United City of Yorkville
651 Prairie Pointe Drive
Yorkville, Illinois 60560
Telephone: 630-553-4350
www.yorkville.il.us

PLANNING AND ZONING COMMISSION AGENDA

Wednesday, March 13, 2024
7:00 PM
Yorkville City Hall Council Chambers
651 Prairie Pointe Drive

Meeting Called to Order: 7:00 p.m.

Roll Call:

Previous meeting minutes: February 14, 2024

Citizen's Comments

Public Hearings

1. **PZC 2024-06 United City of Yorkville,** petitioner, is proposing to amend Section 10-4-13 Alternative Energy Use Standards regarding solar farms of the Yorkville Unified Development Ordinance. The proposed text amendment provides additional regulations requiring a minimum distance of one-thousand feet (1,000') from the nearest solar array to a major corridor and the Fox River. Additional minor proposed text amendments include typographical errors, clarification regarding solar glare, proof of utility service provider, and easement requirements.

Unfinished Business

New Business

1. **PZC 2024-06 United City of Yorkville,** petitioner, is proposing to amend Section 10-4-13 Alternative Energy Use Standards regarding solar farms of the Yorkville Unified Development Ordinance. The proposed text amendment provides additional regulations requiring a minimum distance of one-thousand feet (1,000') from the nearest solar array to a major corridor and the Fox River. Additional minor proposed text amendments include typographical errors, clarification regarding solar glare, proof of utility service provider, and easement requirements.

   Action Item
   Text Amendment

Additional Business

1. **City Council Action Updates**
   a. **PZC 2024-04 United City of Yorkville,** petitioner, is proposing to amend the Yorkville Comprehensive Plan, including a modified future land use map, pursuant to Section 11-12-7 of the Illinois Municipal Code (65 ILCS 5/11-12-7) and Section 9-1-1 of the Yorkville City

Code. The proposed amendment adds sections the Future Land Use – Map Addendum to reclassify the property located at Cannonball Trail and south of Galena Road from "Estate Conservation/Residential" to a land use designation of "Agricultural Zone (AZ)". The request will also amend the property located at the southeast corner of the US Route 34 and Sycamore Road from the "Neighborhood Retail (NR)" to the "Mid-Density Residential (MDR)" land use category. The changes are a result of a rezoning approvals made by the City Council in calendar year 2023.

Action Item
Text Amendment

Adjournment

PLANNING & ZONING COMMISSION

City Council Chambers
651 Prairie Pointe Drive, Yorkville, IL
Wednesday, February 14, 2024 7:00pm

Meeting Called to Order
Vice-Chairman Danny Williams called the meeting to order at 7:00pm, roll was called and a quorum was established.

Roll Call
Danny Williams-yes, Rusty Hyett-yes (via Zoom), Greg Millen-yes, Rich Vinyard-yes (via Zoom)

Absent: Reagan Goins

City Staff
Krysti Barksdale-Noble, Community Development Director
Sara Mendez, Planner1

Other Guests
Lynn Dubajic Kellogg, City Consultant
Chris Vitosh, Vitosh Reporting Service

Previous Meeting Minutes January 10, 2024
Motion by Richard Vinyard and second by Greg Millen to approve the minutes as presented. Roll call: Hyett-yes, Millen-yes, Vinyard-yes, Williams-yes Carried 4-0.

Citizen's Comments None

Public Hearings

1. **PZC 2024-04 United City of Yorkville,** petitioner, is proposing to amend the Yorkville Comprehensive Plan, including a modified future land use map, pursuant to Section 11-12-7 of the Illinois Municipal Code (65 ILCS 5/11-12-7) and Section 9-1-1 of the Yorkville City Code. The proposed amendment adds sections to the Future Land Use – Map Addendum to reclassify the property located at Cannonball Trail and south of Galena Road from "Estate Conservation/Residential" to a land use designation of "Agricultural Zone (AZ)". The request will also amend the property located at the southeast corner of US Route 34 and Sycamore Road from the "Neighborhood Retail (NR)" to the "Mid-Density Residential (MDR)" land use category. The changes are a result of rezoning approvals made by the City Council in calendar year 2023.

Mr. Williams explained the procedure for the Hearing.

A motion was made and seconded by Mr. Vinyard and Mr. Millen, respectively, to open the Public Hearing at approximately 7:01pm. Roll call: Hyett-yes, Millen-yes, Vinyard-yes, Williams-yes. Carried 4-0.

Mr. Williams read the Hearing description and Ms. Noble provided background.

At approximately 7:05pm a motion was made by Mr. Millen and seconded by Mr. Vinyard to close the Public Hearing. Roll call: Vinyard-yes, Williams-yes, Hyett-yes, Millen-yes. Carried 4-0.

(See Court Reporter's transcript)

Unfinished Business None

New Business

1. **PZC 2024-04 United City of Yorkville** (same as description above)

There was no discussion.

Action Item

Text Amendment

A motion was made by Mr. Millen and seconded by Mr. Hyett to approve PZC 2024-04 and Mr. Williams read the motion as follows: In consideration of testimony presented during a Public Hearing on February 14, 2024 and discussions conducted at that meeting, the Planning and Zoning Commission recommends approval to the City Council of a request to amend the United City of Yorkville's 2016 Comprehensive Plan Update future land use for the two (2) identified land use changes as presented in a staff memorandum dated January 29, 2024. Roll call: Vinyard-yes, Williams-yes, Hyett-yes, Millen-yes. Carried 4-0.

Additional Business

1. 2023 Year in Review

Ms. Noble said staff and new Planner Sara Mendez, prepared a slide presentation of the year in review which is also available on the city's website. There were 414 new housing starts, up 46% from the previous year. This translated to $3 million in permit fees. She gave a quick summary of the report contents. She also noted the Unified Development Ordinance (UDO) was completed.

2. City Council Action Updates

Ms. Noble summarized the 2 approvals: (a) PZC 2024-02 Steve Greenblatt variance and (b) PZC 2024-03 Kendall County Petition 1.5 mile review for Grainco.

Adjournment

There was no further business and the meeting was adjourned at 7:12pm on a motion by Mr. Millen, (no second). Unanimous voice vote approval.

Respectfully submitted by
Marlys Young, Minute Taker

UNITED CITY OF YORKVILLE

YORKVILLE, ILLINOIS

PLANNING AND ZONING COMMISSION

PUBLIC HEARING

651 Prairie Pointe Drive

Yorkville, Illinois

Wednesday, February 14, 2024

7:00 p.m.

PRESENT: (In-person and via Zoom.)

Mr. Danny Williams, Chairman,

Mr. Richard Vinyard,

Mr. Greg Millen,

Mr. Rusty Hyett.

ALSO PRESENT:

Ms. Krysti Barksdale-Noble, Community Development Director;

Ms. Sara Mendez, Planner;

Ms. Marlys Young, Minute Taker.

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(WHEREUPON, the following proceedings were had in public hearing:)

CHAIRMAN WILLIAMS: There is one public hearing scheduled for tonight's Planning and Zoning Commission meeting. The purpose of this hearing is to invite testimony from members of the public regarding the proposed request that is being considered before this commission tonight.

Public testimony from persons present who wish to speak may be for or against the request or to ask questions of the petitioner regarding the request being heard.

Those persons wishing to testify are asked to speak clearly, one at a time, state your name and who you represent, if anyone. You are also asked to sign in at the podium.

If you plan to speak during tonight's public hearing as a petitioner or a member of the public, please stand, raise your right hand and repeat after me. Seeing as there is no one in the room or in Zoomland, we can skip through that.

The order for receiving testimony

will be as follows: The petitioner will present; those who wish to speak in favor of the request; then those who wish to speak in opposition of the request.

May I have a motion to open the public hearing of Petition Number PZC 2024-04, United City of Yorkville for a text amendment to the Comprehensive Plan?

MR. MILLEN: So moved.

MR. VINYARD: So moved.

CHAIRMAN WILLIAMS: Do we have a second then?

MR. MILLEN: Second.

CHAIRMAN WILLIAMS: All right. Roll call vote on the motion, please.

MS. YOUNG: Yes. Hyett.

MR. HYETT: Yes.

MS. YOUNG: Millen.

MR. MILLEN: Yes.

MS. YOUNG: Vinyard. Vinyard.

MR. VINYARD: Yes.

MS. YOUNG: And Williams.

CHAIRMAN WILLIAMS: Yes.

The public hearing up for discussion

tonight is as follows: United City of Yorkville, petitioner, is proposing to amend the Yorkville Comprehensive Plan, including a modified future land use map pursuant to Section 11-12-7 of the Illinois Municipal Code, 65 ILCS 5/11-12-7 and Section 9-1-1 of the Yorkville City Code.

The proposed amendment adds sections to the future land use map addendum to reclassify the property located at Cannonball Trail and south of Galena Road from Estate Conservation/Residential to a land use designation of Agricultural Zone, AZ. The request will also amend the property located at the southeast corner of U.S. Route 34 and Sycamore Road from the Neighborhood Retail, NR, to the Mid-Density Residential, MDR, land use category.

The changes are a result of a rezoning approvals made by the City Council in calendar year 2023.

Is the petitioner for PZC 2024-04, United City of Yorkville, ready to present?

MS. NOBLE: Yes. So Staff just wanted to continue our progress of updating our

Comprehensive Plan annually, so we go through any changes in the texts that have been done through rezonings or any other land use reclassification.

So in 2023 we had two developments that came that rendered the need for a change in future land use to our Comprehensive Plan, which was adopted in 2016. Those two developments were Bristol Ridge Solar Farm 105 and the Northpointe Development, which is a proposed senior apartment development.

So the Bristol Ridge originally had a future land use designation as single family due to -- or estate conservation residential, which equated to single family development.

Due to the approval and proposed construction of a solar facility, we are proposing to change that future land use to agriculture, so you will see images in the packet which shows how those land use changes will look in the final document, and then the second parcel, Northpointe, that was originally designed for a future land use of neighborhood retail. Because of the multi-family residential approval for the senior facility, Staff felt that

mid-density residential land use designation would be appropriate.

Unless there are any questions, this is the extent of the changes and, as I mentioned, continues from changes that we have adopted over the last almost seven years.

CHAIRMAN WILLIAMS: Thank you, Krysti. Is there anyone present who wishes to speak in favor of the request?

(No response.)

CHAIRMAN WILLIAMS: Is there anyone present who wishes to speak in opposition to the request?

(No response.)

CHAIRMAN WILLIAMS: Are there any questions from commissioners for the petitioner?

(No response.)

CHAIRMAN WILLIAMS: Anyone out in Zoomland?

MR. VINYARD: No.

CHAIRMAN WILLIAMS: All right. Since all public testimony regarding the petition has been taken, may I have a motion to close the taking of testimony in this public hearing?

MR. MILLEN: So moved.

MR. VINYARD: Second.

CHAIRMAN WILLIAMS: Roll call vote on the motion, please.

MS. YOUNG: Yes. Vinyard.

MR. VINYARD: Yes.

MS. YOUNG: Williams.

CHAIRMAN WILLIAMS: Yes.

MS. YOUNG: Hyett.

MR. HYETT: Yes.

MS. YOUNG: And Millen.

MR. MILLEN: Yes.

MS. YOUNG: Thank you.

CHAIRMAN WILLIAMS: The public hearing portion of tonight's hearing is closed.

(Which were all the proceedings had in the public hearing portion of the meeting.)

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STATE OF ILLINOIS)
) SS:
COUNTY OF LASALLE)

I, CHRISTINE M. VITOSH, a Certified Shorthand Reporter of the State of Illinois, do hereby certify:

That previous to the commencement of any testimony heard, the witnesses were duly sworn to testify the whole truth concerning the matters herein;

That the foregoing public hearing transcript, Pages 1 through 10, was reported stenographically by me by means of machine shorthand, was simultaneously reduced to typewriting via computer-aided transcription under my personal direction, and constitutes a true record of the testimony given and the proceedings had;

That the said public hearing was taken before me at the time and place specified;

That I am not a relative or employee or attorney or counsel, nor a relative or employee of such attorney or counsel for any of the parties hereto, nor interested directly or indirectly in the outcome of this action.

I further certify that my certificate attached hereto applies to the original transcript and copies thereof, signed and certified under my hand only. I assume no responsibility for the accuracy of any reproduced copies not made under my control or direction.

IN WITNESS WHEREOF, I do hereunto set my hand at Leland, Illinois, this 22nd day of February, 2024.

/s/ Christine M Vitosh

CHRISTINE M. VITOSH,
C.S.R. Certificate No. 084-02883.

Memorandum

To: Planning and Zoning Commission
From: Krysti J. Barksdale-Noble, Community Development Director
CC: Sara Mendez, Planner I
Bart Olson, City Administrator
Date: March 1, 2024
Subject: **PZC 2024-06** Alternative Energy Use Standards – Text Amendment
Solar Farm Regulations

Summary

A request to amend Section 10-4-13. Alternative Energy Use Standards in the Unified Development Ordinance regarding commercial scale solar farm facilities. The proposed amendments provide additional regulations requiring a minimum distance of one-thousand feet (1,000') from the nearest solar array to a major corridor and the Fox River. Additionally, staff proposes minor text amendments related to typographical errors, clarification regarding solar glare, proof of utility service provider, and easement requirements.

Background

After feedback from the Economic Development Committee (EDC) in September 2023 regarding a petition for a solar farm development along IL Route 47, staff requested further discussion on polices, guidelines, or preferences for locations of solar developments in the City to provide direction when future petitioners approach the City with large-scale solar projects. To assist with the discussion by the Economic Development Committee regarding potential policies and guidelines for appropriate site location of solar farms, staff researched planning advisory articles (see attached) with recommended parameters for large-scale solar facilities. Some of those recommendations included:

1) **Maximum acreage or density** (e.g., not more than two facilities within a two-mile radius) to mitigate the impacts related to the scale of these facilities.
2) **Location outside of growth areas** or a specified distance from an identified zoning district, certain land use, or growth area (e.g., Solar Farm must be setback 1,500 feet from a major arterial roadway as identified in the Comprehensive Plan; may not be located within 1,000 feet of an existing residential structure or zoned district; or not within 800 feet from an existing commercial zoning or land use).
3) **Avoidance of or minimization of impact to the viewshed** of any scenic, cultural, or recreational resources (i.e., large solar facilities may not be seen from surrounding points that are in line-of-sight with a resource location). Major Yorkville scenic, cultural, or recreational resources may include the Fox River and the Raging Waves waterpark.

Upon review and additional feedback provided in January 2024, the Economic Development Committee recommended the City consider amending the Alternative Energy Use Standards regarding solar farms in the Unified Development Ordinance (UDO) to regulate the following:

- Minimum Distance of 1,000 feet from nearest solar arrays to major roadways
- Minimum Distance of 1,000 feet from nearest solar arrays to the Fox River
- Maximum Number of five (5) solar farms permitted within the city

It is important to note that upon review of the EDC's recommendations, the City Attorney has opined that while she has not been able to find any court decision or statute applicable to municipalities capping the number of solar farms in their communities, she does feel that such a restriction would be problematic due to the broadness of the regulation without a solid justification that couldn't apply to any other land use. Therefore, staff recommends not including a cap on solar farm developments but allow the other proposed regulations to control the development of such uses.

Approved & Proposed Solar Farms

The attached map and following table illustrate the nine (9) solar farm projects that were either approved, previously applied but withdrawn, currently applied, or have inquired if the site is acceptable to the city for development:

Project Name	Parcel Number(s)	Zoning	Development Name	Year	Application Status	Nearest Solar Array to Roadway
GRNE Solar	02-29-100-006	O OFFICE	Kendall Co. Campus	2018	Approved	~900 ft. to US 34
BAP Power	05-03-300-029	B-3 GENERAL BUSINESS	Windmill Farms PUD	2018	Withdrawn	N/A
New Leaf Energy	02-18-400-002 02-17-300-002	A-1 AGRICULTURAL	N/A (Annexed)	2022	Approved	~4,600 ft. to Eldamain Road ~183 ft. to Beecher Road*
Bristol Ridge Solar 105	02-15-126-004	A-1 AGRICULTURAL	Bristol Ridge PUD	2023	Approved	~1,000 ft.to Cannonball Trail
Bristol Ridge Solar 106	02-10-300-017	R-2 SINGLE-FAMILY, R-3 MULTI-FAMILY ATTACHED	Bristol Ridge PUD	2023	Withdrawn	N/A
Lanceleaf Solar	02-04-100-006	B-3 GENERAL BUSINESS	Bailey Meadows PUD	2023	Applied	~150 ft. to IL 47
Yorkville Renewables	02-08-200-030	B-3 GENERAL BUSINESS	Westbury East Village PUD	2023	Applied	~1,100 ft. to IL 47 ~1,500 ft. to Galena Road
New Leaf Energy (Ament Road)	05-16-300-006 05-17-400-005	N/A	N/A (Unincorporated)	2023	Inquiry	N/A
Corneils Solar	02-08-300-011 02-08-300-012 02-08-300-008	N/A	N/A (Unincorporated)	2024	Applied	~1,700 ft. to Corneils Road*

**Roadway not considered a major roadway as identified in Table 7.1: Existing Roadway and Rail Network in the Yorkville 2016 Comprehensive Plan Update.*

Based upon the three (3) approved and three (3) applied for applications for solar farm developments, all but two (2) would meet the proposed minimum 1,000-foot distance to a major roadway. All are well over 1,000 feet from the Fox River.

Proposed Text Amendments

In consideration of the direction provided by the Economic Development Committee and a written opinion by the City Attorney, staff is proposing to amend Section 10-4-13. Alternative Energy Use Standards in the Unified Development Ordinance (UDO) related to solar farms. We are also proposing to make additional minor text amendments within this section of the UDO to correct typographical/grammatical errors, clarification regarding solar glare, requiring proof of utility service provider, and blanket easement requirements. The following is a summary of the proposed amendments:

1. Section 10-4-13.A.2 **Use**. ~~Alternative energy systems~~ Solar and Wind Farms shall be an accessory to the principal permitted use of a site.
    a. Staff proposes to amend this section by removing "Alternative energy systems" and replace it with "Solar and Wind Farms" to clarify that only commercial scale solar or wind

farms are required to be an accessory to the principal permitted use since individual freestanding solar and freestanding wind systems are permitted as principal uses in Section 10-4-13.E and 10-4-13.I of the Unified Development Ordinance.

2. Section 10-4-13.B.4.a. Evidence shall be provided that the electric utility service provider that serves the proposed site has been notified of the owner's intent to install an interconnected customer owned electricity generator.
    a. Staff proposes to add this clause to ensure the proposed solar fam location has already been submitted for review by the local electric utility provider and thereby a viable location.
3. Section 10-4-13.B.8.c. Buffer Areas: one thousand (1,000) feet from the nearest solar array to roadway networks, as defined in Figure 7.1: Existing Roadway and Rail Network of the 2016 United City of Yorkville Comprehensive Plan Update.
    a. Staff proposes to add buffer requirements between solar arrays and major roadways, as proposed by the Economic Development Committee.
4. Section 10-4-13.B.8.d. Fox River: one thousand (1,000) feet from the nearest solar array to the edge of the bank of the Fox River.
    a. Staff proposes to add buffer requirements between solar arrays and the Fox River, as proposed by the Economic Development Committee.
5. Section 10-4-13.B.10. Outdoor Storage. Only the outdoor storage of materials, vehicles, and equipment that directly support the operation and maintenance of the ~~wind~~ solar farm shall be allowed except for outdoor storage that is expressly allowed in the zoning district specified elsewhere in this title.
    a. Staff proposes to remove "wind" and replace with "solar" as this section of the Unified Development Ordinance specifically refers to solar farms.
6. Section 10-4-13.B.13. Solar Glare: Solar panels shall be placed such that concentrated solar radiation or glare shall not be directed onto nearby properties or roadways.
    a. Staff proposes to add language related to solar glare to this section of the Unified Development Ordinance specific to solar farms. Similar language is included for freestanding solar energy systems in Sections 10-4-13.D.3 and 10-4-13.E.3 with the Unified Development Ordinance. Staff believes the exclusion of this proposed language was an inadvertent oversight.
7. Section 10-4-13.B.14. Easement: A blanket easement, or other authorized means of access as determined by the City Attorney, shall be provided over the property to allow the City or its contractor to enter and remove the abandoned system in compliance with the City Code.
    a. Staff proposes to add language requiring applicants seeking solar farms to provide an easement allowing City staff or its contractor to enter on the property and remove the arrays and equipment should the system be abandoned. This language has been required in all solar farm developments as a condition of the special use but should be codified.

Staff Comments

Staff is supportive of the proposed text amendments to the Alternative Energy Use Standards in the Unified Development Ordinance as it provides further clarification of preferred locations for commercial scale solar farm developments and decreases the potential impact of such projects from scenic viewpoints and significant environmental features.

Proposed Motion:

In consideration of testimony presented during a Public Hearing on March 13, 2024 and discussions conducted at that meeting, the Planning and Zoning Commission recommends approval to the City Council of a request to amend Section 10-4-13 Alternative Energy Use Standards regarding solar farms of the Yorkville Unified Development Ordinance as presented in a staff memorandum dated March 1, 2024 and further subject to {insert any additional conditions of the Planning and Zoning Commission}…

Attachments

1. Draft Approving Ordinance
2. Proposed redlined amendments to Section 10-4-13 Alternative Energy Use Standards in the Unified Development Ordinance
3. Written Opinion by the City Attorney regarding solar farm regulation, prepared by Kathleen Field Orr dated February 19, 2024.
4. Yorkville Solar Farm Projects – Buffer Map
5. Yorkville Solar Farm Projects – ComEd Distribution Electric Lines
6. Figure 7.1: Existing Roadway and Rail Network of the 2016 United City of Yorkville Comprehensive Plan Update.
7. American Planning Association Planning Advisory Service (PAS) Memo titled "*Planning for Utility-Scale Solar Energy Facilities*" dated September/October 2019.
8. Public Hearing Notice

Ordinance No. _____

AN ORDINANCE OF THE UNITED CITY OF YORKVILLE, KENDALL COUNTY, ILLINOIS, APPROVING AN AMENDMENT TO THE YORKVILLE UNIFIED DEVELOPMENT ORDINANCE REGARDING ALTERNATIVE ENERGY USE STANDARDS (SOLAR FARMS)

WHEREAS, the United City of Yorkville (the "*City*") is a duly organized and validly existing non home-rule municipality created in accordance with the Constitution of the State of Illinois of 1970 and the laws of the State; and,

WHEREAS, pursuant to Section 10-8-11 of the United City of Yorkville Unified Development Ordinance ("UDO") the City may initiate amendments to the Zoning Ordinance; and,

WHEREAS, the City filed a request seeking an amendment to the UDO to provide regulations requiring a minimum distance of one-thousand feet (1,000') from the nearest solar array to a major corridor or the Fox River. In addition, the City seeks to make minor amendments related to typographical errors, clarification regarding solar glare, proof of utility service provider, and easement requirements; and,

WHEREAS, the Planning and Zoning Commission convened and held a public hearing on March 13, 2024, to consider the request and adopted Findings of Fact with recommendations to the City Council to approve the requested text amendment.

NOW, THEREFORE, BE IT ORDAINED by the Mayor and City Council of the United City of Yorkville, Kendall County, Illinois, as follows:

Section 1: That the above recitals are hereby incorporated and made a part of this Ordinance.

Section 2: That a Section 10-19-4-F of the United City of Yorkville Unified Development Ordinance is hereby amended attached hereto and made a part hereof as *Exhibit A*.

Section 3: This Ordinance shall be in full force and effect after its passage, publication, and approval as provided by law.

Passed by the City Council of the United City of Yorkville, Kendall County, Illinois, this _____ day of _____, 2024.

_____
City Clerk

DAN TRANSIER	_____	KEN KOCH	_____
CRAIG SOLING	_____	ARDEN JOE PLOCHER	_____
CHRIS FUNKHOUSER	_____	RUSTY CORNEILS	_____
SEAVER TARULIS	_____	MATT MAREK	_____

Approved by me, as Mayor of the United City of Yorkville, Kendall County, Illinois, this _____ day of _____, 2024.

_____
Mayor

10-4-13. Alternative Energy Use Standards

A. **General Requirements for all Alternative Energy Uses**.

1. **Applicability**. The provisions of this Section are to establish zoning parameters by which solar and wind energy systems may be installed in the City. Additional renewable energy solutions not mentioned herein may be authorized subject to compliance with the applicable codes and standards of the City.

2. **Use**. ~~Alternative energy systems~~ Solar and Wind Farms shall be an accessory to the principal permitted use of a site.

3. **Abandoned Systems**. All alternative energy systems inactive or inoperable for twelve (12) continuous months shall be deemed abandoned. If the system is deemed abandoned, the owner is required to repair or remove the system from the property at the owner's expense within ninety (90) days after notice from the City. If the owner does not comply with said notice, the Building Code Official shall enforce this as a violation of the Yorkville Zoning Ordinance.

4. **Signage**. No attention getting device is permitted on any alternative energy system. One (1) sign shall be permitted to indicate the emergency contact information of the property owner or operator. Said sign shall not exceed two (2) square feet in size. Graphics, colors, corporate logos, and text on wind energy systems located within business or manufacturing zoned properties are permitted, subject to the discretion of the City Council.

5. **Safety**. All wind energy systems shall be equipped with manual and/or automatic controls and mechanical brakes to limit rotation of blades to prevent uncontrolled rotation.

6. **Lighting**. Alternative energy systems shall not be illuminated, except as required by the FAA or those used in commercial applications such as streetlights.

7. **Shadow Flicker**. No habitable portion of an existing adjacent structure shall be subject to shadow flicker from a wind turbine. Shadow flicker onto an adjacent roof and/or exterior wall which does not contain any windows, doors, and like openings shall be acceptable. If shadow flicker occurs, the operation of the wind turbine shall cease during those times which cause the shadow flicker.

8. **Screening**. There shall be no required mechanical screening for alternative energy systems.

9. **Design**. Wind energy systems and associated tower shall be a nonreflective color. The City Council may impose such conditions as are necessary to eliminate, if at all possible, any adverse effects such system may have on surrounding properties.

10. **Compliance**. Wind energy systems shall meet or exceed current standards of the international building code and Federal Aviation Administration (FAA) requirements, any other agency of the state or federal government with the authority to regulate wind energy systems, and all City codes.

11. **Building Code/Safety Standards**. Any owner or operator of an alternative energy system shall maintain said system in compliance with the standards contained in the current and applicable state or local building codes and any applicable standards for said energy systems that are published by the International Building Code, as amended from time to time. If, upon inspection, the United City of Yorkville concludes that an alternative energy system fails to comply with such codes and standards and constitutes a danger to persons or property, the City Code Official shall require immediate removal of the system at the owner's expense.

B. **Solar Farm**.

1. No solar farm shall be erected on any lot less than three (3) acres in size.

2. A solar farm use may occupy up to eight-five (85) percent of a given parcel in the M-1 or M-2 District or up to eighty (80) percent of a given parcel in any other District.

3. A certified professional engineer shall certify that the foundation and design on the solar panels are within accepted professional standards, given local soil and climate conditions.

4. Power and communication lines running between banks of solar panels and to electric substations or interconnections with buildings shall be buried underground.

   a. Evidence shall be provided that the electric utility service provider that serves the proposed site has been notified of the owner's intent to install an interconnected customer owned electricity generator.

~~4.~~5. Off-street parking provided on site shall be paved. Gravel or other unpaved materials shall be prohibited.

~~5.~~6. Systems, equipment, and structures shall not exceed thirty feet (30) in height when ground mounted.

~~6.~~7. Groundcover as specified in Section 10-5-3(A)(7) shall be provided beneath all solar panels.

~~7.~~8. Ground mounted solar energy collection systems as part of a solar farm shall have a minimum setback for all equipment, excluding fences, of:

   a. *Front and Corner Yards*: one hundred (100) feet,

   b. *Side and Rear Yards*: fifty (50) feet from nonresidential property lines and one hundred (100) feet from residential property lines.

   c. *Buffer Areas: one thousand (1,000) feet from the nearest solar array to roadway networks, as defined in Figure 7.1: Existing Roadway and Rail Network of the 2016 United City of Yorkville Comprehensive Plan Update.*

   ~~b.~~d. *Fox River: one thousand (1,000) feet from the nearest solar array to the edge of the bank of the Fox River.*

~~8.~~9. Systems, equipment, and structures shall be fully enclosed and secured by a fence or wall with a height of eight (8) feet. Knox boxes and keys shall be provided at locked entrances for emergency personnel access.

   a. **Warnings.**

      (1) Warning signs shall be provided at the entrance to the facility and along the perimeter of the solar farm in locations determined necessary by the Zoning Officer.

      (2) The signs shall be less than four (4) square feet and made with letters and numbers at least three (3) inches in height and shall include the 911 address and an emergency phone number of the operator which shall be answered twenty-four (24) hours a day by a live operator. A nonemergency phone number for the operator shall also be displayed.

~~9.~~10. **Outdoor Storage.** Only the outdoor storage of materials, vehicles, and equipment that directly support the operation and maintenance of the ~~wind~~ solar farm shall be allowed except for outdoor storage that is expressly allowed in the zoning district specified elsewhere in this title.

~~10.~~11. **Materials Handling, Storage, and Disposal.**

   a. All solid wastes related to the construction, operation, and maintenance of the solar farm shall be removed from the site promptly and disposed of in accordance with all federal, state, and local laws.

b. A list of hazardous fluids that may be used on site shall be provided. All hazardous materials related to the construction, operation, and maintenance of the solar farm shall be handled, stored, transported, and disposed of in accordance with all applicable local, state, and federal laws.

~~11.~~12. **Decommissioning Plan.** Prior to receiving approval, the applicant shall submit a decommissioning plan to ensure that the solar farm project is properly decommissioned, which shall include:

a. Provisions describing the triggering events for decommissioning the solar farm project. Any nonfunctioning solar panel/array of the project shall be decommissioned within thirty (30) days unless the operator has shown to the Zoning Administrator that it is diligently repairing such solar panel/array or component.

b. Procedures for the removal of structures, debris, and cabling, including those below the soil surface,

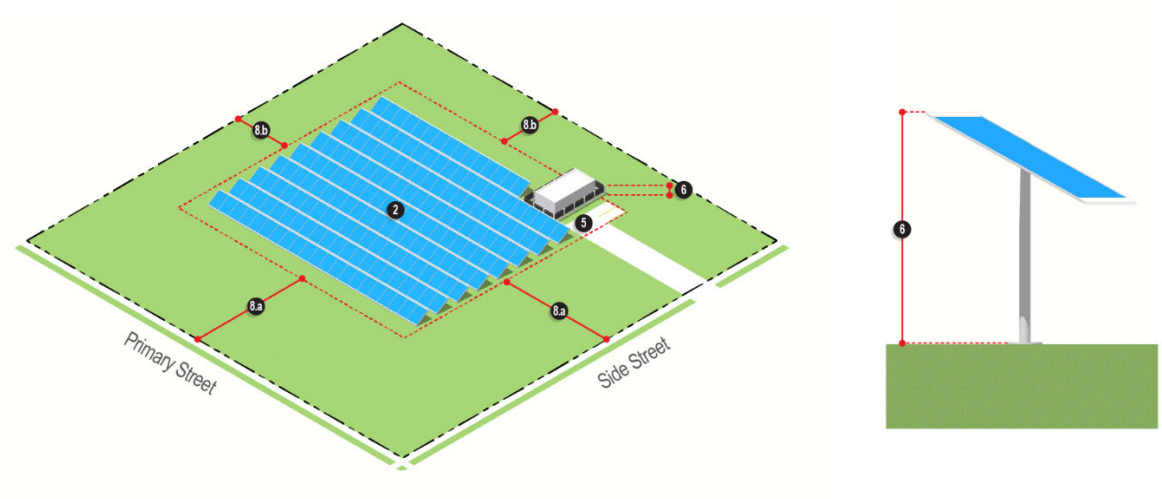
c. Provisions for the restoration of the natural soil and vegetation,

d. An estimate of the decommissioning costs certified by a professional engineer, to be updated every three (3) years or as determined necessary by the Zoning Administrator. The Zoning Administrator may request an independent third-party verification of the decommissioning costs at any time. The costs for this verification shall be reimbursed by the applicant and/or operator.

e. Financial assurance, secured by the owner or operator, for the purpose of performing the decommissioning, in an amount equal to one-hundred and twenty (120) percent of the professional engineer's certified estimate of the decommissioning cost.

f. A provision that the terms of the decommissioning plan shall be binding upon the owner or operator and any of his successors, assigns, or heirs.

Figure 4.4. Solar Farm Standards



13. Solar Glare: Solar panels shall be placed such that concentrated solar radiation or glare shall not be directed onto nearby properties or roadways.

14. Easement: A blanket easement, or other authorized means of access as determined by the City Attorney, shall be provided over the property to allow the City or its contractor to enter and remove the abandoned system in compliance with the City Code.

From: Kathleen Field Orr
To: Krysti Barksdale-Noble
Cc: Bart Olson
Subject: Limitation of Additional Solar Farms
Date: Monday, February 19, 2024 4:35:59 PM
Attachments: image001.png

You have requested my opinion as to whether the City could prohibit or cap the number of Solar Farms to be located in the City. While I have not been able to find any court decision or statute applicable to municipalities addressing this question, I do believe that such a restriction could be very problematic. What is unclear is the basis for such a restriction. Is it because Solar Farms generate minimal real estate taxes? Because Solar Farms do not create much job opportunity? But, with regard to taxes or jobs, how are Solar Farms different from not-for -profit organizations? Are all Solar Farms the same that a prohibition would apply to all? Would the restriction apply to community solar farms?

In 2023, Section 55 ILCS 5/5-12030 of the Counties Code was revised to specifically set siting regulations and prohibits counties from being more restrictive than the regulations set forth in the Counties Code. The statute provides a laundry list of permitted regulations but prohibits any regulation which is more restrictive. It has been interpreted to apply to municipalities but, having read the statute, I do not think it does, but then I think it is only a matter of time.
I would suggest that a study be made of restrictions of the location, size, and proximity to residential communities to determine if the City can prevent a proliferation of Solar Farms which would have a negative impact on the community.
kfo

Kathleen Field Orr | Ottosen DiNolfo Hasenbalg & Castaldo, Ltd.
1804 North Naper Boulevard, Suite 350
Naperville, Illinois 60563

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C:708-267-6244

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1804 N. Naper Boulevard, Suite 350, Naperville, IL 60563
Phone 630.682.0085 ◆ Fax 630.682.0788 ◆ www.ottosenlaw.com

Memorandum

To: Krysti Barksdale-Noble

From: Kathleen Field Orr, City Attorney

Date: March 1, 2024

Re: Solar Farms

You have requested my opinion as to whether the City could prohibit or cap the number of Solar Farms to be located in the City. While I have not been able to find any court decision or statute applicable to municipalities addressing this question, I do believe that such a restriction could be very problematic. What is unclear is the basis for such a restriction. Is it because Solar Farms generate minimal real estate taxes? Because Solar Farms do not create much job opportunity? But, with regard to taxes or jobs, how are Solar Farms different from not-for-profit organizations? Are all Solar Farms the same that a prohibition would apply to all? Would the restriction apply to community solar farms?

In 2023, Section 55 ILCS 5/5-12030 of the Counties Code was revised to specifically establish siting regulations and prohibit counties from being more restrictive than the regulations set forth in the Counties Code. The statute provides a laundry list of permitted regulations but prohibits any regulation which is more restrictive. It has been interpreted to apply to municipalities however, having read the statute, I do not think it does, but I do believe it is only a matter of time before similar regulations will be imposed upon municipalities.

I would suggest that a study be made of restrictions of the location, size, and proximity to residential communities to allow the City to prevent a proliferation of Solar Farms which could have a negative impact on the community.

KFO

02-04-100-006

02-08-200-030

02-08-300-011

02-08-300-012

02-08-300-008

02-10-300-017

02-15-126-004

02-17-300-002

02-18-400-002

02-29-100-006

05-03-300-029

05-17-400-005

05-16-300-006

Legend

- Approved
- Withdrawn
- Applied
- Inquiry
- Yorkville Major Roads 500 Ft Buffer
- Yorkville Major Roads 1000 Ft Buffer
- Yorkville Major Roads 1500 Ft Buffer
- BNSF Railroad 500 Ft Buffer
- Yorkville Boundary

Engineering Enterprises, Inc.
52 Wheeler Road
Sugar Grove, Illinois 60554
(630) 466-6700
www.eeiweb.com

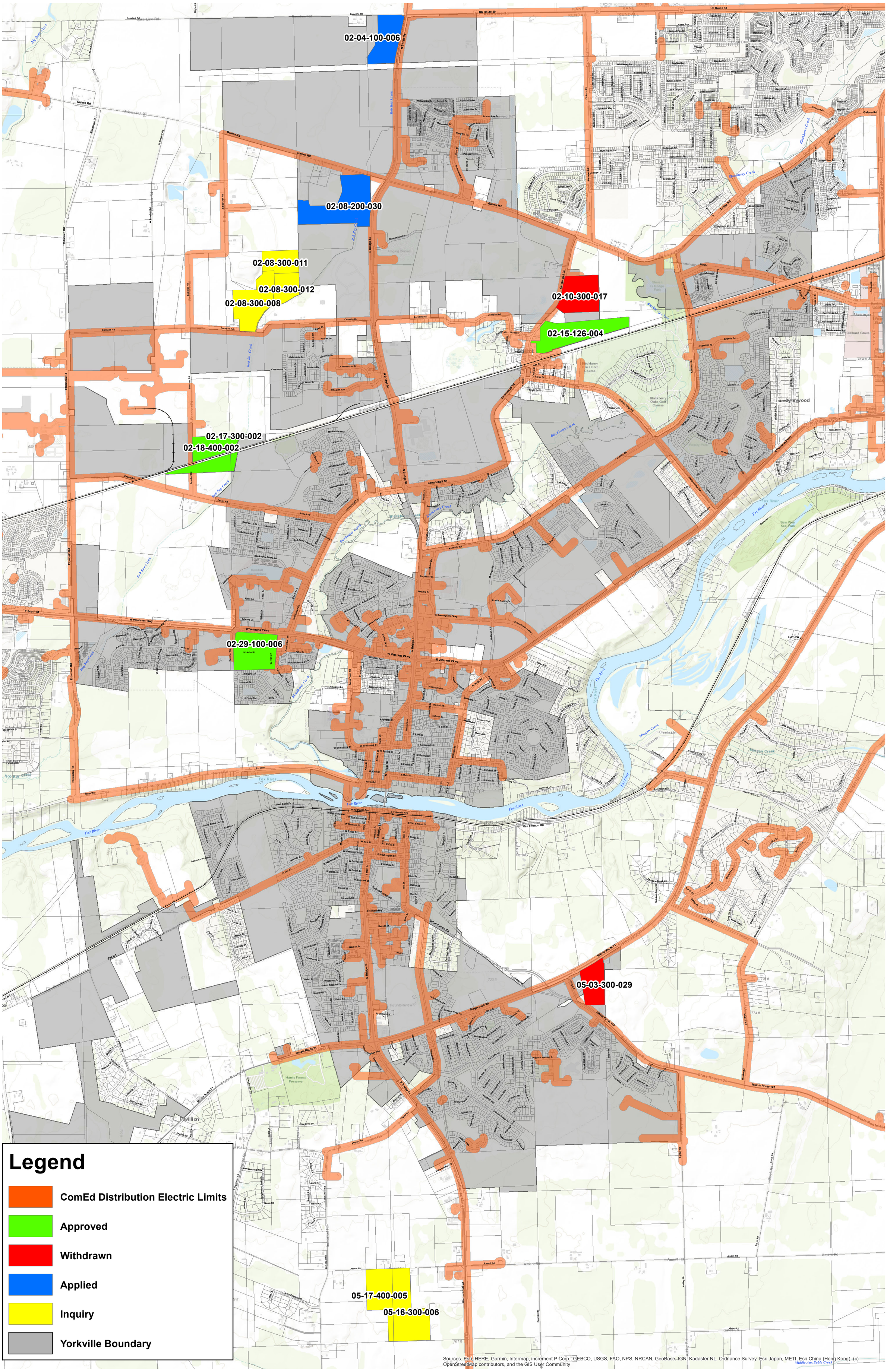
United City of Yorkville
651 Prairie Pointe Dr,
Yorkville, IL 60560

DATE:	NOVEMBER 2023
PROJECT NO.:	YO2300
BY:	MJT
PATH:	H:\GIS\PUBLIC\YORKVILLE\2023\YO2300
FILE:	YO2300_Yorkville Solar Farm Projects Best

LOCATION MAP
UNITED CITY OF YORKVILLE, ILLINOIS

YORKVILLE SOLAR FARM PROJECTS

NORTH



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LOCATION MAP
UNITED CITY OF YORKVILLE, ILLINOIS

YORKVILLE SOLAR FARM PROJECTS

NORTH

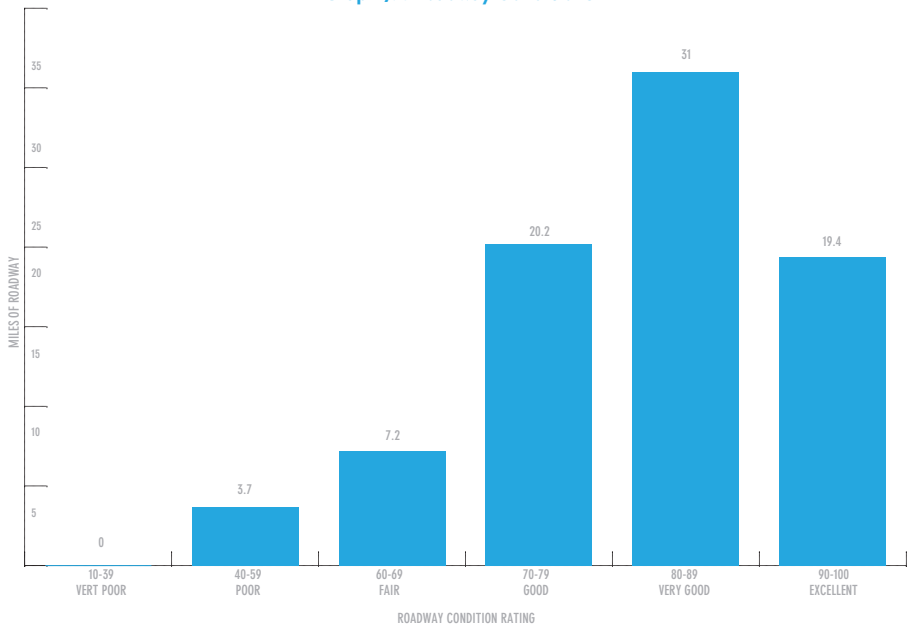
impacts on roadway capacity and would need to be studied in further detail. Two roadway segments for which capacity constraints may be an issue in 2040 are highlighted in red in Table 7.1.

With the proposed roadway widening, Yorkville's transportation network is expected to be able to accommodate traffic forecasts. CMAP and IDOT update their plans on a regular basis to address changes in travel patterns and financial conditions. These plan updates should be monitored to determine if there are changes in conditions or planned improvements.

Pavement condition is another important factor in keeping the transportation network in a state of good repair. The City of Yorkville conducts pavement condition surveys on local roads on an as-needed basis to identify transportation project priorities for the City's Capital Improvement Plan (CIP). The City's 2015 budget as approved by City Council stated that the City's combined roadway score for roadways within the jurisdiction of the City of Yorkville is 82 out of a possible score 100. Graph 7.1 shows the share of roadways in each condition category by total mileage of roadway.

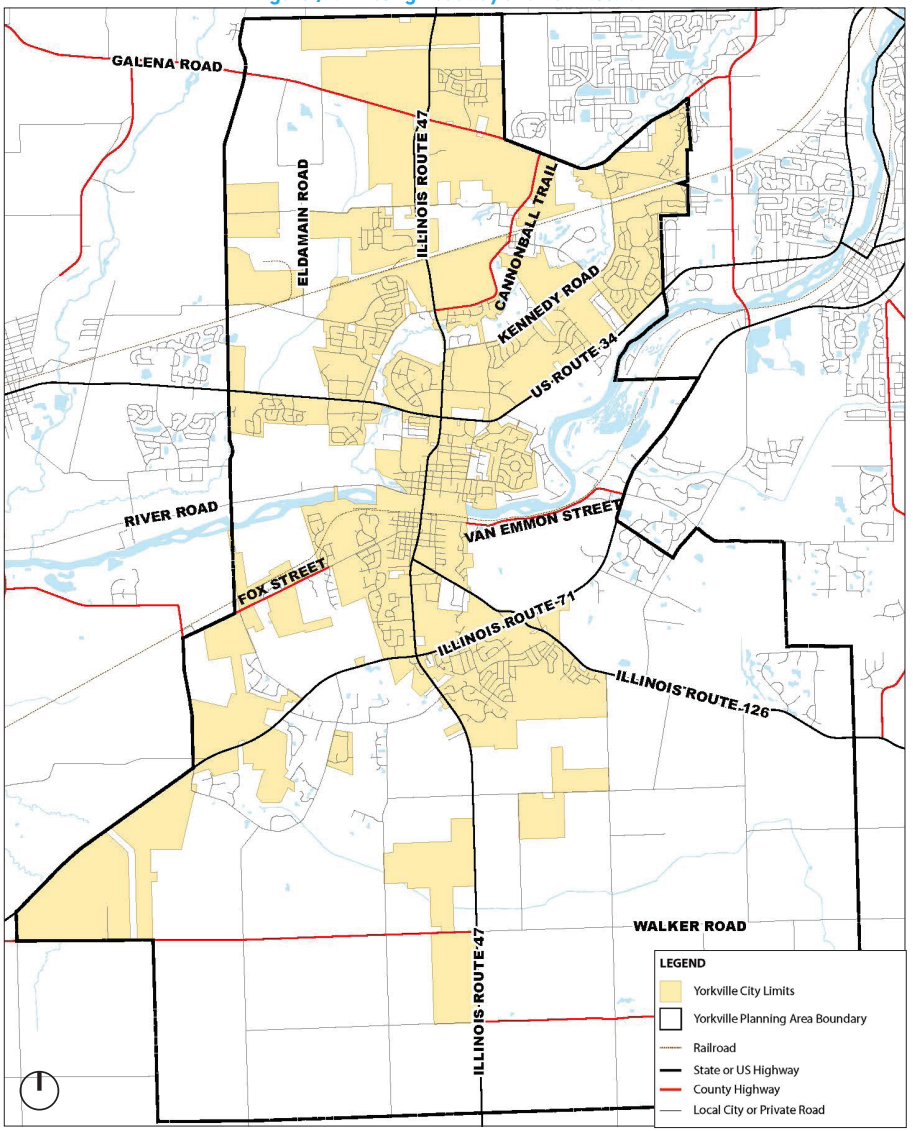
In order to keep the roadway network in a state of good repair, the City estimated a need of $2.1 million annually for roadway improvements. $1 million has been funded. The City anticipates that the combined roadway score will drop from 82 to 77 by 2018 with some exceptions for roadway improvement projects currently under way.

Graph 7.1: Roadway Conditions



Source: City of Yorkville

Figure 7.1: Existing Roadway and Rail Network



American Planning Association
Planning Advisory Service
Creating Great Communities for All

September/October 2019

PAS MEMO

Planning for Utility-Scale Solar Energy Facilities

By Darren Coffey, AICP

Solar photovoltaics (PV) are the fastest-growing energy source in the world due to the decreasing cost per kilowatt-hour—60 percent to date since 2010, according to the U.S. Department of Energy (U.S. DOE n.d.)—and the comparative speed in constructing a facility. Solar currently generates 0.4 percent of global electricity, but some University of Oxford researchers estimate its share could increase to 20 percent by 2027 (Hawken 2017). Utility-scale solar installations are the most cost-effective solar PV option (Hawken 2017).

Transitioning from coal plants to solar significantly decreases carbon dioxide emissions and eliminates sulfur, nitrous oxides, and mercury emissions. As the U.S. Department of Energy states, "As the cleanest domestic energy source available, solar supports broader national priorities, including national security, economic growth, climate change mitigation, and job creation" (U.S. DOE n.d.). As a result, there is growing demand for solar energy from companies (e.g., the "RE100," 100 global corporations committed to sourcing 100 percent renewable electricity by 2050) and governments (e.g., the Virginia Energy Plan commits the state to 16 percent renewable energy by 2022).

Federal and state tax incentives have accelerated the energy industry's efforts to bring facilities online as quickly as possible. This has created a new challenge for local governments, as many are ill-prepared to consider this new and unique land-use option. Localities are struggling with how to evaluate utility-scale solar facility applications, how to update their land-use regulations, and how to achieve positive benefits for hosting these clean energy facilities.

As a land-use application, utility-scale solar facilities are processed as any other land-use permit. Localities use the tools available: the existing comprehensive (general) plan and zoning ordinance. In many cases, however, plans and ordinances do not address this type of use. Planners will need to amend these documents to bring some structure, consistency, and transparency to the evaluation process for utility-scale solar facilities.

Figure 1. Utility-scale solar facilities are large-scale uses that can have significant land-use impacts on communities. Photo by Flickr user U.S. Department of Energy/Michael Faria.

Unlike many land uses, these solar installations will occupy vast tracts of land for one or more generations; they require tremendous local resources to monitor during construction (and presumably decommissioning); they can have significant impacts on the community depending on their location, buffers, installation techniques, and other factors (Figure 1); and they are not readily adaptable for another industrial or commercial use, hence the need for decommissioning.

While solar energy aligns with sustainability goals held by an increasing number of communities, solar industries must bring an overall value to the locality beyond the clean energy label. Localities must consider the other elements of sustainability and make deliberate decisions regarding impacts and benefits to the social fabric, natural environment, and local economy. How should a locality properly evaluate the overall impacts of a large-scale clean energy land use on the community?

This *PAS Memo* examines utility-scale solar facility uses and related land-use issues. It defines and classifies these facilities,

Figure 2. Components of a solar farm: solar panels (left), substation (center), and high-voltage transmission lines (right). Photos courtesy Berkley Group (left, right) and Pixabay (center).

analyzes their land-use impacts, and makes recommendations for how to evaluate and mitigate those impacts. While public officials tend to focus on the economics of these facilities and their overall fiscal impact to the community, the emphasis for planners is on the direct land-use considerations that should be carefully evaluated (e.g., zoning, neighbors, viewsheds, and environmental impacts). Specific recommendations and sample language for addressing utility-scale solar in comprehensive plans and zoning ordinances are provided at the end of the article.

The Utility-Scale Solar Backdrop

In contrast to solar energy systems generating power for on-site consumption, utility-scale solar, or a solar farm, is an energy generation facility that supplies power to the grid. These facilities are generally more than two acres in size and have capacities in excess of one megawatt; today's utility-scale solar facilities may encompass hundreds or even thousands of acres. A solar site may also include a substation and a switchyard, and it may require generator lead lines (*gen-tie* lines) to *interconnect* to the grid (Figure 2).

From 2008 to 2019, U.S. solar photovoltaic (PV) installations have grown from generating 1.2 gigawatts (GW) to 30 GW (SEIA 2019). The top 10 states generating energy from solar PV are shown in Figure 3. For many of these initial projects, local planning staff independently compiled information through research, used model ordinances, and relied on professional networks to cobble together local processes and permit conditions to better address the adverse impacts associated with utility-scale solar.

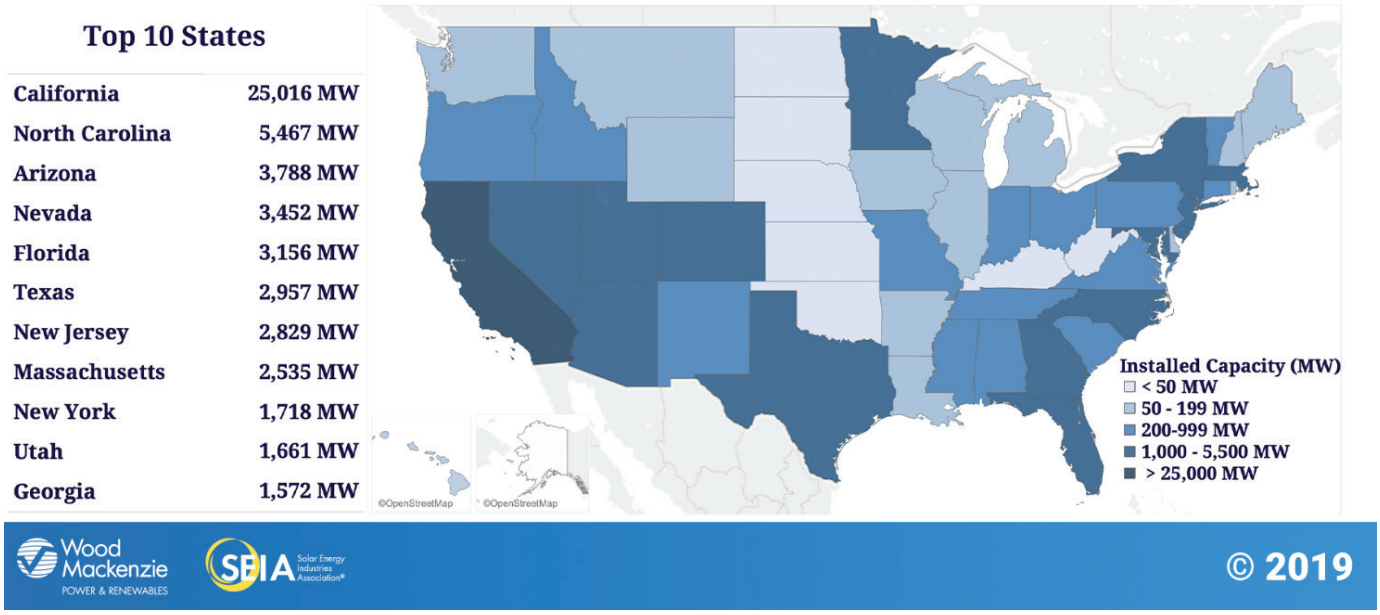


Figure 3. Utility solar capacity in the United States in 2019. Courtesy Solar Energy Industry Association.

However, each individual project brings unique challenges related to size, siting, compatibility with surrounding uses, mitigating impacts through setbacks and buffers, land disturbance processes and permits, financial securities, and other factors. This has proven to be a significant and ongoing challenge to local planning staff, planning commissions, and governing bodies.

Some localities have adopted zoning regulations to address utility-scale solar facilities based on model solar ordinance templates created by state or other agencies for solar energy facilities. However, these ordinances may not be sufficient to properly mitigate the adverse impacts of these facilities on communities. Many of these initial models released in the early 2010s aimed to promote clean energy and have failed to incorporate lessons learned from actual facility development. In addition, the solar industry has been changing at a rapid pace, particularly regarding the increasing scale of facilities. Planners should therefore revisit any existing zoning regulations for utility-scale solar facilities to ensure their relevance and effectiveness.

Rapid growth of utility-scale solar facilities has emerged for rural communities, particularly those that have significant electrical grid infrastructure. Many rural counties have thousands of acres of agricultural and forested properties in various levels of production. Land prices tend to be much more cost-effective in rural localities, and areas located close to high-voltage electric transmission lines offer significant cost savings to the industry. Figure 4 shows the extent of existing electric transmission lines in one rural Virginia county.

Federal and state tax incentives have further accelerated the pace of utility-scale solar developments, along with decreasing solar panel production costs. These factors all combine to create land-use development pressure that, absent effective and relevant land-use regulatory and planning tools, creates an environment where it is difficult to properly evaluate and make informed decisions for the community's benefit.

Solar Facility Land-Use Impacts

As with any land-use application, there are numerous potential impacts that need to be evaluated with solar facility uses. All solar facilities are not created equal, and land-use regulations should reflect those differences in scale and impact accordingly.

Utility-scale solar energy facilities involve large tracts of land involving hundreds, if not thousands, of acres. On these large tracts, the solar panels often cover more than half of the land area. The solar facility use is often pitched as "temporary" by developers, but it has a significant duration—typically projected by applicants as up to 40 years.

Establishing such a solar facility use may take an existing agricultural or forestry operation out of production, and resuming such operations in the future will be a challenge. Utility-scale solar can take up valuable future residential, commercial, or industrial growth land when located near cities, towns, or other

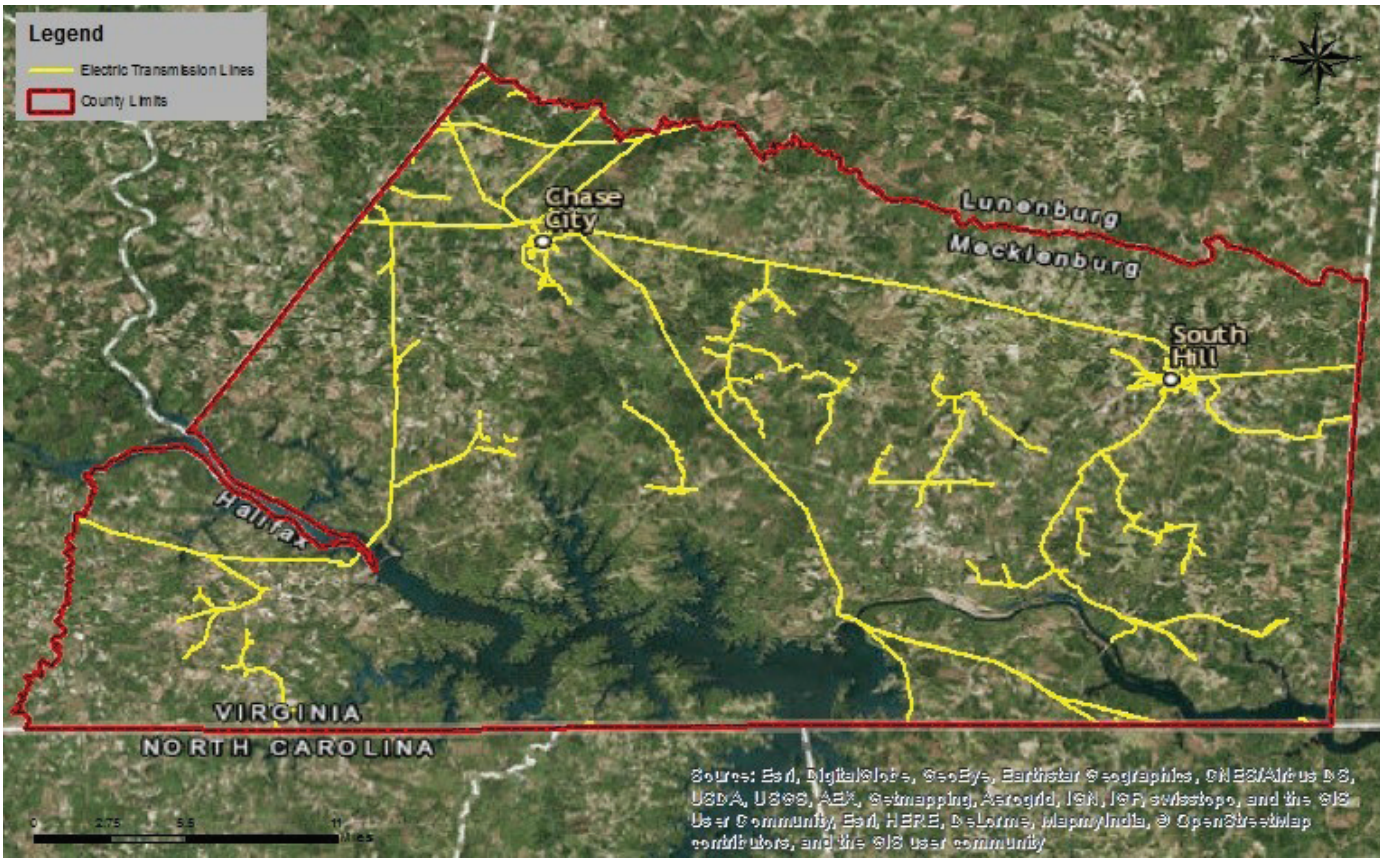


Figure 4. Electric transmission lines in Mecklenburg County, Virginia. Courtesy Berkley Group.

identified growth areas. If a solar facility is close to a major road or cultural asset, it could affect the viewshed and attractiveness of the area. Because of its size, a utility-scale solar facility can change the character of these areas and their suitability for future development. There may be other locally specific potential impacts. In short, utility-scale solar facility proposals must be carefully evaluated regarding the size and scale of the use; the conversion of agricultural, forestry, or residential land to an industrial-scale use; and the potential environmental, social, and economic impacts on nearby properties and the area in general.

To emphasize the potential impact of utility-scale solar facilities, consider the example of one 1,408-acre (2.2-square-mile) Virginia town with a 946-acre solar facility surrounding its north and east sides. The solar project area is equal to approximately 67 percent of the town's area. A proposed 332.5-acre solar facility west of town increases the solar acres to 1,278.5, nearly the size of the town. Due to its proximity to multiple high-voltage electrical transmission lines, other utility-scale solar facilities are also proposed for this area, which would effectively lock in the town's surrounding land-use pattern for the next generation or more.

The following considerations are some of the important land-use impacts that utility-scale solar may have on nearby communities.

Change in Use/Future Land Use

A primary impact of utility-scale solar facilities is the removal of forest or agricultural land from active use. An argument often made by the solar industry is that this preserves the land for future agricultural use, and applicants typically state that the land will be restored to its previous condition. This is easiest when the land was initially used for grazing, but it is still not without its challenges, particularly over large acreages. Land with significant topography, active agricultural land, or forests is more challenging to restore.

It is important that planners consider whether the industrial nature of a utility-scale solar use is compatible with the locality's vision. Equally as important are imposing conditions that will enforce the assertions made by applicants regarding the future restoration of the site and denying applications where those conditions are not feasible.

Agricultural/Forestry Use. Agricultural and forested areas are typical sites for utility-scale solar facility uses. However, the use of prime agricultural land (as identified by the USDA or by state agencies) and ecologically sensitive lands (e.g., riparian buffers, critical habitats, hardwood forests) for these facilities should be scrutinized.

For a solar facility, the site will need to be graded in places and revegetated to stabilize the soil. That vegetation typically needs to be managed (e.g., by mowing, herbicide use, or sheep grazing) over a long period of time. This prolonged vegetation management can change the natural characteristics of the soil, making restoration of the site for future agricultural use more difficult. While native plants, pollinator plants, and grazing options exist and are continually being explored, there are logistical issues with all of them, from soil quality impacts to compatibility of animals with the solar equipment.

A deforested site can be reforested in the future, but over an additional extended length of time, and this may be delayed or the land left unforested at the request of the landowner at the time of decommissioning. Clearcutting forest in anticipation of a utility-scale solar application should be avoided but is not uncommon. This practice potentially undermines the credibility of the application, eliminates what could have been natural buffers and screening, and eliminates other landowner options to monetize the forest asset (such as for carbon or nutrient credits).

For decommissioning, the industry usually stipulates removal of anything within 36 inches below the ground surface. Unless all equipment is specified for complete removal and this is properly enforced during decommissioning, future agricultural operations would be planting crops over anything left in the ground below that depth, such as metal poles, concrete footers, or wires.

Residential Use. While replacing agricultural uses with residential uses is a more typical land-use planning concern, in some areas this is anticipated and desired over time. "People have to live somewhere," and this should be near existing infrastructure typical of cities, towns, and villages rather than sprawled out over the countryside. This makes land lying within designated growth areas or otherwise located near existing population centers a logical location for future residential use. Designated growth areas can be important land-use strategies to accommodate future growth in a region. Permitting a utility-scale use on such land ties it up for 20–40 years (a generation or two), which may be appropriate in some areas, but not others.

Industrially Zoned Land. Solar facilities can be a good use of brownfields or other previously disturbed land. A challenge in many rural areas, however, is that industrially zoned land is limited, and both public officials and comprehensive plan policies place a premium on industries that create and retain well-paying jobs. While utility-scale solar facilities are not necessarily incompatible with other commercial and industrial uses, the amount of space they require make them an inefficient use of industrially zoned land, for which the "highest and best use" often entails high-quality jobs and an array of taxes paid to the locality (personal property, real estate, machinery and tool, and other taxes).

Location

The location of utility-scale solar facilities is the single most important factor in evaluating an application because of the large amount of land required and the extended period that land is dedicated to this singular use, as discussed above.

Solar facilities can be appropriately located in areas where they are difficult to detect, the prior use of the land has been marginal, and there is no designated future use specified (i.e., not in growth areas, not on prime farmland, and not near recreational or historic areas). Proposed facilities adjacent to corporate boundaries, public rights-of-way, or recreational or cultural resources are likely to be more controversial than facilities that are well placed away from existing homes, have natural buffers, and don't change the character of the area from the view of local residents and other stakeholders.

Figure 5. This scenic vista would be impacted by a solar facility proposed for the far knoll. Photo courtesy Berkley Group.

Concentration of Uses

A concentration of solar facilities is another primary concern. The large scale of this land use, particularly when solar facilities are concentrated, also significantly exacerbates adverse impacts to the community in terms of land consumption, use pattern disruptions, and environmental impacts (e.g., stormwater, erosion, habitat). Any large-scale homogenous land use should be carefully examined—whether it is rooftops, impervious surface, or solar panels. Such concentrated land uses change the character of the area and alter the natural and historic development pattern of a community.

The attraction of solar facilities to areas near population centers is a response to the same forces that attract other uses—the infrastructure is already there (electrical grid, water and sewer, and roads). One solar facility in a given geographic area may be an acceptable use of the land, but when multiple facilities are attracted to the same geography for the same reasons, this tips the land-use balance toward too much of a single use. The willingness of landowners to cooperate with energy companies is understandable, but that does not automatically translate into good planning for the community. The short- and medium-term gains for individual landowners can have a lasting negative impact on the larger community.

Visual Impacts

The visual impact of utility-scale solar facilities can be significantly minimized with effective screening and buffering, but this is more challenging in historic or scenic landscapes. Solar facilities adjacent to scenic byways or historic corridors may negatively impact the rural aesthetic along these transportation routes. Buffering or screening may also be appropriate along main arterials or any public right-of-way, regardless of special scenic or historic designation.

The location of large solar facilities also needs to account for views from public rights-of-way (Figure 5). Scenic or historic areas should be avoided, while other sites should be effectively screened from view with substantial vegetative or other types of buffers. Berms, for example, can provide a very effective screen, particularly if combined with appropriate vegetation.

Decommissioning

The proper decommissioning and removal of equipment and other improvements when the facility is no longer operational presents significant challenges to localities.

Decommissioning can cost millions in today's dollars. The industry strongly asserts that there is a significant salvage value to the solar arrays, but there may or may not be a market to salvage the equipment when removed. Further, the feasibility of realizing salvage value may depend on who removes the equipment—the operator, the tenant, or the landowner (who may not be the same parties as during construction)—as well as when it is removed.

Providing for adequate security to ensure that financial resources are available to remove the equipment is a significant challenge. Cash escrow is the most reliable security for a locality but is the most expensive for the industry and potentially a financial deal breaker. Insurance bonds or letters of credit seem to be the most acceptable forms of security but can be difficult to enforce as a practical matter. The impact of inflation over decades is difficult to calculate; therefore, the posted financial security to ensure a proper decommissioning should be reeval-

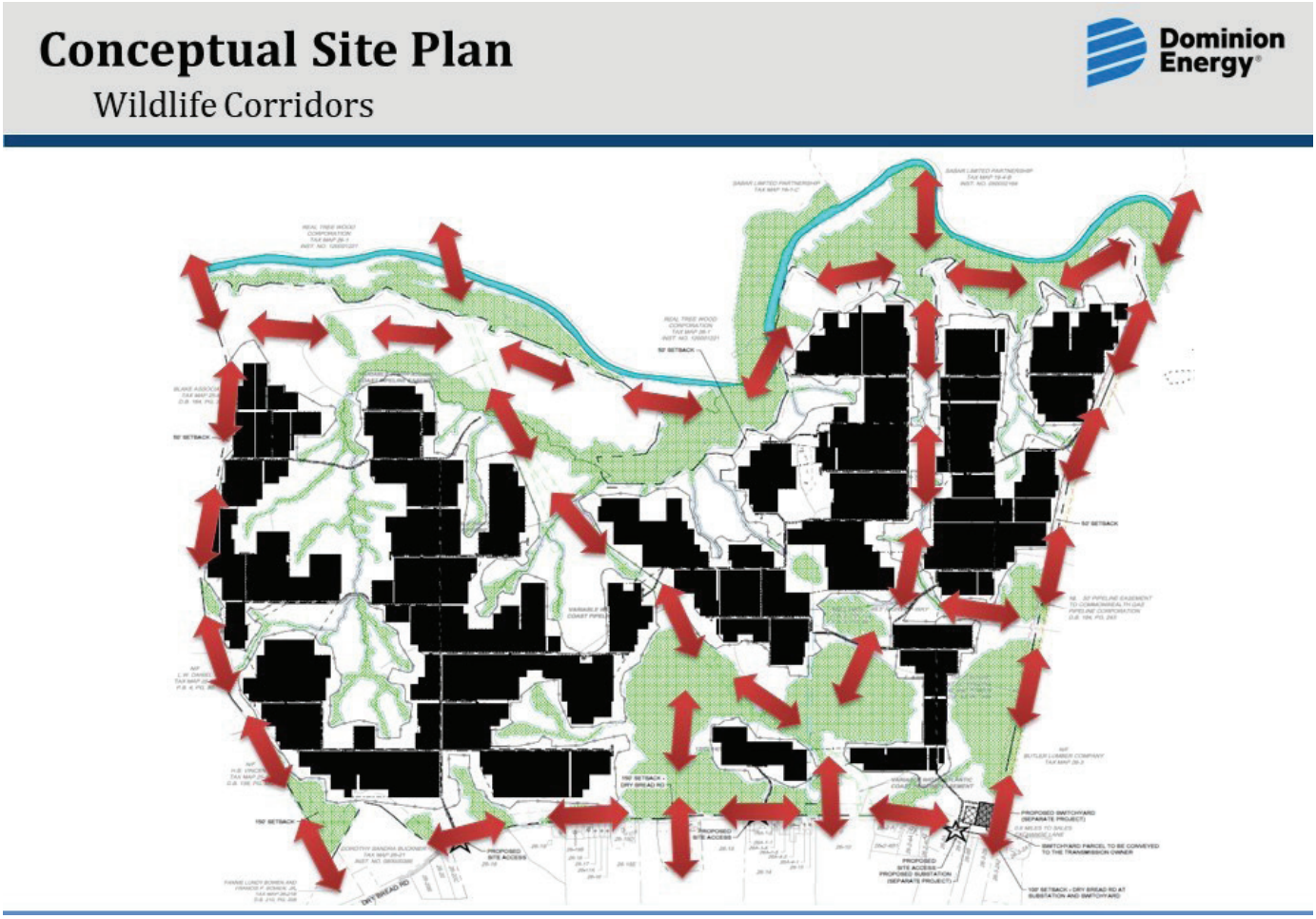


Figure 6. A conceptual site plan for a 1,491-acre utility-scale solar facility showing wildlife corridors throughout the site. Courtesy Dominion Energy.

uated periodically—usually every five years or so. The worst possible outcome for a community (and a farmer or landowner) would be an abandoned utility-scale solar facility with no resources available to pay for its removal.

Additional Solar Facility Impacts

In addition to the land-use impacts previously discussed, there are a number of significant environmental and economic impacts associated with utility-scale solar facilities that should be addressed as part of the land-use application process.

Environmental Impacts

While solar energy is a renewable, green resource, its generation is not without environmental impacts. Though utility-scale solar facilities do not generate the air or water pollution typical of other large-scale fossil-fuel power production facilities, impacts on wildlife habitat and stormwater management can be significant due to the large scale of these uses and the resulting extent of land disturbance. The location of sites, the arrangement of panels within the site, and the ongoing management of the site are important in the mitigation of such impacts.

Wildlife Corridors. In addition to mitigating the visual impact of utility-scale solar facilities, substantial buffers can act as wildlife corridors along project perimeters. The arrangement of panels within a project site is also important to maintain areas conducive to wildlife travel through the site. Existing trees, wetlands, or other vegetation that link open areas should be preserved as wildlife cover. Such sensitivity to the land's environmental features also breaks up the panel bay groups and will make the eventual restoration of the land to its previous state that much easier and more effective. A perimeter fence is a barrier to wildlife movement, while fencing around but not in between solar panel bays creates open areas through which animals can continue to travel (Figure 6).

Stormwater, Erosion, and Sediment Control. The site disturbance required for utility-scale solar facilities is significant due to the size of the facilities and the infrastructure needed to operate them. These projects require the submission of both stormwater (SWP) and erosion/sediment control (ESC) plans to comply with federal and state environmental regulations.

Depending on the site orientation and the panels to be used, significant grading may be required for panel placement, roads, and other support infrastructure. The plan review and submis-

Figure 7. Examples of compliance (left) and noncompliance (right) with erosion and sediment control requirements. Photos courtesy Berkley Group.

sion processes are no different with these facilities than for any other land-disturbing activity. However, such large-scale grading project plans are more complex than those for other uses due primarily to the scale of utility solar. Additionally, the impervious nature of the panels themselves creates stormwater runoff that must be properly controlled, managed, and maintained.

Due to this complexity, it is recommended that an independent third party review all SWP and ESC plans in addition to the normal review procedures. Many review agencies (local, regional, or state) are under-resourced or not familiar with large-scale grading projects or appropriate and effective mitigation measures. It is in a locality's best interest to have the applicant's engineering and site plans reviewed by a licensed third party prior to and in addition to the formal plan review process. Most localities have engineering firms on call that can perform such reviews on behalf of the jurisdiction prior to formal plan review submittal and approval. This extra step, typically paid for by the applicant, helps to ensure the proper design of these environmental protections (Figure 7).

The successful implementation of these plans and ongoing maintenance of the mitigation measures is also critical and should be addressed in each proposal through sufficient performance security requirements and long-term maintenance provisions.

Cultural, Environmental, and Recreational Resources. Every proposed site should undergo an evaluation to identify any architectural, archaeological, or other cultural resources on or near proposed facilities. Additionally, sites located near recreational, historic, or environmental resources should be avoided. Tourism is recognized as a key sector for economic growth in many regions, and any utility-scale solar facilities that might be visible from a scenic byway, historic site, recreational amenity, or similar resources could have negative consequences for those tourist attractions.

Economic Impacts

This *PAS Memo* focuses on the land-use impacts of utility-scale solar facilities, but planners should also be aware of economic considerations surrounding these uses for local governments and communities.

Financial Incentives. Federal and state tax incentives benefit the energy industry at the expense of localities. The initial intent of industry-targeted tax credits was to act as an economic catalyst to encourage the development of green energy. An unintended consequence has been to benefit the solar industry by saving it tax costs at the expense of localities, which don't receive the benefit of the full taxable rate they would normally receive.

Employment. Jobs during construction (and decommissioning) can be numerous, but utility-scale solar facilities have minimal operational requirements otherwise. Very large facilities may employ one or two full-time-equivalent employees. During the construction phase there are typically hundreds of employees who need local housing, food, and entertainment.

Fiscal Impact. The positive fiscal impact to landowners who lease or sell property for utility-scale solar facilities is clear. However, the fiscal impact of utility-scale solar facilities to the community as a whole is less clear and, in the case of many localities, may be negligible compared with their overall budget due to tax credits, low long-term job creation, and other factors.

Property values. The impact of utility-scale solar facilities is typically negligible on neighboring property values. This can be a significant concern of adjacent residents, but negative impacts to property values are rarely demonstrated and are usually directly addressed by applicants as part of their project submittal.

Solar Facilities in Local Policy and Regulatory Documents

The two foundational land-use tools for most communities are their comprehensive (general) plans and zoning ordinances.

These two land-use documents are equally critical in the evaluation of utility-scale solar facilities. A community's plan should discuss green energy, and its zoning ordinance should properly enable and regulate green energy uses.

The Comprehensive Plan

The comprehensive plan establishes the vision for a community and should discuss public facilities and utilities. However, solar facilities are not directly addressed in many comprehensive plans.

If solar energy facilities are desired in a community, they should be discussed in the comprehensive plan in terms of green infrastructure, environment, and economic development goals. Specific direction should be given in terms of policy objectives such as appropriate locations and conditions. If a community does not desire such large-scale land uses because of their impacts on agriculture or forestry or other concerns, then that should be directly addressed in the plan.

Some states, such as Virginia, require a plan review of public facilities—including utility-scale solar facilities—for substantial conformance with the local comprehensive plan (see Code of Virginia §15.2-2232). This typically requires a review by the planning commission of public utility facility proposals, whether publicly or privately owned, to determine if their general or approximate locations, characters, and extents are substantially in accord with the comprehensive plan.

Most comprehensive plans discuss the types of industry desired by the community, the importance of agricultural operations, and any cultural, recreational, historic, or scenic rural landscape features. An emphasis on tourism, job growth, and natural and scenic resource protection may not be consistent with the use pattern associated with utility-scale solar facilities. If a plan is silent on the solar issue, this may act as a barrier to approving this use. Plans should make clear whether utility-scale solar is desired and, if so, under what circumstances.

This plan review process should precede any other land-use application submittal, though it may be performed concurrently with other zoning approvals. Planners and other public officials should keep in mind that even if a facility is found to be substantially in accord with a comprehensive plan, that does not mean the land-use application must be approved. Use permits are discretionary. If a particular application does not sufficiently mitigate the adverse impacts of the proposed land use, then it can and should be denied regardless of its conformance with the comprehensive plan.

Similarly, in Virginia, a utility-scale solar facility receiving use permit approval without a comprehensive plan review may not be in compliance with state code. The permit approval process is a two-step process, with the comprehensive plan review preferably preceding the consideration of a use permit application.

The Zoning Ordinance

While a community's comprehensive plan is its policy guide, the zoning ordinance is the regulatory document that implements that policy. Plans are advisory in nature, although often upheld in court decisions, whereas ordinance regulations are mandatory. In addition to comprehensive plan amendments, the zoning ordinance should specifically set forth the process and requirements necessary for the evaluation of a utility-scale solar application.

In zoning regulations, uses may be permitted either by right (with or without designated performance measures such as use and design standards) or as conditional or special uses, which require discretionary review and approval. Solar facilities generating power for on-site use are typically regulated as by-right uses depending on their size and location.

Utility-scale solar facilities, however, should in most cases be conditionally permitted regardless of the zoning district and are most appropriate on brownfield sites, in remote areas, or in agriculturally zoned areas. This is particularly true for more

The Virginia Experience

The recommendations presented in this *PAS Memo* are derived from research and the author's direct experience with the described planning, ordinance amendment, and application and regulatory processes in the following three Virginia localities, all rural counties in the southern or eastern parts of the state.

Mecklenburg County

When Mecklenburg County began seeing interest in utility-scale solar facilities, the county's long-range plan did not address solar facilities, and the zoning ordinance was based on an inadequate and outdated state model that did not adequately regulate this land use.

The town of Chase City is located near the confluence of several high-voltage utility lines, and all proposed facilities were located near or within the town's corporate limits. The county approved the first utility-scale solar facility application in the jurisdiction without any conditions or much consideration. When the second application for a much larger facility (more than 900 acres) came in soon after, with significant interest from other potential applicants as well, the county commissioned the author's consulting firm, The Berkley Group, to undertake a land-use and industry study regarding utility-scale solar facilities.

As Mecklenburg officials continued with the approval process on the second utility-scale solar facility under existing regulations, they received the results of the industry study and began considering a series of amendments to the comprehensive plan and zoning ordinance. Though county officials were particularly worried about the potential concentration of facilities around Chase City, town officials expressed formal support for the proposed land use. Other Mecklenburg communities expressed more concern and wanted the facilities to be located a significant distance away from their corporate boundaries. These dis-

The Virginia Experience (continued)

cussions led to standards limiting the concentration of facilities, encouraging proximity to the electrical grid, and establishing distances from corporate boundaries where future solar facilities could not be located.

Since the adoption of the new regulations, numerous other utility-scale solar applications have been submitted and while some have been denied, most have been approved. Solar industry representatives' concerns that the new regulations were an attempt to prevent this land use have therefore not been realized; these are simply the land-use tools that public officials wanted and needed to appropriately evaluate solar facility applications. Many of the examples and best practices recommended in this article, including the model language provided at the end of the article, are a result of the utility-scale solar study commissioned by the county (Berkley Group 2017) and the subsequent policies and regulations it adopted.

Sussex County

Sussex County is located east and north of Mecklenburg, and the interest in utility-scale solar projects there has been no less immediate or profound. The announcement of the new Amazon headquarters in Arlington, Virginia, along with the company's interest in offsetting its operational energy use with green energy sources furthered interest in this rural county more than 100 miles south of Arlington.

As in Mecklenburg County, local regulations did not address utility-scale solar uses, so public officials asked for assistance from The Berkley Group to develop policies and regulations appropriate for their community. Sussex County officials outlined an aggressive timeline for considering new regulations regarding solar facilities and, within one month of initiation, swiftly adopted amended regulations for solar energy facilities.

The same metrics and policy issues examined and adopted for Mecklenburg County were used for the initial discussion in Sussex at a joint work session between the board of supervisors (the governing body) and the planning commission. Public officials tailored the proposed standards and regulations to the county context based on geography, cultural priorities, and other concerns. They then set a joint public hearing for their next scheduled meeting to solicit public comment.

Under Virginia law, land-use matters may be considered at a joint public hearing with a recommendation from the planning commission going to the governing body and that body taking action thereafter. This is not a typical or recommended practice for local governments since it tends to limit debate, transparency, and good governance, but due to the intense interest from the solar industry, coupled with the lack of land-use regulations addressing the proposed utility-scale solar uses, county officials utilized that expedited process.

No citizens and only two industry officials spoke at the public hearing, and after two hours of questions, discussion, and some negotiation of proposed standards, the new regulations were adopted the same evening.

Since the new regulations have been put into place, no new solar applications have been received, but informal discussions with public officials and staff suggest that interest from the industry remains strong.

Greensville County

Greensville County, like Mecklenburg, lies on the Virginia-North Carolina boundary. The county has processed four solar energy applications to date (three were approved and one was denied) and continues to process additional applications. Concurrently, the county is in the process of evaluating its land-use policies and regulations, which were amended in late 2016 at the behest of solar energy interests.

The reality of the land-use approval process has proved more challenging than the theory of the facilities when considered a few years ago. As with other localities experiencing interest from the solar energy industry, the issues of scale, concentration, buffers/setbacks, and other land-use considerations have been debated at each public hearing for each application. Neighbors and families have been divided, and lifelong relationships have been severed or strained. The board of supervisors has found it difficult in the face of their friends, neighbors, and existing corporate citizens to deny applications that otherwise might not have been approved.

County officials have agreed that they do want to amend their existing policies and regulations to be more specific and less open to interpretation by applicants and citizens. One of their primary challenges has been dedicating the time to discuss proposed changes to their comprehensive plan and zoning ordinance. A joint work session between the board of supervisors and planning commission is being scheduled and should lead to subsequent public hearings and actions by those respective bodies to enact new regulations for future utility-scale solar applicants.

populated areas due to the more compact nature of land uses. There are, however, areas throughout the country where utility-scale solar might be permitted by right under strict design standards that are compatible with community objectives.

To better mitigate the potential adverse impacts of utility-scale solar facilities, required application documents should include the following:

- Concept plan
- Site plan
- Construction plan
- Maintenance plan
- Erosion and sediment control and stormwater plans

Performance measures should address these issues:

- Setbacks and screening
- Plan review process
- Construction/deconstruction mitigation and associated financial securities
- Signage
- Nuisance issues (glare, noise)

The model language provided at the end of this *PAS Memo* outlines specific recommendations regarding comprehensive plan and zoning ordinance amendments, the application process, and conditions for consideration during the permitting process.

Action Steps for Planners

There are four primary actions that planners can pursue with their planning commissions and governing bodies to ensure that their communities are ready for utility-scale solar.

Review and Amend the Plan

The first, and most important, step from a planning viewpoint is to review and amend the comprehensive plan to align with how a community wants to regulate utility-scale solar uses. Some communities don't want them at all, and many cities and towns don't have the land for them. Larger municipalities and counties around the country may have to deal with this land use at some point, if they haven't already. Local governments should get their planning houses in order by amending plans before the land-use applications arrive.

Review and Amend Land-Use Ordinances

Once the plan is updated, the next step is to review and amend land-use ordinances (namely the zoning ordinance) accordingly. These ordinances are vital land-use tools that need to be up to date and on point to effectively regulate large and complex solar facilities. If local governments do not create regulations for utility-scale solar facilities, applications for these projects will occupy excessive staff time, energy, and talents, resulting in much less efficient and more open-ended results.

Evaluate Each Application Based on Its Own Merits

This should go without saying, but it is important, particularly from a legal perspective, that each project application is evaluated based on its own merits. All planners have probably seen a project denied due to the politics at play with regard to other projects: "That one shouldn't have been approved so we're going to deny this one." "The next one is better so this one needs to be denied."

The focus of each application should be on the potential adverse impacts of the project on the community and what can be done successfully to mitigate those impacts. Whether the applicant is a public utility or a private company, the issues and complexities of the project are the same. The bottom line should never be who the applicant is; rather, it should be whether the project's adverse impacts can be properly mitigated so that the impact to the community is positive.

Learn From Others

Mecklenburg County's revised solar energy policies and regulations began with emails and phone calls to planning colleagues to see how they had handled utility-scale solar projects in their jurisdictions. The primary resources used were internet research, other planners, and old-fashioned planner ingenuity and creativity.

While it is the author's hope and intent that this article offers valuable information on this topic, nothing beats the tried and true formula of "learn from and lean on your colleagues."

Conclusion

The solar energy market is having major impacts on land use across the country, and federal and state tax incentives have contributed to a flood of applications in recent years. While the benefits of clean energy are often touted, the impacts of utility-scale solar facilities on a community can be significant. Applicants often say that a particular project will "only" take up some small percentage of agricultural, forestry, or other land-use category—but the impact of these uses extends beyond simply replacing an existing (or future) land use. Fiscal benefit to a community is also often cited as an incentive, but this alone is not a compelling reason to approve (or disapprove) a land-use application.

The scale and duration of utility-scale solar facilities complicates everything from the land disturbance permitting process through surety requirements. If not done properly, these uses can change the character of an area, altering the future of communities for generations.

Local officials need to weigh these land-use decisions within the context of their comprehensive plan and carefully consider each individual application in terms of the impact that it will have in that area of the community, not only by itself but also if combined with additional sites. The concentration of solar facilities is a major consideration in addition to their individual locations. A solar facility located by itself in a rural area, close to major transmission lines, not prominently visible from public rights-of-way or adjacent properties, and not located in growth areas, on prime farmland, or near cultural, historic, or recreational sites may be an acceptable land use with a beneficial impact on the community.

Properly evaluating and, to the extent possible, mitigating the impacts of these facilities by carefully controlling their

location, scale, size, and other site-specific impacts is key to ensuring that utility-scale solar facilities can help meet broader sustainability goals without compromising a community's vision and land-use future.

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References and Resources

Berkley Group. 2017. "Solar Facility Impacts Analysis: An Examination of Land Use Impacts." Unpublished study. Mecklenburg County, Virginia.

Climate Group and CDP. 2019. "RE100."

Hawken, Paul. 2017. *Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming*. New York: Penguin Books.

Solar Energy Industry Association (SEIA). 2019. "U.S. Solar Market Insight." June 18.

U.S. Department of Energy (U.S. DOE). n.d. "Solar Energy in the United States." Office of Energy Efficiency and Renewable Energy.

Virginia, Commonwealth of. 2018. 2018 Virginia Energy Plan. Office of the Secretary of Commerce and Trade, Department of Mines, Minerals and Energy.

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PAS MEMO ADDENDUM

Specific Planning and Zoning Recommendations for Utility-Scale Solar

This guidance and sample ordinance language for utility-scale solar facilities is drawn from actual comprehensive plan and zoning ordinance amendments as well as conditional (special) use permit conditions. These examples are from Virginia and should be tailored to localities within the context of each state's enabling legislation regarding land use.

THE COMPREHENSIVE (GENERAL) PLAN

The following topics should be addressed for comprehensive plan amendments:

- Identification of major electrical facility infrastructure (i.e., transmission lines, transfer stations, generation facilities, etc.)
- Identification of growth area boundaries around each city, town, or appropriate population center
- Additional public review and comment opportunities for land-use applications within a growth area boundary, within a specified distance from an identified growth area boundary, or within a specified distance from identified population centers (e.g., city or town limits)
- Recommended parameters for utility-scale solar facilities, such as:
  - maximum acreage or density (e.g., not more than two facilities within a two-mile radius) to mitigate the impacts related to the scale of these facilities
  - maximum percent usage (i.e., "under panel" or impervious surface) of assembled property to mitigate impacts to habitat, soil erosion, and stormwater runoff
  - location adjacent or close to existing electric transmission lines
  - location outside of growth areas or town boundary or a specified distance from an identified growth boundary
  - location on brownfields or near existing industrial uses (but not within growth boundaries)
  - avoidance of or minimization of impact to prime farmland as defined by the USDA
  - avoidance of or minimization of impact to the viewshed of any scenic, cultural, or recreational resources (i.e., large solar facilities may not be seen from surrounding points that are in line-of-sight with a resource location)
- Identification of general conditions to mitigate negative effects, including the following:
  - Concept plan compliance
  - Buffers and screening (e.g., berms, vegetation, etc.)
  - Third-party plan review (for erosion and sediment controls, stormwater management, grading)
  - Setbacks
  - Landscaping maintenance
  - Decommissioning plan and security

THE ZONING ORDINANCE

In addition to, or separate from, comprehensive plan amendments, the zoning ordinance should be amended to more specifically set forth the process and requirements necessary for a thorough land-use evaluation of an application.

Recommended Application Process

Pre-Application Meeting

The process of requiring applicants to meet with staff prior to the submission of an application often results in a better, more complete application and a smoother process once an application is submitted. This meeting allows the potential applicant and staff to sit down to discuss the location, scale, and nature of the proposed use and what will be expected during that process. The pre-application meeting is one of the most

effective tools planners can use to ensure a more efficient, substantive process.

Comprehensive Plan Review

As discussed in the article, a comprehensive plan review for public utility facilities, if required, can occur prior to or as part of the land-use application process. Any application not including the review would be subject to such review in compliance if required by state code. If the plan review is not done concurrently with the land-use application, then it should be conducted prior to the receipt of the application.

An application not substantially in accord with the comprehensive plan should not be recommended for approval, regardless of the conditions placed on the use. Depending on the location, scale, and extent of the project, it is difficult to sufficiently mitigate the adverse impacts of a project that does not conform with the plan.

Land-Use Application

If the comprehensive plan review is completed and the project is found to be in compliance with the comprehensive plan, then the use permit process can proceed once a complete application is submitted. Application completion consists of the submission of all requirements set forth in the zoning ordinance and is at the discretion of the zoning administrator if there is any question as to what is required or when it is required.

Applications should contain all required elements at the time of submittal and no components should be outstanding at the time of submittal.

Sample Ordinance Language

The following sample ordinance language addresses requirements for applications, public notice, development standards, decommissioning, site plan review, and other process elements.

1. Application requirements. Each applicant requesting a use permit shall submit the following:

    a. A complete application form.
    b. Documents demonstrating the ownership of the subject parcel(s).
    c. Proof that the applicant has authorization to act upon the owner's behalf.
    d. Identification of the intended utility company who will interconnect to the facility.
    e. List of all adjacent property owners, their tax map numbers, and addresses.
    f. A description of the current use and physical characteristics of the subject parcels.
    g. A description of the existing uses of adjacent properties and the identification of any solar facilities—existing or proposed—within a five-mile radius of the proposed location.
    h. Aerial imagery which shows the proposed location of the solar energy facility, fenced areas and driveways with the closest distance to all adjacent property lines, and nearby dwellings, along with main points of ingress/egress.
    i. Concept plan.
        The facility shall be constructed and operated in substantial compliance with the approved concept plan, with allowances for changes required by any federal or state agency. The project shall be limited to the phases and conditions set forth in the concept plan that constitutes part of this application, notwithstanding any other state or federal requirements. No additional phasing or reduction in facility size shall be permitted, and no extensions beyond the initial period shall be granted without amending the use permit. The concept plan shall include the subject parcels; the proposed location of the solar panels and related facilities; the location of proposed fencing, driveways, internal roads, and structures; the closest distance to adjacent property lines and dwellings; the location of proposed setbacks; the location and nature of proposed buffers, including vegetative and constructed buffers and berms; the location of points of ingress/egress; any proposed construction phases.
    j. A detailed decommissioning plan (see item 5 below).
    k. A reliable and detailed estimate of the costs of decommissioning, including provisions for inflation (see item 5 below).
    l. A proposed method of providing appropriate escrow, surety, or security for the cost of the decommissioning plan (see item 5 below).
    m. Traffic study modelling the construction and decommissioning processes. Staff will review the study in cooperation with the state department of transportation or other official transportation authority.
    n. An estimated construction schedule.
    o. [x number of] hard copy sets (11″× 17″ or larger), one reduced copy (8½″× 11″), and one electronic copy of site plans, including elevations and landscape plans as required. Site plans shall meet the requirements of this ordinance.
    p. The locality may require additional information deemed necessary to assess compliance with this section based on the specific characteristics of the property or other project elements as determined on a case by case basis.
    q. Application fee to cover any additional review costs, advertising, or other required staff time.

2. Public notice.
    a. Use permits shall follow the public notice requirements as set forth in the zoning ordinance or by state code as applicable.
    b. Neighborhood meeting: A public meeting shall be held prior to the public hearing with the planning commission to give the community an opportunity to hear from the applicant and ask questions regarding the proposed project.
        i The applicant shall inform the zoning administrator and adjacent property owners in writing of the date, time, and location of the meeting, at least seven but

no more than 14 days in advance of the meeting date.
   ii The date, time, and location of the meeting shall be advertised in the newspaper of record by the applicant, at least seven but no more than 14 days in advance of the meeting date.
   iii The meeting shall be held within the community, at a location open to the general public with adequate parking and seating facilities which may accommodate persons with disabilities.
   iv The meeting shall give members of the public the opportunity to review application materials, ask questions of the applicant, and make comments regarding the proposal.
   v The applicant shall provide to the zoning administrator a summary of any input received from members of the public at the meeting.

3. Minimum development standards.
   a. No solar facility shall be located within a reasonable radius of an existing or permitted solar facility, airport, or municipal boundary.
   b. The minimum setback from property lines shall be a reasonable distance (e.g., at least 100 feet) and correlated with the buffer requirement.
   c. The facilities, including fencing, shall be significantly screened from the ground-level view of adjacent properties by a buffer zone of a reasonable distance extending from the property line that shall be landscaped with plant materials consisting of an evergreen and deciduous mix (as approved by staff), except to the extent that existing vegetation or natural landforms on the site provide such screening as determined by the zoning administrator. In the event that existing vegetation or landforms providing the screening are disturbed, new plantings shall be provided which accomplish the same. Opaque architectural fencing may be used to supplement other screening methods but shall not be the primary method.
   d. The design of support buildings and related structures shall use materials, colors, textures, screening, and landscaping that will blend the facilities to the natural setting and surrounding structures.
   e. Maximum height of primary structures and accessory buildings shall be a reasonable height as measured from the finished grade at the base of the structure to its highest point, including appurtenances (e.g., 15 feet). The board of supervisors may approve a greater height based upon the demonstration of a significant need where the impacts of increased height are mitigated.
   f. All solar facilities must meet or exceed the standards and regulations of the Federal Aviation Administration (FAA), State Corporation Commission (SCC) or equivalent, and any other agency of the local, state, or federal government with the authority to regulate such facilities that are in force at the time of the application.
   g. To ensure the structural integrity of the solar facility, the owner shall ensure that it is designed and maintained in compliance with standards contained in applicable local, state, and federal building codes and regulations that were in force at the time of the permit approval.
   h. The facilities shall be enclosed by security fencing on the interior of the buffer area (not to be seen by other properties) of a reasonable height. A performance bond reflecting the costs of anticipated fence maintenance shall be posted and maintained. Failure to maintain the security fencing shall result in revocation of the use permit and the facility's decommissioning.
   i. Ground cover on the site shall be native vegetation and maintained in accordance with established performance measures or permit conditions.
   j. Lighting shall use fixtures as approved by the municipality to minimize off-site glare and shall be the minimum necessary for safety and security purposes. Any exceptions shall be enumerated on the concept plan and approved by the zoning administrator.
   k. No facility shall produce glare that would constitute a nuisance to the public.
   l. Any equipment or situations on the project site that are determined to be unsafe must be corrected within 30 days of citation of the unsafe condition.
   m. Any other condition added by the planning commission or governing body as part of a permit approval.

4. Coordination of local emergency services. Applicants for new solar energy facilities shall coordinate with emergency services staff to provide materials, education and/or training to the departments serving the property with emergency services in how to safely respond to on-site emergencies.

5. Decommissioning. The following requirements shall be met:
   a. Utility-scale solar facilities which have reached the end of their useful life or have not been in active and continuous service for a reasonable period of time shall be removed at the owner's or operator's expense, except if the project is being repowered or a force majeure event has or is occurring requiring longer repairs; however, the municipality may require evidentiary support that a longer repair period is necessary.
   b. Decommissioning shall include removal of all solar electric systems, buildings, cabling, electrical components, security barriers, roads, foundations, pilings, and any other associated facilities, so that any agricultural ground upon which the facility or system was located is again tillable and suitable for agricultural uses. The site shall be graded and reseeded to restore it to as natural a condition as possible, unless the land owner requests in writing that the access roads or other land surface areas not be restored, and this request is approved by the governing body (other conditions might be more beneficial or desirable at that time).
   c. The site shall be regraded and reseeded to as natural condition as possible within a reasonable timeframe after equipment removal.

d. The owner or operator shall notify the zoning administrator by certified mail, return receipt requested, of the proposed date of discontinued operations and plans for removal.
e. Decommissioning shall be performed in compliance with the approved decommissioning plan. The governing body may approve any appropriate amendments to or modifications of the decommissioning plan.
f. Hazardous material from the property shall be disposed of in accordance with federal and state law.
g. The applicant shall provide a reliable and detailed cost estimate for the decommissioning of the facility prepared by a professional engineer or contractor who has expertise in the removal of solar facilities. The decommissioning cost estimate shall explicitly detail the cost and shall include a mechanism for calculating increased removal costs due to inflation and without any reduction for salvage value. This cost estimate shall be recalculated every five (5) years and the surety shall be updated in kind.
h. The decommissioning cost shall be guaranteed by cash escrow at a federally insured financial institution approved by the municipality before any building permits are issued. The governing body may approve alternative methods of surety or security, such as a performance bond, letter of credit, or other surety approved by the municipality, to secure the financial ability of the owner or operator to decommission the facility.
i. If the owner or operator of the solar facility fails to remove the installation in accordance with the requirements of this permit or within the proposed date of decommissioning, the municipality may collect the surety and staff or a hired third party may enter the property to physically remove the installation.

6. Site plan requirements. In addition to the site plan requirements set forth in the zoning ordinance, a construction management plan shall be submitted that includes:
    - Traffic control plan (subject to state and local approval, as appropriate)
    - Delivery and parking areas
    - Delivery routes
    - Permits (state/local)

   Additionally, a construction/deconstruction mitigation plan shall also be submitted including:
    - Hours of operation
    - Noise mitigation (e.g., construction hours)
    - Smoke and burn mitigation (if necessary)
    - Dust mitigation
    - Road monitoring and maintenance

7. The building permit must be obtained within [18 months] of obtaining the use permit and commencement of the operation shall begin within [one year] from building permit issuance.

8. All solar panels and devices are considered primary structures and subject to the requirements for such, along with the established setbacks and other requirements for solar facilities.

9. Site maintenance.
    a. Native grasses shall be used to stabilize the site for the duration of the facility's use.
    b. Weed control or mowing shall be performed routinely and a performance bond reflecting the costs of such maintenance for a period of [six (6) months] shall be posted and maintained. Failure to maintain the site may result in revocation of the use permit and the facility's decommissioning.
    c. Anti-reflection coatings. Exterior surfaces of the collectors and related equipment shall have a nonreflective finish and solar panels shall be designed and installed to limit glare to a degree that no after image would occur towards vehicular traffic and any adjacent building.
    d. Repair of panels. Panels shall be repaired or replaced when either nonfunctional or in visible disrepair.

10. Signage shall identify the facility owner, provide a 24-hour emergency contact phone number, and conform to the requirements set forth in the Zoning Ordinance.

11. At all times, the solar facility shall comply with any local noise ordinance.

12. The solar facility shall not obtain a building permit until evidence is given to the municipality that an electric utility company has a signed interconnection agreement with the permittee.

13. All documentation submitted by the applicant in support of this permit request becomes a part of the conditions. Conditions imposed by the governing body shall control over any inconsistent provision in any documentation provided by the applicant.

14. If any one or more of the conditions is declared void for any reason, such decision shall not affect the remaining portion of the permit, which shall remain in full force and effect, and for this purpose, the provisions of this are here by declared to be severable.

15. Any infraction of the above-mentioned conditions, or any zoning ordinance regulations, may lead to a stop order and revocation of the permit.

16. The administrator/manager, building official, or zoning administrator, or any other parties designated by those public officials, shall be allowed to enter the property at any reasonable time, and with proper notice, to check for compliance with the provisions of this permit.

EXAMPLE OF RECOMMENDED USE PERMIT CONDITIONS (In Virginia: conditional uses, special uses, special exceptions)

***Conditions** ([approved/revised] at the Planning Commission meeting on [date])*

If the Board determines that the application furthers the comprehensive plan's goals and objectives and that it meets the criteria set forth in the zoning ordinance, then the Planning Commission recommends the following conditions to mitigate the adverse effects of this utility-scale solar generation facility with any Board recommendation for permit approval.

1. The Applicant will develop the Solar Facility in substantial accord with the Conceptual Site Plan dated _____ included with the application as determined by the Zoning Administrator. Significant deviations or additions, including any enclosed building structures, to the Site Plan will require review and approval by the Planning Commission and Board of Supervisors.

2. Site Plan Requirements. In addition to all State site plan requirements and site plan requirements of the Zoning Administrator, the Applicant shall provide the following plans for review and approval for the Solar Facility prior to the issuance of a building permit:
   a. *Construction Management Plan*. The Applicant shall prepare a Construction Management Plan for each applicable site plan for the Solar Facility, and each plan shall address the following:
      i. Traffic control methods (in coordination with the Department of Transportation prior to initiation of construction), including lane closures, signage, and flagging procedures.
      ii. Site access planning directing employee and delivery traffic to minimize conflicts with local traffic.
      iii. Fencing. The Applicant shall install temporary security fencing prior to the commencement of construction activities occurring on the Solar Facility.
      iv. Lighting. During construction of the Solar Facility, any temporary construction lighting shall be positioned downward, inward, and shielded to eliminate glare from all adjacent properties. Emergency and safety lighting shall be exempt from this construction lighting condition.
   b. *Construction Mitigation Plan*. The Applicant shall prepare a Construction Mitigation Plan for each applicable site plan for the Solar Facility to the satisfaction of the Zoning Administrator. Each plan shall address, at a minimum, the effective mitigation of dust, burning operations, hours of construction activity, access and road improvements, and handling of general construction complaints.
   c. *Grading plan*. The Solar Facility shall be constructed in compliance with the County-approved grading plan as determined and approved by the Zoning Administrator or his designee prior to the commencement of any construction activities and a bond or other security will be posted for the grading operations. The grading plan shall:
      i. Clearly show existing and proposed contours;
      ii. Note the locations and amount of topsoil to be removed (if any) and the percent of the site to be graded;
      iii. Limit grading to the greatest extent practicable by avoiding steep slopes and laying out arrays parallel to landforms;
      iv. Require an earthwork balance to be achieved on-site with no import or export of soil;
      v. Require topsoil to first be stripped and stockpiled on-site to be used to increase the fertility of areas intended to be seeded in areas proposed to be permanent access roads which will receive gravel or in any areas where more than a few inches of cut are required;
      vi. Take advantage of natural flow patterns in drainage design and keep the amount of impervious surface as low as possible to reduce stormwater storage needs.
   d. *Erosion and Sediment Control Plan*. The County will have a third-party review with corrections completed prior to submittal for Department of Environmental Quality (DEQ) review and approval. The owner or operator shall construct, maintain, and operate the project in compliance with the approved plan. An E&S bond (or other security) will be posted for the construction portion of the project.
   e. *Stormwater Management Plan*. The County will have a third-party review with corrections completed prior to submittal for DEQ review and approval. The owner or operator shall construct, maintain, and operate the project in compliance with the approved plan. A stormwater control bond (or other security) will be posted for the project for both construction and post construction as applicable and determined by the Zoning Administrator.
   f. *Solar Facility Screening and Vegetation Plan*. The owner or operator shall construct, maintain, and operate the facility in compliance with the approved plan. A separate security shall be posted for the ongoing maintenance of the project's vegetative buffers in an amount deemed sufficient by the Zoning Administrator.
   g. The Applicant will compensate the County in obtaining an independent third-party review of any site plans or construction plans or part thereof.
   h. The design, installation, maintenance, and repair of the Solar Facility shall be in accordance with the most current National Electrical Code (NFPA 70) available (2017 version or later as applicable).

3. Operations.
   a. *Permanent Security Fence*. The Applicant shall install a permanent security fence, consisting of chain link, 2-inch square mesh, 6 feet in height, surmounted by three strands of barbed wire, around the Solar Facility prior to the commencement of operations of the Solar Facility.

Failure to maintain the fence in a good and functional condition will result in revocation of the permit.

b. Lighting. Any on-site lighting provided for the operational phase of the Solar Facility shall be dark-sky compliant, shielded away from adjacent properties, and positioned downward to minimize light spillage onto adjacent properties.

c. Noise. Daytime noise will be under 67 dBA during the day with no noise emissions at night.

d. Ingress/Egress. Permanent access roads and parking areas will be stabilized with gravel, asphalt, or concrete to minimize dust and impacts to adjacent properties.

4. Buffers.
   a. Setbacks.
      i. A minimum 150-foot setback, which includes a 50-foot planted buffer as described below, shall be maintained from a principal Solar Facility structure to the street line (edge of right-of-way) where the Property abuts any public rights-of-way.
      ii. A minimum 150-foot setback, which includes a 50-foot planted buffer as described below, shall be maintained from a principal Solar Facility structure to any adjoining property line which is a perimeter boundary line for the project area.
   b. Screening. A minimum 50-foot vegetative buffer (consisting of existing trees and vegetation) shall be maintained. If there is no existing vegetation or if the existing vegetation is inadequate to serve as a buffer as determined by the Zoning Administrator, a triple row of trees and shrubs will be planted on approximately 10-foot centers in the 25 feet immediately adjacent to the security fence. New plantings of trees and shrubs shall be approximately 6 feet in height at time of planting. In addition, pine seedlings will be installed in the remaining 25 feet of the 50-foot buffer. Ancillary project facilities may be included in the buffer as described in the application where such facilities do not interfere with the effectiveness of the buffer as determined by the Zoning Administrator.
   c. Wildlife corridors. The Applicant shall identify an access corridor for wildlife to navigate through the Solar Facility. The proposed wildlife corridor shall be shown on the site plan submitted to the County. Areas between fencing shall be kept open to allow for the movement of migratory animals and other wildlife.

5. Height of Structures. Solar facility structures shall not exceed 15 feet, however, towers constructed for electrical lines may exceed the maximum permitted height as provided in the zoning district regulations, provided that no structure shall exceed the height of 25 feet above ground level, unless required by applicable code to interconnect into existing electric infrastructure or necessitated by applicable code to cross certain structures (e.g. pipelines).

6. Inspections. The Applicant will allow designated County representatives or employees access to the facility at any time for inspection purposes as set forth in their application.

7. Training. The Applicant shall arrange a training session with the Fire Department to familiarize personnel with issues unique to a solar facility before operations begin.

8. Compliance. The Solar Facility shall be designed, constructed, and tested to meet relevant local, state, and federal standards as applicable.

9. Decommissioning.
   a. Decommissioning Plan. The Applicant shall submit a decommissioning plan to the County for approval in conjunction with the building permit. The purpose of the decommissioning plan is to specify the procedure by which the Applicant or its successor would remove the Solar Facility after the end of its useful life and to restore the property for agricultural uses.
   b. Decommissioning Cost Estimate. The decommissioning plan shall include a decommissioning cost estimate prepared by a State licensed professional engineer.
      i. The cost estimate shall provide the gross estimated cost to decommission the Solar Facility in accordance with the decommissioning plan and these conditions. The decommissioning cost estimate shall not include any estimates or offsets for the resale or salvage values of the Solar Facility equipment and materials.
      ii. The Applicant, or its successor, shall reimburse the County for an independent review and analysis by a licensed engineer of the initial decommissioning cost estimate.
      iii. The Applicant, or its successor, will update the decommissioning cost estimate every 5 years and reimburse the County for an independent review and analysis by a licensed engineer of each decommissioning cost estimate revision.
   c. Security.
      i. Prior to the County's approval of the building permit, the Applicant shall provide decommissioning security in one of the two following alternatives:
         1. Letter of Credit for Full Decommissioning Cost: A letter of credit issued by a financial institution that has (i) a credit Rating from one or both of S&P and Moody's of at least A from S&P or A2 from Moody's and (ii) a capital surplus of at least $10,000,000,000; or (iii) other credit rating and capitalization reasonably acceptable to the County, in the full amount of the decommissioning estimate; or
         2. Tiered Security:
            a. 10 percent of the decommissioning cost estimate to be deposited in a cash escrow at a financial institution reasonably acceptable to the County; and
            b. 10 percent of the decommissioning cost estimate in the form of a letter of credit issued by

a financial institution that has (i) a credit rating from one or both of S&P and Moody's of at least A from S&P or A2 from Moody's and (ii) a capital surplus of at least $10,000,000,000, or (iii) other credit rating and capitalization reasonably acceptable to the County, with the amount of the letter of credit increasing by an additional 10 percent each year in years 2–9 after commencement of operation of the Solar Facility; and

c. The Owner, not the Applicant, will provide its guaranty of the decommissioning obligations. The guaranty will be in a form reasonably acceptable to the County. The Owner, or its successor, should have a minimum credit rating of (i) Baa3 or higher by Moody's or (ii) BBB- or higher by S&P; and

d. In the tenth year after operation, the Applicant will have increased the value of the letter of credit to 100 percent of the decommissioning cost estimate. At such time, the Applicant may be entitled to a return of the 10 percent cash escrow.

ii. Upon the receipt of the first revised decommissioning cost estimate (following the 5th anniversary), any increase or decrease in the decommissioning security shall be funded by the Applicant or refunded to Applicant (if permissible by the form of security) within 90 days and will be similarly trued up for every subsequent five-year updated decommissioning cost estimate.

iii. The security must be received prior to the approval of the building permit and must stay in force for the duration of the life span of the Solar Facility and until all decommissioning is completed. If the County receives notice or reasonably believes that any form of security has been revoked or the County receives notice that any security may be revoked, the County may revoke the special use permit and shall be entitled to take all action to obtain the rights to the form of security.

d. Applicant/Property Owner Obligation. Within 6 months after the cessation of use of the Solar Facility for electrical power generation or transmission, the Applicant or its successor, at its sole cost and expense, shall decommission the Solar Facility in accordance with the decommissioning plan approved by the County. If the Applicant or its successor fails to decommission the Solar Facility within 6 months, the property owners shall commence decommissioning activities in accordance with the decommissioning plan. Following the completion of decommissioning of the entire Solar Facility arising out of a default by the Applicant or its successor, any remaining security funds held by the County shall be distributed to the property owners in a proportion of the security funds and the property owner's acreage ownership of the Solar Facility.

e. Applicant/Property Owner Default; Decommissioning by the County.

i. If the Applicant, its successor, or the property owners fail to decommission the Solar Facility within 6 months, the County shall have the right, but not the obligation, to commence decommissioning activities and shall have access to the property, access to the full amount of the decommissioning security, and the rights to the Solar Facility equipment and materials on the property.

ii. If applicable, any excess decommissioning security funds shall be returned to the current owner of the property after the County has completed the decommissioning activities.

iii. Prior to the issuance of any permits, the Applicant and the property owners shall deliver a legal instrument to the County granting the County (1) the right to access the property, and (2) an interest in the Solar Facility equipment and materials to complete the decommissioning upon the Applicant's and property owner's default. Such instrument(s) shall bind the Applicant and property owners and their successors, heirs, and assigns. Nothing herein shall limit other rights or remedies that may be available to the County to enforce the obligations of the Applicant, including under the County's zoning powers.

f. Equipment/Building Removal. All physical improvements, materials, and equipment related to solar energy generation, both surface and subsurface components, shall be removed in their entirety. The soil grade will also be restored following disturbance caused in the removal process. Perimeter fencing will be removed and recycled or reused. Where the current or future landowner prefers to retain the fencing, these portions of fence will be left in place.

g. Infrastructure Removal. All access roads will be removed, including any geotextile material beneath the roads and granular material. The exception to removal of the access roads and associated culverts or their related material would be upon written request from the current or future landowner to leave all or a portion of these facilities in place for use by that landowner. Access roads will be removed within areas that were previously used for agricultural purposes and topsoil will be redistributed to provide substantially similar growing media as was present within the areas prior to site disturbance.

h. Partial Decommissioning. If decommissioning is triggered for a portion, but not the entire Solar Facility, then the Applicant or its successor will commence and complete decommissioning, in accordance with the decommissioning plan, for the applicable portion of the Solar Facility; the remaining portion of the Solar Facility would continue to be subject to the decommissioning plan. Any reference to decommissioning the Solar Facility shall include the obligation to decommission all or a portion of the Solar Facility whichever is applicable with respect

to a particular situation.

10. Power Purchase Agreement. At the time of the Applicant's site plan submission, the Applicant shall have executed a power purchase agreement with a third-party providing for the sale of a minimum of 80% of the Solar Facility's anticipated generation capacity for not less than 10 years from commencement of operation. Upon the County's request, the Applicant shall provide the County and legal counsel with a redacted version of the executed power purchase agreement.

Order ID: 7588375

* Agency Commission not included

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PUBLIC NOTICE OF A HEARING BEFORE THE UNITED CITY OF YORKVILLE PLANNING AND ZONING COMMISION PZC 2024-06

NOTICE IS HEREWITH GIVEN THAT the Planning and Zoning Commission of the United City of Yorkville will conduct a public hearing on March 13, 2024 at 7:00PM at the Yorkville City Hall, 651 Prairie Pointe Drive, Yorkville, Illinois, regarding an amendment to Section 10-4-13 Alternative Energy Use Standards regarding solar farms of the Yorkville Unified Development Ordinance.

The proposed text amendment provides additional regulations requiring a minimum distance of one-thousand feet (1,000') from the nearest solar array to a major corridor and the Fox River. Additional minor proposed text amendments include typographical errors, clarification regarding solar glare, proof of utility service provider, and easement requirements.

The public hearing may be continued from time to time to dates certain without further notice being published.

All interested parties are invited to attend the public hearing and will be given an opportunity to be heard. Any written comments should be addressed to the United City of Yorkville Community Development Department, City Hall, 651 Prairie Pointe Drive, Yorkville, Illinois, and will be accepted up to the date of the public hearing.

By order of the Corporate Authorities of the United City of Yorkville, Kendall County, Illinois.

JORI BEHLAND
City Clerk
02/23/2024 7588375