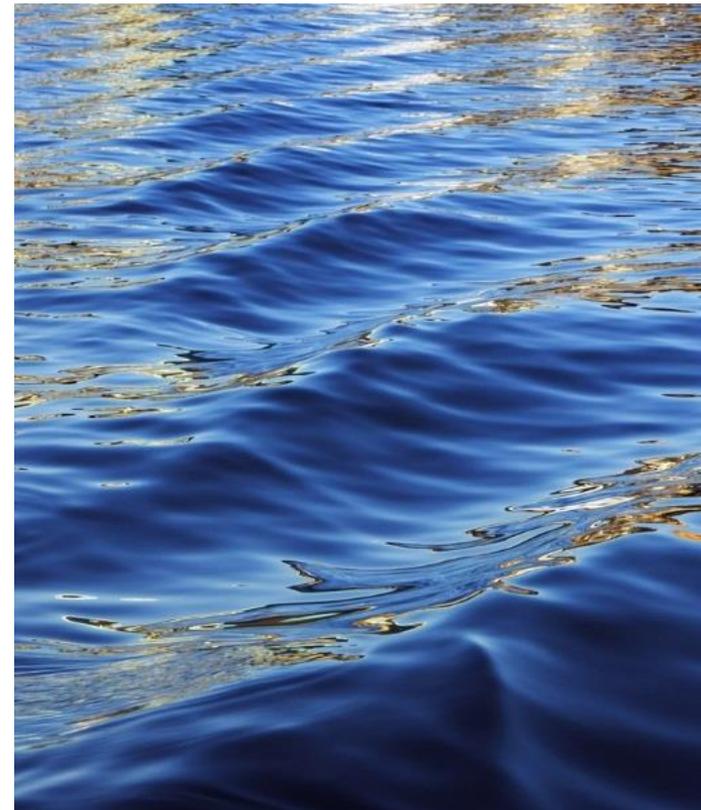




# Zoning Case 895-AT-18

Amending the Zoning Ordinance to add requirements for "solar farm"



# Zoning Case 895-AT-18

- ELUC authorized the public hearing on 2/8/18
- Public hearing opened on 3/1/18 and closed on 6/28/18
- Nine ZBA meetings lasting approx. 26 hours
- Testimony and email received from 96 citizens
- ZBA recommended on vote of 4 “aye” to 2 “nay” with one absent
- Tonight ELUC must affirm the ZBA recommendation or remand back to ZBA for additional public hearing

# Zoning Case 895-AT-18

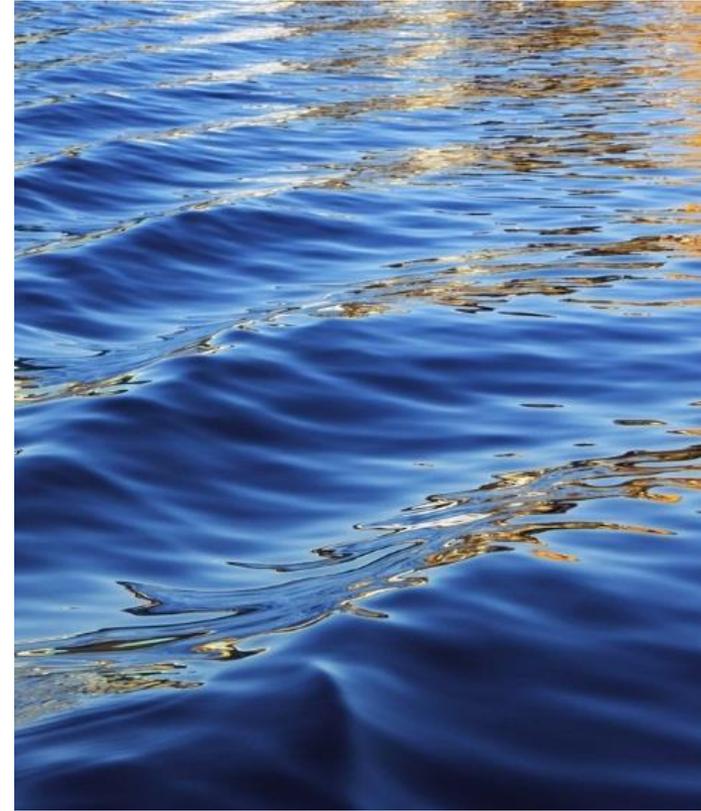
- Similar to a “wind farm”, a “PV solar farm” requires a County Board Special Use Permit that is only allowed in the AG-1 Agriculture and AG-2 Agriculture Zoning Districts.
- “PV” stands for “**photovoltaic**”, which is the only type of solar technology used in the Midwest. The requirements have been tailored to deal with the issues related only to “photovoltaic” solar farms.
- The Future Energy Jobs Act (Public Act 99-0906) created a special category of solar farm that is no more than 2 megawatts in nameplate rating, and so the amendment also provides for the “**community PV solar farm**”.
- The requirements (ie, “standard conditions”) for a PV solar farm are identical to those for a community PV solar farm except for the Roadway Upgrade and Maintenance Agreement (which may be waived for a community PV solar farm) and the noise analysis which are not a standard requirement for a community PV solar farm.



# Zoning Case

## 895-AT-18

Achievement of the Land Resource Management Plan



# Zoning Case 895-AT-18: Achievement of the Land Resource Management Plan

- The amendment is necessary to achieve Objective 9.5 (and Goal 9) of the LRMP which states:

**Champaign County will encourage the development and use of renewable energy sources where appropriate and compatible with existing land uses.**

# Zoning Case 895-AT-18: Achievement of the Land Resource Management Plan

- The amendment will help achieve LRMP Goal 2 that states:

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

- Sec. 6.1.5B.(2) of the amendment ensures municipal coordination by the following:
  - ) No PV solar farm allowed within any Contiguous Urban Growth Area in the LRMP
  - ) No PV solar farm allowed within one-half mile of any zoned municipality except as may be necessary to connect to an existing electrical substation.
  - ) The PV solar farm developer must provide notice to any municipality within one-half mile.
  - ) The Zoning Administrator will notify the municipality of ELUC & CB meetings.
- Numerous comments regarding municipal coordination were received from diverse viewpoints during the public hearing. All emails are listed as Documents of Record and all testimony is summarized in the Finding of Fact and in greater detail in the Approved Minutes.

# Zoning Case 895-AT-18: Achievement of the Land Resource Management Plan

- The amendment will help achieve LRMP Goal 4 Agriculture:

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

The amendment will help achieve Goal 4 by the following:

- Sec. 6.1.5B.(2) identifies where a PV solar farm should not be located (helps achieve Objective 4.3).
- Sec. 6.1.5D.(3)b. requires the perimeter fence to be a minimum of 10 feet from the property line to prevent interference with agriculture (helps achieve Objective 4.2).
- Sec. 6.1.5F. of the amendment requires mitigation of damage to farmland including (1) new protections for drainage district tile and (2) no more than minimal disturbance to best prime farmland and (3) a requirement to establish a vegetative ground cover that shall serve a secondary habitat purpose on best prime farmland inside the PV solar farm (helps achieve Objective 4.1).

# Zoning Case 895-AT-18: Achievement of the Land Resource Management Plan

Help Achievement of Goal 4 (continued)

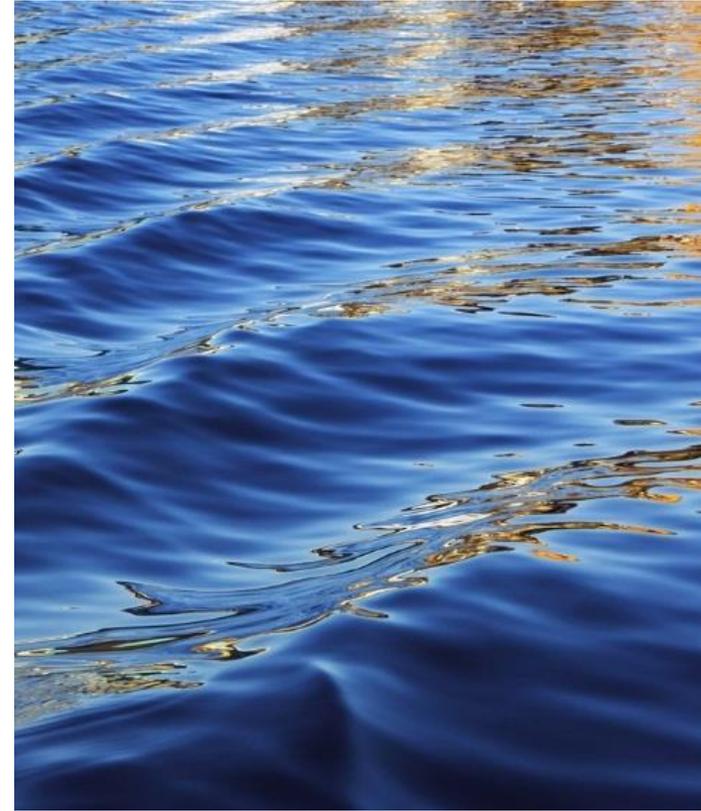
- Sec. 6.1.5G. requires a Roadway Upgrade and Maintenance Agreement with the relevant highway authority (helps achieve Objective 4.3).
- Sec. 6.1.5 R. requires an Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture, consistent with state law (helps achieve Objective 4.1).
- Sec. 6.1.5 Q. requires a Decommissioning and Site Reclamation Plan to ensure that if the PV solar farm ever stops being a solar farm the land can be reclaimed for agriculture (helps achieve Objective 4.1).



# Zoning Case

## 895-AT-18

Achievement of Zoning Ordinance Purpose



# Zoning Case 895-AT-18:

## Achievement of the Zoning Ordinance Purpose

- The amendment **will promote the public health, safety, comfort, morals, and general welfare by minimizing noise impacts** by the following:
  - The amendment requires separation distances between dwellings and the PV solar farm that will ensure that noise is lower than allowed by Illinois Pollution Control Board regulations:
    - ) Sec. 6.1.5D.(3)a. requires a minimum 240 feet separation from the perimeter fence of a PV solar farm to any property that is 10 acres or less in area and bordered on no more than two sides by the PV solar farm. A greater separation may be required for properties bordered on more than two sides.
    - ) Sec. 6.1.5 D(3)b. requires a minimum 255 feet separation from the perimeter fence of a PV solar farm to any dwelling on any property that is more than 10 acres in area.
    - ) Sec. 6.1.5 D.(6) requires a minimum 275 feet separation from the perimeter fence of a PV solar farm to any electrical inverter (the main noise source) inside the solar farm.
    - ) As an example of the noise reduction provided by the separations, for a single inverter that generates 64.3 decibels (dBA) at 10 meters, at 515 feet separation the noise is 40.38 dBA, not considering noise reflectivity of the PV panels and other environmental factors that might affect actual noise at a solar farm installation.

# Zoning Case 895-AT-18: Achievement of the Zoning Ordinance Purpose

- **promote the public health, safety, comfort, morals, and general welfare by minimizing noise impacts** by the following (continued):
  - ) Sec. 6.1.5D.(5) requires a minimum 500 feet separation between dwellings and residential DISTRICTS and PV solar farm electrical substations and transmission lines carrying more than 34.5 kVA.
  - ) Sec 6.1.5I. requires a noise analysis to prove compliance with Illinois Pollution Control Board noise regulations for any PV solar farm larger than a community PV solar farm but the ZBA may require the noise analysis for any community PV solar farm
  - Some testimony encouraged the County to adopt noise regulations more strict than the Illinois Pollution Control Board (IPCB) but the IPCB regulations are used in the amendment because they are a complete set of regulations with a methodology to measure noise in a reliable manner.

# Zoning Case 895-AT-18:

## Achievement of the Zoning Ordinance Purpose

- The amendment **will promote the public health, safety, comfort, morals, and general welfare by minimizing the visual impact on adjacent dwellings** by the following:
  - Sec. 6.1.5M.(2) requires a vegetative visual screen for any part of the PV solar farm that is visible to and within 1,000 feet of any dwelling. The screen may be any of the following:
    - ) A continuous line of native evergreen foliage and/or native shrubs and/or native trees planted in multiple rows to provide a 50% screen in 2 years and otherwise conforming to NRCS Practice Standard 380 Windbreak/ Shelterbreak Establishment; or
    - ) Provided the fence is opaque, a planting of tall native grasses and other flowering plants with the minimum width as required by ZBA may be used to screen any PV installation not more than 8 feet tall, or an area of agricultural crop production with a minimum width authorized by ZBA.

# Zoning Case 895-AT-18:

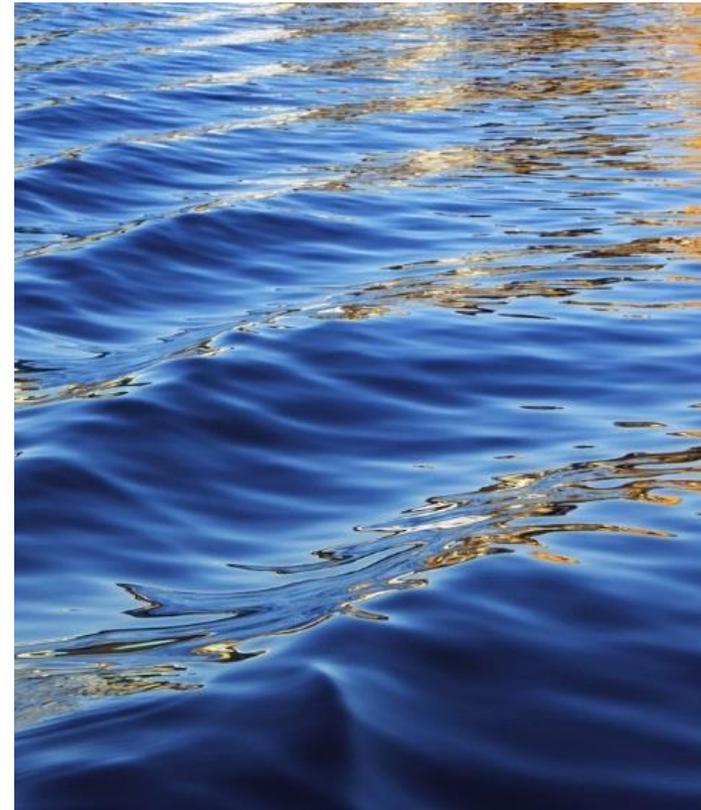
## Achievement of the Zoning Ordinance Purpose

- The amendment **will help conserve the value of land, buildings, and structures** by the following:
  - The ZBA found no direct evidence indicating solar farms have a negative effect on property values.
  - There will be positive effects on Equalized Assessed Valuation that will benefit taxing districts.
  - The minimum separations to adjacent dwellings will provide greater compatibility.
  - The Decommissioning and Site Reclamation Plan will ensure that the land can be reclaimed for agriculture.
  - Numerous comments regarding property value impacts were received from diverse viewpoints during the public hearing. All emails are listed as Documents of Record and all testimony is summarized in the Finding of Fact and in greater detail in the Approved Minutes.



# Zoning Case 895-AT-18:

Decision Points for ELUC



# Zoning Case 895-AT-18: Decision Points for ELUC

- On July 5 ELUC must affirm the ZBA recommendation or remand for additional public hearing.
- Compared to other Illinois county solar farm ordinances (see the counties comparison table handout):
  - the recommended amendment is **not the most restrictive in terms of minimum separations or fees.**
  - the recommended amendment has the **most protection for agriculture.**
  - the recommended amendment has the **most expensive financial assurance** requirements of any Illinois county because it requires an escrow account just like the existing wind farm requirement.
- The ZBA recognized the County Board may have a different opinion regarding the financial assurance requirement (ie, letter of credit vs. escrow account) and specified that **the County Board could decide not to require an escrow account without remand to the ZBA.**

# Zoning Case 895-AT-18:

## Decision Points for ELUC

- The ZBA recommendation regarding the financial assurance for Decommissioning and Site Reclamation can be summarized as follows:
  - **Amount of financial assurance:**  
Sec. 6.1.5Q.(4)a. requires **125%** of the decommissioning estimate but not less than \$1,000 per acre  
(compares to 210% required for wind farm; the IDAG Agricultural Impact Mitigation Agreement requires only 100%)
  - **When is financial assurance required:**  
Sec. 6.1.5Q.(4)a. requires 125% at time of Zoning Use Permit approval except that the following schedule is allowed for PV solar farm with a 10 year unlimited and 25 year limited warranty for PV modules:
    - ) **12.5%** required at time of Zoning Use Permit approval; and
    - ) **62.5%** required on the sixth anniversary of operation; and
    - ) **125%** required on the eleventh anniversary of operation  
(this is similar to the IDAG Agricultural Impact Mitigation Agreement requirement and compares to the existing requirement for 210% at the time of Zoning Use Permit approval)

# Zoning Case 895-AT-18: Decision Points for ELUC

- financial assurance for Decommissioning and Site Reclamation (continued)
  - **Required updates on the value of the financial assurance:**  
Sec. 6.1.5Q.(4)d. requires update once every three years for first twelve years and then once every two years (same as for wind farm) except for PV solar farm with a 10 year unlimited and 25 year limited warranty for PV modules with update once every 5 years for first 25 years and once every two years thereafter.
  - **Type of financial assurance required:**  
Sec. 6.1.5Q.(4)e. requires the **letter of credit to be converted to an escrow account** over the first 12 years of operation except PV solar farm with a 10 year unlimited and 25 year limited warranty for PV modules with conversion in **years 21 through 25**.  
(compares to wind farm requirement for conversion over the first 12 years of operation; note that the IDAG Agricultural Impact Mitigation Agreement does not require an escrow account)
- Some solar farm advocates believe a letter of credit should be adequate financial assurance and that requiring an escrow account is unnecessarily costly.

# Zoning Case 895-AT-18: Decision Points for ELUC

- Escrow account vs. Letter of Credit

Parameter	Escrow Account	Letter of Credit
Basis of assurance	Solar farm developer deposits cash	Bank provides developer an irrevocable letter of credit
Cost to solar farm developer	Approx. 10%	Approx. 1.5%
Risk to Champaign County	No risk provided the escrow agreement is sound.	Risk is based on the issuing bank; the letter of credit is backed by the bank and not by the solar farm developer.

# Zoning Case 895-AT-18: Decision Points for ELUC

- Escrow account vs. Letter of Credit (continued)

Parameter	Escrow Account	Letter of Credit
Ease of making a draw	Use standard form included in escrow agreement.	Use standard form included in decommissioning agreement.
What happens if dispute about a draw	The disbursing agent may hold funds until dispute is settled.  (see California Ridge Wind Farm)	General approach (legal precedent) is to allow any draw and then settle the dispute later
Can funds be used for solar farm refurbishment?	Yes, if allowed by agreement and if replaced with new letter of credit	No

# Zoning Case 895-AT-18: Decision Points for ELUC

- ELUC has following options:
  - Vote to affirm the recommendation from the ZBA
  - Vote to change the requirement from an escrow account to only a letter of credit, and affirm the rest of the recommendation
  - Vote to remand to ZBA for other changes?