	Decor	mmissioning and Site Reclamation Plan for NON-TABLE STRUCTURES In the course of BOARD review of a SPECIAL USE request, the BOARD may find that a proposed STRUCTURE is a NON-ADAPTABLE STRUCTURE. Any WIND FARM and any PV SOLAR FARM shall be a NON-ADAPTABLE STRUCTURE is TRUCTURE. The Applicant for the SPECIAL USE request for a NON-ADAPTABLE STRUCTURE shall submit a decommissioning and site reclamation plan to the BOARD for the subject site. The decommissioning and site reclamation plan shall be binding upon all successors of title, lessees, to any operator and/or owner of a NON-ADAPTABLE STRUCTURE, and to all parties to the decommissioning and site reclamation plan. Prior to the issuance of a SPECIAL USE Permit for such NON-ADAPTABLE STRUCTURES, the landowner or applicant shall also record a covenant incorporating the provisions of the decommissioning and site reclamation plan on the deed subject to the LOT, requiring that the reclamation work be performed and that a letter of credit be provided for financial assurance. Separate cost estimates for Section 6.1.1A.4.a., 6.1.1A.4.b., and 6.1.1A.4.c. shall be provided by an Illinois Licensed Professional Engineer.	A.		In the course of BOARD review of a SPECIAL USE request, the BOARD may find that a proposed STRUCTURE is a NON-ADAPTABLE STRUCTURE. Any WIND FARM and any PV SOLAR FARM shall be a NON-ADAPTABLE STRUCTURE is a NON-ADAPTABLE STRUCTURE. The Applicant for the SPECIAL USE request for a NON-ADAPTABLE STRUCTURE shall submit a decommissioning and site reclamation plan to the BOARD for the subject site. The decommissioning and site reclamation plan shall be binding upon all successors of title, lessees, to any operator and/or owner of a NON-ADAPTABLE STRUCTURE, and to all parties to the decommissioning and site reclamation plan. Prior to the issuance of a SPECIAL USE Permit for such NON-ADAPTABLE STRUCTURES, the landowner or applicant shall also record a covenant incorporating the provisions of the decommissioning and site reclamation plan on the deed subject to the LOT, requiring that the reclamation work be performed and that a letter of credit be provided for financial assurance. Separate cost estimates for Section 6.1.1A.4.a., 6.1.1A.4.b., and 6.1.1A.4.c. shall be provided by an Illinois Licensed Professional Engineer.
			a. Cost estimates provided shall be subject to approval of the BOARD.			a. Cost estimates provided shall be subject to approval of the BOARD.

Section 6.1.1 A.3. (continued)

- Except as provided in Section 6.1.4P., and Section 6.1.5Q., the salvage value of the components of the NON-ADAPTABLE STRUCTURE shall not be credited to the cost estimates.
- 4. The decommissioning and site reclamation plan shall provide for:
 - removal of above-ground portion of any
 STRUCTURE on the subject site; site grading;
 and, interim soil erosion control;
 - b. below-ground restoration, including final grading and surface treatment;
 - c. any environmental remediation required by State or Federal law;
 - d. provision and maintenance of a letter of credit, as set forth in Section 6.1.1A.5.
- 5. No Zoning Use permit for such SPECIAL USE will be issued until the applicant provides the COUNTY with an irrevocable letter of credit to be drawn upon a federally insured financial institution within 200 miles of Urbana, Illinois, or reasonable anticipated travel costs shall be added to the amount of the letter of credit.
 - a. Unless specified elsewhere in this Ordinance, the irrevocable letter of credit shall be in the amount of one hundred fifty percent (150%) of an independent engineer's cost estimate to complete the work described in Section 6.1.1A.4.a., Section 6.1.1A.4.b., and Section 6.1.1A.4.c.

- Except as provided in Section 6.1.4P., and Section 6.1.5Q., the salvage value of the components of the NON-ADAPTABLE STRUCTURE shall not be credited to the cost estimates.
- 4. The decommissioning and site reclamation plan shall provide for:
 - removal of above-ground portion of any
 STRUCTURE on the subject site; site grading;
 and, interim soil erosion control;
 - b. below-ground restoration, including final grading and surface treatment;
 - c. any environmental remediation required by State or Federal law;
 - d. provision and maintenance of a letter of credit, as set forth in Section 6.1.1A.5.
- 5. No Zoning Use permit for such SPECIAL USE will be issued until the applicant provides the COUNTY with an irrevocable letter of credit to be drawn upon a federally insured financial institution within 200 miles of Urbana, Illinois, or reasonable anticipated travel costs shall be added to the amount of the letter of credit.
 - a. Unless specified elsewhere in this Ordinance, the irrevocable letter of credit shall be in the amount of one hundred fifty percent (150%) of an independent engineer's cost estimate to complete the work described in Section 6.1.1A.4.a., Section 6.1.1A.4.b., and Section 6.1.1A.4.c. This requirement shall not apply

Section 6.1.1 A.5. (continued)

- b. The provisions of this subparagraph notwithstanding, a different amount may be required as a special condition.
- The letter of credit, or a successor letter of credit pursuant to Section 6.1.1A.6. or
 6.1.1A.14., shall remain in effect and shall be made available to the COUNTY for a term specified as a standard condition elsewhere in this Ordinance, an indefinite term, or for a different term that may be required as a special condition.
- One hundred eighty (180) days prior to the expiration 6. date of an irrevocable letter of credit submitted pursuant to this Section, the Zoning Administrator shall notify the landowner or applicant in writing and request information about the landowner or applicant's intent to renew the letter of credit or remove the NON-ADAPTABLE STRUCTURE. The landowner or applicant shall have thirty (30) days to respond in writing to this request. If the landowner or applicant's intention is to remove the NON-ADAPTABLE STRUCTURE, the landowner or applicant will have a total of ninety (90) days from the date of response to remove it in accordance with Section 6.1.1A.4.a. At the end of ninety (90) days, the Zoning Administrator shall have a period of sixty (60) days to either:

to any WIND FARM or SOLAR FARM approved after {effective date}.

- b. The provisions of this subparagraph notwithstanding, a different amount may be required as a special condition. This requirement shall not apply to any WIND FARM or SOLAR FARM approved after {effective date}.
- c. The letter of credit, or a successor letter of credit pursuant to Section 6.1.1A.6. or 6.1.1A.14., shall remain in effect and shall be made available to the COUNTY for a term specified as a standard condition elsewhere in this Ordinance, an indefinite term, or for a different term that may be required as a special condition.
- One hundred eighty (180) days prior to the expiration 6. date of an irrevocable letter of credit submitted pursuant to this Section, the Zoning Administrator shall notify the landowner or applicant in writing and request information about the landowner or applicant's intent to renew the letter of credit or remove the NON-ADAPTABLE STRUCTURE. The landowner or applicant shall have thirty (30) days to respond in writing to this request. If the landowner or applicant's intention is to remove the NON-ADAPTABLE STRUCTURE, the landowner or applicant will have a total of ninety (90) days from the date of response to remove it in accordance with Section 6.1.1A.4.a. At the end of ninety (90) days, the Zoning Administrator shall have a period of sixty (60) days to either:

Section 6.1.1 A.6. (continued)

- confirm that the bank has renewed the letter of credit; or
- b. inspect the subject property for compliance with Section 6.1.1A.4.a.;
- c. draw on the letter of credit and commence the bid process to have a contractor remove the NON-ADAPTABLE STRUCTURE pursuant to Section 6.1.1A.4.a.
- 7. The Zoning Administrator may find a NON-ADAPTABLE STRUCTURE abandoned in place. Factors to be considered in making this finding include, but are not limited to:
 - a. the nature and frequency of use as set forth in the application for SPECIAL USE;
 - b. the current nature and frequency of use:
 - whether the NON-ADAPTABLE STRUCTURE
 has become a public nuisance, or otherwise
 poses a risk of harm to the public health or
 safety;
 - d. whether the NON-ADAPTABLE STRUCTURE has been maintained in a manner which allows it to be used for its intended purpose, with no greater effects on surrounding properties and the public as a whole than was originally intended.
 - e. A court of law, an arbitrator, mediator, or any State or Federal agency charged with enforcing State or Federal law has made a

- confirm that the bank has renewed the letter of credit; or
- b. inspect the subject property for compliance with Section 6.1.1A.4.a.;
- c. draw on the letter of credit and commence the bid process to have a contractor remove the NON-ADAPTABLE STRUCTURE pursuant to Section 6.1.1A.4.a.
- 7. The Zoning Administrator may find a NON-ADAPTABLE STRUCTURE abandoned in place. Factors to be considered in making this finding include, but are not limited to:
 - a. the nature and frequency of use as set forth in the application for SPECIAL USE;
 - b. the current nature and frequency of use:
 - whether the NON-ADAPTABLE STRUCTURE
 has become a public nuisance, or otherwise
 poses a risk of harm to the public health or
 safety;
 - d. whether the NON-ADAPTABLE STRUCTURE has been maintained in a manner which allows it to be used for its intended purpose, with no greater effects on surrounding properties and the public as a whole than was originally intended.
 - e. A court of law, an arbitrator, mediator, or any State or Federal agency charged with enforcing State or Federal law has made a

Section 6.1.1 A.7. (continued)

finding that either said NON-ADAPTABLE STRUCTURE or the structures supporting said NON-ADAPTABLE STRUCTURE and/or any related site grading and soil erosion controls or lack of same, constitutes a public nuisance or otherwise violates State or Federal law, or any State or Federal agency charged with enforcing State or Federal law has made a final determination either imposing an administrative sanction on any person associated with the NON-ADAPTABLE STRUCTURE relating to its use or denying the NON-ADAPTABLE STRUCTURE a permit necessary for its lawful operation.

finding that either said NON-ADAPTABLE STRUCTURE or the structures supporting said NON-ADAPTABLE STRUCTURE and/or any related site grading and soil erosion controls or lack of same, constitutes a public nuisance or otherwise violates State or Federal law, or any State or Federal agency charged with enforcing State or Federal law has made a final determination either imposing an administrative sanction on any person associated with the NON-ADAPTABLE STRUCTURE relating to its use or denying the NON-ADAPTABLE STRUCTURE a permit necessary for its lawful operation.

f. For any WIND FARM or SOLAR FARM approved after {effective date}, abandonment shall be limited to only when the decommissioning and site reclamation plan has not been completed with 12 months after a SOLAR FARM reaches the end of its useful life or when the decommissioning and site reclamation plan has not been completed within 18 months after a WIND FARM reaches the end of its useful life. A WIND FARM or SOLAR FARM shall be presumed to have reached the end of its useful life if the owner of the WIND FARM or SOLAR FARM fails for a period of six consecutive months to pay the landowner amounts owed in accordance with the underlying agreement and additionally, a WIND FARM shall be presumed to have reached the end of its useful life if no electricity shall have been generated for a continuous period of 12 months.

- 8. Once the Zoning Administrator has made a finding that a NON-ADAPTABLE STRUCTURE is abandoned in place, the Zoning Administrator shall issue notice to the land owner at the owner's last known address, lessees, any operator and/or owner of a NON-ADAPTABLE STRUCTURE, and to all parties to the decommissioning and site reclamation plan, that the COUNTY will draw on the performance guarantee within thirty (30) days unless the owner appeals the Zoning Administrator's finding, pursuant to Section 9.1.8 or enters into a written agreement with the COUNTY to remove such NON-ADAPTABLE STRUCTURE in accordance with Section 6.1.1A.4. within ninety (90) days and removes the NON-ADAPTABLE STRUCTURE accordingly.
- 9. The Zoning Administrator may draw on the funds to have said NON-ADAPTABLE STRUCTURE removed as per Section 6.1.1A.4. of the decommissioning and site reclamation plan when any of the following occur:
 - a. no response is received from the land owner within thirty (30) days from initial notification by the Zoning Administrator;
 - the land owner does not enter, or breaches any term of a written agreement with the COUNTY to remove said NON-ADAPTABLE STRUCTURE as provided in Section 6.1.1A.8.;
 - any breach or performance failure of any provision of the decommissioning and site reclamation plan;
 - the owner of record has filed a bankruptcy petition, or compromised the COUNTY's interest in the letter of credit in any way not

- Once the Zoning Administrator has made a finding 8. that a NON-ADAPTABLE STRUCTURE is abandoned in place, the Zoning Administrator shall issue notice to the land owner at the owner's last known address, lessees, any operator and/or owner of a NON-ADAPTABLE STRUCTURE, and to all parties to the decommissioning and site reclamation plan, that the COUNTY will draw on the performance guarantee within thirty (30) days unless the owner appeals the Zoning Administrator's finding, pursuant to Section 9.1.8 or enters into a written agreement with the COUNTY to remove such NON-ADAPTABLE STRUCTURE in accordance with Section 6.1.1A.4. within ninety (90) days and removes the NON-ADAPTABLE STRUCTURE accordingly.
- 9. The Zoning Administrator may draw on the funds to have said NON-ADAPTABLE STRUCTURE removed as per Section 6.1.1A.4. of the decommissioning and site reclamation plan when any of the following occur:
 - a. no response is received from the land owner within thirty (30) days from initial notification by the Zoning Administrator;
 - b. the land owner does not enter, or breaches any term of a written agreement with the COUNTY to remove said NON-ADAPTABLE STRUCTURE as provided in Section 6.1.1A.8.;
 - c. any breach or performance failure of any provision of the decommissioning and site reclamation plan;
 - d. the owner of record has filed a bankruptcy petition, or compromised the COUNTY's interest in the letter of credit in any way not

specifically allowed by the decommissioning and site reclamation plan;

- a court of law has made a finding that a NON-ADAPTABLE STRUCTURE constitutes a public nuisance;
- f. the owner of record has failed to replace an expiring letter of credit within the deadlines set forth in Section 6.1.1A.6.; or
- g. any other conditions to which the COUNTY and the land owner mutually agree, as set forth in the decommissioning and site reclamation plan.

- specifically allowed by the decommissioning and site reclamation plan;
- e. a court of law has made a finding that a NON-ADAPTABLE STRUCTURE constitutes a public nuisance;
- f. the owner of record has failed to replace an expiring letter of credit within the deadlines set forth in Section 6.1.1A.6.; or
- g. any other conditions to which the COUNTY and the land owner mutually agree, as set forth in the decommissioning and site reclamation plan.
- h. For any WIND FARM or SOLAR FARM approved after {effective date}, the Zoning Administrator may only draw on the funds only when the decommissioning and site reclamation plan has not been completed with 12 months after a SOLAR FARM reaches the end of its useful life or when the decommissioning and site reclamation plan has not been completed with 18 months after a WIND FARM reaches the end of its useful life. A WIND FARM or SOLAR FARM shall be presumed to have reached the end of its useful life if the if the owner of the WIND FARM or SOLAR FARM fails for a period of six consecutive months to pay the landowner amounts owed in accordance with the underlying agreement and additionally, a WIND FARM shall be presumed to have reached the end of its useful life if no

Section 6.1.1 A.9. (continued)

- 10. Once the letter of credit has been drawn upon, and the site has been restored to its original condition, as certified by the Zoning Administrator, the covenant entered into pursuant to Section 6.1.1A.2. shall expire, and the COUNTY shall act to remove said covenant from the record of the property at the Recorder of Deeds within forty-five (45) days.
- 11. The proceeds of the letter of credit may only be used by the COUNTY to:
 - a. remove the NON-ADAPTABLE STRUCTURE
 and return the site to its condition prior to
 placement of the NON-ADAPTABLE
 STRUCTURE, in accordance with the most
 recent decommissioning and site reclamation
 plan submitted and accepted in relation to
 the NON-ADAPTABLE STRUCTURE;
 - b. pay all administrative and ancillary costs associated with drawing upon the financial assurance and performing the reclamation work, which shall include, but not be limited to, attorney's fees; construction management and other professional service fees; and the costs of preparing request for proposal and bidding documents required to comply with State law or Champaign County purchasing policies; and
 - c. remove any covenants placed on the title in conjunction with Section 6.1.1A.2.

<u>electricity shall have been generated for a continuous period of 12 months.</u>

- 10. Once the letter of credit has been drawn upon, and the site has been restored to its original condition, as certified by the Zoning Administrator, the covenant entered into pursuant to Section 6.1.1A.2. shall expire, and the COUNTY shall act to remove said covenant from the record of the property at the Recorder of Deeds within forty-five (45) days.
- 11. The proceeds of the letter of credit may only be used by the COUNTY to:
 - a. remove the NON-ADAPTABLE STRUCTURE and return the site to its condition prior to placement of the NON-ADAPTABLE STRUCTURE, in accordance with the most recent decommissioning and site reclamation plan submitted and accepted in relation to the NON-ADAPTABLE STRUCTURE;
 - b. for other than any WIND FARM or SOLAR
 FARM approved after {effective date}, pay all
 administrative and ancillary costs associated
 with drawing upon the financial assurance
 and performing the reclamation work, which
 shall include, but not be limited to, attorney's
 fees; construction management and other
 professional service fees; and the costs of
 preparing request for proposal and bidding
 documents required to comply with State law
 or Champaign County purchasing policies;
 and
 - c. remove any covenants placed on the title in conjunction with Section 6.1.1A.2.

Section 6.1.1 A.11. (continued)

The balance of any proceeds remaining after the site has been reclaimed shall be returned to the issuer of the letter of credit.

- 12. No dispute as to the necessity or reasonableness of any costs of performing the site reclamation work identified in Section 6.1.1A.11. shall impair the ability of Champaign County to draw on the Financial Assurance.
- 13. In accordance with the provisions of the Illinois Mechanics Lien Act, 770 ILCS 60/1 and 60/7, the Applicant or successors in interest agree that any contractor retained by Champaign County to perform the decommissioning and site reclamation work in Section 6.1.1A.11, shall have a lien upon the project to the full extent of all costs performing the decommissioning and site reclamation work identified in Section 6.1.1A.11., and that such lien shall be superior to any claim or lien of any other creditor, incumbrancer or purchaser.
- 14. Upon transfer of any property subject to a letter of credit pursuant to this Section, the new owner or applicant of record shall submit a new irrevocable letter of credit of same or greater value to the Zoning Administrator, prior to legal transfer of title, and shall submit a new decommissioning and site reclamation plan, pursuant to Section 6.1.1A.4., and, for WIND FARMS, Section 6.1.4P., and for PV SOLAR FARMS, 6.1.5Q. Once the new owner or applicant of record has done so, the letter of credit posted by the previous owner or applicant shall be released, and the previous owner shall be released from any further obligations under the decommissioning and site reclamation plan.

The balance of any proceeds remaining after the site has been reclaimed shall be returned to the issuer of the letter of credit.

- 12. No dispute as to the necessity or reasonableness of any costs of performing the site reclamation work identified in Section 6.1.1A.11. shall impair the ability of Champaign County to draw on the Financial Assurance.
- 13. In accordance with the provisions of the Illinois Mechanics Lien Act, 770 ILCS 60/1 and 60/7, the Applicant or successors in interest agree that any contractor retained by Champaign County to perform the decommissioning and site reclamation work in Section 6.1.1A.11, shall have a lien upon the project to the full extent of all costs performing the decommissioning and site reclamation work identified in Section 6.1.1A.11., and that such lien shall be superior to any claim or lien of any other creditor, incumbrancer or purchaser.
- 14. Upon transfer of any property subject to a letter of credit pursuant to this Section, the new owner or applicant of record shall submit a new irrevocable letter of credit of same or greater value to the Zoning Administrator, prior to legal transfer of title, and shall submit a new decommissioning and site reclamation plan, pursuant to Section 6.1.1A.4., and, for WIND FARMS, Section 6.1.4P., and for PV SOLAR FARMS, 6.1.5Q. Once the new owner or applicant of record has done so, the letter of credit posted by the previous owner or applicant shall be released, and the previous owner shall be released from any further obligations under the decommissioning and site reclamation plan.

15.	The Applicant shall provide evidence of any new, additional, or substitute financial assurance to the Zoning Administrator throughout the operating lifetime of the NON-ADAPTABLE STRUCTURE.	15.	The Applicant shall provide evidence of any new, additional, or substitute financial assurance to the Zoning Administrator throughout the operating lifetime of the NON-ADAPTABLE STRUCTURE.
16.	Should the decommissioning and site reclamation plan, or any part of it, be deemed invalid by a court of competent jurisdiction, the associated SPECIAL USE Permit shall be deemed void.	16.	Should the decommissioning and site reclamation plan, or any part of it, be deemed invalid by a court of competent jurisdiction, the associated SPECIAL USE Permit shall be deemed void.

Current Zoning Ordinance Wind farm County Board Special Use Permit only authorized in the AG-1				Proposed Amendment dated 08/17/23					
	farm County Boa ulture Zoning Dis	ard Special Use Permit only authorized in the AG-1 trict	Wind farm County Board Special Use Permit only authorized in the AG-1 Agriculture, AG-2 Agriculture, I-1 Light Industry and I-2 Light Industry Zoning Districts						
A.	1. The ar	trea of the WIND FARM County Board SPECIAL USE to must include the following minimum areas: All land that is a distance equal to 1.10 times the total WIND FARM TOWER height (measured to the tip of the highest rotor blade) from the base of that WIND FARM TOWER. All land that will be exposed to a noise level greater than that authorized to Class A land under paragraph 6.1.4I. All necessary access lanes or driveways and any required new PRIVATE ACCESSWAYS. For purposes of determining the minimum area of the SPECIAL USE Permit, access lanes or driveways shall be provided a minimum 40 feet wide area. All necessary WIND FARM ACCESSORY STRUCTURES including electrical distribution lines, transformers, common switching stations, and substations not under the ownership of a PUBLICLY REGULATED UTILITY. For purposes of determining the minimum	A.		The ar	rea of the WIND FARM County Board SPECIAL USE to must include the following minimum areas: All land that is a distance equal to 1.10 times the total WIND FARM TOWER height (measured to the tip of the highest rotor blade) from the base of that WIND FARM TOWER. All land that will be exposed to a noise level greater than that authorized to Class A land under paragraph 6.1.41. All necessary access lanes or driveways and any required new PRIVATE ACCESSWAYS. For purposes of determining the minimum area of the SPECIAL USE Permit, access lanes or driveways shall be provided a minimum 40 feet wide area. All necessary WIND FARM ACCESSORY STRUCTURES including electrical distribution lines, transformers, common switching stations, and substations not under the ownership of a PUBLICLY REGULATED UTILITY. For purposes of determining the minimum			
		area of the SPECIAL USE Permit, underground cable installations shall be provided a minimum 40 feet wide area.				area of the SPECIAL USE Permit, underground cable installations shall be provided a minimum 40 feet wide area.			
	e.	All land that is within 1.50 times the total WIND FARM TOWER height (measured to the tip of the highest rotor blade) from the base of each WIND FARM TOWER except any such land that is more than 1,320 feet from any existing public STREET right of way.			e <u>d</u> .	All land that is within 1.50 times the total WIND FARM TOWER height (measured to the tip of the highest rotor blade) from the base of each WIND FARM TOWER except any such land that is more than 1,320 feet from any existing public STREET right of way.			

A.	Genei	al Stand	dard Conditions (continued)	A.	Gener	al Standa	ard Conditions (continued)
		f.	All land area within 1,320 feet of a public STREET RIGHT OF WAY that is also within 1,000 feet from the base of each WIND FARM TOWER except that in the case of WIND FARM TOWERS in compliance with the minimum STREET separation required by paragraph 6.1.4C5. in which case land on the other side of the public STREET right of way does not have to be included in the SPECIAL USE Permit.			f.	All land area within 1,320 feet of a public STREET RIGHT OF WAY that is also within 1,000 feet from the base of each WIND FARM TOWER except that in the case of WIND FARM TOWERS in compliance with the minimum STREET separation required by paragraph 6.1.5 C.4. in which case land on the other side of the public STREET right of way does not have to be included in the SPECIAL USE Permit.
	2.		/IND FARM County Board SPECIAL USE Permit shall not rated in the following areas: Less than one-and-one-half miles from an incorporated municipality that has a zoning ordinance.		2.		ND FARM County Board SPECIAL USE Permit shall not ted in the following areas: Less than one-and-one-half miles from an incorporated municipality that has a zoning ordinance.
		b.	Less than one mile from the CR, Conservation- Recreation Zoning DISTRICT.			b.	Less than one mile from the CR, Conservation-Recreation Zoning DISTRICT.
		C.	In any area leased for underground gas storage or under easement for same, unless the lease or easement requires that gas injection wells and other above-ground appurtenances be located in conformance with paragraph 6.1.4C9.			C.	In any area leased for underground gas storage or under easement for same, unless the lease or easement requires that gas injection wells and other above-ground appurtenances be located in conformance with paragraph 6.1.5 C.9.
	3.	succe plan a for th	wners of the subject property and the Applicant, its issors in interest, and all parties to the decommissioning and site reclamation plan hereby recognize and provide e right of agricultural activities to continue on adjacent consistent with the Right to Farm Resolution 3425.		<u>34</u> .	success plan ar for the	vners of the subject property and the Applicant, its sors in interest, and all parties to the decommissioning and site reclamation plan hereby recognize and provide right of agricultural activities to continue on adjacent onsistent with the Right to Farm Resolution 3425.
	4.	and sl Agricu	oveground STRUCTURES and facilities shall be of a type hall be located in a manner that is consistent with the ultural Impact Mitigation Agreement with the Illinois rtment of Agriculture as required by paragraph 6.1.4R.		<u>3.</u>	and sha Agricul	veground STRUCTURES and facilities shall be of a type all be located in a manner that is consistent with the tural Impact Mitigation Agreement with the Illinois ment of Agriculture as required by paragraph 6.1.4R.

В.	Minimum Lot Standards	В.	Minimum Lot Standards
	 There are no minimum LOT AREA, AVERAGE LOT WIDTH, SETBACK, YARD, or maximum LOT COVERAGE requirements for a WIND FARM or for LOTS for WIND FARM TOWERS, substations, and WIND FARM maintenance and management facilities. 		 There are no minimum LOT AREA, AVERAGE LOT WIDTH, SETBACK, YARD, or maximum LOT COVERAGE requirements for a WIND FARM or for LOTS for WIND FARM TOWERS, substations, and WIND FARM maintenance and management facilities.
C.	Minimum Standard Conditions for Separations for WIND FARM TOWERS from adjacent USES and STRUCTURES.		
	The location of each WIND FARM TOWER shall provide the following required separations as measured from the exterior of the above ground portion of the WIND FARM TOWER:		The location of each WIND FARM TOWER shall provide the following required separations as measured from the exterior of the above ground portion of the WIND FARM TOWER:
	 At least 1,000 feet separation from the exterior above ground base of a wind farm tower to any participating dwelling or principal building provided that the noise level caused by the WIND FARM at the particular building complies with the applicable Illinois Pollution Control Board regulations. 		1. At least 1,000 feet 1.1 times the maximum blade tip height of the wind tower separation from the exterior above-groundcenter of the base of a WIND FARM TOWER to the nearest point on the outside wall of any PARTICIPATING DWELLING OR PRINCIPAL BUILDING provided that the noise level caused by the WIND FARM at the particular building complies with the applicable Illinois Pollution Control Board regulations. This separation is a statutory requirement by 55 ILCS 5/5-12020 and shall not be increased except as may be required to comply with the applicable noise regulations of the Illinois Pollution Control Board.
	2. At least 1,200 feet separation from the exterior above-ground base of a WIND FARM TOWER to any existing NON-PARTICIPATING DWELLING OR PRINCIPAL BUILDING provided that the noise level caused by the WIND FARM at the particular building complies with the applicable Illinois Pollution Control Board regulations and provided that the separation distance meets or exceeds any separation recommendations of the manufacturer of the wind turbine used on the WIND FARM TOWER.		2. At least 1,200 feet2.1 times the maximum blade tip height of the wind tower separation from the exterior above-groundcenter of the base of a WIND FARM TOWER to the nearest point on the outside wall of any existing NON-PARTICIPATING DWELLING or OCCUPIED COMMUNITY BUILDING OR PRINCIPAL BUILDING-provided that the noise level caused by the WIND FARM at the particular building complies with the applicable Illinois Pollution Control Board regulations-and provided that the separation distance meets or exceeds any separation recommendations of the manufacturer of the wind turbine used on the WIND FARM TOWER. This separation is a statutory requirement by 55 ILCS

C.		mum Standard Conditions for Separations for WIND FARM		
	TOW	'ERS from adjacent USES and STRUCTURES (continued)		
				5/5-12020 and shall not be increased except as may be
				required to comply with the applicable noise regulations of
				the Illinois Pollution Control Board.
	3.	The above separations may be reduced to a distance no less	3.	The above separations may be reduced to a distance no less
		than 1.10 times the total WIND FARM TOWER height		than 1.10 times the total WIND FARM TOWER height
		(measured to the tip of the highest rotor blade) upon		(measured to the tip of the highest rotor blade) upon
		submission of a PRIVATE WAIVER signed by the owner of said		submission of a PRIVATE WAIVER signed by the owner of said
		DWELLING or BUILDING or adjacent property. The PRIVATE		NON-PARTICIPATING DWELLING or OCCUPIED COMMUNITY
		WAIVER must specify the agreed minimum separation and		BUILDING or adjacent property. The PRIVATE WAIVER must
		specifically acknowledge that the grantor accepts the		specify the agreed minimum separation and specifically
		resulting noise level caused by the WIND FARM.		acknowledge that the grantor accepts the resulting noise
				level caused by the WIND FARM.
	4.	A separation distance equal to 1.10 times the total WIND	4.	A separation distance equal to 1.10 times the total WIND
		FARM TOWER height (measured to the tip of the highest rotor		FARM TOWER height (measured to the tip of the highest
		blade) from the exterior above-ground base of a WIND FARM		rotor blade) from the exterior above-ground base of a WIND
		TOWER to the nearest adjacent property line for property		FARM TOWER to the nearest adjacent property line for
		that is also part of the WIND FARM County Board SPECIAL USE		property that is also part of the WIND FARM County Board
		Permit. This separation may be reduced upon submission of a		SPECIAL USE Permit. This separation may be reduced upon
		PRIVATE WAIVER signed by the owner of the adjacent		submission of a PRIVATE WAIVER signed by the owner of the
		property. The PRIVATE WAIVER must specify the agreed		adjacent property. The PRIVATE WAIVER must specify the
		minimum separation.		agreed minimum separation.
	5.	A separation distance equal to 1.50 times the total WIND	5 <u>4</u> .	A separation distance equal to <u>1.501.1</u> times the total WIND
		FARM TOWER height (measured to the tip of the highest rotor		FARM TOWER height (measured to the tip of the highest
		blade) from the exterior above-ground base of a WIND FARM		rotor blade) from the exterior above-groundcenter of the
		TOWER to the nearest public STREET RIGHT OF WAY unless		base of a WIND FARM TOWER to the nearestcenter point of
		the WIND FARM is located on both sides of the STREET in		the public STREET RIGHT OF WAY. unless the WIND FARM is
		which case the minimum separation distance between a		located on both sides of the STREET in which case the
		WIND FARM TOWER and the public STREET RIGHT OF WAY is		minimum separation distance between a WIND FARM TOWER
		equal to 1.10 times the total WIND FARM TOWER height		and the public STREET RIGHT OF WAY is equal to 1.10 times
		(measured to the tip of the highest rotor blade).		the total WIND FARM TOWER height (measured to the tip of
				the highest rotor blade). This separation is a statutory
				requirement by 55 ILCS 5/5-12020 and shall not be increased.
	6.	A separation distance equal to 1.50 times the total WIND	6 <u>5</u> .	A separation distance equal to <u>1.501.1</u> times the total WIND
		FARM TOWER height (measured to the tip of the highest rotor		FARM TOWER height (measured to the tip of the highest
		blade) from the exterior above-ground base of a WIND FARM		rotor blade) from the exterior above groundcenter of the

C.		mum Standard Conditions for Separations for WIND FARM (FERS from adjacent USES and STRUCTURES (continued) TOWER to the nearest non-participating property. This separation may be reduced upon submission of a PRIVATE WAIVER signed by the owner of said non-participating property. The PRIVATE WAIVER must specify the agreed minimum separation.		base of a WIND FARM TOWER to the nearest non-participating property <u>line</u> . This separation may be reduced upon submission of a PRIVATE WAIVER signed by the owner of said non-participating property. The PRIVATE WAIVER must specify the agreed minimum separation. <u>This separation is a statutory requirement by 55 ILCS 5/5-12020 and shall not be increased.</u>
	7.	A separation distance equal to 1.10 times the total WIND FARM TOWER height (measured to the tip of the highest rotor blade) from the exterior above-ground base of a WIND FARM TOWER to the nearest easement for a GAS PIPELINE or HAZARDOUS LIQUID PIPELINE, and easement for an underground water main or to the actual water main if there is no easement, third party electrical transmission lines, communication towers, or railroad right of way. This separation may be reduced upon submission of a PRIVATE WAIVER signed by the owner of said electrical transmission line or communication tower or the pipeline or the relevant public street maintenance jurisdiction. The PRIVATE WAIVER must specify the agreed minimum separation.	<u>76</u> .	A separation distance equal to 1.10 times the total WIND FARM TOWER height (measured to the tip of the highest rotor blade) from the exterior above-groundcenter of the base of a WIND FARM TOWER to the nearest easement for a GAS PIPELINE or HAZARDOUS LIQUID PIPELINE, and easement for an underground water main or to the actual water main if there is no easement, third party electrical transmission lines, communication towers, or railroad right of way. This separation may be reduced upon submission of a PRIVATE WAIVER signed by the owner of said electrical transmission line or communication tower or the pipeline or the relevant public street maintenance jurisdiction. The PRIVATE WAIVER must specify the agreed minimum separation. This separation is a statutory requirement by 55 ILCS 5/5-12020 and shall not be increased.
	8.	Any PRIVATE WAIVER establishing an agreement for a lesser minimum separation as authorized above shall be submitted prior to the final determination by the Board and must be recorded as part of the chain of title in the deed to any relevant tract of land prior to authorization of any relevant ZONING USE PERMIT. No waiver of a standard condition shall be required in the event of a duly agreed and signed PRIVATE WAIVER.	<u>87</u> .	Any PRIVATE WAIVER establishing an agreement for a lesser minimum separation as authorized above shall be submitted prior to the final determination by the Board and must be recorded as part of the chain of title in the deed to any relevant tract of land prior to authorization of any relevant ZONING USE PERMIT. No waiver of a standard condition shall be required in the event of a duly agreed and signed PRIVATE WAIVER.
	No re	egulation.	8.	At least 2.1 times the maximum blade tip height of the WIND TOWER to the nearest point on the property line of fish and wildlife areas and Illinois Nature Preserve Commission protected lands. This separation is a statutory requirement by 55 ILCS 5/5-12020 and shall not be increased.

C.		mum Standard Conditions for Separations for WIND FARM ERS from adjacent USES and STRUCTURES (continued)		
	9.	At least 1,200 feet separation from the exterior above-ground base of a WIND FARM TOWER to any wellhead or other above ground fixture that is accessory to a GAS PIPELINE or to any valve or other above ground fixture for any HAZARDOUS LIQUID PIPELINE, provided however, that if the relevant PIPELINE IMPACT RADIUS required by paragraph 4.3.4H. is greater than 1,200 feet then that PIPLELINE IMPACT RADIUS shall be the minimum separation of any of the above. This separation may be reduced upon submission of a PRIVATE WAIVER signed by the owner of said pipeline. The PRIVATE WAIVER must specify the agreed minimum separation.	9.	At least 1,200 feet separation from the exterior above-groundcenter of the base of a WIND FARM TOWER to any wellhead or other above ground fixture that is accessory to a GAS PIPELINE or to any valve or other above ground fixture for any HAZARDOUS LIQUID PIPELINE, provided however, that if the relevant PIPELINE IMPACT RADIUS required by paragraph 4.3.4H. is greater than 1,200 feet then that PIPLELINE IMPACT RADIUS shall be the minimum separation of any of the above. This separation may be reduced upon submission of a PRIVATE WAIVER signed by the owner of said pipeline. The PRIVATE WAIVER must specify the agreed minimum separation.
	10.	At least 1,600 feet separation from the exterior above-ground base of a WIND FARM TOWER to any Liquefied Natural Gas Storage; or Liquefied Petroleum Gas Storage; or Gasoline and Volatile Oils Storage exceeding 10,000 gallons capacity in the aggregate.	10.	At least 1,600 feet separation from the exterior above- ground center of the base of a WIND FARM TOWER to any Liquefied Natural Gas Storage; or Liquefied Petroleum Gas Storage; or Gasoline and Volatile Oils Storage exceeding 10,000 gallons capacity in the aggregate.
	11.	For any legal RESTRICTED LANDING AREA that existed on or for which there had been a compete SPECIAL USE Permit application received by April 22, 2010, there shall be a separation from the runway to the nearest tip of a blade of the nearest WIND FARM TOWER as follows: a. The separation from the sides and ends of the runway shall be seven horizontal feet for each one foot of overall WIND FARM TOWER HEIGHT. b. An additional separation from the end of the runway shall be 15 feet for each one foot of overall WIND FARM TOWER HEIGHT in a trapezoidal shape that is the width of the runway approach zone based on the requirements of 92 <i>III. Admin Code</i> 14.520, except as follows:	11.	For any legal RESTRICTED LANDING AREA that existed on or for which there had been a compete SPECIAL USE Permit application received by April 22, 2010, there shall be a separation from the runway to the nearest tip of a blade of the nearest WIND FARM TOWER as follows: a. The separation from the sides and ends of the runway shall be seven horizontal feet for each one foot of overall WIND FARM TOWER HEIGHT. b. An additional separation from the end of the runway shall be 15 feet for each one foot of overall WIND FARM TOWER HEIGHT in a trapezoidal shape that is the width of the runway approach zone based on the requirements of 92 <i>III. Admin Code</i> 14.520, except as follows:

C.	Minir	num Stan	dard Co	onditions for Separations for WIND FARM				
	TOW	ERS from	adjacer	nt USES and STRUCTURES (continued)				
			(1)	that part of the separation that is more tha	n			(1) that part of the separation that is more than
				3,000 feet from the end of the runway may				3,000 feet from the end of the runway may
				be a consistent width based on the widest				be a consistent width based on the widest
				point of the runway approach zone.				point of the runway approach zone.
	12.	For any	legal R	ESIDENTIAL AIRPORT that existed on or for		12.	For an	ny legal RESIDENTIAL AIRPORT that existed on or for
		which t	here ha	nd been a complete SPECIAL USE Permit			which '	n there had been a complete SPECIAL USE Permit
		applica	tion rec	eived by April 22, 2010 there shall be a			applica	cation received by April 22, 2010 there shall be a
		separa	ion fro	m the runway to the nearest tip of a blade of			separa	ration from the runway to the nearest tip of a blade of
		the nea	rest W	IND FARM TOWER as follows:			the nea	earest WIND FARM TOWER as follows:
		a.	The se	paration from the sides and ends of the			a.	The separation from the sides and ends of the
			runwa	y shall be seven horizontal feet for each one				runway shall be seven horizontal feet for each one
			foot o	f overall WIND FARM TOWER HEIGHT.				foot of overall WIND FARM TOWER HEIGHT.
		b.	An add	ditional separation from the end of the runw	ıy		b.	An additional separation from the end of the runway
			and fo	r a distance of 50 feet on either side of an er	d			and for a distance of 50 feet on either side of an end
			of the	runway, shall be 20 feet for each one foot of				of the runway, shall be 20 feet for each one foot of
			overal	I WIND FARM TOWER HEIGHT in a trapezoid	I			overall WIND FARM TOWER HEIGHT in a trapezoidal
			shape	that is the width of the runway approach zo	e			shape that is the width of the runway approach zone
			based	on the requirements of 92 III. Admin Code				based on the requirements of 92 III. Admin Code
			14.520	D, except as follows:				14.520, except as follows:
			(1)	that part of the required separation that is				(1) that part of the required separation that is
				more than 3,000 feet from the end of the				more than 3,000 feet from the end of the
				runway may be consistent width based on				runway may be consistent width based on
				the widest part of the runway approach zo	ne.			the widest part of the runway approach zone.
D.	Stand	dard Cond	itions f	or Design and Installation of WIND FARM	D.	Stand	dard Cond	nditions for Design and Installation of WIND FARM
	TOW	ERS.				TOW	ERS.	
	1.	Design		Certification		1.	Design	gn Safety Certification
		a.		FARM TOWERS, turbines, and all related			a.	WIND FARM TOWERS, turbines, and all related
				ruction shall conform to applicable industry				construction shall conform to applicable industry
				ards, including those of the American Nationa				standards, including those of the American National
			Standa	ards Institute ("ANSI"). Applicants shall subn	it			Standards Institute ("ANSI"). Applicants shall submit
				cates of design compliance that equipment				certificates of design compliance that equipment
			manut	facturers have obtained from Underwriters				manufacturers have obtained from Underwriters
				atories ("UL"), Det Norske Veritas ("DNV"),				Laboratories ("UL"), Det Norske Veritas ("DNV"),
			Germa	anischer Lloyd Wind Energy ("GL"), or				Germanischer Lloyd Wind Energy ("GL"), or
			equiva	alent third party. Documentation of complian	ce			equivalent third party. Documentation of compliance

D.			ditions for Design and Installation of WIND FARM				
	IOWI	E RS (con	must be submitted prior to receiving a Zoning Compliance Certificate for either the WIND FARM or for any single WIND FARM TOWER.				must be submitted prior to receiving a Zoning Compliance Certificate for either the WIND FARM or for any single WIND FARM TOWER.
		b.	Each Zoning Use Permit Application for a WIND FARM TOWER shall include a certification by an Illinois Professional Engineer of Illinois Licensed Structural Engineer that the foundation and tower design of the WIND FARM TOWER is within accepted professional standards, given local soil and climate conditions.			b.	Each Zoning Use Permit Application for a WIND FARM TOWER shall include a certification by an Illinois Professional Engineer of Illinois Licensed Structural Engineer that the foundation and tower design of the WIND FARM TOWER is within accepted professional standards, given local soil and climate conditions.
	2.	Contr a.	rols and Brakes All WIND FARM TOWER turbines shall be equipped with a redundant braking system. This includes both aerodynamic over speed controls (including variable pitch, tip, and other similar systems) and mechanical brakes.		2.	Contr a.	ols and Brakes All WIND FARM TOWER turbines shall be equipped with a redundant braking system. This includes both aerodynamic over speed controls (including variable pitch, tip, and other similar systems) and mechanical brakes.
		b.	Mechanical brakes shall be operated in fail-safe mode.			b.	Mechanical brakes shall be operated in fail-safe mode.
		C.	Stall regulation shall not be considered a sufficient braking system for over speed protection.			C.	Stall regulation shall not be considered a sufficient braking system for over speed protection.
	3.	WINE codes	rical Components. All electrical components of the DFARM shall conform to applicable state and national sincluding, any relevant national and international ards (e.g. ANSI and International Electrical Commission)		3.	WIND codes	Fical Components. All electrical components of the FARM shall conform to applicable state and national sincluding, any relevant national and international ards (e.g. ANSI and International Electrical Commission).
	4.	The V	VIND FARM TOWER must be a monopole construction.		4.	The W	VIND FARM TOWER must be a monopole construction.
	5.		otal WIND FARM TOWER height (measured to the tip of ighest rotor blade) must be less than 500 feet.	5.	highe <u>Dete</u>	est rotor rminatio	ID FARM TOWER height (measured to the tip of the blade) must be less than 500 feet receive a n of No Hazard to Air Navigation by the Federal Aviation n under 14 CFR Part 77.

D.		dard Conditions for Design and Installation of WIND FARM ERS (continued)					
	6.				WIND FARM TOWERS, turbine nacelles, and blades shall be painted white or gray or another non-reflective, unobtrusive color as specified in the application and authorized by the Board.		
	7.	The WIND FARM shall comply with all applicable Federal Aviation Administration (FAA) requirements which shall be explained in the application. The minimum lighting requirement of the FAA shall not be exceeded except that all WIND FARM TOWERS are required to use ADLS (aircraft detection lighting system) or equivalent system to reduce the impact of nighttime lighting on nearby residents, communities and migratory birds in accordance with the FAA Advisory circular: 70/7460-IL section 14.1.	7.	application application that substitution the substitution to the substitution application application application to the substitution application app	FARMS shall utilize minimal lighting that is compliant with the able FAA regulations, as amended by the FAA. To the extent uch tower lighting is available, and is approved by the FAA for a FARM project, the facility owner shall install Aircraft Detection ag Systems (ADLS) or other similar technology to reduce light on and visual impacts caused by the WIND FARMS.		
	8.	 Warnings a. A reasonably visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and Substations. b. Visible, reflective, colored objects, such as flags, reflectors, or tape shall be placed on the anchor 		8.	 Warnings A reasonably visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and Substations. b. Visible, reflective, colored objects, such as flags, reflectors, or tape shall be placed on the anchor 		
		points of guy wires and along the guy wires up to a height of 15 feet from the ground.			points of guy wires and along the guy wires up to a height of 15 feet from the ground.		
	9.	All WIND FARM TOWERS must be protected from unauthorized climbing by devices such as fences at least six feet high with locking portals or anti-climbing devices 12 feet vertically from the base of the WIND FARM TOWER.		9.	All WIND FARM TOWERS must be protected from unauthorized climbing by devices such as fences at least six feet high with locking portals or anti-climbing devices 12 feet vertically from the base of the WIND FARM TOWER.		
E.	Stand 1.	dard Conditions to Mitigate Damage to Farmland All underground wiring or cabling for the WIND FARM shall be at a minimum depth of 4 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 or a lesser depth if so authorized by the Agricultural Impact		1.	All underground wiring or cabling for the WIND FARM shall be at a minimum depth of 4 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 or a lesser depth if so authorized as established by the		

E.	Stan	dard Conditions to Mitigate Damage to Farmland (continued)			-	
		Mitigation Agreement with the Illinois Department of		Agricultural Impact Mitigation Agreement with the Illinois		
		Agriculture as required by paragraph 6.1.4R.		Department of Agriculture as required by paragraph 6.1.5 S	<u>S</u> .	
	2.	Protection of agricultural drainage tile	2.	Protection of agricultural drainage tile a. Protection of agricultural drainage tile shall comply with the Agriculture Impact Mitigation Agreement with the Illinois Department of Agriculture as required by Section 6.1.5 S.		
		a. The applicant shall endeavor to locate all existing agricultural drainage tile prior to establishing any construction staging areas, construction of any necessary WIND FARM TOWER access lanes or driveways, construction of any WIND FARM TOWERS, any common switching stations, substations, and installation of underground wiring or cabling. The applicant shall contact affected landowners and tenants for their knowledge of the tile line locations prior to the proposed construction. Drainage districts shall be notified at least two weeks prior to disruption of tile.		ab. The applicant shall endeavor to locate all existing agricultural drainage tile prior to establishing any construction staging areas, construction of any necessary WIND FARM TOWER access lanes or driveways, construction of any WIND FARM TOWER any common switching stations, substations, and installation of underground wiring or cabling. The applicant shall contact affected landowners and tenants for their knowledge of the tile line location prior to the proposed construction. A drainage district shall be notified at least two weeks prior to any likely disruption of a drainage district tile.	าร	
		b. All identified drainage district tile lines shall be staked or flagged prior to construction to alert construction crews of the possible need for tile line repairs unless this requirement is waived in writing by the drainage district.		 All identified drainage district tile lines shall be staked or flagged prior to construction to alert construction crews of the possible need for tile line repairs unless this requirement is waived in writing by the drainage district. Overland crane crossings shall avoid crossing over drainage district tile as much as possible. 	on ess ge	
		c. Any agricultural drainage tile located underneath construction stage areas, access lanes, driveways, any common switching stations, and substations shall be replaced as required in paragraph 7.2 of the Champaign County Stormwater Management Policy.		Any agricultural drainage tile located underneath construction stage areas, access lanes, overland crane crossings, driveways, any common switching stations, and substations shall be replaced as required in paragraph 7.26.3 of the Champaign	,	

E.	Standard Conditions to Mitigate Damage to Farmland ((continued)
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d. Any agricultural drainage tile that must be relocated shall be relocated as required in the *Champaign County Stormwater Management Policy*.

e. Conformance of any relocation of drainage district tile with the *Champaign County Stormwater Management Policy* 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 district tile.

County Stormwater Management Policyand Erosion Control Ordinance.

- df. Any agricultural drainage tile that must be relocated shall be relocated as required in the *Champaign County Stormwater Management Policyand Erosion Control Ordinance and consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.*
- g. Any underground WIND FARM wiring to be installed in the vicinity of likely drainage district tiles shall be installed in an open trench rather than installed via plowing or knifed into the ground.
- h. The applicant shall coordinate with the drainage
 district and provide a drainage district 48 hours to
 inspect all trenches and/or excavations in the vicinity
 of suspected drainage district tile locations in order
 to verify any damage or disturbance to drainage
 district tile.
- j. Conformance of any relocation and/or repair of drainage district tile with the Champaign County Stormwater Management Policy 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 and/or repaired drain tile and a copy of the approval shall be submitted to the Zoning Administrator. As-built drawings of any relocated and/or repaired district tile shall be provided to both the relevant drainage district and the Zoning Administrator of any relocated district tile.

E. Standard Conditions to Mitigate Damage to Farmland (continued)

- 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. All permanent and temporary tile repairs shall be made as detailed in the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.4R. and shall not be waived or modified except as authorized in the SPECIAL USE Permit.
- All damaged tile shall be repaired so as to operate as well after construction as before the construction began.
- j. Following completion of the WIND FARM construction the applicant shall be responsible for correcting all tile line repairs that fail, provided that the failed repair was made by the applicant.

- i. 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. <u>In addition, the location of damaged</u> <u>drain tile lines shall be recorded using Global</u> <u>Positioning Systems (GPS) technology.</u>
- k. 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.
- I. 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. All permanent and temporary tile repairs shall be made as detailed in the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5 S. and shall not be waived or modified except as authorized in the SPECIAL USE Permit.
- M. All damaged tile shall be repaired so as to operate as well after construction as before the construction began.
- n. Following completion of the WIND FARM construction the applicant shall be responsible for correcting all tile line repairs that fail, provided that the failed repair was made by the applicant.

E.	Stand	dard Co	nditions to Mitigate Damage to Farmland (continued)		
	3.	All so wate consi the a in a r Mitig	oil conservation practices (such as terraces, grassed trways, etc.) that are damaged by WIND FARM truction and/or decommissioning shall be restored by applicant to the pre-WIND FARM construction condition manner consistent with the Agricultural Impact gation Agreement with the Illinois Department of culture as required by paragraph 6.1.4R.	3.	All soil conservation practices (such as terraces, grassed waterways, etc.) that are damaged by WIND FARM construction and/or decommissioning shall be restored by the applicant to the pre-WIND FARM construction condition in a manner consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5 S.
	4.	Tops	oil replacement	4.	Topsoil replacement
			Iny open trenching required pursuant to WIND FARM truction, the topsoil shall be stripped and replaced as ws: 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.		For any open trenching required pursuant to WIND FARM 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.		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.		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.		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.
		e.	All topsoil shall be placed in a manner consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.4R.		ea. All topsoil shall be placed in a manner consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5 S.

E.	Stand			to Mitigate Damage to Farmland (continued)				
	5.	_		soil compaction and rutting	5.	_	on of soil compaction and rutting	
		a.	The applicant shall not be responsible for mitigation of soil compaction and rutting if exempted by the WIND FARM lease.			The applicant shall not be responsible for mitigation of soil compaction and rutting if exempted by the WIND FARM lease.		
		b.	WIND comp were	is specifically provided for otherwise in the FARM lease, the applicant shall mitigate soil faction and rutting for all areas of farmland that traversed with vehicles and construction ment or where topsoil is replaced in open hes.			Unless specifically provided for otherwise in the WIND FARM 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.	
		C.	consis Agree	mitigation of soil compaction and rutting shall be assistent with the Agricultural Impact Mitigation reement with the Illinois Department of riculture as required by paragraph 6.1.4R.			All mitigation of soil compaction and rutting shall be consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5 S.	
	6.	Land leveling			6.	Land leveling		
		a.		pplicant shall not be responsible for leveling of bed land if exempted by the WIND FARM lease.			The applicant shall not be responsible for leveling of disturbed land if exempted by the WIND FARM lease.	
		b.	WIND	s specifically provided for otherwise in the FARM lease, the applicant shall level all bed land as follows: Following the completion of any open trenching, the applicant shall restore all land to its original pre-construction elevation and contour.		2	Unless specifically provided for otherwise in the WIND FARM lease, the applicant shall level all disturbed land as follows: (1) Following the completion of any open trenching, the applicant shall restore all land to its original pre-construction elevation and contour.	
			(2)	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.		•	(2) 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.	

E.	Stand	lard Conditions to Mitigate Damage to Farmland (continued)			
		c. All land leveling shall be consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.4R.			All land leveling shall be consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5 S.
	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 all WIND FARM TOWER sites and access roads that conforms to the relevant Natural Resources Conservation Service guidelines and that is prepared by an Illinois Licensed Professional Engineer.		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 all WIND FARM TOWER sites and access roads 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 all WIND FARM TOWER sites and access roads prepared by an Illinois Licensed Professional Engineer shall be submitted and accepted by the Zoning Administrator prior to approval of any Zoning Compliance Certificate.			b. As-built documentation of all permanent soil erosion and sedimentation improvements for all WIND FARM TOWER sites and access roads prepared by an Illinois Licensed Professional Engineer shall be submitted and accepted by the Zoning Administrator prior to approval of any Zoning Compliance Certificate.
F.	Stand	lard Conditions for Use of Public STREETS	No char	ige.	
G.	Stand Distr	dard Conditions for Coordination with Local Fire Protection ict	G.	Stand Distri	ard Conditions for Coordination with Local Fire Protection
	1.	The applicant shall submit to the local fire protection district a copy of the site plan.		1.	The applicant shall submit to the local fire protection district a copy of the site plan.
	2.	Upon request by the local fire protection district, the Owner or Operator shall cooperate with the local fire protection district to develop the fire protection district's emergency response plan.		2.	Upon request by the local fire protection district, the Owner or Operator shall cooperate with the local fire protection district to develop the fire protection district's emergency response plan.
	3.	Nothing in this section shall alleviate the need to comply with all other applicable fire laws and regulations.		3.	Nothing in this section shall alleviate the need to comply with all other applicable fire laws and regulations.

H.	Standa	ard Conditions to Mitigate Electromagnetic Interference	H. Standard Conditions to Mitigate Electromagnetic Interference				
	1.	The applicant shall provide the applicable microwave transmission providers and local emergency service provider(s) (911 operators) copies of the project summary and site plan.		1.	The applicant shall provide the applicable microwave transmission providers and local emergency service provider(s) (911 operators) copies of the project summary and site plan.		
	2.	To the extent that any relevant microwave transmission provider and local emergency service provider demonstrates a likelihood of interference with its communications resulting from the WIND FARM, the applicant shall take reasonable measures to mitigate such anticipated interference.		2.	To the extent that any relevant microwave transmission provider and local emergency service provider demonstrates a likelihood of interference with its communications resulting from the WIND FARM, the applicant shall take reasonable measures to mitigate such anticipated interference.		
	3.	If, after construction of the WIND FARM, the Owner or Operator receives a written complaint related to the abovementioned interference, the Owner or Operator shall take reasonable steps to respond to the complaint.		3.	If, after construction of the WIND FARM, the Owner or Operator receives a written complaint related to the above-mentioned interference, the Owner or Operator shall take reasonable steps to respond to the complaint.		
	4.	If, after construction of the WIND FARM, the Owner or Operator receives a written complaint related to interference with local broadcast residential television, the Owner or Operator shall take reasonable steps to respond to the complaint.		4.	If, after construction of the WIND FARM, the Owner or Operator receives a written complaint related to interference with local broadcast residential television, the Owner or Operator shall take reasonable steps to respond to the complaint.		
I.	Standa 1.	Ard Conditions for Allowable Noise Level Noise levels from each WIND FARM TOWER or WIND FARM shall be in compliance with the applicable Illinois Pollution Control Board (IPCB) regulations (35 Illinois Administrative Code Subtitle H: Noise Parts 900, 901, 910).		1.	Noise levels from each WIND FARM TOWER or WIND FARM shall be in compliance with the applicable Illinois Pollution Control Board (IPCB) regulations (35 <i>Illinois Administrative Code</i> Subtitle H: Noise Parts 900, 901, 910). This is a statutory requirement by 55 ILCS 5/5-12020 shall not be changed. This is a statutory requirement by 55 ILCS 5/5-12020 shall not be changed.		
	2.	The applicant shall submit manufacturer's wind turbine sound power level characteristics and other relevant data regarding wind turbine noise characteristics necessary for a competent noise analysis.		2.	The applicant shall submit manufacturer's wind turbine sound power level characteristics and other relevant data regarding wind turbine noise characteristics necessary for a competent noise analysis.		

- I. Standard Conditions for Allowable Noise Level (continued)
 - 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.
 - 4. The applicant shall submit a map of the relevant noise contours for the proposed WIND FARM and indicate the proposed WIND FARM TOWERS and all existing PRINCIPAL BUILDINGS within at least 1,500 feet of any WIND FARM TOWER or within the coverage of the relevant noise contours.
 - 5. If a computer model is used to generate the required noise contours the applicant shall clearly state the assumptions of the model's construction and algorithms so that a competent and objective third party can as simply as possible verify the noise contours and noise data.
 - 6. After construction of the WIND FARM 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 may seek authorization from the County Board to hire a noise consultant to determine the noise produced by the WIND FARM in a manner consistent with the Illinois Pollution Control Board (IPCB) regulations (35 *Illinois Administrative Code* Subtitle H: Noise Parts 900, 901, 910).
 - The Zoning Administrator may require the WIND FARM owner to cooperate fully with the noise consultant in the enforcement action including shutting down all wind turbines to allow documentation of ambient noise levels.

- 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.
- 4. The applicant shall submit a map of the relevant noise contours for the proposed WIND FARM and indicate the proposed WIND FARM TOWERS and all existing PRINCIPAL BUILDINGS within at least 1,500 feet of any WIND FARM TOWER or within the coverage of the relevant noise contours.
- 5. If a computer model is used to generate the required noise contours the applicant shall clearly state the assumptions of the model's construction and algorithms so that a competent and objective third party can as simply as possible verify the noise contours and noise data.
- 6. After construction of the WIND FARM 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 may seek authorization from the County Board to hire a noise consultant to determine the noise produced by the WIND FARM in a manner consistent with the Illinois Pollution Control Board (IPCB) regulations (35 *Illinois Administrative Code* Subtitle H: Noise Parts 900, 901, 910).
 - b. The Zoning Administrator may require the WIND FARM owner to cooperate fully with the noise consultant in the enforcement action including shutting down all wind turbines to allow documentation of ambient noise levels.

I.	Standa	c.	In the event that a violation of the IPCB noise regulations is identified the Zoning Administrator may require the WIND FARM owner to take whatever actions are necessary to stop the violation and comply with the noise regulations. The Zoning Administrator may seek direction from the Environment and Land Use Committee regarding the actions necessary to stop the violation.			C.	In the event that a violation of the IPCB noise regulations is identified the Zoning Administrator may require the WIND FARM owner to take whatever actions are necessary to stop the violation and comply with the noise regulations. The Zoning Administrator may seek direction from the Environment and Land Use Committee regarding the actions necessary to stop the violation.
J.	Standa	d. ard Cor	Further, in the event that a violation of IPCB noise regulations is identified the WIND FARM owner shall reimburse to the County the cost of the noise consultant. Inditions for Endangered Species Consultation	No chai	nge.	d.	Further, in the event that a violation of IPCB noise regulations is identified the WIND FARM owner shall reimburse to the County the cost of the noise consultant.
K.	Standa Reviev		nditions for Historic and Archaeological Resources	No chai	nge.		
L.	Standa 1.	The Noperato wind follows a.	Additions for Acceptable Wildlife Impacts WIND FARM shall be located, designed, constructed, and ated so as to avoid and if necessary mitigate the impacts idlife to a sustainable level of mortality including the wing: Avoid locating WIND FARM TOWERS in known bird and bat migration pathways and daily movement flyways and known hibernacula and flight paths between bat colonies and bat feeding areas. Site WIND FARM TOWERS and design mitigation measures in a manner that will achieve a level of mortality to birds and bats that will protect sustainability of populations. Alified professional, such as an ornithologist or wildlife gist, shall conduct a pre-construction site risk issment study to estimate the impacts of the construction	L.	Stand 1.	States and Co	ditions for Acceptable Fish and Wildlife Impacts oplicant shall apply for consultation with the United is Fish and Wildlife Service's Information for Planning onsulting environmental review or a comparable issor tool that is consistent with the "U.S. Fish and fe Services's Land-Based Wind Energy Guidelines."

- L. Standard Conditions for Acceptable Wildlife Impacts (continued)
 and operation of the proposed WIND FARM on birds and bats.
 The pre-construction site risk shall be submitted with
 the application and shall include the following minimum
 information:
 - a. A literature review of existing information on species and potential habitats and results of agency database queries or records of rare, threatened, and endangered species and important habitats in the vicinity of the proposed WIND FARM area.
 - b. A mapping of the general vegetation and land cover types, wildlife habitat and quality, and physical characteristics of the proposed WIND FARM area.
 - c. A field examination that verifies results of the literature review and agency queries and documents general site habitat conditions.
 - d. A review of existing literature of avian and bat mortality field results within North America and in similar physiographic settings as the proposed WIND FARM.
 - e. If the risk assessment indicated risk may be low, no further surveys are required.
 - f. If the risk assessment indicates risk may be high enough to potentially adversely affect the sustainability of bird or bat populations, a full year of site specific bird and bat use surveys may be required to address those species and conditions representing high risk from the beginning of the spring migration for birds or bats, and extending through the end of the fall migration for birds or bats and include both the spring and fall migration for both birds and bats in the proposed WIND FARM area.

L. Standard Conditions for Acceptable Wildlife Impacts (continued)

- g. The site specific bird and bat use surveys may include surveys focused upon state or federal threatened or endangered or sensitive-status species in the proposed WIND FARM area during the appropriate seasons to determine the potential adverse impact.
- h. The results of the surveys shall be used to design siting and mitigation measures to lower risk to a sustainable level of mortality.
- 3. A qualified professional, such as an ornithologist or wildlife biologist, shall also conduct a post-construction mortality monitoring study to quantify the mortality impacts of the WIND FARM on birds and bats. The post-construction mortality monitoring study shall consist of the following information at a minimum:
 - a. At least two full years of site specific mortality monitoring from the beginning of the spring migration for birds or bats, and extend through the end of the fall migration for birds or bats and include both the spring and fall migration for both birds and bats in the immediate vicinity of some or all of the WIND FARM TOWERS.
 - b. The application shall include a specific proposal for the degree of precision of the mortality monitoring study including how many days the monitoring is done, at how many towers, for how long each day, and at what radius around the tower, and the extent of monitoring outside of the spring and fall migrations.
 - A written report on avian and bat mortality shall be submitted to the Environment and Land Use
 Committee at the end of the first two full years of WIND FARM operations. The mortality rate

L. Standard Conditions for Acceptable Wildlife Impacts (continued) estimates should reflect consideration of carcass removal by scavengers and predators.

- d. If the Environment and Land Use Committee determines the mortality level does not threaten the population of protected species, no further post-construction mortality monitoring will be required.
- e. If the Environment and Land Use Committee determines there are legitimate mortality to bird or bat species indicated by the post-construction mortality monitoring study shall continue in full year increments until the monitoring indicates that the mortality concerns are resolved. When mortality concerns cannot be resolved in any other way, the Environment and Land Use Committee may require particular WIND FARM TOWERS to be shut down to lower mortality of birds or bats to an acceptable level.

M. Standard Conditions for Shadow Flicker

- The applicant shall submit the results of a study on potential shadow flicker. The shadow flicker study shall identify the locations of both summer and winter shadow flicker that may be caused by the project with an expected duration of 30 hours or more per year.
- Shadow flicker that exceeds the above standards shall be mitigated by any means such as landscaping, awnings, or fencing.

M. Standard Conditions for Shadow Flicker

- 1. The applicant shall submit the results of a study on potential shadow flicker. The shadow flicker study shall identify the locations of both summer and winter shadow flicker that may be caused by the project with an expected duration of 30 hours or more per year.
- 2. Shadow flicker that exceeds the above standards shall be mitigated by any means such as landscaping, awnings, or fencing. No OCCUPIED COMMUNITY BUILDING or NON-PARTICIPATING DWELLING shall experience more than 30 hours per year of shadow flicker under planned operating conditions. This duration is a statutory requirement by 55 ILCS 5/5-12020 and shall not be decreased.

No regulation.					<u>lce Throw</u>		
				<u>1.</u>	As part of the Special Use Permit Application, the Applicant		
					shall provide a current risk level assessment of ice fall and ice		
					throw for the current turbine model to be used and includes		
					public roads and parts of non-participating properties used		
					for residential purposes and for other structures. The		
					methodology shall be equivalent to that in the International		
					Energy Agency (IEA) Wind Technology Collaboration		
					Programme (TCP) Task 19 Technical Report International		
					Recommendations for Ice Fall and Ice Throw Risk Assessments		
					dated April 2022.		
				2	If the risk of ice fall and ice throw is above 10 ⁻⁵ (1/100,000) it		
				۷.	shall be considered unacceptable and extensive risk reduction		
					measures (e.g., relocation or change of turbine specifications		
					or temporarily shutting down the turbine) shall be taken by		
					the WIND FARM developer. The property owner can waive		
					this requirement. Signed written waivers must be presented		
					with the application for a Zoning Use Permit.		
					with the application for a zoning ose refinit.		
				3.	If a non-participating structure is built within a distance from		
					a WIND FARM TOWER of 1.5 times the height of the WIND		
					FARM TOWER after the Special Use PERMIT approval, the		
					WIND FARM developer shall mitigate ice fall and/or ice		
					throw that could potentially impact the structure and the		
					immediate surrounding area within 100 feet of the structure.		
N.	Ctore	lard Condition for Liability Incurance		Ctore	land Condition for Liability Incurance		
IV.	3tant 1.	lard Condition for Liability Insurance The Owner or Operator of the WIND FARM shall maintain a	<u>o</u> .	3tant	dard Condition for Liability Insurance The Owner or Operator of the WIND FARM shall maintain a		
	1.	current general liability policy covering bodily injury and		1.	current general liability policy covering bodily injury and		
		property damage with minimum limits of at least \$5 million			property damage with minimum limits of at least \$5 million		
		· · · · ·			· · · · · ·		
		per occurrence and \$5 million in the aggregate. The amount of the limit shall be increased annually to account for the			per occurrence and \$5 million in the aggregate. The amount of the limit shall be increased annually to account for the		
		effects of inflation.			effects of inflation.		
		enects of initiation.			enects of initiation.		
	2.	The general liability policy shall identify landowners in the		2.	The general liability policy shall identify landowners in the		
		SPECIAL USE Permit as additional insured.			SPECIAL USE Permit as additional insured.		
L		5. 252 602 i citini do dadicional modical	<u> </u>		5. 101 001 · 0		

O. Operational Standard Conditions

- 1. Maintenance
 - a. The Owner or Operator of the WIND FARM must submit, on an annual basis, a summary of the operation and maintenance reports to the Environment and Land Use Committee and any other operation and maintenance reports as the Environment and Land Use Committee reasonably requests.
 - Any physical modification to the WIND FARM that alters the mechanical load, mechanical load path, or major electrical components shall require a new County Board SPECIAL USE Permit. Like-kind replacements shall not require re-certification nor will replacement of transformers, cabling, etc. provided replacement is done in a fashion similar to the original installation. Prior to making any physical modification (other than a like-kind replacement), the Owner or Operator shall confer with a relevant third-party certifying entity identified in subparagraph 6.1.4D.1.(a) to determine whether the physical modification requires re-certification.
- 2. Materials Handling, Storage and Disposal
 - All solid wastes related to the construction, operation and maintenance of the WIND FARM shall be removed from the site promptly and disposed of in accordance with all federal, state and local laws.
 - All hazardous materials related to the construction, operation and maintenance of the WIND FARM shall be handled, stored, transported and disposed of in accordance with all applicable local, state and federal laws.

P. Operational Standard Conditions

- Maintenance
 - a. The Owner or Operator of the WIND FARM must submit, on an annual basis, a summary of the operation and maintenance reports to the Environment and Land Use Committee and any other operation and maintenance reports as the Environment and Land Use Committee reasonably requests.
 - Any physical modification to the WIND FARM that alters the mechanical load, mechanical load path, or major electrical components shall require a new County Board SPECIAL USE Permit. Like-kind replacements shall not require re-certification nor will replacement of transformers, cabling, etc. provided replacement is done in a fashion similar to the original installation. Prior to making any physical modification (other than a like-kind replacement), the Owner or Operator shall confer with a relevant third-party certifying entity identified in subparagraph 6.1.4D.1.(a) to determine whether the physical modification requires re-certification.
- 2. Materials Handling, Storage and Disposal
 - All solid wastes related to the construction, operation and maintenance of the WIND FARM shall be removed from the site promptly and disposed of in accordance with all federal, state and local laws.
 - All hazardous materials related to the construction, operation and maintenance of the WIND FARM shall be handled, stored, transported and disposed of in accordance with all applicable local, state and federal laws.

P. Standard Condition for Decommissioning Plan and Site Reclamation Plan

1. The applicant shall submit a signed site reclamation plan conforming to the requirements of paragraph 6.1.1 A.

- 2. In addition to the purposes listed in subparagraph 6.1.1 A.4. the reclamation agreement shall also include provisions for anticipated repairs for any public STREET used for the purpose of reclamation of the WIND FARM and all costs related to removal of access driveways.
- 3. The Site Reclamation Plan required in paragraph 6.1.1 A. shall also include the following:
 - a. A stipulation that the applicant shall notify the GOVERNING BODY by certified mail of the commencement of a voluntary or involuntary bankruptcy proceeding, naming the applicant as debtor, within ten days of commencement of the proceeding.
 - b. A stipulation that the applicant shall agree that the sale, assignment in fact or at law, or such other transfer of applicant's financial interest in the WIND FARM shall in no way affect or change applicant's obligation to continue to comply with the terms of this agreement. Any successor or assignee shall assume the terms, covenants and obligations of this Agreement and agrees to assume all reclamation liability and responsibility for the WIND FARM.

Q. Standard Condition for Decommissioning Plan and Site Reclamation Plan

- 1. The applicant shall submit a signed site reclamation plan conforming to the requirements of paragraph 6.1.1 A. and matching the overall deconstruction and land restoration requirements of the Agricultural Impact Mitigation

 Agreement with the Illinois Department of Agriculture. The decommissioning and deconstruction requirements of the Agricultural Impact Mitigation Agreement with the Illinois

 Department of Agriculture are a statutory requirement by 55 ILCS 5/5-12020 and shall not be changed.
- 2. In addition to the purposes listed in subparagraph 6.1.1 A.4. the reclamation agreement shall also include provisions for anticipated repairs for any public STREET used for the purpose of reclamation of the WIND FARM and all costs related to removal of access driveways.
- 3. The Site Reclamation Plan required in paragraph 6.1.1 A. shall also include the following:
 - a. A stipulation that the applicant shall notify the GOVERNING BODY by certified mail of the commencement of a voluntary or involuntary bankruptcy proceeding, naming the applicant as debtor, within ten days of commencement of the proceeding.
 - b. A stipulation that the applicant shall agree that the sale, assignment in fact or at law, or such other transfer of applicant's financial interest in the WIND FARM shall in no way affect or change applicant's obligation to continue to comply with the terms of this agreement. Any successor or assignee shall assume the terms, covenants and obligations of this Agreement and agrees to assume all reclamation liability and responsibility for the WIND FARM.

P. Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)

- c. Authorization for the GOVERNING BODY and its authorized representatives for right of entry onto the WIND FARM 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 or it's successors in interest
 - are required to enter into a Roadway Use and Repair Agreement with the relevant highway authority.
- e. A stipulation that the Applicant 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 shall be obliged to perform the work in the site reclamation plan before abandoning the WIND FARM or prior to ceasing production of electricity from the WIND FARM, 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 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

Q. Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)

- c. Authorization for the GOVERNING BODY and its authorized representatives for right of entry onto the WIND FARM 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 or it's successors in interest
 - are required to enter into a Roadway Use and Repair Agreement with the relevant highway authority.
- e. A stipulation that the Applicant 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 shall be obliged to perform the work in the site reclamation plan before abandoning the WIND FARM or prior to ceasing production of electricity from the WIND FARM, 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 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

P. Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)

work and shall include but not be limited to attorney's fees; construction management and other professional service fees; and the costs of preparing request for proposals and bidding documents required to comply with State law or Champaign County purchasing policies.

- h. The depth of removal of foundation concrete below ground shall be a minimum of 54 inches. The depth of removal of foundation concrete shall be certified in writing by an Illinois Licensed Professional Engineer and the certification shall be submitted to the Zoning Administrator.
- The hole resulting from the removal of foundation concrete during decommissioning shall be backfilled as follows:
 - (1) The excavation resulting from the removal of foundation concrete shall only be backfilled with subsoil and topsoil in similar depths and similar types as existed at the time of the original WIND FARM construction except that a lesser quality topsoil or a combination of a lesser quality topsoil and a subsoil that is similar to the native subsoil may be used at depths corresponding to the native subsoil but not less than 12 inches below grade.
 - (2) The native soils excavated at the time of the original WIND FARM construction may be used to backfill the concrete foundation

Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)

work and shall include but not be limited to attorney's fees; construction management and other professional service fees; and the costs of preparing request for proposals and bidding documents required to comply with State law or Champaign County purchasing policies.

- h. The depth of removal of foundation concrete below ground shall be a minimum of 54 inches as required in the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture. The depth of removal of foundation concrete shall be certified in writing by an Illinois Licensed Professional Engineer and the certification shall be submitted to the Zoning Administrator.
- i. The hole resulting from the removal of foundation concrete during decommissioning shall be backfilled as follows: as required in the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.
 - (1) The excavation resulting from the removal of foundation concrete shall only be backfilled with subsoil and topsoil in similar depths and similar types as existed at the time of the original WIND FARM construction except that a lesser quality topsoil or a combination of a lesser quality topsoil and a subsoil that is similar to the native subsoil may be used at depths corresponding to the native subsoil but not less than 12 inches below grade.
 - The native soils excavated at the time of the original WIND FARM construction may be used to backfill the concrete foundation

- P. Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)
 - excavations at the time of decommissioning provided that the soils are adequately stored throughout the operating lifetime of the WIND FARM. The methods for storing the excavated native soils during the operating lifetime of the WIND FARM shall be included in the site reclamation plan.
 - (3) If the excavated native soils are not stored for use for backfilling the concrete foundation excavations, a qualified soil scientist or Illinois Licensed Professional Engineer shall certify that the actual soils used to backfill the concrete foundation excavations are of equal or greater quality than the native soils or that, in the case of subsoil, the backfill soil meets the requirements of this paragraph. The certification shall be submitted to the Zoning Administrator.
 - (4) An Illinois Licensed Professional Engineer shall certify in writing that the concrete foundation excavations have been backfilled with soil to such a depth and with a minimum of compaction that is consistent with the restoration of productive agricultural use such that the depth of soil is expected to be no less than 54 inches within one year after backfilling.
 - j. A stipulation that should the site reclamation plan be deemed invalid by a court of competent jurisdiction the WIND FARM SPECIAL USE Permit shall be deemed void.

- excavations at the time of decommissioning provided that the soils are adequately stored throughout the operating lifetime of the WIND FARM. The methods for storing the excavated native soils during the operating lifetime of the WIND FARM shall be included in the site reclamation plan.
- (3) If the excavated native soils are not stored for use for backfilling the concrete foundation excavations, a qualified soil scientist or Illinois Licensed Professional Engineer shall certify that the actual soils used to backfill the concrete foundation excavations are of equal or greater quality than the native soils or that, in the case of subsoil, the backfill soil meets the requirements of this paragraph. The certification shall be submitted to the Zoning Administrator.
- (4) An Illinois Licensed Professional Engineer shall certify in writing that the concrete foundation excavations have been backfilled with soil to such a depth and with a minimum of compaction that is consistent with the restoration of productive agricultural use such that the depth of soil is expected to be no less than 54 inches within one year after backfilling.
- j. A stipulation that should the site reclamation plan be deemed invalid by a court of competent jurisdiction the WIND FARM SPECIAL USE Permit shall be deemed void.

- P. Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)
 - A stipulation that the Applicant's obligation to complete the site reclamation plan and to pay all associated costs shall be independent of the Applicant's obligation to provide financial assurance.
 - A stipulation that the liability of the Applicant's failure to complete the site reclamation plan or any breach of the site reclamation plan requirement shall not be capped by the amount of the financial assurance.
 - If the Applicant desires to remove equipment or m. 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 WIND FARM begins to produce electricity, 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.
 - 4. To comply with paragraph 6.1.1A.5., the Applicant shall provide financial assurance in the form of an irrevocable letter of credit and an escrow account as follows:
 - a. At the time of SPECIAL USE Permit approval the amount of financial assurance to be provided for the site reclamation plan shall be 210% of the

- Q. Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)
 - A stipulation that the Applicant's obligation to complete the site reclamation plan and to pay all associated costs shall be independent of the Applicant's obligation to provide financial assurance.
 - A stipulation that the liability of the Applicant's failure to complete the site reclamation plan or any breach of the site reclamation plan requirement shall not be capped by the amount of the financial assurance.
 - If the Applicant desires to remove equipment or m. 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 WIND FARM begins to produce electricity, 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.
 - 4. To comply with paragraph 6.1.1A.5., the Applicant shall provide financial assurance in the form of an irrevocable letter of credit and an escrow account as follows:
 - a. At the time of SPECIAL USE Permit approval the amount of financial assurance to be provided for the site reclamation plan shall be 210% of the

P. Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)

decommissioning costs as determined in the independent engineer's cost estimate to complete the decommissioning work described in Section 6.1.1 A.4.a. and 6.1.1A.4.b and 6.1.1A.4.c.

decommissioning costs as determined in the independent engineer's cost estimate to complete the decommissioning work described in Section 6.1.1 A.4.a. and 6.1.1A.4.b and 6.1.1A.4.c. No Zoning Use Permit to authorize construction of the WIND FARM shall be authorized by the Zoning Administrator until the WIND FARM owner shall provide the COUNTY with financial assurance to cover 12.5% 10% of the decommissioning and site reclamation 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 WIND FARM Owner shall provide
 the COUNTY with Financial Assurance to cover 62.5%
 50% of the decommissioning cost and site
 reclamation 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 WIND FARM Owner shall provide the COUNTY with Financial Assurance to cover 125% 100% of the decommissioning and site reclamation 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. and as determined in the updated decommissioning and site

- P. Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)
 - b. Net salvage value may be deducted from decommissioning costs as follows:
 - (1) One of the following standards shall be met:
 - The Applicant shall maintain the WIND FARM TOWERS 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
 - The Applicant shall deduct from the salvage value credit the amount of any lien or encumbrance on each WIND FARM TOWER; or
 - iii. Any and all financing and/or financial security agreements entered into by the Applicant shall expressly provide that the agreements are subject to the covenant required by Section 6.1.1A.2 that the reclamation work be done.
 - (2) The applicant shall provide proof of compliance with paragraph 6.1.4 P.4(b)(1) prior to 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.

Q. Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)

reclamation plan filed with the County on or before the end of the tenth year of commercial operation.

- bd. Net salvage value may be deducted from decommissioning costs as follows:
 - (1) One of the following standards shall be met:
 - i. The Applicant shall maintain the WIND FARM TOWERS 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 shall deduct from the salvage value credit the amount of any lien or encumbrance on each WIND FARM TOWER; or
 - iii. Any and all financing and/or financial security agreements entered into by the Applicant shall expressly provide that the agreements are subject to the covenant required by Section 6.1.1A.2 that the reclamation work be done.
 - (2) The applicant shall provide proof of compliance with paragraph 6.1.5 L.4(b)(1) prior to 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.

- P. Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)
 - (3) The Applicant shall provide in the 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.
 - (4) 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 tower, the hub assembly, the bed plate, the nacelle, the turbine, the blades, the tower cabling and internal wiring, the transformers, the foundation, the access roads.
 - (5) 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 judgment as to anticipated changes in salvage prices prior to the next update of estimated net salvage value.
 - (6) The deduction from the estimated decommissioning costs for net estimated salvage value shall be capped at 70% of the total net estimated salvage value even though the total actual salvage value shall be available in the event that decommissioning is actually required.

- Q. Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)
 - (3) The Applicant shall provide in the 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.
 - (4) 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 tower, the hub assembly, the bed plate, the nacelle, the turbine, the blades, the tower cabling and internal wiring, the transformers, the foundation, the access roads.
 - (5) 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 judgment as to anticipated changes in salvage prices prior to the next update of estimated net salvage value.
 - (6) The deduction from the estimated decommissioning costs for net estimated salvage value shall be capped at 70% of the total net estimated salvage value even though the total actual salvage value shall be available in the event that decommissioning is actually required.

- P. Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)
 - (7) The credit for net estimated salvage value attributable to any WIND FARM TOWER may not exceed the estimated cost of removal of the above-ground portion of that WIND FARM TOWER 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 shall adjust the amount of the financial assurance to ensure that it reflects current and accurate information as follows:
 - (1) At least once every three years for the first 12 years of the financial assurance and at least once every year thereafter the Applicant 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 shall, upon receipt, provide a copy of the adjusted Professional Engineer's report to the Zoning Administrator.

- Q. Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)
 - (7) The credit for net estimated salvage value attributable to any WIND FARM TOWER may not exceed the estimated cost of removal of the above-ground portion of that WIND FARM TOWER on the subject site.
 - The GOVERNING BODY has the right to require multiple letters of creditescrow accounts based on the regulations governing federal insurance for deposits.
 - <u>f</u>. The Applicant <u>and its successors in interest</u> shall adjust the amount of the financial assurance to ensure that it reflects current and accurate information as follows:
 - At least once every three years for the first 12 years of the financial assurance and at least once every year thereafter the Applicant 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 shall, upon receipt, provide a copy of the adjusted Professional Engineer's report to the Zoning Administrator. The Applicant or its successors in interest shall file an updated decommissioning and site reclamation plan with the County on or before the end of the tenth year of commercial operation.
 - (2) The County shall reevaluate the estimated costs of decommissioning and site reclamation every five years after the tenth

 Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)				Standard Condition for Decommissioning Plan and Site Reclar Plan (continued)	
				anniversary of the commercial operation date. The solar farm owner shall provide updated estimated cost of decommission and site reclamation that is provided build independent Illinois licensed profession engineer.	de an oning y an
	(2)	At all times the total combined value of the irrevocable letter of credit and the escrow account shall equal or exceed the amount of the independent engineer's cost estimate as increased by known and documented rates of inflation since the WIND FARM was approved; and an amount for any future years left in the anticipated 25 year life span of the WIND FARM at an assumed minimum rate of inflation of 3% per year.		At all times after the tenth anniversary commercial operation date, the total combined value of the irrevocable letter credit and the escrow account shall expected the amount of the independent engineer's cost estimate as increased known and documented rates of inflat since the WIND FARM was approved amount for any future years left in the anticipated 25 year life span of the WIND FARM at an assumed minimum rate of inflation of 3% per year.	er of ual or t by ion and an
 	pay do	oplicant or WIND FARM owner shall gradually own the value of the irrevocable letter of credit cing cash deposits in an escrow account over st 13 years of the WIND FARM operation as ss: The applicant or WIND FARM owner and the GOVERNING BODY shall agree on a mutually acceptable financial institution at which an escrow account shall be established.		g. The applicant or WIND FARM owner shall grad pay down the value of the irrevocable letter of by placing cash deposits in an escrow account the first 13 years of the WIND FARM operation provide an escrow account as follows: (1) The applicant or WIND FARM owner and GOVERNING BODY shall agree on a mun acceptable financial institution at which escrow account shall be established.	credicate over and the tually
((2)	The GOVERNING BODY shall be the beneficiary of the escrow account for the purpose of the reclamation of the WIND FARM in the event that the WIND FARM		(2) The GOVERNING BODY shall be the beneficiary of the escrow account for t purpose of the reclamation of the WIN FARM in the event that the WIND FARI	D

- P. Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)
 - owner is incapable of decommissioning the WIND FARM.
 - (3) The applicant or WIND FARM owner shall grant perfected security in the escrow account by use of a control agreement establishing the County as an owner of record, pursuant to the Secured Transit Article of the Uniform Commercial Code, 810 ILCS 9/101 et seq.
 - (4) The applicant or WIND FARM owner shall make annual deposits to the escrow account over a 12 year period and shall simultaneously provide a replacement irrevocable letter of credit that is reduced accordingly.
 - (5) At all times the total combined value of the irrevocable letter of credit and the escrow account shall be increased annually as necessary to reflect actual rates of inflation over the life span of the WIND FARM and the amount shall be equal to or exceed the following:
 - the amount of the independent engineer's cost estimate as increased by known and documented rates of inflation since the WIND FARM was approved; plus
 - ii. an amount for any future years left in the anticipated life span of the WIND FARM at an assumed minimum rate of inflation of 3% per year.

- Q. Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)
 - owner is incapable of decommissioning the WIND FARM.
 - (3) The applicant or WIND FARM owner shall grant perfected security in the escrow account by use of a control agreement establishing the County as an owner of record, pursuant to the Secured Transit Article of the Uniform Commercial Code, 810 ILCS 9/101 et seq.
 - (4) The applicant or WIND FARM owner shall make annual deposits to the escrow account over a 12 year period and shall simultaneously provide a replacement irrevocable letter of credit that is reduced accordingly.
 - (5) At all times the total combined value of the irrevocable letter of credit and the escrow account shall be increased annually as necessary to reflect actual rates of inflation over the life span of the WIND FARM and the amount shall be equal to or exceed the following:
 - i. the amount of the independent
 engineer's cost estimate as increased
 by known and documented rates of
 inflation since the WIND FARM was
 approved; plus
 - ii. an amount for any future years left in the anticipated life span of the WIND FARM at an assumed minimum rate of inflation of 3% per year.

- P. Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)
 - (6) Any interest accrued on the escrow account that is over and above the total value required by subparagraph 6.1.4 P.3.(b) (4) shall go to the WIND FARM owner.
 - (7) In order to provide funding for decommissioning at the time of decommissioning, the WIND FARM applicant or WIND FARM owner may exchange a new irrevocable letter of credit in an amount equal to the amount in the escrow account in exchange for the GOVERNING BODY agreeing to a release of the full amount of the escrow account.
 - f. Should the salvage value of components be adjusted downward or the decommissioning costs adjusted upward pursuant to paragraph 6.1.4P.4.(d), the amount to be placed in the escrow account pursuant to this paragraph 6.1.4P.4. shall be increased to reflect the adjustment, as if the adjusted estimate were the initial estimate.
 - g. Any financial assurance required per the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.4R. shall count towards the total financial assurance required for compliance with paragraph 6.1.1A.5.
 - 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:

- Q. Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)
 - Any interest accrued on the escrow account that is over and above the total value required by subparagraph 6.1.5 P.4 shall go to the WIND FARM owner.
 - (5) In order to provide funding for decommissioning at the time of decommissioning, the WIND FARM applicant or WIND FARM owner may exchange a new irrevocable letter of credit in an amount equal to the amount in the escrow account in exchange for the GOVERNING BODY agreeing to a release of the full amount of the escrow account.
 - h. Should the salvage value of components be adjusted downward or the decommissioning costs adjusted upward pursuant to paragraph 6.1.5 L.4.(d), the amount to be placed in the escrow account pursuant to this paragraph 6.1.5 L.4. shall be increased to reflect the adjustment, as if the adjusted estimate were the initial estimate.
 - i. Any financial assurance required per the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5 M. shall count towards the total financial assurance required for compliance with paragraph 6.1.1A.5.
 - 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:

- P. Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)
 - a. In the event that any WIND FARM TOWER or component thereof ceases to be functional for more than six consecutive months after it starts producing electricity and the Owner is not diligently repairing such WIND FARM TOWER or component.
 - b. In the event that the Owner declares any wind turbine or other component to be functionally obsolete for tax purposes.
 - c. There is a delay in the construction of any WIND FARM TOWER of more than 6 months after construction on that WIND FARM TOWER begins.
 - d. Any WIND FARM TURBINE 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 WIND FARM TURBINE is otherwise derelict for a period of 6 months.
 - f. The WIND FARM is in violation of the terms of the WIND FARM SPECIAL USE permit for a period exceeding ninety (90) days.
 - g. The Applicant 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 site reclamation plan.
 - h. The COUNTY discovers any material misstatement of fact or misleading omission of fact made by the Applicant in the course of the SPECIAL USE Permit zoning case.

- Q. Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)
 - a. In the event that any WIND FARM TOWER or component thereof ceases to be functional for more than six consecutive months after it starts producing electricity and the Owner is not diligently repairing such WIND FARM TOWER or component.
 - b. In the event that the Owner declares any wind turbine or other component to be functionally obsolete for tax purposes.
 - c. There is a delay in the construction of any WIND FARM TOWER of more than 6 months after construction on that WIND FARM TOWER begins.
 - d. Any WIND FARM TURBINE 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 WIND FARM TURBINE is otherwise derelict for a period of 6 months.
 - f. The WIND FARM is in violation of the terms of the WIND FARM SPECIAL USE permit for a period exceeding ninety (90) days.
 - g. The Applicant 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 site reclamation plan.
 - The COUNTY discovers any material misstatement of fact or misleading omission of fact made by the Applicant in the course of the SPECIAL USE Permit zoning case.

P. Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)

- i. The Applicant has either failed to receive a copy of the certification of design compliance required by paragraph 6.1.4D.1.(a) or failed to submit it to the COUNTY within 12 consecutive months of receiving a Zoning Use Permit regardless of the efforts of the Applicant to obtain such certification.
- 6. The Zoning Administrator may, but is not required to, deem the WIND FARM abandoned, or the standards set forth in Section 6.1.4P.5. met, with respect to some, but not all, of the WIND FARM TURBINES in the WIND FARM. In that event the Zoning Administrator may draw upon the financial assurance to perform the reclamation work as to those WIND FARM TURBINES only. Upon completion of that reclamation work, the salvage value and reclamation costs shall be recalculated as to the remaining WIND FARM TURBINES in the WIND FARM.
- 7. The 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.

Q. Standard Condition for Decommissioning Plan and Site Reclamation Plan (continued)

- i. The Applicant has either failed to receive a copy of the certification of design compliance required by paragraph 6.1.4D.1.(a) or failed to submit it to the COUNTY within 12 consecutive months of receiving a Zoning Use Permit regardless of the efforts of the Applicant to obtain such certification.
- 5. The Zoning Administrator may, but is not required to, deem the WIND FARM abandoned, or the standards set forth in Section 6.1.5 L.5. met, with respect to some, but not all, of the WIND FARM TURBINES in the WIND FARM. In that event the Zoning Administrator may draw upon the financial assurance to perform the reclamation work as to those WIND FARM TURBINES only. Upon completion of that reclamation work, the salvage value and reclamation costs shall be recalculated as to the remaining WIND FARM TURBINES in the WIND FARM.
- 6. The 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.

Q. Complaint Hotline

- 1. Prior to the commencement of construction on the WIND FARM 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.

R. Complaint Hotline

- 1. Prior to the commencement of construction on the WIND FARM 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.

Q.	Com	plaint Hotline (continued)	<u>R</u> .	. Complaint Hotline (continued)				
	3.	The telephone number hotline shall be manned during usual		3.	The telephone number hotline shall be manned during usual			
		business hours and shall be an answering recording service during other hours.			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.		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 recording shall be saved for transcription for a minimum of two years.		5.	All calls shall be recorded and the recording shall be saved for transcription for a minimum of two years.			
R.	_	ultural Impact Mitigation Agreement with the Illinois	<u>s</u> .	_	cultural Impact Mitigation Agreement with the Illinois			
	-	rtment of Agriculture			artment of Agriculture			
	1.	If provided by state law, the Applicant shall enter into an Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.		1.	If provided by state law, the The Applicant shall enter into an Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.			
	2.	The Applicant shall bear full responsibility for coordinating any special conditions required in the SPECIAL USE Permit in order to ensure compliance with the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.		2.	The Applicant shall bear full responsibility for coordinating any special conditions required in the SPECIAL USE Permit in order to ensure compliance with the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.			
	3.	All requirements of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture shall become requirements of the COUNTY Board SPECIAL USE Permit.		3.	All requirements of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture shall become requirements of the COUNTY Board SPECIAL USE Permit.			
	4.	Champaign County shall have the right to enforce all requirements of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.		4.	Champaign County shall have the right to enforce all requirements of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.			
S.	Standard Condition for Expiration of WIND FARM County Board SPECIAL USE Permit			Standard Condition for Expiration of WIND FARM County Board SPECIAL USE Permit				
	A WII	ND FARM County Board SPECIAL USE Permit designation shall		A WI	ND FARM County Board SPECIAL USE Permit designation shall			
	expir	e pursuant to any time limit included in the Roadway Upgrade		expir	re pursuant to any time limit included in the Roadway Upgrade			

S.	SPECIAL USE I and Maintena	Permit (a	or Expiration of WIND FARM County Board continued) eement required by paragraph 6.1.4 G. or in 10 Permit is granted.	<u>T</u> .	SPECIAI and Ma	L USE P o aintenar	ermit (<i>c</i> nce agre	er Expiration of WIND FARM County Board continued) element required by paragraph 6.1.5 F. or in 10 Permit is granted.
T.	USE P applic	dition to ermit ap cation sh nation: A WIN	all other information required on the SPECIAL oplication and required by Section 9.1.1 A.2. the all contain or be accompanied by the following ND FARM Project Summary, including, to the tavailable: A general description of the project, including its approximate name plate generating capacity; the potential equipment manufacturer(s), type(s) of wind turbines, number of wind turbines, and name plate generating capacity of each wind turbine; the maximum height of the WIND FARM TOWER(S); and the maximum diameter of the WIND FARM TOWER rotor(s). The specific proposed location of the WIND FARM including all tax parcels on which the WIND FARM will be constructed. The specific proposed location of all tax parcels required to be included in the WIND FARM County Board SPECIAL USE Permit. A description of the applicant; Owner and Operator, including their respective business structures.	<u>U</u> .		In addi USE Pe	tion to rmit ap ation sha ation: A WIN	ents all other information required on the SPECIAL plication and required by Section 9.1.1 A.2. the all contain or be accompanied by the following ID FARM Project Summary, including, to the available: A general description of the project, including its approximate name plate generating capacity; the potential equipment manufacturer(s), type(s) of wind turbines, number of wind turbines, and name plate generating capacity of each wind turbine; the maximum height of the WIND FARM TOWER(S); and the maximum diameter of the WIND FARM TOWER rotor(s). The specific proposed location of the WIND FARM including all tax parcels on which the WIND FARM will be constructed. The specific proposed location of all tax parcels required to be included in the WIND FARM County Board SPECIAL USE Permit. A description of the applicant; Owner and Operator, including their respective business structures.
	b.		ame(s), address(es), and phone number(s) of oplicant(s), Owner and Operator, and all			b.		ame(s), address(es), and phone number(s) of oplicant(s), Owner and Operator, and all

- T. Application Requirements (continued)

 property owner(s) for the WIND FARM County Board

 SPECIAL USE Permit.
 - c. A site plan for the installation of all WIND FARM TOWERS indicating the following:
 - (1) The approximate planned location of each WIND FARM TOWER, other PRINCIPAL STRUCTURES, property lines (including identification of adjoining properties), required separations, public access roads and turnout locations, substation(s), electrical cabling from the WIND FARM TOWER to the Substation(s), ancillary equipment, third party transmission lines, maintenance and management facilities, and layout of all structures within the geographical boundaries of any applicable setback.
 - (2) The site plan shall clearly indicate the area of the proposed WIND FARM County Board SPECIAL USE Permit as required by subparagraph 6.1.4 A.1.
 - (3) The separation of all WIND FARM structures from adjacent NON-PARTICIPATING
 DWELLINGS OR PRINCIPAL BUILDINGS or uses shall be shown or dimensioned on the approved site plan for the SPECIAL USE
 Permit unless the Board authorizes a lesser separation in a special condition of approval or any required and duly authorized waivers of paragraph 6.1.4C. Authorization of a separation of less than 90% of that indicated on the approved site plan for the SPECIAL USE Permit shall require an updated noise study meeting the requirements of paragraph

- Q. Application Requirements (continued) property owner(s) for the WIND FARM County Board SPECIAL USE Permit.
 - c. A site plan for the installation of all WIND FARM TOWERS indicating the following:
 - (1) The approximate planned location of each WIND FARM TOWER, other PRINCIPAL STRUCTURES, property lines (including identification of adjoining properties), required separations, public access roads and turnout locations, substation(s), electrical cabling from the WIND FARM TOWER to the Substation(s), ancillary equipment, third party transmission lines, maintenance and management facilities, and layout of all structures within the geographical boundaries of any applicable setback.
 - (2) The site plan shall clearly indicate the area of the proposed WIND FARM County Board SPECIAL USE Permit as required by subparagraph 6.1.4 A.1.
 - (3) The separation of all WIND FARM structures from adjacent NON-PARTICIPATING
 DWELLINGS OR PRINCIPAL BUILDINGS or uses shall be shown or dimensioned on the approved site plan for the SPECIAL USE
 Permit unless the Board authorizes a lesser separation in a special condition of approval or any required and duly authorized waivers of paragraph 6.1.4C. Authorization of a separation of less than 90% of that indicated on the approved site plan for the SPECIAL USE Permit shall require an updated noise study meeting the requirements of paragraph

T. Applica	6.1.4I. to be submitted with the Zoning Use Permit application. WIND FARM structures include WIND FARM TOWERS, substations, third party transmission lines, maintenance and management facilities, or other significant structures.	Q. Application Requirements (continued) 6.1.4I. to be submitted with the Zoning Use Permit application. WIND FARM structures include WIND FARM TOWERS, substations, third party transmission lines, maintenance and management facilities, or other significant structures.
	 d. The Applicant shall include a copy of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture with the Zoning Use Permit Application to authorize construction. e. All other required studies, reports, certifications, and approvals demonstrating compliance with the provisions of this Ordinance. 	 d. The Applicant shall include a copy of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture with the Zoning Use Permit Application to authorize construction. e. All other required studies, reports, certifications, and approvals demonstrating compliance with the provisions of this Ordinance.
2. No regulation.	The applicant shall notify the COUNTY of any changes to the information provided above that occurs while the County Board SPECIAL USE Permit application is pending.	 The applicant shall notify the COUNTY of any changes to the information provided above that occurs while the County Board SPECIAL USE Permit application is pending. The approval of a WIND FARM shall not be conditioned on a property
No regulation.		value guarantee and shall not require a facility owner to pay into a neighboring property devaluation escrow account. This is a statutory requirement by 55 ILCS 5/5-12020 and shall not be changed.
No regulation.		 W. Deadlines for Start of Public Hearing and Governing Body Determination A public hearing for a WIND FARM shall begin within 45 days of filing a complete SPECIAL USE Permit application. This requirement is imposed by Public Act 102-1123 and the number of days shall not be increased or eliminated unless waived by the developer. A decision on the SPECIAL USE Permit shall be made within 30 days after the conclusion of the public hearing. This requirement is imposed by Public Act 102-1123 and the

	W. Deadlines for Start of Public Hearing and Governing Body Determination (continued) number of days shall not be increased or eliminated unless waived by the developer.
No regulation.	X. Should the Illinois Supreme Court find P.A. 102-1123 invalid or should an Illinois Appellate Court find P.A. 102-1123 invalid, and that declaration is not appealed to the Illinois Supreme Court or the Illinois Supreme Court declines to hear an appeal of the Appellate Court's finding and no public hearing for a proposed WIND FARM has begun, the text of this amendment shall be stricken and the text adopted by the Champaign County Board on August 18, 2022 shall be reinstated and shall govern WIND FARMS in Champaign County.

		Current Zoning Ordinance	Proposed Amendment dated 08/17/23			
		nty BOARD SPECIAL USE Permit may only be authorized re or the AG-2 Agriculture, Zoning DISTRICT	PV SOLAR FARM SPECIAL USE Permit may only be authorized in the AG-1 Agriculture, AG-2 Agriculture, I-1 Light Industry, and I-2 Heavy Industry Zoning DISTRICTS			
A.	In what follows, PV SOLAR FARM should be understood to include COMMUNITY PV SOLAR FARM unless specified otherwise in the relevant section or paragraph.			A. In what follows, PV SOLAR FARM should be understood to include COMMUNITY PV SOLAR FARM unless specified otherwise in the relevant section or paragraph.		
В.		dard Conditions	В.			dard Conditions
		rea of the PV SOLAR FARM County BOARD SPECIAL USE it must include the following minimum areas: All land that will be exposed to a noise level greater than that authorized to Class A land as established by 35 Ill. Admin. Code Parts 900, 901 and 910 under		(1)		rea of the PV SOLAR FARM County BOARD SPECIAL USE it must include the following minimum areas: All land that will be exposed to a noise level greater than that authorized to Class A land as established by 35 Ill. Admin. Code Parts 900, 901 and 910 under
	b.	paragraph 6.1.5I. All necessary access lanes or driveways and any required new PRIVATE ACCESSWAYS. For purposes of determining the minimum area of the SPECIAL USE Permit, access lanes or driveways shall be provided a minimum 40 feet wide area.			b.	paragraph <u>6.1.7 I</u> . All necessary access lanes or driveways and any required new PRIVATE ACCESSWAYS. For purposes of determining the minimum area of the SPECIAL USE Permit, access lanes or driveways shall be provided a minimum 40 feet wide area.
	C.	Al necessary PV SOLAR FARM STRUCTURES and ACCESSORY STRUCTURES including electrical distribution lines, inverters, transformers, common switching stations, and substations not under the ownership of a PUBLICLY REGULATED UTILITY and all waterwells that will provide water for the PV SOLAR FARM. For purposes of determining the minimum area of the SPECIAL USE Permit, underground cable installations shall be provided a minimum 40 feet wide area.			C.	Al necessary PV SOLAR FARM STRUCTURES and ACCESSORY STRUCTURES including electrical distribution lines, inverters, transformers, common switching stations, and substations not under the ownership of a PUBLICLY REGULATED UTILITY and all waterwells that will provide water for the PV SOLAR FARM. For purposes of determining the minimum area of the SPECIAL USE Permit, underground cable installations shall be provided a minimum 40 feet wide area.
	d.	All aboveground STRUCTURES and facilities shall be of a type and shall be located in a manner that is consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5R.			d.	All aboveground STRUCTURES and facilities shall be of a type and shall be located in a manner that is consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.7 R.

- B. General Standard Conditions (continued)
 - (2) The PV SOLAR FARM County BOARD SPECIAL USE Permit shall not be located in the following areas:
 - a. Less than one and one-half 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 existing substation. Any request for a waiver of this minimum separation shall include the following:
 - (a) No part of a PV SOLAR FARM shall be located within a contiguous 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 PV SOLAR FARM 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 one-half miles from any proposed PV SOLAR FARM upon the receipt of any substantial PV SOLAR FARM SPECIAL USE permit application in addition to any notice otherwise required.
 - (c) The PV SOLAR FARM 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 one-half miles of the proposed PV SOLAR FARM.

- (2) The PV SOLAR FARM County BOARD SPECIAL USE Permit shall not be located in the following areas:
 - a. Less than one and one-half 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 existing substation. Any request for a waiver of this minimum separation shall include the following:
 - (a) No part of a PV SOLAR FARM shall be located within a contiguous 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 PV SOLAR FARM 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 one-half miles from any proposed PV SOLAR FARM upon the receipt of any substantial PV SOLAR FARM SPECIAL USE permit application in addition to any notice otherwise required.
 - (c) The PV SOLAR FARM 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 one-half miles of the proposed PV SOLAR FARM.

B. General Standard Conditions

- (d) Municipal subdivision approval for any PV SOLAR FARM 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 PV SOLAR FARM that is located within one and one-half 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 PV SOLAR FARM that is located within one and one-half 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 PV SOLAR FARM 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 PV SOLAR FARM 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

B. General Standard Conditions

- (d) Municipal subdivision approval for any PV SOLAR FARM 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 PV SOLAR FARM that is located within one and one-half 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 PV SOLAR FARM that is located within one and one-half 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 PV SOLAR FARM 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 PV SOLAR FARM 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

B. General Standard Conditions

allow comments regarding the PV SOLAR FARM 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 PV SOLAR FARM is not located within one and one-half 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 PV SOLAR FARM is received from any municipality located within one and one-half miles of the PV SOLAR FARM prior to the consideration of the PV SOLAR FARM SPECIAL USE Permit by the Champaign COUNTY BOARD, the ZONING ADMINISTRATOR shall provide documentation to the COUNTY BOARD that any municipality within one and one-half miles of the PV SOLAR FARM was provided notice of the meeting dates for consideration of the proposed PV SOLAR FARM SPECIAL USE Permit for both the **Environment and Land Use Committee and** the COUNTY BOARD.

(3) Interconnection to the power grid

 a. The PV SOLAR FARM SPECIAL USE Permit application shall include documentation that the applicant or PV SOLAR FARM is in the queue to acquire an interconnection agreement to the power grid.

B. General Standard Conditions

allow comments regarding the PV SOLAR FARM 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 PV SOLAR FARM is not located within one and one-half 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 PV SOLAR FARM is received from any municipality located within one and one-half miles of the PV SOLAR FARM prior to the consideration of the PV SOLAR FARM SPECIAL USE Permit by the Champaign COUNTY BOARD, the ZONING ADMINISTRATOR shall provide documentation to the COUNTY BOARD that any municipality within one and one-half miles of the PV SOLAR FARM was provided notice of the meeting dates for consideration of the proposed PV SOLAR FARM SPECIAL USE Permit for both the Environment and Land Use Committee and the COUNTY BOARD.
- (3) Interconnection to the power grid
 - a. The PV SOLAR FARM SPECIAL USE Permit application shall include documentation that the applicant or PV SOLAR FARM is in the queue to acquire an interconnection agreement to the power grid.

В.	Genei	al Stand	lard Conditions	B.	General Standard Conditions				
		b.	Documentation of an executed interconnection agreement with the appropriate electric utility shall be provided prior to issuance of a Zoning Compliance Certificate to authorize operation of the PV SOLAR FARM.			b. Documentation of an executed interconnection agreement with the appropriate electric utility shall be provided prior to issuance of a Zoning Compliance Certificate to authorize operation of the PV SOLAR FARM.			
	(4)	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.		(4)	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.			
C.	Minin (1)	There SETBA for a P substa	are no minimum LOT AREA, AVERAGE LOT WIDTH, CK, YARD, or maximum LOT COVERAGE requirements by SOLAR FARM or for LOTS for PV SOLAR FARM ations and/or for PV SOLAR FARM maintenance and gement facilities.	C.	Minin (1)	imum LOT Standards There are no minimum LOT AREA, AVERAGE LOT WIDTH, SETBACK, YARD, or maximum LOT COVERAGE requirements for a PV SOLAR FARM or for LOTS for PV SOLAR FARM substations and/or for PV SOLAR FARM maintenance and management facilities.			
	(2)	There FARM	is no maximum LOT AREA requirement on BEST PRIME LAND.		(2)	There is no maximum LOT AREA requirement on BEST PRIME FARMLAND.			
D.			ndard Conditions for Separations for PV SOLAR FARM USES and STRUCTURES	D.		imum Standard Conditions for Separations for PV SOLAR FARM adjacent USES and STRUCTURES			
	The location of each PV SOLAR FARM shall provide the following required separations as measured from the exterior of the above ground portion of the PV SOLAR FARM STRUCTURES and equipment including fencing: (1) PV SOLAR FARM fencing shall be set back from the street centerline a minimum of 40 feet from a MINOR STREET and a minimum 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 6.1.5M.2.a. but				requir groun	location of each PV SOLAR FARM shall provide the following uired separations as measured from the exterior of the above and portion of the PV SOLAR FARM STRUCTURES and equipment uding fencing: PV SOLAR FARM fencing shall be set back from the street centerline a minimum of 40-50 feet. from a MINOR STREET and a minimum 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			

- D. Minimum Standard Conditions for Separations for PV SOLAR FARM from adjacent USES and STRUCTURES (continued)
 - in no case shall the perimeter fencing be less than 10 feet from the RIGHT OF WAY of any STREET.
 - (2) For properties participating in the solar farm: No required separation from any existing DWELLING or existing PRINCIPAL BUILDING 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 solar farm:

- a. For any adjacent LOT that is 10 acres or less in area (not including the STREET RIGHT OF WAY):
 - (a) For any adjacent LOT that is bordered (directly abutting and/or across the STREET)

- 6.1.5M.2.a. but in no case shall the perimeter fencing be less than 10 feet from the RIGHT OF WAY of any STREET. This separation is a statutory requirement by 55 ILCS 5/5-12020 and shall not be increased.
- (2) For properties participating in the solar farm: No required separation from any existing DWELLING or existing PRINCIPAL BUILDING 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 solar farm:
 - a. A separation of 50 feet between the nearest edge of any component of the PV SOLAR FARM and the nearest point on the property line of the non-participating property. This separation is a statutory requirement by 55 ILCS 5/5-12020 and shall not be increased except as may be required to comply with the applicable noise regulations of the Illinois Pollution Control Board.
 - b. A separation of 150 feet from the nearest edge of any component of the PV SOLAR FARM and the nearest point on the outside wall of an OCCUPIED COMMUNITY BUILDING or NON-PARTICIPATING DWELLING. This separation is a statutory requirement by 55 ILCS 5/5-12020 and shall not be increased except as may be required to comply with the applicable noise regulations of the Illinois Pollution Control Board.
 - not including the STREET RIGHT OF WAY):
 - (a) For any adjacent LOT that is bordered (directly abutting and/or across the STREET)

- D. Minimum Standard Conditions for Separations for PV SOLAR FARM from adjacent USES and STRUCTURES (continued)
 - on no more than two sides by the PV SOLAR FARM, the separation shall be no less than 240 feet from the property line.
 - (b) For any adjacent LOT that is bordered (directly abutting and/or across the STREET) on more than two sides by the PV SOLAR FARM, the separation shall exceed 240 feet as deemed necessary by the BOARD.
 - b. For any adjacent LOT that is more than 10 acres in area (not including the STREET RIGHT OF WAY), the separation shall be no less than 255 feet from any existing DWELLING or existing PRINCIPAL BUILDING and otherwise the perimeter fencing shall be a minimum of 10 feet from a SIDE or REAR LOT LINE. This separation distance applies to properties that are adjacent to or across a STREET from a PV SOLAR FARM.
 - c. Additional separation may be required to ensure that the noise level required by 35 III. Admin. Code Parts 900, 901 and 910 is not exceeded or for other purposes deemed necessary by the BOARD.
 - (4) A separation of at least 500 feet from any of the following unless the SPECIAL USE Permit application includes results provided from an analysis using the Solar Glare Hazard Analysis Tool (SGHAT) for the Airport Traffic Control Tower cab and final approach paths, consistent with the Interim Policy, Federal Aviation Administration (FAA) Review of Solar Energy Projects on Federally Obligated Airports, or the most recent version adopted by the FAA, and the SGHAT results show no detrimental affect with less than a 500 feet separation from any of the following:

- on no more than two sides by the PV SOLAR FARM, the separation shall be no less than 240 feet from the property line.
- (b) For any adjacent LOT that is bordered (directly abutting and/or across the STREET) on more than two sides by the PV SOLAR FARM, the separation shall exceed 240 feet as deemed necessary by the BOARD.
- b. For any adjacent LOT that is more than 10 acres in area (not including the STREET RIGHT OF WAY), the separation shall be no less than 255 feet from any existing DWELLING or existing PRINCIPAL BUILDING and otherwise the perimeter fencing shall be a minimum of 10 feet from a SIDE or REAR LOT LINE. This separation distance applies to properties that are adjacent to or across a STREET from a PV SOLAR FARM.
- c. Additional separation may be required to ensure that the noise level required by 35 III. Admin. Code Parts 900, 901 and 910 is not exceeded or for other purposes deemed necessary by the BOARD.
- (4) A separation of at least 500 feet from any of the following unless the SPECIAL USE Permit application includes results provided from an analysis using the Solar Glare Hazard Analysis Tool (SGHAT) for the Airport Traffic Control Tower cab and final approach paths, consistent with the Interim Policy, Federal Aviation Administration (FAA) Review of Solar Energy Projects on Federally Obligated Airports, or the most recent version adopted by the FAA, and the SGHAT results show no detrimental affect with less than a 500 feet separation from any of the following:

- D. Minimum Standard Conditions for Separations for PV SOLAR FARM from adjacent USES and STRUCTURES (continued)
 - any AIRPORT premises or any AIRPORT approach
 zone within five miles of the end of the AIRPORT runway; or
 - any RESTRICTED LANDING AREA that is NONCONFORMING or which has been authorized by SPECIAL USE Permit and that existed on or for which there had been a complete SPECIAL USE Permit application received by April 22, 2010, or any approach zone for any such RESTRICTED LANDING AREA; or
 - c. any RESIDENTIAL AIRPORT that existed on or for which there had been a complete SPECIAL USE Permit application received by April 22, 2010, or any approach zone for any such RESIDENTIAL AIRPORT.
 - (5) A separation of at least 500 feet between substations and transmission lines of greater than 34.5 kVA to adjacent dwellings and residential DISTRICTS.
 - (6) Electrical inverters shall be located as far as possible from property lines and adjacent DWELLINGS consistent with good engineering practice. Inverter locations that are less than 275 feet from the perimeter fence shall require specific approval and may require special sound deadening construction and noise analysis.
 - (7) Separation distances for any PV SOLAR FARM with solar equipment exceeding 8 feet in height, with the exception of transmission lines which may be taller, shall be determined by the BOARD on a case-by-case basis.

- any AIRPORT premises or any AIRPORT approach zone within five miles of the end of the AIRPORT runway; or
- any RESTRICTED LANDING AREA that is NONCONFORMING or which has been authorized by SPECIAL USE Permit and that existed on or for which there had been a complete SPECIAL USE Permit application received by April 22, 2010, or any approach zone for any such RESTRICTED LANDING AREA; or
- c. any RESIDENTIAL AIRPORT that existed on or for which there had been a complete SPECIAL USE Permit application received by April 22, 2010, or any approach zone for any such RESIDENTIAL AIRPORT.
- (5) A separation of at least 500 feet between substations and transmission lines of greater than 34.5 kVA to adjacent dwellings and residential DISTRICTS.
- (6) Electrical inverters shall be located as far as possible from property lines and adjacent DWELLINGS consistent with good engineering practice. Inverter locations that are less than 275 feet from the perimeter fence shall require specific approval and may require special sound deadening construction and noise analysis.
- (7) Separation distances for any PV SOLAR FARM with solar equipment exceeding 8 feet in height, with the exception of transmission lines which may be taller, shall be determined by the BOARD on a case by case basis.

D. Minimum Standard Conditions for Separations for PV SOLAR FARM from adjacent USES and STRUCTURES (continued)

- (8) PV SOLAR FARM solar equipment other than inverters shall be no less than 26 feet from the property line of any lot more than 10 acres in area.
- (8) PV SOLAR FARM solar equipment other than inverters shall be no less than 26 feet from the property line of any lot more than 10 acres in area.

E. Standard Conditions for Design and Installation of any PV SOLAR FARM.

- (1) Any building that is part of a PV SOLAR FARM 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 96-704 regarding building code compliance and conforms to the Illinois Accessibility Code.
- (2) Electrical Components
 - All electrical components of the PV SOLAR FARM shall conform to the National Electrical Code as amended and shall comply with Federal Communications Commission (FCC) requirements.
 - Burying power and communication wiring underground shall be minimized consistent with best management practice regarding PV SOLAR FARM construction and minimizing impacts on agricultural drainage tile.
- (3) Maximum Height. The height limitation established in Section 5.3 shall not apply to a PV SOLAR FARM. The maximum height of all above ground STRUCTURES shall be identified in the application and as approved in the SPECIAL USE Permit.

E. Standard Conditions for Design and Installation of any PV SOLAR FARM.

- (1) Any building that is part of a PV SOLAR FARM 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 96-704 regarding building code compliance and conforms to the Illinois Accessibility Code.
- (2) Electrical Components
 - a. All electrical components of the PV SOLAR FARM shall conform to the National Electrical Code as amended and shall comply with Federal Communications Commission (FCC) requirements.
 - Burying power and communication wiring underground shall be minimized consistent with best management practice regarding PV SOLAR FARM construction and minimizing impacts on agricultural drainage tile.
- (3) Maximum Height. The height limitation established in Section 5.3 shall not apply to a PV SOLAR FARM. The maximum height of all above ground STRUCTURES shall be identified in the application and as approved in the SPECIAL USE Permit. No component of a solar panel shall have a height of more than 20 feet above ground when the solar arrays are at full tilt. This height limit is a statutory requirement by 55 ILCS 5/5-12020 and shall not be increased.

E.	Stand		ditions for Design and Installation of any PV SOLAR				
	(4)	Warn a.	ings A reasonably visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and substations.	(4)	Warnings a. A reasonably visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and substations.		
	(5)	way fo under distric specif	enstruction may intrude on any easement or right-of- or a GAS PIPELINE or HAZARDOUS LIQUID PIPELINE, an orground water main or sanitary sewer, a drainage of ditch or tile, or any other public utility facility unless fically authorized by a crossing agreement that has been ed into with the relevant party.	(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.		
F.	Stand (1)	All un shall I if requ betwo or a lo Mitiga	ditions to Mitigate Damage to Farmland derground wiring or cabling for the PV SOLAR FARM of a talk minimum depth of 5 feet below grade or deeper uired to maintain a minimum one foot of clearance een the wire or cable and any agricultural drainage tile esser depth if so authorized by the Agricultural Impact ation Agreement with the Illinois Department of ulture as required by paragraph 6.1.5R.	(1)	All underground wiring or cabling for the PV SOLAR FARM 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 or a lesser depth if so authorized as established by the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.7R.		
	(2)	Prote	ction of agricultural drainage tile	(2)	Protection of agricultural drainage tile a. Protection of agricultural drainage tile shall comply with the Agriculture Impact Mitigation Agreement with the Illinois Department of Agriculture as required by Section 6.1.7 R.		
		a.	The applicant shall endeavor to locate all existing agricultural drainage tile prior to establishing any construction staging areas, construction of any necessary PV SOLAR FARM access lanes or driveways, construction of any PV SOLAR FARM STRUCTURES, any common switching stations, substations, and installation of underground wiring or cabling. The		b. The applicant shall endeavor to locate all existing agricultural drainage tile prior to establishing any construction staging areas, construction of any necessary PV SOLAR FARM access lanes or driveways, construction of any PV SOLAR FARM STRUCTURES, any common switching stations, substations, and installation of underground wiring or cabling. The		

- F. Standard Conditions to Mitigate Damage to Farmland (continued)
 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.
 - 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 noconstruction 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 PV SOLAR FARM SPECIAL USE Permit and during any deconstruction activities that may occur pursuant to the PV SOLAR FARM SPECIAL USE Permit.
 - (c) Construction shall be prohibited within any existing drainage district easement and also prohibited within any 30 feet wide noconstruction buffer on either side of drainage

- 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 any likely disruption of a drainage district tile.
- 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 noconstruction 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 PV SOLAR FARM SPECIAL USE Permit and during any deconstruction activities that may occur pursuant to the PV SOLAR FARM SPECIAL USE Permit.
 - (c) Construction shall be prohibited within any existing drainage district easement and also prohibited within any 30 feet wide noconstruction buffer on either side of drainage

- F. Standard Conditions to Mitigate Damage to Farmland (continued)
 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, driveways, any common switching stations, and substations shall be replaced as required in Section 6.3 of the Champaign County Storm Water Management and Erosion Control Ordinance.
 - 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

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.

- d. Any agricultural drainage tile located underneath construction staging areas, access lanes, driveways, any common switching stations, and substations shall be replaced as required in Section 6.3 of the Champaign County Storm Water Management and Erosion Control Ordinance.
- e. Any agricultural drainage tile that must be relocated shall be relocated as required in the Champaign County Storm Water Management and Erosion Control Ordinance and consistent with the Agriculture Impact Mitigation Agreement with the Illinois Department of Agriculture.
- f. The applicant shall coordinate with the drainage district and provide a drainage district 48 hours to inspect all trenches and/or excavations in the vicinity of suspected drainage district tile locations in order to verify any damage or disturbance to drainage district tile.
- g. Conformance of any relocation and/or repair 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 and/or repaired drain tile and a copy of the

- F. Standard Conditions to Mitigate Damage to Farmland (continued)

 Zoning Administrator. As-built drawings shall be
 provided to both the relevant drainage district and
 the Zoning Administrator of any relocated drainage
 district tile.
 - 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.
 - Permanent tile repairs shall be made within 14 days h. 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. All permanent and temporary tile repairs shall be made as detailed in the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5R. and shall not be waived or modified except as authorized in the SPECIAL USE Permit.
 - All damaged tile shall be repaired so as to operate as well after construction as before the construction began.

- approval shall be submitted to the Zoning Administrator. As-built drawings of any relocated and/or repaired district tile shall be provided to both the relevant drainage district and the Zoning Administrator of any relocated drainage district tile.
- h. 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. In addition, the location of damaged drain tile lines shall be recorded using Global Positioning Systems (GPS) technology.
- i. 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.
- j. 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. All permanent and temporary tile repairs shall be made as detailed in the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.7 R. and shall not be waived or modified except as authorized in the SPECIAL USE Permit.
- All damaged tile shall be repaired so as to operate as well after construction as before the construction began.

- F. Standard Conditions to Mitigate Damage to Farmland (continued)
 - j. Following completion of the PV SOLAR FARM 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 PV SOLAR FARM construction and/or decommissioning shall be restored by the applicant to the pre-PV SOLAR FARM construction condition in a manner consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5R.
 - (4) Topsoil replacement

For any open trenching required pursuant to PV SOLAR FARM 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 that it will not become intermixed with subsoil materials.
- 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.
- In backfilling the trench, the stockpiled subsoil material shall be placed back into the trench before replacing the topsoil.

- j. Following completion of the PV SOLAR FARM 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 PV SOLAR FARM construction and/or decommissioning shall be restored by the applicant to the pre-PV SOLAR FARM construction condition in a manner consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.7 R.
- (4) Topsoil replacement

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- 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 that it will not become intermixed with subsoil materials.
- 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.

F. Standard Conditions to Mitigate Damage to Farmland (continued)

- 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.
- e. All topsoil shall be placed in a manner consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5R.
- (5) Mitigation of soil compacting and rutting
 - The Applicant shall not be responsible for mitigation of soil compaction and rutting if exempted by the PV SOLAR FARM lease.
 - b. Unless specifically provided for otherwise in the PV SOLAR FARM 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.
 - c. All mitigation of soil compaction and rutting shall be consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5R.
- (6) Land leveling
 - a. The Applicant shall not be responsible for leveling of disturbed land if exempted by the PV SOLAR FARM lease.
 - Unless specifically provided for otherwise in the PV SOLAR FARM lease, the Applicant shall level all disturbed land as follows:

- 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.
- ea. All topsoil shall be placed in a manner consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.7 R.
- (5) Mitigation of soil compacting and rutting
 - The Applicant shall not be responsible for mitigation of soil compaction and rutting if exempted by the PV SOLAR FARM lease.
 - b. Unless specifically provided for otherwise in the PV SOLAR FARM 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.
 - eb. All mitigation of soil compaction and rutting shall be consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.7 R.
- (6) Land leveling
 - The Applicant shall not be responsible for leveling of disturbed land if exempted by the PV SOLAR FARM lease.
 - Unless specifically provided for otherwise in the PV SOLAR FARM lease, the Applicant shall level all disturbed land as follows:

- F. Standard Conditions to Mitigate Damage to Farmland (continued)
 - (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.
 - c. All land leveling shall be consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5R.
 - (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 PV SOLAR FARM including any access road that conforms to the relevant Natural Resources Conservation Service guidelines and that is prepared by an Illinois Licensed Professional Engineer.
 - As-built documentation of all permanent soil erosion and sedimentation improvements for the PV SOLAR FARM including any access road prepared by an Illinois Licensed Professional Engineer shall be submitted and accepted by the Zoning Administrator prior to approval of any Zoning Compliance Certificate.

- (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.
- eb. All land leveling shall be consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.7 R.
- (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 PV SOLAR FARM including any access road that conforms to the relevant Natural Resources Conservation Service guidelines and that is prepared by an Illinois Licensed Professional Engineer.
 - As-built documentation of all permanent soil erosion and sedimentation improvements for the PV SOLAR FARM including any access road prepared by an Illinois Licensed Professional Engineer shall be submitted and accepted by the Zoning Administrator prior to approval of any Zoning Compliance Certificate.

F. Standard Conditions to Mitigate Damage to Farmland (continued)

(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 PV SOLAR FARM.

- (9) Minimize disturbance to BEST PRIME FARMLAND
 - a. Any PV SOLAR FARM 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 PV SOLAR FARM shall be minimized at all times consistent with good engineering practice.
 - (b) Disturbance to BEST PRIME FARMLAND shall be offset by establishment of a vegetative ground cover within the PV SOLAR FARM that includes the following:
 - The vegetative ground cover shall use native plant species as much as possible and shall be based on a site assessment of the site geography and soil conditions.
 - ii. The species selected shall serve a secondary habitat purpose as much as possible.
 - iii. Maintenance of the vegetative ground cover shall use a combination of management approaches to ensure safe, cost-effective, reliable

(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 PV SOLAR FARM.

- (9) Minimize disturbance to BEST PRIME FARMLAND
 - Any PV SOLAR FARM 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 PV SOLAR FARM shall be minimized at all times consistent with good engineering practice.
 - (b) Disturbance to BEST PRIME FARMLAND shall be offset by establishment of a vegetative ground cover within the PV SOLAR FARM that includes the following:
 - i. The vegetative ground cover shall use native plant species as much as possible and shall be based on a site assessment of the site geography and soil conditions.
 - ii. The species selected shall serve a secondary habitat purpose as much as possible.
 - iii. Maintenance of the vegetative ground cover shall use a combination of management approaches to ensure safe, cost-effective, reliable

F.	Stand	ard Conditions to Mitigate Damage to Farmland (continued) maintenance while minimizing environmental risks.			maintenance while minimizing environmental risks.
G.	Stand	iv. The plan to establish and maintain a vegetative ground cover that includes native plant species as much as possible shall be detailed in a landscape plan included in the PV SOLAR FARM SPECIAL USE Permit application. The landscape plan shall include the weed control plan required by Section 6.1.5 P.3.	No char	nge.	iv. The plan to establish and maintain a vegetative ground cover that includes native plant species as much as possible shall be detailed in a landscape plan included in the PV SOLAR FARM SPECIAL USE Permit application. The landscape plan shall include the weed control plan required by Section 6.1.7 P.3.
Н.	Stand Distri	ard Conditions for Coordination with Local Fire Protection	Н.	Stand Distric	ard Conditions for Coordination with Local Fire Protection
	(1)	The Applicant shall submit to the local fire protection district a copy of the site plan.		(1)	The Applicant shall submit to the local fire protection district a copy of the site plan.
	(2)	Upon request by the local fire protection district, the Owner or Operator shall cooperate with the local fire protection district to develop the fire protection district's emergency response plan.		(2)	Upon request by the local fire protection district, the Owner or Operator shall cooperate with the local fire protection district to develop the fire protection district's emergency response plan.
	(3)	Nothing in this section shall alleviate the need to comply with all other applicable fire laws and regulations.		(3)	Nothing in this section shall alleviate the need to comply with all other applicable fire laws and regulations.
I.	Stand	ard Conditions for Allowable Noise Level			
	(1)	Noise levels from any PV SOLAR FARM shall be in compliance with the applicable Illinois Pollution Control Board (IPCB) regulations (<i>35 Illinois Administrative Code</i> , Subtitle H: Noise, Parts 900, 901, 910).		(1)	Noise levels from any PV SOLAR FARM shall be in compliance with the applicable Illinois Pollution Control Board (IPCB) regulations (<i>35 Illinois Administrative Code</i> , Subtitle H: Noise, Parts 900, 901, 910). This is a statutory requirement by 55 ILCS 5/5-12020 and shall not be changed.

I. Standard Conditions for Allowable Noise Level (continued)

- (2) The Applicant shall submit manufacturer's sound power level characteristics and other relevant data regarding noise characteristics of proposed PV SOLAR FARM 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:
 - The SPECIAL USE Permit application for other than a COMMUNITY PV SOLAR FARM 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 PV SOLAR FARM.
 - (b) Computer modeling shall be used to generate the anticipated sound level resulting from the operation of the proposed PV SOLAR FARM within 1,500 feet of the proposed PV SOLAR FARM.
 - (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 PV SOLAR FARM.
 - (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

- (2) The Applicant shall submit manufacturer's sound power level characteristics and other relevant data regarding noise characteristics of proposed PV SOLAR FARM 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:
 - The SPECIAL USE Permit application for other than a COMMUNITY PV SOLAR FARM 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 PV SOLAR FARM.
 - (b) Computer modeling shall be used to generate the anticipated sound level resulting from the operation of the proposed PV SOLAR FARM within 1,500 feet of the proposed PV SOLAR FARM.
 - (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 PV SOLAR FARM.
 - (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

I.	Standard Conditions for Allowable Noise Level (continued) simply as possible verify the anticipated sound data and sound levels.	simply as possible verify the anticipated sound data and sound levels.				
	b. For a COMMUNITY PV SOLAR FARM the Board may require submission of a noise analysis that meets the standard of paragraph 6.1.5I.(3)a.	b. For a COMMUNITY PV SOLAR FARM the Board may require submission of a noise analysis that meets the standard of paragraph 6.1.7 I.(3)a.				
	 After construction of the PV SOLAR FARM, 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 that have been received by the Complaint Hotline. 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. 	 (4) After construction of the PV SOLAR FARM, 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 that have been received by the Complaint Hotline. 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. 				
J.	Standard Conditions for Endangered Species Consultation	No change.				
K.	Standard Conditions for Historic and Archaeological Resources Review	No change.				
L.	Standard Conditions for Acceptable Wildlife Impacts	L. Standard Conditions for Acceptable Fish and Wildlife Impacts				
	The PV SOLAR FARM 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.	The PV SOLAR FARM 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. 1. The applicant shall apply for consultation with the United States Fish and Wildlife Service's Information for Planning				

L.	Stand	lard Con	ditions for Acceptable Wildlife Impacts (continued)				
			, , , , , , , , , , , , , , , , , , , ,			and C	onsulting environmental review or a comparable
							ssor tool that is consistent with any applicable United
							s Fish and Wildlife Service solar wildlife guidelines that
							been subject to public review. The application shall
						includ	de a copy of the consultation review by the U.S. Fish and
						Wildli	ife Service.
M.	Scree	ning and	d Fencing	M.	Scree	ning and	d Fencing
	(1)	Perim	eter fencing		(1)	Perim	eter fencing
		a.	PV SOLAR FARM equipment and structures shall be			a.	PV SOLAR FARM equipment and structures shall be
			fully enclosed and secured by a fence with a				fully enclosed and secured by a fence with a
			minimum height of 7 feet.				minimum height of 7-6 feet and no more than 25
							feet. This limit on fence height is a statutory
							requirement by 55 ILCS 5/5-12020 and shall not be
							changed.
		b.	Knox boxes and keys shall be provided at locked			b.	Knox boxes and keys shall be provided at locked
			entrances for emergency personnel access.				entrances for emergency personnel access.
		c.	Vegetation between the fencing and the LOT LINE			c.	Vegetation between the fencing and the LOT LINE
			shall be maintained such that NOXIOUS WEEDS ae				shall be maintained such that NOXIOUS WEEDS ae
			controlled or eradicated consistent with the Illinois				controlled or eradicated consistent with the Illinois
			Noxious Weed Law (505 ILCS 100/1 et. seq.).				Noxious Weed Law (505 ILCS 100/1 et. seq.).
			Management of the vegetation shall be explained in				Management of the vegetation shall be explained in
			the application.				the application.
	(2)	Scree	•		(2)	Scree	
		a.	A visual screen shall be provided around the			a.	A visual screen shall be provided around the
			perimeter of the PV SOLAR FARM as follows:				perimeter of the PV SOLAR FARM as follows:
			(a) The visual screen shall be provided for any				(a) The visual screen shall be provided for any
			part of the PV SOLAR FARM that is visible to				part of the PV SOLAR FARM that is visible to
			and located within 1,000 feet of an existing				and located within 1,000 feet of an existing
			DWELLING or residential DISTRICT except				DWELLING or residential DISTRICT except
			that the visual screen may not be required				that the visual screen may not be required
			within the full 1,000 feet of an existing				within the full 1,000 feet of an existing
			DWELLING or residential DISTRICT provided				DWELLING or residential DISTRICT provided

M. Screening and Fencing (continued)

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 PV SOLAR FARM 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 PV SOLAR FARM 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 PV

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 PV SOLAR FARM is not visible to a DWELLING or residential DISTRICT by virtue of the existing topography.

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 - ii. Any vegetation that is part of the approved visual screen buffer shall be maintained in perpetuity of the PV

M. Screening and Fencing (continued)

SOLAR FARM. If the evergreen foliage below a height of 7 feet disappears over time, the screening shall be replaced.

- The continuous line of native iii. 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 PV SOLAR FARM fence while still providing adequate clearance for maintenance.
- iv. A planting of tall native grasses and other native flowing plants may be used as a visual screen buffer for any PV module installation that is no more than 8 feet tall 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

- SOLAR FARM. If the evergreen foliage below a height of 7 feet disappears over time, the screening shall be replaced.
- The continuous line of native iii. 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 PV SOLAR FARM fence while still providing adequate clearance for maintenance.
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M.	Scree	ning and Fencing (conti	nued) PV SOLAR FARM perimeter fence is opaque.				PV SOLAR FARM 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 PV SOLAR FARM 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. Any vegetated screen buffer shall be detailed in a landscape plan drawing that shall be included with the PV SOLAR FARM SPECIAL USE Permit application.			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 PV SOLAR FARM 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. Any vegetated screen buffer shall be detailed in a landscape plan drawing that shall be included with the PV SOLAR FARM SPECIAL USE Permit application.
N.	Stand	ard Conditions to Mini	mize Glare	N.	Stand	ard Conditions to Minir	mize Glare
	(1)	The design and const minimize glare that m	ruction of the PV SOLAR FARM shall hay affect adjacent properties and the lide an explanation of how glare will be	14.	(1)	The design and constr minimize glare that m	ruction of the PV SOLAR FARM shall hay affect adjacent properties and the de an explanation of how glare will be
	(2)	Administrator shall ta necessary to investiga determine the validit additional enforceme	the PV SOLAR FARM, the Zoning alke appropriate enforcement action as ate complaints of glare in order to by of the complaints and take any ent action as proves warranted to stop that is occurring, including but not ong:		(2)	Administrator shall ta necessary to investiga determine the validity additional enforceme	the PV SOLAR FARM, the Zoning like appropriate enforcement action as ate complaints of glare in order to by of the complaints and take any ent action as proves warranted to stop that is occurring, including but not eng:

N.	Stand	ard Con	The Zoning Administrator shall make the Environment and Land Use Committee aware of complaints about glare that have been received by the Complaint Hotline.	N.	Stand	ard Conc a.	The Zoning Administrator shall make the Environment and Land Use Committee aware of complaints about glare that have been received by the Complaint Hotline.
		b.	If the Environment and Land Use Committee determines that the glare is excessive, the Environment and Land Use Committee shall require the Owner or Operator to take reasonable steps to mitigate the excessive glare such as the installation of additional screening.			b.	If the Environment and Land Use Committee determines that the glare is excessive, the Environment and Land Use Committee shall require the Owner or Operator to take reasonable steps to mitigate the excessive glare such as the installation of additional screening.
0.	Stand	ard Cond	dition for Liability Insurance	0.	Stand	ard Cond	lition for Liability Insurance
	(1)	The O a curr prope	wner or Operator of the PV SOLAR FARM shall maintain ent general liability policy covering bodily injury and rty damage with minimum limits of at least \$5 million courrence and \$5 million in the aggregate.		(1)	The Ov a curre proper	wner or Operator of the PV SOLAR FARM shall maintain ent general liability policy covering bodily injury and ty damage with minimum limits of at least \$5 million currence and \$5 million in the aggregate.
	(2)	_	eneral liability policy shall identify landowners in the AL USE Permit as additional insured.		(2)	_	neral liability policy shall identify landowners in the LUSE Permit as additional insured.
P.	Opera	tional S	tandard Conditions	P.	Opera	tional St	andard Conditions
	(1)	Maint a.	enance The Owner or Operator of the PV SOLAR FARM must submit, on an annual basis, a summary of operation and maintenance reports to the Environment and Land Use Committee and any other operation and maintenance reports as the Environment and Land Use Committee reasonably requests.		(1)	Mainte a.	The Owner or Operator of the PV SOLAR FARM must submit, on an annual basis, a summary of operation and maintenance reports to the Environment and Land Use Committee and any other operation and maintenance reports as the Environment and Land Use Committee reasonably requests.
		b.	Any physical modification to the PV SOLAR FARM that increases the number of solar conversion devices or structures and/or the land area occupied by the PV SOLAR FARM shall require a new County BOARD SPECIAL USE Permit. Like-kind replacements shall not require recertification nor will replacement of			b.	Any physical modification to the PV SOLAR FARM that increases the number of solar conversion devices or structures and/or the land area occupied by the PV SOLAR FARM shall require a new County BOARD SPECIAL USE Permit. Like-kind replacements shall not require recertification nor will replacement of

P. Operational Standard Conditions (continued)

transformers, cabling, etc. provided replacement is done in fashion similar to the original installation.

c. The Application shall explain methods and materials used to clean the PV SOLAR FARM equipment including an estimation of the daily and annual gallons of water used and the source of the water and management of wastewater. The BOARD may request copies of well records from the Illinois State Water Survey and may require an estimate by a qualified hydrogeologist of the likely impact on adjacent waterwells.

(2) Materials Handling, Storage and Disposal

- a. All solid wastes related to the construction, operation and maintenance of the PV SOLAR FARM shall be removed from the site promptly and disposed of in accordance with all Federal, State and local laws.
- All hazardous materials related to the construction, operation and maintenance of the PV SOLAR FARM shall be handled, stored, transported and disposed of in accordance with all applicable local, State and Federal laws.

(3) Vegetation management

- a. The PV SOLAR FARM 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.*).

P. Operational Standard Conditions (continued)

transformers, cabling, etc. provided replacement is done in fashion similar to the original installation.

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P.	Opera	tional Standard Conditions (continued)		
		c. The weed control plan shall be explained in the application.		c. The weed control plan shall be explained in the application.
Q.		nmissioning and Site Reclamation Plan	(1)	
	(1)	The Applicant shall submit a signed decommissioning and site reclamation plan conforming to the requirements of paragraph 6.1.1A.	(1)	The Applicant shall submit a signed decommissioning and site reclamation plan conforming to the requirements of paragraph 6.1.1A. and matching the overall deconstruction and land restoration requirements of the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture. The decommissioning and deconstruction requirements of the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture is a statutory requirement by 55 ILCS 5/5-12020 and shall not be changed.
	(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 PV SOLAR FARM and all costs related to removal of access driveways.		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 PV SOLAR FARM 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:	(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.		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 PV SOLAR FARM shall in no way affect or change the applicant's obligation to continue to comply with the terms of		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 PV SOLAR FARM shall in no way affect or change the applicant's obligation to continue to comply with the terms of

Q. Decommissioning and Site Reclamation Plan (continued)

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 PV SOLAR FARM.

- c. Authorization for the GOVERNING BODY and its authorized representatives for right of entry onto the PV SOLAR FARM 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 PV SOLAR FARM or prior to ceasing production of electricity from the PV SOLAR FARM, after it has begun, other than in the ordinary course of business. This obligation shall be independent of the obligation to pay financial

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 PV SOLAR FARM.

- c. Authorization for the GOVERNING BODY and its authorized representatives for right of entry onto the PV SOLAR FARM 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 PV SOLAR FARM or prior to ceasing production of electricity from the PV SOLAR FARM, after it has begun, other than in the ordinary course of business. This obligation shall be independent of the obligation to pay financial

- Q. Decommissioning and Site Reclamation Plan (continued)
 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 and bidding documents required to comply with State law or Champaign COUNTY purchasing policies.
 - h. The depth of removal of foundation concrete below ground shall be a minimum of 54 inches. The depth of removal of foundation concrete shall be certified in writing by an Illinois Licensed Professional Engineer and the certification shall be submitted to the Zoning Administrator.
 - i. Underground electrical cables of a depth of 5 feet or greater may be left in place.
 - j. The hole resulting from the removal of foundation concrete during decommissioning shall be backfilled as follows:

- 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 and bidding documents required to comply with State law or Champaign COUNTY purchasing policies.
- h. The depth of removal of foundation concrete below ground shall be a minimum of 54 inches as required in the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture. The depth of removal of foundation concrete shall be certified in writing by an Illinois Licensed Professional Engineer and the certification shall be submitted to the Zoning Administrator.
- Underground electrical cables of a depth of 5 feet or greater may be left in place.
- j. The hole resulting from the removal of foundation concrete during decommissioning shall be backfilled as follows: as required in the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.

Q. Decommissioning and Site Reclamation Plan (continued)

- (a) The excavation resulting from the removal of foundation concrete shall only be backfilled with subsoil and topsoil in similar depths and similar types as existed at the time of the original PV SOLAR FARM construction except that a lesser quality topsoil or a combination of a lesser quality topsoil and a subsoil that is similar to the native subsoil may be used at depths corresponding to the native subsoil but not less than 12 inches below grade.
- (b) The native soils excavated at the time of the original PV SOLAR FARM construction may be used to backfill the concrete foundation excavations at the time of decommissioning provided that the soils are adequately stored throughout the operating lifetime of the PV SOLAR FARM. The methods for storing the excavated native soils during the operating lifetime of the PV SOLAR FARM shall be included in the decommissioning and site reclamation plan.
- (c) If the excavated native soils are not stored for use for backfilling the concrete foundation excavations, a qualified soil scientist of Illinois Licensed Professional Engineer shall certify that the actual soils used to backfill the concrete foundation excavations are of equal or greater quality than the native soils or that, in the case of subsoil, the backfill soil meets the requirements of this paragraph. The certification shall be submitted to the Zoning Administrator.

- (a) The excavation resulting from the removal of foundation concrete shall only be backfilled with subsoil and topsoil in similar depths and similar types as existed at the time of the original PV SOLAR FARM construction except that a lesser quality topsoil or a combination of a lesser quality topsoil and a subsoil that is similar to the native subsoil may be used at depths corresponding to the native subsoil but not less than 12 inches below grade.
- (b) The native soils excavated at the time of the original PV SOLAR FARM construction may be used to backfill the concrete foundation excavations at the time of decommissioning provided that the soils are adequately stored throughout the operating lifetime of the PV SOLAR FARM. The methods for storing the excavated native soils during the operating lifetime of the PV SOLAR FARM shall be included in the decommissioning and site reclamation plan.
- (c) If the excavated native soils are not stored for use for backfilling the concrete foundation excavations, a qualified soil scientist of Illinois Licensed Professional Engineer shall certify that the actual soils used to backfill the concrete foundation excavations are of equal or greater quality than the native soils or that, in the case of subsoil, the backfill soil meets the requirements of this paragraph. The certification shall be submitted to the Zoning Administrator.

Q. Decommissioning and Site Reclamation Plan (continued)

- (d) An Illinois Licensed Professional Engineer shall certify in writing that the concrete foundation excavations have been backfilled with soil to such a depth and with a minimum of compaction that is consistent with the restoration of productive agricultural use such that the depth of soil is expected to be no less than 54 inches within one year after backfilling.
- A stipulation that should the decommissioning and site reclamation plan be deemed invalid by a court of competent jurisdiction the PV SOLAR FARM SPECIAL USE Permit shall be deemed void.
- 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.
- m. 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.
- n. 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 PV SOLAR FARM begins to produce electricity, at any point, the Applicant shall first obtain the consent of

- (d) An Illinois Licensed Professional Engineer shall certify in writing that the concrete foundation excavations have been backfilled with soil to such a depth and with a minimum of compaction that is consistent with the restoration of productive agricultural use such that the depth of soil is expected to be no less than 54 inches within one year after backfilling.
- A stipulation that should the decommissioning and site reclamation plan be deemed invalid by a court of competent jurisdiction the PV SOLAR FARM SPECIAL USE Permit shall be deemed void.
- I. 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.
- m. 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.
- n. 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 PV SOLAR FARM begins to produce electricity, at any point, the Applicant shall first obtain the consent of

Q. Decommissioning and Site Reclamation Plan (continued)

the Zoning Administrator. If the Applicant's lien holders remove equipment or property credited t 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.

- (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:
 - 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 PV SOLAR FARM modules have an unlimited warranty of at least 10 years and also have 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 PV SOLAR FARM shall be authorized by the Zoning Administrator until the PV SOLAR FARM 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

the Zoning Administrator. If the Applicant's lien holders remove equipment or property credited t 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.

- (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:
 - 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 PV SOLAR FARM modules have an unlimited warranty of at least 10 years and also have 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. (a) —No Zoning Use Permit to authorize construction of the PV SOLAR FARM shall be authorized by the Zoning Administrator until the PV SOLAR FARM owner shall provide the COUNTY with financial assurance to cover 12.5%-10% of the decommissioning and site reclamation cost as determined in the independent engineer's cost estimate to complete the decommissioning work

- Q. Decommissioning and Site Reclamation Plan (continued)
 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 PV SOLAR FARM 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 PV SOLAR FARM 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:

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.

- <u>b.(b)</u> On or before the sixth anniversary of the Commercial Operation Date, the PV SOLAR FARM Owner shall provide the COUNTY with Financial Assurance to cover 62.5%-50% of the decommissioning and site reclamation 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.(c)
 On or before the eleventh anniversary of the Commercial Operation Date, the PV SOLAR FARM Owner shall provide the COUNTY with Financial Assurance to cover 125% 100% of the decommissioning and site reclamation 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. and as determined in the updated decommissioning and site reclamation plan filed with the County on or before the end of the tenth year of commercial operation.
- d. Net salvage value may be deducted for decommissioning costs as follows:
 - (a) One of the following standards shall be met:

Q. Decommissioning and Site Reclamation Plan (continued)

- i. The Applicant, its successors in interest, and all parties to the decommissioning and site reclamation plan shall maintain the PV SOLAR FARM 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 vale credit the amount of any lien or encumbrance on the PV SOLAR FARM; 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 6.1.5Q.4.b.(1). prior to the issuance of any Zoning Use Permit and upon every renewal of the financial assurance and at any other time

- i. The Applicant, its successors in interest, and all parties to the decommissioning and site reclamation plan shall maintain the PV SOLAR FARM 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 vale credit the amount of any lien or encumbrance on the PV SOLAR FARM; 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 6.1.7 Q.4. prior to the issuance of any Zoning Use Permit and upon every renewal of the financial assurance and at any other time

- Q. Decommissioning and Site Reclamation Plan (continued)
 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 PV SOLAR FARM 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 deduction from the estimated decommissioning costs for net estimated salvage value shall be capped at 70% of the total net estimated salvage value even though the total actual salvage value shall be

- 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 PV SOLAR FARM 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 deduction from the estimated decommissioning costs for net estimated salvage value shall be capped at 70% of the total net estimated salvage value even though the total actual salvage value shall be

- Q. Decommissioning and Site Reclamation Plan (continued) available in the event that decommissioning is actually required.
 - (g) The total financial assurance after deduction of the net estimated salvage value shall not be less than \$1,000 per acre.
 - (h) The credit for net estimated salvage value attributable to any PV SOLAR FARM may not exceed the estimated cost of removal of the above-ground portion of that PV SOLAR FARM 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) At least once every three years for the first 12 years of the financial assurance and at least once every two years thereafter or, if the PV SOLAR FARM modules have an unlimited warranty of a least 10 years and also have 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, then at least once every five years for the first 25 years of the financial assurance and at least once every two years thereafter, the Applicant, its

- available in the event that decommissioning is actually required.
- (g) The total financial assurance after deduction of the net estimated salvage value shall not be less than \$1,000 per acre.
- (h) The credit for net estimated salvage value attributable to any PV SOLAR FARM may not exceed the estimated cost of removal of the above-ground portion of that PV SOLAR FARM on the subject site.
- The GOVERNING BODY has the right to require multiple letters of credit based on the regulations governing federal insurance for deposits.
- f. 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) At least once every three years for the first
 12 years of the financial assurance and at
 least once every two years thereafter or, if
 the PV SOLAR FARM modules have an
 unlimited warranty of a least 10 years and
 also have 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, then at least once every
 five years for the first 25 years of the
 financial assurance and at least once every
 two years thereafter, the Applicant, its

Q. Decommissioning and Site Reclamation Plan (continued)

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.

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. The Applicant or its successors in interest shall file an updated decommissioning and site reclamation plan with the County on or before the end of the tenth year of commercial operation.

- costs of decommissioning and site
 reclamation every five years after the tenth
 anniversary of the commercial operation
 date. The solar farm owner shall provide an
 updated estimated cost of decommissioning
 and site reclamation that is provided by an
 independent Illinois licensed professional
 engineer.
- (c) 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 PV SOLAR FARM was approved.

(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 PV SOLAR FARM was approved.

Q. Decommissioning and Site Reclamation Plan (continued)

- 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.
 - (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.

- g. 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.
 - (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.

Q. Decommissioning and Site Reclamation Plan (continued)

- f. At all times the value of the irrevocable letter of credit shall be increased annually as necessary to reflect actual rates of inflation over the life span of the PV SOLAR FARM and the amount shall be equal to or exceed 125% of the amount of the independent engineer's cost estimate as increased by known and documented rates of inflation since the PV SOLAR FARM was approved.
- g. Should the salvage value of components be adjusted downward or the decommissioning costs adjusted upward pursuant to paragraph 6.1.5Q.4.d., the amount of the irrevocable letter of credit pursuant to this paragraph 6.1.5Q.4. shall be increased to reflect the adjustment, as if the adjusted estimate were the initial estimate.
- h. Any financial assurance required per the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5R. shall count towards the total financial assurance required for compliance with paragraph 6.1.1A.5.
- i. 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 PV SOLAR FARM or component thereof ceases to be functional for more than six consecutive months after it starts producing

- f. At all times the value of the irrevocable letter of credit shall be increased annually as necessary to reflect actual rates of inflation over the life span of the PV SOLAR FARM and the amount shall be equal to or exceed 125% of the amount of the independent engineer's cost estimate as increased by known and documented rates of inflation since the PV SOLAR FARM was approved.
- h. Should the salvage value of components be adjusted downward or the decommissioning costs adjusted upward pursuant to paragraph 6.1.7 Q.4., the amount of the irrevocable letter of credit pursuant to this paragraph 6.1.7 Q.4. shall be increased to reflect the adjustment, as if the adjusted estimate were the initial estimate.
- i. Any financial assurance required per the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.7 R. shall count towards the total financial assurance required for compliance with paragraph 6.1.1A.5.
- j. 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 PV SOLAR FARM or component thereof ceases to be functional for more than six consecutive months after it starts producing

- Q. Decommissioning and Site Reclamation Plan (continued)
 electricity and the Owner is not diligently repairing
 such PV SOLAR FARM or component.
 - b. In the event that the Owner declares the PV SOLAR FARM or any PV SOLAR FARM component to be functionally obsolete for tax purposes.
 - c. There is a delay in the construction of any PV SOLAR FARM of more than 6 months after construction on that PV SOLAR FARM begins.
 - d. Any PV SOLAR FARM 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 PV SOLAR FARM or component thereof that is otherwise derelict for a period of 6 months.
 - f. The PV SOLAR FARM is in violation of the terms of the PV SOLAR FARM 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.
 - 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.

- electricity and the Owner is not diligently repairing such PV SOLAR FARM or component.
- b. In the event that the Owner declares the PV SOLAR FARM or any PV SOLAR FARM component to be functionally obsolete for tax purposes.
- c. There is a delay in the construction of any PV SOLAR
 FARM of more than 6 months after construction on
 that PV SOLAR FARM begins.
- d. Any PV SOLAR FARM 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 PV SOLAR FARM or component thereof that is otherwise derelict for a period of 6 months.
- f. The PV SOLAR FARM is in violation of the terms of the PV SOLAR FARM 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.

Q. **Decommissioning and Site Reclamation Plan** (continued) The Applicant has either failed to receive a copy of The Applicant has either failed to receive a copy of the certification of design compliance required by the certification of design compliance required by paragraph 6.1.5D. or failed to submit it to the paragraph 6.1.5D. or failed to submit it to the COUNTY within 12 consecutive months of receiving a COUNTY within 12 consecutive months of receiving a Zoning Use Permit regardless of the efforts of the Zoning Use Permit regardless of the efforts of the Applicant to obtain such certification. Applicant to obtain such certification. (6) The Zoning Administrator may, but is not required to, deem (6) The Zoning Administrator may, but is not required to, deem the PV SOLAR FARM abandoned, or the standards set forth in the PV SOLAR FARM abandoned, or the standards set forth in Section 6.1.5Q.5. met, with respect to some, but not all, of Section 6.1.7 M.5. met, with respect to some, but not all, of the PV SOLAR FARM. In that event, the Zoning Administrator the PV SOLAR FARM. In that event, the Zoning Administrator may draw upon the financial assurance to perform the may draw upon the financial assurance to perform the reclamation work as to that portion of the PV SOLAR FARM reclamation work as to that portion of the PV SOLAR FARM only. Upon completion of that reclamation work, the salvage only. Upon completion of that reclamation work, the salvage value and reclamation costs shall be recalculated as to the value and reclamation costs shall be recalculated as to the remaining PV SOLAR FARM. remaining PV SOLAR FARM. (7) The decommissioning and site reclamation plan shall be (7) The decommissioning and site reclamation plan shall be included as a condition of approval by the Board and the included as a condition of approval by the Board and the signed and executed irrevocable letter of credit and evidence signed and executed irrevocable letter of credit and evidence of the escrow account must be submitted to the Zoning of the escrow account must be submitted to the Zoning Administrator prior to any Zoning Use Permit approval. Administrator prior to any Zoning Use Permit approval. **Agricultural Impact Mitigation Agreement with the Illinois** R. R. Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture. **Department of Agriculture.** If provided by state law, the Applicant shall enter into an (1) If provided by state law, the Applicant shall enter into an Agricultural Impact Mitigation Agreement with the Illinois Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture. Department of Agriculture. The Applicant shall bear full responsibility for coordinating The Applicant shall bear full responsibility for coordinating (2) (2) any special conditions required in the SPECIAL USE Permit in any special conditions required in the SPECIAL USE Permit in order to ensure compliance with the signed Agricultural order to ensure compliance with the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Impact Mitigation Agreement with the Illinois Department of Agriculture. Agriculture. All requirements of the signed Agricultural Impact Mitigation All requirements of the signed Agricultural Impact Mitigation (3) (3) Agreement with the Illinois Department of Agriculture shall Agreement with the Illinois Department of Agriculture shall

R.	_	Iltural Impact Mitigation Agreement with the Illinois tment of Agriculture (continued) become requirements of the COUNTY Board SPECIAL USE Permit.			become requirements of the COUNTY Board SPECIAL USE Permit.
	(4)	Champaign County shall have the right to enforce all requirements of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.		(4)	Champaign County shall have the right to enforce all requirements of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.
S.	Comp	laint Hotline	S.	Comp	laint Hotline
	(1)	Prior to the commencement of construction on the PV SOLAR FARM 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.		(1)	Prior to the commencement of construction on the PV SOLAR FARM 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.		(2)	The telephone number hotline shall be publicized and posted at the operations and maintenance center and the construction marshalling yard.
	(3)	The telephone number hotline shall be manned during usual business hours and shall be an answering recording service during other hours.		(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.		(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.		(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.		(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.		(7)	The Applicant and Owner shall take necessary actions to resolve all legitimate complaints.

T.	Standard Cond Board SPECIAL		for Expiration of PV SOLAR FARM COUNTY ermit	T.	Standard Co Board SPECI		for Expiration of PV SOLAR FARM COUNTY ermit
	A PV SOLAR FA	ARM CO	OUNTY Board SPECIAL USE Permit designation		A PV SOLAR	FARM CC	OUNTY Board SPECIAL USE Permit designation
	shall expire in	10 year	rs if no Zoning Use Permit is granted.		shall expire i	in 10 year	rs if no Zoning Use Permit is granted.
U.	Application Re	equiren	nents				
	USE Pe the ap	ermit ap plicatio ing info	all other information required on the SPECIAL oplication and required by Section 9.1.11A.2., in shall contain or be accompanied by the rmation: SOLAR FARM Project Summary, including, to the		USE the a	Permit application of the properties of the prop	pall other information required on the SPECIAL opplication and required by Section 9.1.11A.2., on shall contain or be accompanied by the ormation: SOLAR FARM Project Summary, including, to the
		exten	t available:			exter	nt available:
		(a)	A general description of the project, including its approximate DC and AC generating capacity; the maximum number and type of solar devices, and the potential equipment manufacturer(s).			(a)	A general description of the project, including its approximate DC and AC generating capacity; the maximum number and type of solar devices, and the potential equipment manufacturer(s).
		(b)	The specific proposed location of the PV SOLAR FARM including all tax parcels on which the PV SOLAR FARM will be constructed.			(b)	The specific proposed location of the PV SOLAR FARM including all tax parcels on which the PV SOLAR FARM will be constructed.
		(c)	The specific proposed location of all tax parcels required to be included in the PV SOLAR FARM COUNTY Board SPECIAL USE Permit.			(c)	The specific proposed location of all tax parcels required to be included in the PV SOLAR FARM COUNTY Board SPECIAL USE Permit.
		(d)	A description of the Applicant, Owner and Operator, including their respective business structures.			(d)	A description of the Applicant, Owner and Operator, including their respective business structures.
	b.	the A	name(s), address(es), and phone number(s) of pplicant(s), Owner and Operator, and all erty owner(s) for the PV SOLAR FARM COUNTY of SPECIAL USE Permit.		b.	the A	name(s), address(es), and phone number(s) of pplicant(s), Owner and Operator, and all erty owner(s) for the PV SOLAR FARM COUNTY d SPECIAL USE Permit.

U. Application Requirements (continued)

- c. A site plan for the PV SOLAR FARM indicating the following:
 - The approximate planned location of al PV (a) SOLAR FARM STRUCTURES, property lines (including identification of adjoining properties), required separations, public access roads and turnout locations, access driveways, solar devices, electrical inverter(s), electrical transformer(s), cabling, switching station, electrical cabling from the PV SOLAR FARM to the Substation(s), ancillary equipment, screening and fencing, third party transmission lines, meteorological station, 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 PV SOLAR FARM COUNTY Board SPECIAL USE Permit as required by subparagraph 6.1.5A.(1).
 - (c) The location of all below-ground wiring.
 - (d) The location, height, and appearance of all above-ground wiring and wiring structures.
 - (e) The separation of all PV SOLAR FARM 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

- c. A site plan for the PV SOLAR FARM indicating the following:
 - The approximate planned location of al PV (a) SOLAR FARM STRUCTURES, property lines (including identification of adjoining properties), required separations, public access roads and turnout locations, access driveways, solar devices, electrical inverter(s). electrical transformer(s), cabling, switching station, electrical cabling from the PV SOLAR FARM to the Substation(s), ancillary equipment, screening and fencing, third party transmission lines, meteorological station, 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 PV SOLAR FARM COUNTY Board SPECIAL USE Permit as required by subparagraph 6.1.7A.(1).
 - (c) The location of all below-ground wiring.
 - (d) The location, height, and appearance of all above-ground wiring and wiring structures.
 - (e) The separation of all PV SOLAR FARM 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

U. Application Requirements (continued)

may be provided in the approved site plan for the Zoning Use Permit provided that the greater separation does not increase the noise impacts and/or glare that were approved in the PV SOLAR FARM COUNTY Board SPECIAL USE Permit. PV SOLAR FARM structures include substations, third party transmission lines, maintenance and management facilities, or other significant structures.

- d. All other required studies, reports, certifications, and approvals demonstrating compliance with the provisions of this Ordinance.
- e. The PV SOLAR FARM 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-one-half miles of the proposed PV SOLAR FARM as required by Section 6.1.5B.(2)a.(b).
- f. A municipal resolution regarding the PV SOLAR FARM by any municipality located within one-and-one-half miles of the PV SOLAR FARM must be submitted to the Zoning Administrator prior to the consideration of the PV SOLAR FARM SPECIAL USE Permit by the Champaign COUNTY Board or, in the absence of such a resolution, the Zoning Administrator shall provide documentation to the COUNTY Board that any municipality within one-and-one-half miles of the PV SOLAR FARM was provided notice of the meeting dates for consideration of the proposed PV SOLAR FARM SPECIAL USE Permit for both the Environment and Land Use Committee and the COUNTY Board as required by Section 6.1.5B.(2)a.(c).

may be provided in the approved site plan for the Zoning Use Permit provided that the greater separation does not increase the noise impacts and/or glare that were approved in the PV SOLAR FARM COUNTY Board SPECIAL USE Permit. PV SOLAR FARM structures include substations, third party transmission lines, maintenance and management facilities, or other significant structures.

- d. All other required studies, reports, certifications, and approvals demonstrating compliance with the provisions of this Ordinance.
- e. The PV SOLAR FARM 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-one-half miles of the proposed PV SOLAR FARM as required by Section 6.1.7B.(2)a.(b).
- f. A municipal resolution regarding the PV SOLAR FARM by any municipality located within one-and-one-half miles of the PV SOLAR FARM must be submitted to the Zoning Administrator prior to the consideration of the PV SOLAR FARM SPECIAL USE Permit by the Champaign COUNTY Board or, in the absence of such a resolution, the Zoning Administrator shall provide documentation to the COUNTY Board that any municipality within one-and-one-half miles of the PV SOLAR FARM was provided notice of the meeting dates for consideration of the proposed PV SOLAR FARM SPECIAL USE Permit for both the Environment and Land Use Committee and the COUNTY Board as required by Section 6.1.7B.(2)a.(c).

U. App	ication Requirements (continued)		
	g. Documentation of an executed interconnection agreement with the appropriate electric utility shall be provided prior to issuance of a Zoning Compliance Certificate to authorize operation of the PV SOLAR FARM as required by Section 6.1.5B.(3)b.		g. Documentation of an executed interconnection agreement with the appropriate electric utility shall be provided prior to issuance of a Zoning Compliance Certificate to authorize operation of the PV SOLAR FARM as required by Section 6.1.7B.(3)b.
(2)	The Applicant shall notify the COUNTY of any changes to the information provided above that occurs while the COUNTY Board SPECIAL USE Permit application is pending.	(2)	The Applicant shall notify the COUNTY of any changes to the information provided above that occurs while the COUNTY Board SPECIAL USE Permit application is pending.
(3)	The Applicant shall include a copy of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture with the Zoning Use Permit Application to authorize construction.	(3)	The Applicant shall include a copy of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture with the Zoning Use Permit Application to authorize construction.
No regulatio	n.	pro into sta	e approval of a PV SOLAR FARM shall not be conditioned on a operty value guarantee and shall not require a facility owner to pay to a neighboring property devaluation escrow account. This is a stutory requirement by 55 ILCS 5/5-12020 and shall not be larged.
No regulation	n.	•	days of filing a complete SPECIAL USE Permit application. This requirement is imposed by Public Act 102-1123 and the number of days shall not be increased or eliminated unless waived by the developer.

No regulation.	X. Should the Illinois Supreme Court find P.A. 102-1123 invalid or should
	an Illinois Appellate Court find P.A. 102-1123 invalid, and that
	declaration is not appealed to the Illinois Supreme Court or the
	Illinois Supreme Court declines to hear an appeal of the Appellate
	Court's finding and no public hearing for a proposed PV SOLAR FARM
	has begun, the text of this amendment shall be stricken and the text
	adopted by the Champaign County Board on August 18, 2022 shall be
	reinstated and shall govern PV SOLAR FARMS in Champaign County.

Susan Burgstrom

From: Ted Hartke <tedhartke@hartke.pro>
Sent: Wednesday, August 2, 2023 5:57 PM

To: John Hall; Susan Burgstrom **Subject:** Fwd: Dirty solar panels with link

Ladded the link into this email.

"Contrary to previous assumptions, pollutants such as lead or carcinogenic cadmium can be almost completely washed out of the fragments of solar modules over a period of several months, for example by rainwater." ~ Senior Chinese solar official, 40-year veteran of the U.S. solar industry & research scientists with the German Stuttgart Institute for Photovoltaics

If Solar Panels Are So Clean, Why Do They Produce So Much Toxic Waste? https://www.forbes.com/sites/michaelshellenberger/2018/05/23/if-solar-panels-are-so-clean-why-do-they-produce-so-much-toxic-waste/.

Begin forwarded message:

From: Ted Hartke < tedhartke@hartke.pro > Date: August 2, 2023 at 5:52:58 PM CDT

To: John Hall < ihall@co.champaign.il.us >, Susan Burgstrom < sburgstrom@co.champaign.il.us >

Subject: Dirty solar panels

Dear John and Susan,

These solar panels are too dirty to be allowed in Champaign County. We need to present this question to every solar developer who comes in front of our zoning and county board. We need to put into our ordinance that solar panels must be no hazardous and nontoxic.

Ted Hartke





AUG 0 3 2023

CHAMPAIGN CO P & Z DEPARTMENT

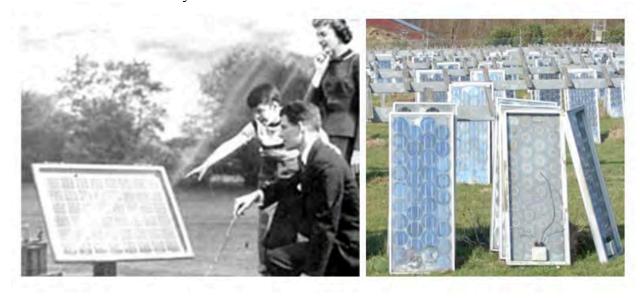
Forbes > Business > Energy

If Solar Panels Are So Clean, Why Do They Produce So Much Toxic Waste?

Michael Shellenberger

Contributor

I write about energy and the environment. May 23, 2018,12:28pm EDT This article is more than 5 years old.



Bell Labs, 1954. Solar Panel Waste, 2014

Bell Labs & PV Cycle

The last few years have seen growing concern over what happens to solar panels at the end of their life. Consider the following statements:

- The problem of solar panel disposal "will explode with full force in two or three decades and wreck the environment" because it "is a huge amount of waste and they are not easy to recycle."
- "The reality is that there is a problem now, and it's only going to get larger, expanding as rapidly as the PV industry expanded 10 years ago."
- "Contrary to previous assumptions, pollutants such as lead or carcinogenic cadmium can be almost completely washed out of the fragments of solar modules over a period of several months, for example by rainwater."

Were these statements made by the right-wing Heritage Foundation? Koch-funded global warming deniers? The editorial board of the *Wall Street Journal*?

None of the above. Rather, the quotes come from <u>a senior Chinese solar</u> official, <u>a 40-year veteran of the U.S. solar industry</u>, and <u>research scientists</u> with the German Stuttgart Institute for Photovoltaics.

With few environmental journalists willing to report on much of anything other than the good news about renewables, it's been left to environmental scientists and solar industry leaders to raise the alarm.

"I've been working in solar since 1976 and that's part of my guilt," the veteran solar developer told *Solar Power World* last year. "I've been involved with millions of solar panels going into the field, and now they're getting old."

The Trouble With Solar Waste

The International Renewable Energy Agency (IRENA) in 2016 estimated there was about 250,000 metric tonnes of solar panel waste in the world at the end of that year. <u>IRENA projected</u> that this amount could reach 78 *million* metric tonnes by 2050.

Solar panels often contain lead, cadmium, and other toxic chemicals that cannot be removed without breaking apart the entire panel. "Approximately 90% of most PV modules are made up of glass," <u>notes</u> San Jose State environmental studies professor Dustin Mulvaney. "However, this glass often cannot be recycled as float glass due to impurities. Common problematic impurities in glass include plastics, lead, cadmium and antimony."

Researchers with the Electric Power Research Institute (EPRI) <u>undertook a study</u> for U.S. solar-owning utilities to plan for end-of-life and concluded that solar panel "disposal in "regular landfills [is] not recommended in case modules break and toxic materials leach into the soil" and so "disposal is potentially a major issue."

California is in the process of <u>determining how to divert solar panels</u> from landfills, which is where they currently go, at the end of their life.

California's Department of Toxic Substances Control (DTSC), which is implementing the new regulations, <u>held a meeting last August</u> with solar and waste industry representatives to discuss how to deal with the issue of solar waste. At the meeting, the representatives from industry and DTSC all acknowledged how difficult it would be to test to determine whether a solar panel being removed would be classified as hazardous waste or not.

The DTSC described building a database where solar panels and their toxicity could be tracked by their model numbers, but it's not clear DTSC will do this.

"The theory behind the regulations is to make [disposal] less burdensome," explained Rick Brausch of DTSC. "Putting it as universal waste eliminates the testing requirement."

The fact that cadmium can be washed out of solar modules by rainwater is increasingly a concern for local environmentalists like the Concerned Citizens of Fawn Lake in Virginia, where a 6,350 acre solar farm to partly power Microsoft data centers is being proposed.

"We estimate there are 100,000 pounds of cadmium contained in the 1.8 million panels," Sean Fogarty of the group told me. "Leaching from broken panels damaged during natural events — hail storms, tornadoes, hurricanes, earthquakes, etc. — and at decommissioning is a big concern."

There is real-world precedent for this concern. A tornado in 2015 broke 200,000 solar modules at southern California solar farm Desert Sunlight.

"Any modules that were broken into small bits of glass had to be swept from the ground," Mulvaney explained, "so lots of rocks and dirt got mixed in that would not work in recycling plants that are designed to take modules. These were the cadmium-based modules that failed [hazardous] waste tests, so were treated at a [hazardous] waste facility. But about 70 percent of the modules were actually sent to recycling, and the recycled metals are in new panels today."

And when Hurricane Maria hit Puerto Rico last September, the nation's second largest solar farm, responsible for 40 percent of the island's solar energy, <u>lost a majority of its panels.</u>



Destroys Solar Farm in Puerto Rico Bob Meinetz

Many experts urge mandatory recycling. The main finding promoted by IRENA's in its <u>2016</u> report was that, "If fully injected back into the economy, the value of the recovered material [from used solar panels] could exceed USD 15 billion by 2050."

But IRENA's study did not compare the value of recovered material to the cost of new materials and admitted that "Recent studies agree that PV material availability is not a major concern in the near term, but critical materials might impose limitations in the long term."

They might, but today recycling costs more than the economic value of the materials recovered, which is why most solar panels end up in landfills. "The absence of valuable metals/materials produces economic losses," wrote a team of scientists in the *International Journal of Photoenergy* in their study of solar panel recycling last year, and "Results are coherent with the literature."

Chinese and Japanese experts agree. "If a recycling plant carries out every step by the book," a Chinese expert told *The South China Morning Post*, "their products can end up being more expensive than new raw materials."

Toshiba Environmental Solutions told Nikkei Asian Review last year that,

Low demand for scrap and the high cost of employing workers to disassemble the aluminum frames and other components will make it difficult to create a profitable business unless recycling companies can charge several times more than the target set by [Japan's environment ministry].

Can Solar Producers Take Responsibility?

In 2012, First Solar <u>stopped putting a share of its revenues</u> into a fund for long-term waste management. "Customers have the option to use our services when the panels get to the end of life stage," a spokesperson told *Solar Power World*. "We'll do the recycling, and they'll pay the price at that time."

Or they won't. "Either it becomes economical or it gets mandated." <u>said EPRI's Cara Libby</u>. "But I've heard that it will have to be mandated because it won't ever be economical."

Last July, Washington became the first U.S. state to require manufacturers selling solar panels to have a plan to recycle. But the legislature did not require manufacturers to pay a fee for disposal. "Washington-based solar panel manufacturer Itek Energy assisted with the bill's writing," <u>noted Solar Power World</u>.

The problem with putting the responsibility for recycling or long-term storage of solar panels on manufacturers, says the insurance actuary Milliman, is that it increases the risk of more financial failures like the kinds that afflicted the solar industry over the last decade.

[A]ny mechanism that finances the cost of recycling PV modules with current revenues is not sustainable. This method raises the possibility of bankruptcy down the road by shifting today's

greater burden of 'caused' costs into the future. When growth levels off then PV producers would face rapidly increasing recycling costs as a percentage of revenues.

<u>Since 2016</u>, Sungevity, Beamreach, Verengo Solar, SunEdison, Yingli Green Energy, <u>Solar World</u>, and <u>Suniva</u> have gone bankrupt.

The result of such bankruptcies is that the cost of managing or recycling PV waste will be born by the public. "In the event of company bankruptcies, PV module producers would no longer contribute to the recycling cost of their products," <u>notes</u> Milliman, "leaving governments to decide how to deal with cleanup."

Governments of poor and developing nations are often not equipped to deal with an influx of toxic solar waste, experts say. German researchers at the Stuttgart Institute for Photovoltaics warned that poor and developing nations are at higher risk of suffering the consequences.



Maharashtra, India, 2014 Dipak Sheelare

Dangers and hazards of toxins in photovoltaic modules appear particularly large in countries where there are no orderly waste management systems... Especially in less developed countries in the so-called global south, which are particularly predestined for the use of photovoltaics because of the high solar radiation, it seems highly problematic to use modules that contain pollutants.

The attitude of some solar recyclers in China appears to feed this concern. "A sales manager of a solar power recycling company," the <u>South China Morning News</u> reported, "believes there could be a way to dispose of China's solar junk, nonetheless."

"We can sell them to Middle East... Our customers there make it very clear that they don't want perfect or brand new panels. They just want them cheap... There, there is lots of land to install a large amount of panels to make up for their low performance. Everyone is happy with the result."

In other words, there are firms that may advertise themselves as "solar panel recyclers" but instead sell panels to a secondary markets in nations with less developed waste disposal systems. In the past, communities living near electronic waste dumps in Ghana, Nigeria, Vietnam, Bangladesh, Pakistan, and India have been primary e-waste destinations.

According to <u>a 2015 United Nations Environment Program (UNEP) report</u>, somewhere between 60 and 90 percent of electronic waste is illegally traded and dumped in poor nations. Writes UNEP:

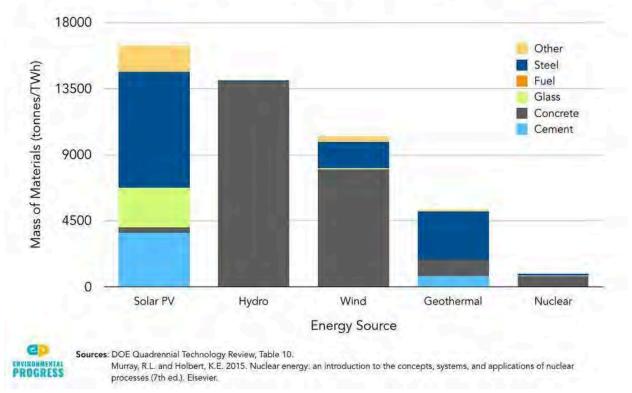
[T]housands of tonnes of e-waste are falsely declared as second-hand goods and exported from developed to developing countries, including waste batteries falsely described as plastic or mixed metal scrap, and cathode ray tubes and computer monitors declared as metal scrap.

Unlike other forms of imported e-waste, used solar panels can enter nations legally before eventually entering e-waste streams. As the United Nation Environment Program notes, "loopholes in the current Waste Electrical and Electronic Equipment (WEEE) Directives allow the export of e-waste from developed to developing countries (70% of the collected WEEE ends up in unreported and largely unknown destinations)."

A Path Forward on Solar Panel Waste

Perhaps the biggest problem with solar panel waste is that there is so much of it, and that's not going to change any time soon, for a basic physical reason: <u>sunlight is dilute and diffuse</u> and thus require large collectors to capture and convert the sun's rays into electricity. Those large surface areas, in turn, require an order of magnitude more in materials — whether today's toxic combination of glass, heavy metals, and rare earth elements, or some new material in the future — than other energy sources.

Materials throughput by type of energy source



Solar requires 15x more materials than nuclear EP

All of that waste creates a large quantity of material to track, which in turn requires requires coordinated, overlapping, and different responses at the international, national, state, and local levels.

The local level is where action to dispose of electronic and toxic waste takes place, often under state mandates. In the past, differing state laws have motivated the U.S. Congress to put in place national regulations. Industry often prefers to comply with a single national standard rather than multiple different state standards. And as the problem of the secondary market for solar shows, ultimately there needs to be some kind of international regulation.

The first step is a fee on solar panel purchases to make sure that the cost of safely removing, recycling or storing solar panel waste is internalized into the price of solar panels and not externalized onto future taxpayers. An obvious solution would be to impose a new fee on solar panels that would go into a federal disposal and decommissioning fund. The funds would then, in the future, be dispensed to state and local governments to pay for the removal and recycling or long-term storage of solar panel waste. The advantage of this fund over extended producer responsibility is that it would insure that solar panels are safely decommissioned, recycled, or stored over the long-term, even after solar manufacturers go bankrupt.

Second, the federal government should encourage citizen enforcement of laws to decommission, store, or recycle solar panels so that they do not end up in landfills. Currently, citizens have the right to file lawsuits against government agencies and corporations to force them to abide by various environmental laws, including ones that protect the public from toxic waste. Solar should be no different. Given the decentralized nature of solar energy production, and lack of technical expertise at the local level, it is especially important that the whole society be involved in protecting itself from exposure to dangerous toxins.

"We have a County and State approval process over the next couple months," Fogarty of Concerned Citizens of Fawn Lake told me, "but it has become clear that local authorities have very little technical breadth to analyze the impacts of such a massive solar power plant."

Lack of technical expertise can be a problem when solar developers like Sustainable Power Group, or sPower, <u>incorrectly claim</u> that the cadmium in its panels is not water soluble. That claim has been contradicted by the previously-mentioned Stuttgart <u>research scientists</u> who found cadmium from solar panels "can be almost completely washed out…over a period of several months…by rainwater."

Third, the United Nations Environment Programme's Global Partnership for Waste Management, as part of its International Environmental Partnership Center, should more strictly monitor e-waste shipments and encourage nations importing used solar panels into secondary markets to impose a fee to cover the cost of recycling or long-term management. Such a recycling and waste management fund could help nations address their other e-waste problems while supporting the development of a new, high-tech industry in recycling solar panels.

None of this will come quickly, or easily, and some solar industry executives will resist internalizing the cost of safely storing, or recycling, solar panel waste, perhaps for understandable reasons. They will rightly note that there are other kinds of electronic waste in the world. But it is notable that some new forms of electronic waste, namely smartphones like the iPhone, have in many cases replaced things like stereo systems, GPS devices, and alarm clocks and thus reduced their contribution to the e-waste stream. And no other electronics industry makes being "clean" its main selling point.

Wise solar industry leaders can learn from the past and be proactive in seeking stricter regulation in accordance with growing scientific evidence that solar panels pose a risk of toxic chemical contamination. "If waste issues are not preemptively addressed," <u>warns Mulvaney</u>, "the industry risks repeating the disastrous environmental mistakes of the electronics industry."

If the industry responds with foresight, Mulvaney notes, it could end up sparking clean innovation including "developing PV modules without hazardous inputs and recycled rare metals." And that's something everyone can get powered up about.