

The
AREA PLAN COMMISSION
of Tippecanoe County

Ordinance Committee
Notice of Public Hearing

Date: December 2, 2020

Time: 4:40 PM

Location: Tippecanoe County Office Building

Tippecanoe Room

20 North Third Street

Lafayette, IN

AGENDA

I. PLEASE NOTE:

Due to the public health emergency, public comment on agenda items may be submitted prior to the meeting at apc@tippecanoe.in.gov. Comments must include name and address to be heard. Comments may also be made live on the streaming platforms. Members of the public may watch the livestream of the meeting on Facebook or YouTube. Links can be found on the county website at www.tippecanoe.in.gov/apc.

II. APPROVAL OF MINUTES FROM THE NOVEMBER 4TH MEETING

Documents:

[ORD 11.04.2020.PDF](#)

III. SOLAR ENERGY SYSTEMS AMENDMENT:

Continued discussion regarding adding requirements and standards for accessory solar energy systems; community-scale and large-scale solar energy systems to the Unified Zoning Ordinance - Rabita Foley

Documents:

[AMEND99 SOLAR ENERGY SYSTEM 11_25_2020.PDF](#)

IV. CITIZEN COMMENTS

V. ADJOURNMENT

**AREA PLAN COMMISSION OF TIPPECANOE COUNTY
ORDINANCE COMMITTEE
MINUTES OF A PUBLIC HEARING**

DATE..... November 4, 2020
 TIME..... 4:40 P.M.
 PLACE..... COUNTY OFFICE BUILDING
 20 N. 3RD STREET
 LAFAYETTE, IN 47901

Due to the public health emergency, the meeting was held virtually. Members of the public may watch the livestream of the meeting at <https://www.facebook.com/TippecanoeCountyIndiana> or <https://www.youtube.com/channel/UCJleeA9ZQo9E11GdZTdjurQ/featured>

MEMBERS PRESENT

Jerry Reynolds
 Vicki Pearl
 Greg Jones
 Carl Griffin
 Tom Murtaugh
 Gary Schroeder
 Larry Leverenz

MEMBERS ABSENT

Jackson Bogan

STAFF PRESENT

Sallie Fahey
 Ryan O’Gara
 Rabita Foley
 Chyna Lynch
 Larry Aukerman
 Zach Williams, Atty.

I. APPROVAL OF MINUTES

Gary Schroeder moved to approve the minutes from the October 7, 2020 Joint Committee meeting. Carl Griffin seconded and the minutes, as submitted, were approved by unanimous voice vote.

II. SOLAR ENERGY SYSTEMS AMENDMENT:

Adding requirements and standards regarding accessory solar energy systems; community-scale and large-scale solar energy systems to the Unified Zoning Ordinance.

Rabita Foley said last month, we briefly presented our solar ordinance to the Committee and the task at hand this evening is to discuss each section in relation to the solar energy systems ordinance amendment. She asked the Committee if they would like to go through each section or have a Q&A style discussion.

Gary Schroder said he would like to go through each section and see if there are any comments or questions.

Rabita Foley displayed the draft ordinance. Section 1 is related to the definition section in the ordinance. She asked if there is anything missing in this portion of the amendment that the Committee would like to include.

Sallie Fahey said anything in the zoning ordinance that is in bold or italics is a defined term. For instance, under the new definition of abandoned, in that definition, the term solar energy systems and SES are in bold italics so the reader knows that they are defined and their specific definition can be found as another reference.

Rabita Foley said Section 2 discusses the primary use table which includes large-scale SES and community-scale SES. A large-scale SES would be permitted by right in all Industrial zones and by special exception in Agricultural and Office Research. A community-scale SES would be permitted by right in all zones except for Flood Plain.

Gary Schroeder asked if Duke Energy has a commercial operation in Tippecanoe County.

Rabita Foley said they only have a small operation in Tippecanoe County that is research based in collaboration with Purdue. Duke is regulated through the IURC so the solar ordinance would not be applicable to Duke Energy.

Sallie Fahey asked if Zach Williams would be willing to give a brief overview of what it means to be IURC regulated and how not to be regulated.

Zach Williams said the IURC is going to regulate anyone under their jurisdiction. If a utility provider, whether it is solar, wind or otherwise, falls under the jurisdiction of the IURC then they will be exempt from our zoning statutes. Many of the utility providers in the solar and wind energy industries seek to get out from under the IURC's jurisdiction. There is a process where they can file a petition and ask that the IURC grant specific exceptions that will render them not regulated by the IURC. The utility provider will then fall under the local zoning rules. The local ordinance is one thing the IURC looks at when they are deciding whether to grant the exception. This is one of the reasons why staff has spent so much time trying to get a framework in place for those entities that are going to be exempt from IURC regulations.

Rabita Foley said Section 3 and Section 4 discuss accessory use solar which will be allowed in all zones so long as they have an established primary use on the property. An accessory SES for residential use would allow building mounted and ground mounted systems. Building mounted systems may project a maximum of 3 feet beyond the front and rear of the building. Ground mounted systems have a standard setback and are exempt from lot coverage requirements. The requirements for non-residential buildings are similar. Section 5 discusses the height of the accessory system and allows ground mounted systems to be as tall as 15 feet. Building mounted systems may exceed the maximum height of the building it is located on by 5 feet.

Section 6 discusses large-scale systems and includes some of the regulations that are development standards. Staff envisions this being implemented when an applicant comes in with a proposal for a special exception or a by right development, it will have to meet all the development standards of its zone and the additional development standards for a large-scale SES. Large-scale systems are exempt from lot coverage requirements. This section also discusses planting pollinator friendly plants with the solar installation in order to conserve the land. The list of development standards that are required when they apply for an improvement location permit will be reviewed by staff. This will include various setbacks when abutting a residential use or a residential zone. The height shall be calculated as the distance from the ground level to the top of the solar panel at its greatest incline and would be dictated by the zoning. There will be a 36-inch space between the ground and the panels to allow for native species to thrive. She presented a visual to show how the plants will coexist with the solar panels. There are several types of plants and species proposed if the 36-inch space can be maintained. The security fence requirement is similar to the other open uses in the ordinance. The ordinance requires transmission lines be underground and completely shielded against shock hazard. Other than that, most of the other requirements are similar to what is in the ordinance for other large-scale developments. The bufferyard requirement for this type of use may not be as beneficial because the shading may cause difficulties for the generation of electricity. Staff has provided an option where the bufferyard requirement can be waived by the Administrative Officer. This can give some leeway in some areas that are not heavily residentially developed. If there is industrial development abutting the site, they may not require any bufferyard. Staff is requiring that the applicant provide a power purchase agreement. Staff intends to receive an application at the development phase when they are ready to break ground not in the initial phase during a feasibility study. The requirement of the power purchase agreement in this phase will allow staff to see the credibility of the solar developer at the time they file for a permit or a special exception request.

Sallie Fahey said the whole concept of a special exception is that it is the last approval needed prior to obtaining a building permit. To have everything lined up, including their power purchase agreement, is the last step in making sure that they are ready to go from the special exception immediately to the building permit. This prevents unnecessary speculative activity so when someone is going for a special exception, they are committed to creating this solar farm.

Zach Williams said from a legal perspective, it is staff's opinion that everything in these restrictions are reasonably based on the industry and are necessary for property and community safety. He asked if that is fair.

Rabita Foley said that is fair.

Zach Williams said if there are any questions, he, Sallie or Rabita would be available to address the Committee.

Carl Griffin asked if a solar proposal will go to the BZA for the special exception.

Rabita Foley said that is correct.

Carl Griffin said things do not get approved at the BZA from time to time. We are assuming that when such a plan is brought to the BZA, it is going to come with the approval of staff.

Rabita Foley said that is correct.

Carl Griffin said the proposal will come with an approval from staff so that the members of the BZA are less likely to not approve it after the time and money has been put toward the development of the large-scale systems.

Rabita Foley said that is a fair assessment. Some special exceptions that staff reviews, like cell towers, are rarely denied unless there is a significant disadvantage to the community. This will be of similar nature.

Sallie Fahey said staff would not allow one of these to get to the BZA if they were not already meeting all the requirements. In a rare case, they may also be applying for a variance to reduce a setback or something similar but that would have to be heard and approved before the special exception would be eligible for approval.

Rabita Foley said the decommissioning plan and removal requirements were discussed a little at the previous meeting. It is simple in that this has been done for wind energy systems in the past and the proposed decommissioning plan is similar. The only difference is that bonding review will be required every 5 years to make sure we have the most current estimate for the decommissioning portion of the project.

Sallie Fahey said she and Rabita included in the packet the County Commissioner's ordinance that was the follow-on ordinance to the original wind energy amendment so the Committee could see what was in the County's wind energy decommissioning plan. The Committee can compare this and potentially take any parts of this that are appropriate into the solar energy decommissioning plan. Unless changes need to be made to this, the last piece that we will need to work out is what will be collected in terms of money. It needs to be determined if we will be collecting the full amount of the decommissioning cost or the premium that would keep the bond in place. Alternatively, if someone does not use a performance bond and they want to use a certificate of deposit or another financial instrument, it is not clear if surety will be for the full amount of the decommissioning. These details have yet to be worked out.

Vicki Pearl said her biggest concern is if it all goes south, how does it get paid for. Most banks do not write letters of credits for 20 years; it is typically renewed annually. She said she would have concerns about a certificate of deposit because the term of that is not going to the term of how long this will be in existence. It is not clear how staff will monitor the certificate if it matures in 2 years.

Rabita Foley asked Sallie if there is a way to track bonds with subdivisions.

Sallie Fahey said it is tracked by using a program that alerts staff when something is a couple months out from expiring. She said she agrees with Vicki that the letter of credit is the most burdensome to staff. We do need to take into account what staff is going to have to do to make this work and what we can make the developer of the solar field responsible for. Those are valid issues to discuss further.

Tom Murtaugh asked if staff has researched what others in the state have done in this case.

Rabita Foley said yes, they also use the surety formats that have been mentioned. Vicki is concerned that the letter of credit may not be something that we want to include because of its procedural inefficiencies.

Vicki Pearl said when she writes a letter of credit for a customer it is usually a year to 2-year term. It is not something that is a 5-year term.

Zach Williams said he has seen banks write letters of credit for court cases longer than 2 years. He said he agrees with Vicki that it is rare. The control on the front end by staff will be key. If the developer wants to do a project of this scale, we will want them to have well-defined terms on how to satisfy this. Staff will also have the five-year check to monitor the bonds on the long-term systems in case something goes sideways or the company goes out of business. If the developer tried to submit a letter of credit that is only good for one year, they will not get past the first step. The most important thing is having that control and staff being able to say if something is not good enough.

Sallie Fahey said it would be useful to have a working committee that ironed out some of these details. This could include a few staff members, Zach Williams, Vicki Pearl, Tom Murtaugh, Gary Schroeder and Jackson Bogan. That way we can better define this to be sure that we get a methodology that both protects the community, county and staff. We will set up a committee and if anyone else on the Ordinance Committee would like to participate, please let Rabita know. These meeting can also be held virtually.

Larry Leverenz said we can just make that an ad hoc committee.

Sallie asked if Larry would like to be involved.

Larry Leverenz said that he would like to be involved.

Rabita Foley said Section 7 discusses community-scale solar energy. The main difference between large-scale systems and community-scale systems is that we are not requiring any pollinator friendly plant mixes to be installed. Community-scale systems are allowed in all zones by right. The setbacks are different from large-scale solar because there are a lot of areas within urban settings where a larger setback would not be possible. Besides these minor differences, community-scale has similar requirements including the decommissioning plan and removal requirements which are almost identical to the large-scale systems.

Sallie Fahey said the idea of the community-scale is that this type of installation would provide power to a shopping center, a single-family subdivision or an apartment complex. There might be excess energy produced which could be a trade-off with the utility company. This is not just accessory to one use but it is accessory to a development rather than a single primary use.

Larry Leverenz this is a technology we are seeing more of. He asked if staff is confident that the ordinance would meet the technology changes that we are going to see as this expands.

Rabita Foley said this is a question that staff has discussed internally because it is a constantly advancing technology. It is expected that amendments will have to be made to the ordinance based on the advanced technology. Staff is aware of two different areas of research that study the ability to have crops like corn or soybeans alongside solar energy production. When that happens, we will have to change the ordinance. Staff will begin with this proposal and when needed, amend the ordinance to accommodate technology changes so long as it fits within our guidelines and promotes the well-being of our community.

Larry Leverenz said the overall ordinance has a philosophical feel. There is a feeling of what we are expecting out of a solar energy system and the changes can be made as needed.

Rabita Foley said staff has looked at many communities in Indiana as well as out of state to make this proposal. There has been quite a bit of background research to back up everything in the ordinance.

Larry Leverenz asked where residential solar systems fall within the ordinance.

Rabita Foley said it would be considered an accessory use and would be permitted by right. The allowances that have been included in the ordinance would even allow some non-conforming homes to include solar. As a side note, we are allowing community-scale systems to be building mounted and ground mounted. If there are large scale businesses that want to use their roof for the solar installation, they would be able to do that. This could also be said for an apartment complex.

Larry Leverenz said the plan is to put together an ad hoc committee to discuss decommissioning funding. Otherwise, this is ready to go.

Sallie Fahey said her recommendation is that the ad hoc committee work hard to complete its work by the next Ordinance Committee meeting. This would also give the public one more month to comment which has not happened to date despite there being a lot of interest on this topic. If the Committee is ready after the meeting next month, they can make a recommendation to the full APC.

Larry Leverenz said that is a good plan.

Gary Schroeder said it is one thing to decommission a wind tower which would be expensive. It is another thing to decommission a solar field which might not be as expensive. It would be helpful to know what the cost of decommissioning would be once we start discussing bonding.

Rabita Foley said she has some references that she can share on the cost of decommissioning a solar field but they are 2-3 years old.

Gary Schroeder said that would be great. Staff and Rabita have done a nice job with this. He thanked staff.

III. CITIZEN COMMENT

Larry Leverenz said there will be a 30-second pause for citizen comment. There was none.

IV. ADJOURNMENT

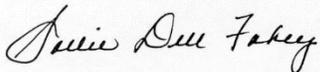
Gary Schroeder moved to adjourn.

The meeting adjourned at 6:03 p.m.

Respectfully Submitted,

Chyna R. Lynch
Recording Secretary

Reviewed By,



Sallie Fahey
Executive Director

MEMORANDUM

TO: APC Ordinance Committee
FROM: Rabita Foley
SUBJECT: Solar Development Ordinance (surety method)
DATE: November 25, 2020

The ordinance committee and staff decided to create an ad hoc committee to discuss an equitable surety for removing solar energy systems at the November 4, 2020 meeting. Staff arranged the ad hoc committee meeting on November 17, which included the following individuals (listed alphabetically).

Jackson Bogan – Ordinance Committee
Sallie Fahey – APC staff
Rabita Foley – APC staff
Larry Leverenz – Ordinance Committee
Tom Murtaugh – Ordinance Committee
Vicki Pearl – Ordinance Committee
Gary Schroeder – Ordinance Committee
Zach Williams – APC attorney

The ad hoc committee's discussion led to the following additions to the solar ordinance:

1. Added language to ensure that the surety is in a form acceptable to the staff or Administrative Officer.
2. Included a mandatory pre-submission meeting/conference involving the applicant (if other than the property owner) and the property owner before submitting a special exception or ILP application.
3. Required a certification from a professional engineer for the cost estimate.
4. Included the requirement for recordation of a decommissioning plan as a condition of approval for both a special exception request and an improvement location permit application.
5. Included both the property owner and the applicant as the responsible party to fulfill the recorded decommissioning plan's requirement.
6. Removed the decommissioning requirement for community-scale SES when utilized by institutional uses.
7. Included an example of a cost estimate table with the minimum required items for decommissioning a solar energy system.
8. Various surety templates borrowed from the USO and revised to fit the SES decommissioning plan will be included. (*work in progress*)

The above changes are shown in red on the attached ordinance amendment.

STAFF RECOMMENDATION:

Approval

ORDINANCE NO. _____

**AN ORDINANCE AMENDING
ORDINANCE NO. _____
BEING THE UNIFIED ZONING ORDINANCE
OF TIPPECANOE COUNTY.**

Be it ordained by the (County Commissioners of Tippecanoe County, Indiana; the Common Council of the City of Lafayette, Indiana; the Common Council of the City of West Lafayette, Indiana; the Town Council of the Town of Battle Ground, Indiana; the Town Council of the Town of Dayton, Indiana; and the Town Council of Clarks Hill, Indiana), that Ordinance No. _____, being the Unified Zoning Ordinance of Tippecanoe County is hereby amended as follows:

Section 1: Change **UZO Section 1-10-2 Words and Terms Defined** to add the following definitions:

ABANDONED. Regarding *solar energy systems*, a **SES** that does not generate electricity for a continuous twelve (12) month period, or any solar energy system falling into a state of disrepair for twelve consecutive months shall be deemed abandoned.

ACCESSORY SOLAR ENERGY SYSTEM. The *ground-mounted or building-mounted SES*, accessory to a *primary use*.

BUILDING-MOUNTED SOLAR ENERGY SYSTEM. An **SES** in which solar panels are structurally mounted to a building.

COMMUNITY-SCALE SOLAR ENERGY SYSTEM. A *ground-mounted SES* on less than 10 acres or a *building-mounted SES* on any amount of acreage that provides power to residential or commercial or industrial uses located on-site or off-site from the location of the solar energy generation.

CONCENTRATED SOLAR POWER (CSP). A solar energy system that uses mirrors to reflect and concentrate sunlight. CSP is not permitted in any zone.

GROUND-MOUNTED SOLAR ENERGY SYSTEM. An **SES** that is directly installed into the ground and is not attached or affixed to an existing building.

INVERTER. A device that converts direct current (DC) to alternating current (AC).

LARGE-SCALE SOLAR ENERGY SYSTEM. A *ground-mounted solar energy system*, on a tract(s) equal to or more than ten acres, for the purpose of generating

- (A) **Building-mounted solar energy systems** may project a maximum of three feet beyond the front or rear of the building **and must be within the property line.**
- (B) **Side setback for building-mounted solar energy systems** (~~standard side setback~~) **(considered as structural projections)** as regulated in UZO 4-4-5 below.
- (C) **Ground-mounted solar energy systems setback** (standard).
- (D) **Ground-mounted solar energy systems** shall be exempt from **lot coverage** requirements.

Section 5: Add UZO 4-5-1 (d) Height of the accessory solar energy system:

- (1) **Building-mounted solar energy systems** may exceed the maximum allowed **building height** on which it is located by five feet at the maximum incline (tilt).
- (2) **Ground-mounted solar energy systems** shall have a maximum height of 15 feet.

Section 6: Add UZO 4-11-14 Large Scale Solar Energy System as follows:

- (a) A **large-scale solar energy system** is exempt from UZO 4-6 and **lot coverage** requirements.
- (b) A pre-submission meeting is required before submitting a **special exception** request or an **improvement location permit** application. Both property owner and applicant must attend and shall be prepared to explain the justification for an SES proposal at the pre-submission meeting.
- (c) An applicant **or a property owner** shall submit the following with a **special exception** request or an **improvement location permit** application.
 - (1) A **large-scale solar energy system site plan** shall also include the following:
 - (A) All solar panels, **mounting devices**, and **inverters** shall be **setback** 50 feet from all property lines.
 - (B) Solar **inverters** shall be **setback** a minimum of 200 feet when abutting a residential use property line or residential zone.
 - (C) The height shall be calculated as the distance from ground level to the top of the solar panel at its greatest incline (tilt).
 - (D) All solar panels, as well as all **mounting devices**, shall be a minimum of 36 inches above ground level as measured from any ground point to the closest point of any solar panel or **mounting devices**.
 - (E) A security fence at least 6' high shall be installed around the **large-scale solar energy system** with emergency access allowed 24/7.
 - (F) Power transmission lines from a **large-scale solar energy system** shall be underground and shall be completely shielded against shock hazard. Lines that connect one panel to another or from the

system to the main transmission lines are not required to be underground.

(G) Driveway entrances shall comply with UZO 4-7.

- (2) A stormwater management plan shall be reviewed and approved by the participating jurisdiction.
 - (3) All driveway entrances shall be approved by the participating jurisdiction.
 - (4) Any approval, if required from the Federal Aviation Administration regulations, for installations surrounding airports shall conform to UZO 5-3.
 - (5) All applicable approvals from federal, state and local agencies.
 - (6) A **Bufferyard** is required **as per UZO 4-9** except when waived by the **Administrative Officer**.
 - (7) Pollinator-friendly seed mixes and native plants plan approved by a Registered Landscape Architect or Certified Ecologist or Licensed Horticulturist, are required around/under a large-scale solar energy system.
 - (8) The site shall be planted and maintained to be free of all invasive species, as listed by the Indiana Invasive Species Council.
 - (9) An applicant shall provide a redacted version of the executed power purchase agreement.
- (d) Decommissioning plan and removal requirements:
- (1) A decommissioning plan for a **large-scale solar energy system** shall be approved by the **ABZA** when **special exception** is required or by the **Administrative Officer** for systems permitted by right, prior to issuance of the **improvement location permit**. **The approved decommissioning plan shall be recorded in the office of the Tippecanoe County Recorder.**
 - (2) A decommissioning plan shall include removal of all solar electric systems, buildings, cabling, electrical components, security fence, driveway entrance, foundations, pilings, and any other associated facilities, pollinator friendly seed mixes and native plants, so that any agricultural ground upon which the facility or system was located is again tillable and suitable for agricultural uses. However, the landowner may request in writing that the existing pollinator friendly seed mixes and native plants, driveway entrance, security fence or other land surface areas not be restored, and this request shall be approved by the **ABZA** or the **Administrative Officer**. Hazardous materials, including **mounting devices** from a **large-scale solar energy system** shall be disposed of in accordance with federal and state law.
 - (3) A final decommissioning plan shall be certified by a Professional Engineer, or a Registered Land Surveyor, or a Registered Landscape Architect.
 - (4) An applicant **or a property owner** shall provide an itemized cost estimate to decommission the **large-scale solar energy system** prepared by a Professional Engineer **or contractor** who has expertise in the removal of

- solar facilities to the **ABZA** or the **Administrative Officer**. The A cost estimate shall not include any estimates or offsets for the resale or salvage values of the **large-scale solar energy system** equipment and materials.
- (5) An applicant **or a property owner** shall be required to file a surety **acceptable to the APC's legal counsel or Administrative Officer**, for the estimated amount, approved by the **ABZA when special exception** is required or by **the Administrative Officer** for systems permitted by right, prior to the issuance of an **improvement location permit**.
 - (6) A decommissioning cost estimate shall include a mechanism for calculating increased removal costs due to inflation. This cost estimate shall be recalculated every five years and the surety shall be updated to reflect the change. Failure to renew the cost estimate and update the surety every five years shall void the grant of special exception.
 - (7) An applicant **or a property owner** shall file and receive an approval for a demolition permit before decommissioning begins.
 - (8) When a decommissioning is complete, an applicant **or a property owner** shall submit the final report outlining the completion of the decommissioning plan to the **ABZA** if granted through **special exception** or the **Administrative Officer** for approval. The **ABZA** or the **Administrative Officer** shall then release the surety.
 - (9) If an applicant **or a property owner** fails to meet the requirements set in the decommissioning plan or the **large-scale solar energy system** is **abandoned**, the **ABZA** or the **Administrative Officer** may request the county to declare the surety in default and use the proceeds to complete the decommissioning plan.

Section 7: Add UZO 4-11-15 Community-Scale Solar Energy System as follows:

- (a) A **community-scale solar energy system** is exempt from UZO 4-6 and **lot coverage** requirements.
- (b) A pre-submission meeting is required before submitting a **special exception** request or an **improvement location permit** application. Both property owner and applicant must attend and shall be prepared to explain the justification for an SES proposal at the pre-submission meeting.
- (c) **Ground-mounted:**
 - (1) An applicant **or a property owner** shall submit the following with an **improvement location permit** application:

- (A) All solar panels, **mounting devices**, and **inverters** shall be **setback** 25 feet from all property lines.
 - (B) Solar **inverters** shall be **setback** a minimum of 50 feet when abutting a residential use property line or residential zone.
 - (C) The height shall be calculated as the distance from ground level to the top of the solar panel at its greatest incline (tilt).
 - (D) A security fence at least 6' high shall be installed around the **community-scale solar energy system** with emergency access allowed 24/7.
 - (E) Power transmission lines from **ground-mounted community-scale solar energy system** shall be underground and shall be completely shielded against shock hazard. Lines that connect one panel to another or from the system to the main transmission lines are not required to be underground.
 - (F) Driveway entrances shall comply with UZO 4-7.
- (2) A stormwater management plan shall be reviewed and approved by the participating jurisdiction.
 - (3) All driveway entrances shall be approved by the participating jurisdiction.
 - (4) Any approval, if required from the Federal Aviation Administration regulations, for installations surrounding airports shall conform to UZO 5-3.
 - (5) All applicable approvals from federal, state and local agencies.
 - (6) A **Bufferyard** is required **as per UZO 4-9** except when waived by the Administrative Officer.
 - (7) **Institutional uses are exempt from the requirements of 4-11-15 (b) 8 (D-F and I)**
 - (8) Decommissioning plan and removal requirements:
 - (A) A decommissioning plan for a **community-scale solar energy system** shall be approved by the **Administrative Officer** prior to issuance of the **improvement location permit**.
 - (B) A decommissioning plan shall include removal of all solar electric systems, buildings, cabling, electrical components, security fence, driveway entrance, foundations, pilings, and any other associated facilities. However, the landowner may request in writing that the existing driveway entrance, security fence or other land surface areas not be restored, and this request shall be approved by the **Administrative Officer**. Hazardous materials, including **mounting devices** from a **community-scale solar energy system** shall be disposed of in accordance with federal, state and local laws.
 - (C) A final decommissioning plan shall be certified by a Professional Engineer.

- (D) An applicant **or a property owner** shall provide an itemized cost estimate to decommission the **community-scale solar energy system** prepared by a Certified Engineer or contractor who has expertise in the removal of solar facilities to the **Administrative Officer**. The cost estimate shall not include any estimates or offsets for the resale or salvage values of the **community-scale solar energy system** equipment and materials.
- (E) A decommissioning cost estimate shall include a mechanism for calculating increased removal costs due to inflation. This cost estimate shall be recalculated every five years and the surety shall be updated to reflect the change. Failure to renew the cost estimate and update the surety every five years shall void the grant of special exception.
- (F) An applicant **or a property owner** shall be required to file a surety **acceptable to the Administrative Officer**, for the estimated amount, approved by the **Administrative Officer** prior to the issuance of an **improvement location permit**.
- (G) An applicant **or a property owner** shall file and receive an approval for a demolition permit before decommissioning begins.
- (H) When a decommissioning is complete, an applicant **or a property owner** shall submit the final report outlining the completion of the decommissioning plan to the **Administrative Officer** for approval. The **Administrative Officer** shall then release the surety.
- (I) If an applicant **or a property owner** fails to meet the requirements set in the decommissioning plan or a **community-scale solar energy system** is **abandoned**, the **Administrative Officer** may request the county to declare the surety in default and use the proceed to complete the decommissioning plan.

(d) **Building-mounted:**

- (1) A **community-scale solar energy system** may exceed the maximum allowed **building height** on which it is located by ten feet at the maximum incline (tilt).
- (2) A **community-scale solar energy system** may project up to three feet beyond the **front** or **rear** of the building, and as regulated in UZO 4-4-5 below.
- (3) A **community-scale solar energy system** shall comply with all applicable federal, state and local laws and ordinances, including but not limited to building codes, fire codes, and historic preservation districts.

Section 8: Add UZO Appendix L-Decommissioning Documents to include a cost estimate table with the minimum required line items to decommission a SES and surety template as follows:

L-1 Breakdown of cost for removal of SES

Decommissioning Costs					
S.N	Item Description	Quantity	Unit	Unit Cost	Total Cost
1	Mobilization/Demobilization				
	Mobilization/Demobilization		Lump Sum		
2	Permitting				
	Local Permits		Lump Sum		
	State Permits		Lump Sum		
3	Civil Infrastructure				
	Removal Gravel Surfacing from Road		CY		
	Haul Gravel Removed from Road		CY		
	Disposal of Gravel Removal from Road 325		CY		
	Removal Geotextile Fabric from Road Area		SF		
	Culvert Removal and Disposal		Each		
	De-Compact and Grade Road Corridor		LF		
	Topsoil and Stabilization on Removed Road		Acres		
	Removal of Security Fence		LF		
4	Structural Infrastructure				
	Remove PV Rack Steel Posts		Each		
	Haul PV Rack Array Steel Post		Ton		
	Removal Transformer Station Post		Each		
	Haul Transformer Station Post		Ton		
	Removal Array Tracker & Motors		Each		
	Haul Array Tracker & Motors		Ton		
	Remove, Load, Haul Concrete Electrical Pads		CY		
5	Electrical Collection/Transmission System				
	Removal of PV Modules		Each		
	Haul PV Modules		Ton		
	Remove and Load Inverters		Each		
	Haul Inverters		Ton		

	Removal Loading and Freight of Transformers		Each		
	Removal, Loading and Freight of Electrical Equipment		Each		
	Removal and Disposal of SCADA Equipment		Each		
	Removal and Load Underground Collector System Cables		LF		
	Haul Underground Cable		Ton		
6	Site Restoration (if applicable)				
	Perimeter Controls		LF		
	Topsoil and Turf Establishment on area within Removed Array		Acres		
Grand Total = Add the cost for items included in sections 1 through 6 above.					

This ordinance shall be in full force and effect from and after its passage.

References and Resources

Are You Solar Ready? Seven steps to successfully manage large-scale solar development.
<https://www.planning.org/planning/2020/mar/are-you-solar-ready/>

Bloomington, Indiana (Ordinance)
<https://bloomington.in.gov/planning/udo>

Elkhart County, Indiana (Ordinance)
<http://www.elkhartcountyplanninganddevelopment.com/>

Fulton County, Indiana (Ordinance)
<https://www.co.fulton.in.us/department/index.php?structureid=14>

Henry County, Indiana (Ordinance)
<http://www.henryco.net/attachments/Henry%20County%20Draft%20Solar%20Ordinance.pdf>

Henry County REMC
<https://www.hoosierenergy.com/my-solar-henry/>

Indiana Office of Energy Development (OED)
<https://www.in.gov/oed/2650.htm>

Logansport, Indiana (Ordinance)
<http://www.cityoflogansport.org/departments/planning-zoning-department/>

Michiana Area Council of Governments
http://macog.com/solar_energy.html

Monroe County, Indiana (Ordinance)
https://www.co.monroe.in.us/eqov/documents/1579205918_0969.pdf

National Conference of State Legislatures
[https://www.ncsl.org/research/energy/renewable-portfolio-standards.aspx#:~:text=The%20state's%20two%20investor%20Downed,megawatts%20\(MW\)%20or%20less.](https://www.ncsl.org/research/energy/renewable-portfolio-standards.aspx#:~:text=The%20state's%20two%20investor%20Downed,megawatts%20(MW)%20or%20less.)

Planning for Solar Energy (PAS REPORT 575)
<https://www.planning.org/publications/report/9117592/>

Planning for Utility-Scale Solar Energy Facilities PAS Memo
<https://www.planning.org/pas/memo/2019/sep/>

Randolph, Indiana (Ordinance)
<https://randolphcounty.us/form/randolph-county-unified-zoning-ordinance-1>

Renewable Energy Used in State Renewable Portfolio Standards Yielded Sizable Benefits and Other Impacts in 2013

<https://www.nrel.gov/news/press/2016/21615.html>

Shelby County, Indiana (Ordinance)

<https://ag.purdue.edu/Documents/ordinance/Shelby.pdf>

Solar Energy Industries Association

<https://www.seia.org/state-solar-policy/indiana-solar>

<https://www.seia.org/sites/default/files/2020-09/Indiana.pdf>

Solar Powering Your Community: A Guide for Local Governments

<https://www.epa.gov/repowertoolbox/solar-powering-your-community-guide-local-governments>

Solarize Indiana

<https://solarizeindiana.org/>

St. Joseph County, Indiana (Ordinance)

<https://www.sjcindiana.com/352/Zoning-Ordinances>

Tribal Energy Efficiency and Renewable Energy Development on Tribal Lands (Brochure)- 2010

White County, Indiana (Ordinance)

<http://www.whitecountyin.us/index.php/home/area-plan>

Recent articles related to large-scale solar energy systems in Indiana.

NIPSCO announces 100-megawatt solar farm for Henry County, 200M W one for Boone County, both with plans for 2023 completion

<https://indianaeconomicdigest.com/Content/Default/Also-In-The-News/Article/NIPSCO-announces-100-megawatt-solar-farm-for-Henry-County-200M-W-one-for-Boone-County-both-with-plans-for-2023-completion/-3/5307/100831>

IURC says solar farm project should be under local jurisdiction

<https://www.wishtv.com/news/iurc-says-solar-farm-project-should-be-under-local-jurisdiction/>

Indiana county adopts new solar energy ordinance requiring pollinator-friendly groundcover

<https://www.solarpowerworldonline.com/2020/07/indiana-county-adopts-first-ever-solar-energy-ordinance-requiring-pollinator-friendly-groundcover/>

Tax break given to \$175 million Shelby County solar panel project

<https://indianaeconomicdigest.com/MobileContent/Most-Recent/Region-1/Article/Tax-break-given-to-175-million-Shelby-County-solar-panel-project/31/79/95603>

Bloomington, Indiana diversifies its energy supply with residential and municipal solar

<https://eri.iu.edu/erit/case-studies/bloomington-solar-initiatives.html>

The Push For Solar Energy In Indiana

<https://www.wfyi.org/programs/all-in/radio/The-Push-For-Solar-Energy-In-Indiana-Repeat>