



## DEPARTMENT OF COMMUNITY DEVELOPMENT SERVICES

*Planning Division*

### m e m o r a n d u m

**TO:** Urbana Plan Commission

**FROM:** Marcus Ricci, Planner II

**DATE:** August 3, 2018

**SUBJECT:** CCZBA-895-AT-18: A request by the Champaign County Zoning Administrator to amend the text of the Champaign County Zoning Ordinance to add “PV Solar Farm” as a new principal use in the County AG-1 and AG-2 Districts subject to certain Special Use Conditions.

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### Introduction

The Champaign County Zoning Administrator is requesting to amend several sections of the Champaign County Zoning Ordinance to add “PV Solar Farm” as a new principal use under the category “Industrial Uses: Electric Power Generating Facilities” and indicate that a PV Solar Farm may be authorized by a County Board Special Use Permit in the AG-1 and AG-2 – Agriculture Zoning Districts. This amendment would allow for the development of large- and medium-scale photovoltaic (PV) solar arrays in the unincorporated areas of Champaign County.

The proposed text amendment is of interest to the City of Urbana to the extent that it will affect zoning and land use development decisions within the City’s one-and-one-half mile extraterritorial jurisdictional (ETJ) area. The City has subdivision and land development jurisdiction within the ETJ area, while the County holds zoning jurisdiction in this area. It is important that there be consistency between these two jurisdictions where certain regulations may overlap. Since development within this area may abut development within the corporate limits of the City or may eventually be annexed into the City’s corporate limits, some level of consistency in zoning regulations is also desirable. Land uses in the County affect the City of Urbana in several ways, including:

- Land uses in Champaign County can potentially conflict with adjacent land uses in the City of Urbana;
- Unincorporated portions of Champaign County adjacent to the City of Urbana will likely be annexed into the City at some point in the future. Existing land uses would also be incorporated as part of annexation; and
- In addition to land uses, development patterns of areas annexed into the City of Urbana will affect the City’s ability to grow according to the shared vision provided in the 2005 Comprehensive Plan.

For these reasons, the City should examine the proposed text amendment to the Champaign County Zoning Ordinance to ensure compatibility with existing City ordinances. It is the Plan Commission's responsibility to review the proposed amendment to determine what impact it may have on the City, and to recommend to City Council whether or not to protest the proposed text amendment. Under state law, a municipal protest of the proposed amendment would require three-quarters super majority of affirmative votes for approval of the request at the County Board; otherwise, a simple majority would be required.

## **Background**

According to materials provided by the applicant, there has been an increasing interest in solar farm developments (utility- and community-scale electrical generation using solar energy) throughout the State of Illinois in 2017, and there are seven pending PV Solar Farm cases on the Champaign County Zoning Board of Appeals (CCZBA) case docket.

The Champaign County Environment and Land Use Committee (ELUC) initially discussed this proposed amendment at its January 4, 2018, meeting and approved opening a CCZBA public hearing for the amendment at its March 1, 2018, meeting. Comments were received from ELUC and community members, and revisions were made based on that input. The CCZBA has met multiple times and made revisions to the proposed zoning ordinance text amendment. These meeting memoranda can be found at [http://www.co.champaign.il.us/CountyBoard/meetings\\_ZBA.php](http://www.co.champaign.il.us/CountyBoard/meetings_ZBA.php) (see "2018 Meetings" for the February 22 Preliminary Memo and Supplemental Memos #1 through #17). After extensive discussion, the CCZBA voted at its June 28, 2018, meeting to forward the zoning amendment to ELUC with a recommendation for approval (four ayes, two nays, one absence). This final version was introduced for review by ELUC on July 5, 2018 (Exhibit A). ELUC will discuss the item and render their final decision on August 9, 2018, and may forward it to the County Board for its August 23, 2018, meeting.

County planning staff have researched the subject and been provided resources from county planning agencies throughout the state, solar industry engineers, and financial experts. Many county residents and other concerned individuals have provided oral and written testimony, both in support of, and opposed to, the proposed text amendment. There were many items of discussion both amongst CCZBA members and between the CCZBA and members of the public, including concerns about noise and glare impacts, requirements for distance and screening buffers, and potential positive and negative impacts to local economy and property values. Although many concerns were brought up that focused on nearby residents and the local environment, this memorandum will focus on potential impacts to the City of Urbana.

The following information was provided in the CCZBA's Preliminary Memorandum (dated February 22, 2018):

- Overview of a Typical Solar Farm: There are typically three types of solar facilities:
  - Utility-Scale Solar Farms (40% of facilities) are large-scale facilities, usually 20+ acres, strictly for the production of electricity to be sold on the open market. These facilities must have, or be near, an electrical sub-station.
  - Community Solar Farms (50% of facilities) are smaller-scale facilities, usually between five and ten acres. They may be used for commercial generation or for community use such as a university, municipality, or other large land use or land use group. These do not need an electrical substation and can be constructed anywhere a three-phase electrical line exists.
  - Light Renewable Program (8% of facilities) are private, individual installations.
- Solar Farm Ordinances:
  - There is no model solar farm ordinance for Illinois communities. The Illinois Solar Energy Association (ISEA) provides specific recommendations for local zoning regulation of solar facilities in Illinois on 24 topics, ranging from applicability (zoning districts and by-right versus conditional/special permitting) and system size, to lot configuration and environmental impacts.
  - County planning staff reviewed existing solar farm ordinances from Kankakee, Christian, Fulton, Tazewell, and Whiteside Counties.
- Likely impacts of Solar Farm Development: reports were included on “The Top five Large-Scale Solar Myths”; the potential positive and negative environmental and economic impacts; and the potential socioeconomic impacts and mitigation measures.

Currently, the Champaign County Zoning Ordinance does not address any size of PV solar arrays; a household-sized PV solar array requires no permit. The proposed PV Solar Farm zoning ordinance text amendment is based on the existing Champaign County Zoning Ordinance's requirements for “wind farms” (§ 7.7). For comparison, the City of Urbana's Zoning Ordinance treats PV solar arrays as a “mechanical system” and requires that their use is accessory to an existing principal use. When an accessory solar array is installed in the City, it must meet setback requirements and, if ground-mounted, must be screened. The City currently has no zoning regulations permitting or regulating principal-use “utility- or community-scale solar energy systems” analogous to the PV Solar Farms interested in siting in the County.

## Discussion

### County Zoning

Exhibit A-2 contains a summary of the proposed text amendment. City staff reviewed the proposed language to determine potential impacts to land within the City's current or extraterritorial jurisdictions, or for potential impacts to the City's ability to plan or manage development. **Staff does not anticipate a negative impact to the City or to the City's ability to plan or manage growth or development.** Below are the proposed changes that are the most relevant to the City of Urbana.:

- § 4.2.1.C.(4) adds PV Solar Farm as a principal use in an AG-1 Zoning District or as a second principal use on a lot in an AG-2 Zoning District; either would require a County Board Special Use Permit.
- § 6.1.5.B.(2) prohibits locating a PV Solar Farm in the City’s ETJ except under these conditions:
  - a. the PV Solar Farm is not in the City’s Contiguous Urbana Growth Area (Exhibit B);
  - b. the Applicant has provided the City with a copy of the Special Use Permit Application; and
  - c. if no resolution from the City regarding a proposed PV Solar Farm is submitted prior to the consideration of the Special Use Permit by the County Board, the County Zoning Administrator shall provide documentation that the municipality was notified of the meeting dates.
- Various subsections of § 6.1.5.B. require distance separations, noise levels, visual screening and fencing, glare minimization, and a Decommissioning and Site Reclamation Plan.
- Most of the conditions may be waived by the County Board upon request by the applicant.

**Urbana 2005 Comprehensive Plan**

By State law, the City has the ability to review zoning decisions within its ETJ area for consistency with the City’s comprehensive plan. Therefore, Champaign County’s proposed Zoning Ordinance text amendment should be reviewed for consistency with the City of Urbana’s 2005 Comprehensive Plan, which includes the following pertinent goals and objectives:

**Goal 6.0**      **Preserve natural resources (including air, water, and land) and environmentally-sensitive areas in the community.**

*Objective 6.2*      Protect sensitive areas, such as wooded areas, major drainageways, and areas of topographic relief.

**Goal 15.0**      **Encourage compact, contiguous, and sustainable growth patterns.**

*Objective 15.5*      Promote intergovernmental cooperation on development and growth issues.

**Goal 16.0**      **Ensure that new land uses are compatible with and enhance the existing community.**

*Objective 16.2*      Preserve agricultural lands and environmentally-sensitive areas outside the growth area of the city.

**Goal 17.0**      **Minimize incompatible land uses.**

*Objectives 17.1*      Establish logical locations for land use types and mixes, minimizing potentially incompatible interfaces, such as industrial uses near residential areas.

17.2      Where land use incompatibilities exist, promote development and design controls to minimize concerns.

**Goal 21.0 Identify and address issues created by overlapping jurisdictions in the one-and-one-half mile Extraterritorial Jurisdictional area (ETJ).**

*Objectives 21.1* Coordinate with Champaign County on issues of zoning and subdivision in the ETJ.

21.2 Work with other units of government to resolve issues of urban development in unincorporated areas.

**Goal 23.0 Promote Urbana’s potential for technology-related businesses.**

*Objective 23.1* Capitalize on the proximity of the University of Illinois engineering and science campuses to promote technology-related businesses.

**Goal 28.0 Develop a diversified and broad, stable tax base.**

*Objective 28.1* Encourage an appropriate balance of residential, commercial, and industrial growth.

**Goal 33.0 Provide maximum service and dependable utilities.**

*Objective 33.5* Promote the use of alternative energy sources, such as wind and solar.

The proposed zoning ordinance text amendment to allow a principal use “PV Solar Farm” in the County AG-1 and AG-2 – Agriculture Zoning Districts subject to certain Special Use Conditions is generally consistent with these City goals and objectives. It seeks to increase the availability of renewably-generated electricity while reducing the negative impacts on existing adjacent residential uses. It also includes measures to protect farmland, natural and cultural resources, and wildlife. Finally, it attempts to expand the county’s tax base by adding industrial land uses with significant economic potential.

**Impacts to City of Urbana Zoning**

Within the City’s municipal boundaries, the proposed zoning ordinance text amendment does not directly impact the use of land, nor does it impact the City’s ability to manage growth and development. It does create a mechanism of prior notification and an opportunity to submit a resolution to the County regarding the proposed Special Use Permit, but the action would not trigger a super-majority vote by the County Board. Finally, the proposed amendment creates zones in the City’s area of extraterritorial jurisdiction within which a PV Solar Farm cannot be located. The City may view this as a beneficial buffer, as a barrier to development for land that may one day annex into the City, or both. **Staff does not anticipate a negative impact to the City or to the City’s ability to plan or manage growth or development.**

**Summary of Staff Findings**

- 1. The Champaign County Zoning Administrator is proposing a set of text amendments to add “PV Solar Farm” as a new principal use under the category “Industrial Uses: Electric Power Generating Facilities” and indicate that a PV Solar Farm may be authorized by a County Board Special Use Permit in the AG-1 and AG-2 – Agriculture Zoning Districts.

2. The City of Urbana has no similar use of a large- or medium-scale PV solar array which is permitted by-right, conditionally, or specially in any zoning district.
3. The proposed text amendment is generally compatible with the land use policy goals and objectives of the 2005 Urbana Comprehensive Plan, which promote natural resource preservation, contiguous growth, economic stability, and compatibility of land uses.
4. The proposed text amendment would not pose significant negative impacts to land uses or to the ability of the City to manage growth and development of land currently within the City's ETJ.

## Options

The Plan Commission has the following options in **CCZBA Case No. 895-AT-18**, a request to amend the Champaign County Zoning Ordinance to add "PV Solar Farm" as a new principal County Board Special Use in the AG-1 and AG-2 – Agriculture Zoning Districts. The Urbana Plan Commission may:

- a. Forward the plan case to the City Council with a recommendation to **defeat** a resolution of protest; or
- b. Forward the plan case to the City Council with a recommendation to **defeat** a resolution of protest, contingent upon specific provisions to be identified; or
- c. Forward the plan case to the City Council with a recommendation to **approve** a resolution of protest.

## Staff Recommendation

Based upon the findings above, staff recommends that the Plan Commission forward to the City Council a recommendation to **defeat a resolution of protest** as presented.

Attachments: Exhibit A: Proposed Solar Farm Zoning Ordinance Text Amendment  
- FULL LANGUAGE (available at <https://www.urbanaininois.us/node/7004>)  
Exhibit A-2: Proposed Solar Farm Text Amendment Staff Summary  
Exhibit B: Land Use Management Areas Map

cc: John Hall, Director, Champaign County Planning and Zoning

## Exhibit A-2.: Proposed Solar Farm Text Amendment Staff Summary

- 1) Amend Section 3 by adding definitions including but not limited to “NOXIOUS WEEDS” and “PV SOLAR FARM.”
- 2) Add new subparagraph 4.2.1 C.4. to indicate that PV SOLAR FARM may be authorized by County Board SPECIAL USE permit as a second PRINCIPAL USE on a LOT in the AG-1 DISTRICT or the AG-2 DISTRICT with another PRINCIPAL USE.
- 3) Add new subparagraph 4.3.4 H.4.i to exempt PV SOLAR FARM from the Pipeline Impact Radius regulations except as Pipeline Impact Radius regulations are required as a standard condition in new Section 6.1.5.
- 4) Amend Section 5.2 to add “PV SOLAR FARM” as a COUNTY BOARD Special Use Permit in the AG-1 District and AG-2 District.
- 5) Amend Section 5.3 to exempt LOTS in a PV SOLAR FARM County Board SPECIAL USE Permit and intended for PV SOLAR FARM, related substations, and PV SOLAR FARM maintenance and management facilities from the requirements of Section 5.3 except as such regulations are required by Subsection 6.1.5.
- 6) Add new paragraph 5.4.3 F. that prohibits the Rural Residential OVERLAY DISTRICT from being established inside a PV SOLAR FARM County Board SPECIAL USE Permit.
- 7) Amend Subsection 6.1.1.A. to Decommissioning and Site Reclamation Plan for NON-ADAPTABLE STRUCTURES, add PV SOLAR FARM as a NON-ADAPTABLE STRUCTURE, and make other modifications to the subsection.
- 8) Add new subsection 6.1.5 PV SOLAR FARM County Board SPECIAL USE Permit with new standard conditions for PV SOLAR FARM (based on existing subsection 6.1.4 for “WIND FARM”).
  - a) General Standard Conditions for: minimum areas; prohibited location areas; power grid interconnection permission status; adjacent properties’ “right to farm” acknowledgement.
    - i) § 6.1.5.B.(2)(a) Prohibited Areas prohibits locating a PV SOLAR FARM within 1-1/2 miles of an unincorporated municipality, unless special conditions are met:
      - (1) not within a Contiguous Urban Growth Area and at least ½-mile from a municipal boundary; and
      - (2) applicant has provided a copy of the Special Use Permit to the municipality; and
      - (3) 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 COUNTY 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.
    - ii) § 6.1.5.B.(2)(b) prohibits locating a PV SOLAR FARM less than ½ mile from a CR Conservation-Recreation Zoning District.
    - iii) § 6.1.5.B.(2)(a)(b) requires an applicant to notify the city by submitting a copy of the Special Use Permit to the city,
    - iv) § 6.1.5.B.(2)(a)(c) requires the COUNTY ZONING ADMINISTRATOR to provide documentation that s/he notified the municipality of the county bodies’ meeting dates, if no municipal resolution is submitted by the date of the BOARD’s meeting to consider the issue.

- b) Minimum Lot Standards
  - c) Minimum Separations from adjacent USES and STRUCTURES, including fencing. Based on LOT size and number of sides bordering the PV SOLAR FARM; from aerial-related facilities due to potential of glare impacts; between high-voltage facilities and residential uses/districts; between inverters and DWELLINGS; for solar equipment taller than eight feet; from property lines. *Required distance separations ranging from 240' to "as deemed necessary by the BOARD" may create or increase the size of zones within which a PV SOLAR cannot locate.*
  - d) Standard Conditions for Design and Installation of any PV SOLAR FARM
  - e) Standard Conditions to Mitigate Damage to Farmland
  - f) Standard Conditions for Use of Public Streets
  - g) Standard Conditions for Coordination with Local Fire Protection District
  - h) Standard Conditions for Allowable Noise Level: Noise levels must comply with Illinois Pollution Control Board regulations 35 IAC H:900/901/910. PV SOLAR FARMS must submit noise analysis, COMMUNITY PV SOLAR FARMS may be required to submit same. *Increased separation distances due to noise levels may create or increase the size of zones within which a PV SOLAR cannot locate.*
  - i) Standard Conditions for Endangered Species Consultation
  - j) Standard Conditions for Historic and Archaeological Resources Review
  - k) Standard Conditions for Acceptable Wildlife Impacts
  - l) Screening and fencing
    - i) Perimeter fencing: fully enclosed by minimum 7'-tall fence
    - ii) Vegetated visual screening: for any part of PV SOLAR FARM visible to and located within 1,000 feet of existing DWELLING or residential DISTRICT; some exceptions permitted or waivable
  - m) Standard Conditions to Minimize Glare
  - n) Standard Condition for Liability Insurance
  - o) Operational Standard Conditions: annual report submission; increase in solar devices/structures; cleaning procedures and water consumption estimate; materials handling, storage and disposal; vegetation management
  - p) Standard Condition for Decommissioning and Site Reclamation Plan: including financial assurances
  - q) Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture
  - r) Complaint Hotline: establish a telephone number hotline for the general public to call with complaints or questions
  - s) Standard Condition for Expiration of PV SOLAR FARM County Board SPECIAL USE Permit: expires in ten years if no Zoning Use Permit is granted
  - t) Application Requirements
- 9) Add new subsection 9.3.1.J. to add application fees for a SOLAR FARM zoning use permit.
- 10) Part K. Add new subparagraph 9.3.3 B.8. to add application fees for a SOLAR FARM County Board SPECIAL USE permit.

# Exhibit B.: Extra-Territorial Jurisdiction & Contiguous Urban Growth Areas

