

Written Comments for County Commission Public Hearing Scheduled for September 11, 2020:

1. Gail Kohlhorst (Eastern Panhandle Sierra Club), 09-08-20
2. A Coch, 09-09-20
3. Aileen Curfman, 09-09-20
4. Mason Meadows, 09-10-20
5. Steven and Olivia Welch, 09-10-20
6. Olivia Welch, 09-10-20
7. Nicola Bastian, 09-10-20
8. Robert D. Aitcheson, 09-10-20
9. Doug Rockwell, 09-10-20
10. Christine Marshall, 09-10-20
11. Cheryl Pullen, 09-11-20
12. Leah Rampy, 09-11-20
13. Lew Prillaman, 09-11-20
14. Sabrina Stenswold, 09-11-20
15. Robert Aitcheson and Doug Rockwell, 09-14-20
16. Richard Zigler, 09-21-20
17. Anastasya Tabb, 09-25-20
18. Lisa Payne, 09-25-20
19. Stanley Dunn, 10-01-20

Alexandra Beaulieu

From: Jessica Carroll
Sent: Tuesday, September 8, 2020 12:46 PM
To: Alexandra Beaulieu
Cc: Sandra McDonald
Subject: FW: Solar Ordinance
Attachments: EPSC Final Comment on Draft Ordinance ZTA19.docx

From: Gail Kohlhorst <kohlhorst@comcast.net>
Sent: Sunday, September 6, 2020 4:52 PM
To: JCCInfo <info@jeffersoncountywv.org>
Subject: Solar Ordinance

Dear County Commissioners,

I am enclosing my comments regarding the draft ordinance #ZTA19-03, on behalf of the Eastern Panhandle Sierra Club. I would also like to speak at the public hearing on September 11th. Do I need to register separately for that?

Thank you for this opportunity to participate in the process.

Sincerely,

Gail Kohlhorst
Chair, Eastern Panhandle Sierra Club
3153 Engle Molders Rd.
Harpers Ferry, WV 25425
304-885-0733

Comment on Draft Ordinance ZTA19-03 – Solar Energy Facilities

The Eastern Panhandle Sierra Club* supports the use of solar power and other renewable alternatives to fossil fuels. We welcome the solar power industry to Jefferson County and look forward to the time when our homes and businesses are powered in a more sustainable and less polluting manner. However, we also want to make sure that solar fields are introduced in such a way that they do not mar the beauty of the County; that the land is adequately preserved and protected so it can be used for agriculture in the future; that the widespread use of pesticides and herbicides is minimized and limited to eco-friendly substances; that current land owners and Jefferson County farmers have the opportunity to use partial acreage for solar power while still maintaining their agricultural base; and that solar facilities are designed and buffered in such a way as to blend in with the local landscapes.

We are concerned that the proposed ordinance is not constructed to allow adequate public participation in the consideration of new projects and to ensure that the County retains adequate control and oversight of the industry within its boundaries. When concerns and problems arise, we want to make certain that citizens can go to the Planning and County Commissions who will have the authority to do something about it. Accordingly, we propose that the County move to a Conditional Use Permitting process that would allow for a public hearing and individual permit for proposed projects in excess of 200 acres.

Since there is no mandated time frame for amending the draft ordinance once the public hearing is concluded, we recommend that the Planning Commission take adequate time to carefully consider all comments and revise the Draft Ordinance, resubmitting it to the County Commission with plenty of time for additional review or hearings as needed.

Additional comments from the Eastern Panhandle Sierra Club are as follows:

Compliance with the Comprehensive Plan. The Plan provides for alternative power sources that will “**complement or replace existing power sources.**” The draft ordinance makes no distinction such as this in terms of solar farms whose sole purpose may be to generate electricity for use outside of WV. Goal #10, Objective #9 states that the County will “**encourage the creation of and use of a variety of energy sources (including renewable energy) within Jefferson County in ways that respect the character of the County.**” The draft ordinance provides very little in the requirements for buffers, either in terms of footage requirements or landscaping. For instance, more attention should be paid to solar panels on land that may line both sides of a highway or residence.

Draft Ordinance Sections.

Standards. Section B-2(Setbacks) a. Solar Panels i. SHOULD BE CHANGED FROM 100 FEET TO 200 FEET

B. Accessory Components i. SHOULD BE CHANGED FROM 25 FEET TO 50 FEET

Submitted by Gail Kohlhorst

Chair, Eastern Panhandle Sierra Club

3153 Engle Molders Rd.

Harpers Ferry, WV 25425

*The Eastern Panhandle Sierra Club is part of the WV Sierra Club and this statement reflects the comments of our local organization, representing Jefferson, Berkeley, and Morgan counties.

Alexandra Beaulieu

From: Jessica Carroll
Sent: Wednesday, September 9, 2020 1:19 PM
To: Jane Tabb - County Commission (vinemont.farm@gmail.com); Patricia Noland; Josh Compton; Lorenzet1@earthlink.net; calebhudsonforjeffersonwv@gmail.com
Cc: Alexandra Beaulieu; Sandra McDonald
Subject: Solar Facilities Amendment Comment

From: WebmastervJCC <webmaster@jeffersoncountywv.org>
Sent: Wednesday, September 9, 2020 12:29 PM
To: JCCInfo <info@jeffersoncountywv.org>
Subject: Jefferson County Commission, WV: Website Form Notification

A new entry to a form/survey has been submitted.

Form Name: County Commission Contact
Date & Time: 09/09/2020 12:29 PM
Response #: 1502
Submitter ID: 4958
IP address: 99.101.50.223
Time to complete: 13 min. , 46 sec.

Survey Details

Page 1

1. Name

A Coch

2. Email

Likethe6car@aol.com

3. Questions or Concerns

Commissioners,

I have divide my year between Florida and West Virginia.

I married into an agricultural family and I know there are concerns regarding solar and the development of these projects.

FL is a hurricane state and our power company, FPL, has embraced solar and has built solar farms and is scheduled to build more. Please reach out to FPL regarding regulations.

Times are changing fast and Farmers are running out of time. Let them farm a different way.

<https://www.fpl.com/home/search-results.html?query=solar>

There is a section on the USDA survey, regarding land use and type of farming. The section is in the back between Christmas Tree and Bee Farming. Solar is under USDA.

Thank you.

A Coch

4. Would you like to receive email notifications from Jefferson County?

(o) Yes

Thank you,

Jefferson County Commission, WV

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Alexandra Beaulieu

From: Jessica Carroll
Sent: Wednesday, September 9, 2020 5:45 PM
To: Stephanie Grove; Sandra McDonald; Alexandra Beaulieu
Subject: FW: Comments on Draft Ordinance ZTA19-03 – Solar EnergyFacilities

From: Aileen <acurfman@gmail.com>
Sent: Wednesday, September 9, 2020 5:38 PM
To: JCCInfo <info@jeffersoncountywv.org>
Subject: Fwd: Comments on Draft Ordinance ZTA19-03 – Solar EnergyFacilities

I submitted this comment to the planning department, but now I see that I should have sent them to info@jeffersoncountywv.org. I would like to sign up to speak at the virtual hearing on September 11.

Thank you!
Aileen Curfman
1067 Comstock Dr., Shepherdstown, WV 25443
304-433-5321

----- Forwarded message -----

From: **Aileen** <acurfman@gmail.com>
Date: Wed, Sep 9, 2020 at 5:34 PM
Subject: Comments on Draft Ordinance ZTA19-03 – Solar EnergyFacilities
To: <planningdepartment@jeffersoncountywv.org>

1067 Comstock Dr.
Shepherdstown, WV 25443
acurfman@gmail.com

September 9, 2020

To: Jefferson County Commission
RE: Comments on Draft Ordinance ZTA19-03 – Solar Energy Facilities

I wish to thank the Jefferson County Commission for the opportunity to comment on Draft Ordinance ZTA19-03. As a native West Virginian, I'm excited to see that Jefferson County is leading the state in introducing large-scale solar production. Our state needs to transition to jobs that aren't based on fossil fuels, and solar energy presents a great opportunity for our economy and for meeting the future energy needs of our people and businesses.

It's important that we develop this new industry in a way that benefits the area in the long run. Because productive agricultural land is a resource that cannot easily be replaced, I believe the county should provide some incentive for locating a solar project on a previously developed site, such as a brownfield. I also believe that there should be a public hearing, with opportunity for public comment, as part of the planning process for each solar project. The ordinance should contain measures to ensure appropriate land use and public input.

Because our area has many historic properties and our tourism depends on the area being aesthetically appealing, I believe the setback for solar panels should be changed from 100 to 200 feet, and the setback for accessory components should be changed from 25 to 50 feet. Plantings that provide visual screening could be substituted for the additional setback distance.

Under the ordinance, decommissioning the solar facility is the property owner's responsibility and not the responsibility of the company that operates the solar facility. I am concerned that this will discourage owners from leasing their property to a solar company, since the owners of potentially excellent sites might be concerned that, in 30 years, they will not have funds sufficient for removing the panels and returning the facility to a condition suitable for other use. Their best option is to negotiate their own decommissioning bond with the utility, which is a challenge many property owners would find prohibitively difficult and expensive. Putting the burden of decommissioning on property owners will tend to hamper the growth of this much needed industry. I recognize the difficulty of the county managing a bond over a period of 30 years, but I believe it is a better solution. The county is in a better position to perform this task than most property owners would be.

I am pleased to see that Jefferson County is taking steps to create a logical, organized approach to this burgeoning industry, which is consistent with the Envision Jefferson 2035 Comprehensive Plan. Thank you for giving local people the opportunity to provide our perspectives.

Aileen Curfman

Alexandra Beaulieu

From: Jessica Carroll
Sent: Thursday, September 10, 2020 8:59 AM
To: Jane Tabb - County Commission (vinemont.farm@gmail.com); Patsy Noland; 'Josh Compton'; 'calebhudsonforjeffersonwv@gmail.com'; Lorenzet1@earthlink.net
Cc: Stephanie Grove; Sandra McDonald; Alexandra Beaulieu
Subject: Fw: Public Comment: JCC Public Hearing, September 11, 2020

From: Mason Meadows <masondmeadows@gmail.com>
Sent: Wednesday, September 9, 2020 7:10:42 PM
To: JCCInfo
Subject: Public Comment: JCC Public Hearing, September 11, 2020

Please consider the following a public comment from Shepherdstown Resident Mason Meadows to be read at the JCC public hearing on Friday, September 11th, 2020:

"In regards to 'Envision 2035' - the transition toward renewable energy is imperative for the survival of West Virginia's economy and its communities. With this proposal, Jefferson County has the opportunity to serve as a leader for the rest of the state by showing that the transition toward renewable energy is not only easy, but is also beneficial to communities.

If the Jefferson County Commission misses the opportunity to allow renewable energy companies to locate in the county, they would be holding their citizens back from jobs, from energy sustainability for future generations, and from the opportunity to show the rest of West Virginia that it can be done!

I would also like to voice my agreement with the following recommendations brought forward by Jefferson County Vision:

- 1) Revision of the zoning ordinance guidelines to modify the proposed principal permitted use to a conditional use process.
- 2) As part of the conditional use for development, an environmental impact assessment is to be conducted and will include appropriate soil samples (borings), and geotechnical analysis.

I trust that the Jefferson County Commission will vote in the best interest of the people of Jefferson County by passing the proposed plan.

Alexandra Beaulieu

From: Jessica Carroll
Sent: Thursday, September 10, 2020 9:02 AM
To: Jane Tabb - County Commission (vinemont.farm@gmail.com); Patsy Noland; 'Josh Compton'; 'calebHUDSONforjeffersonwv@gmail.com'; Lorenzet1@earthlink.net
Cc: Stephanie Grove; Sandra McDonald; Alexandra Beaulieu
Subject: Fw: Resident Feedback for September 11, 2020 - Public Hearing: File #ZTA19-03, Solar Energy Facilities

From: Steven Welch <welchs@gmail.com>
Sent: Thursday, September 10, 2020 8:35:02 AM
To: JCCInfo
Cc: Steven Welch
Subject: Resident Feedback for September 11, 2020 - Public Hearing: File #ZTA19-03, Solar Energy Facilities

Hello,

As concerned residents (and taxpayers) of Jefferson County, we are adamantly opposed to the Proposed Solar Facilities Amendment.

Allowing the potential for solar plants to be built in General Commercial, Highway Commercial, Light Industrial, Major Industrial, Rural, Residential Growth, Residential-Light Industrial-Commercial, and Industrial Commercial Zoning Districts leaves almost the entire county unprotected from these unsightly and inefficient construction projects.

Moreover, the detrimental effect these solar plants would have on property values in residential zones could be catastrophic. It seems foolhardy to punish taxpayers, those individuals that fund the county's operations, by undermining their primary investment, which is home ownership.

Lastly, our family moved here in large part due to the natural beauty of this area. Installing hundreds, if not thousands, of solar panels throughout the county on agricultural and residential land is contrary to one of the major appeals of this county.

We hope and trust that the County Commission will see fit to cancel this proposed text amendment as soon as possible.

*Thank you,
Steven and Olivia Welch and Family*

Alexandra Beaulieu

From: Jessica Carroll
Sent: Thursday, September 10, 2020 9:51 AM
To: Jane Tabb - County Commission (vinemont.farm@gmail.com); Patsy Noland; 'Josh Compton'; 'calebhudsonforjeffersonwv@gmail.com'; Lorenzet1@earthlink.net
Cc: Stephanie Grove; Sandra McDonald; Alexandra Beaulieu
Subject: Fw: Jefferson County Commission, WV: Website Form Notification

From: WebmastervJCC <webmaster@jeffersoncountywv.org>
Sent: Thursday, September 10, 2020 9:19:36 AM
To: JCCInfo
Subject: Jefferson County Commission, WV: Website Form Notification

A new entry to a form/survey has been submitted.

Form Name: County Commission Contact
Date & Time: 09/10/2020 9:19 AM
Response #: 1507
Submitter ID: 4967
IP address: 98.204.224.43
Time to complete: 9 min. , 2 sec.

Survey Details

Page 1

1. Name

Olivia Welch

2. Email

owelch2013@yahoo.com

3. Questions or Concerns

Good morning.

My husband and I are unable to attend the Solar Panel discussion tomorrow (seems to be an odd time of day to have such an important meeting, especially as most of us work) but I wanted to voice my serious concerns about this project. We moved here to Avon Bend off of Kabletown Road two years ago, attracted to the beautiful area. We are so incredibly frustrated and disappointed about these possible solar panel farms. What about the environmental effects, particularly water run-off? Can the Commissioners office vouch for the fact that our well water will be unaffected by this? I would like to see data and studies that show we will be unaffected. What about our property value? Can you vouch that this will also be unaffected? You have some tough questions to answer, and I look forward to receiving data from your office addressing these concerns.

Sincerely,
Olivia Welch and family

4. Would you like to receive email notifications from Jefferson County?

(o) Yes

Thank you,
Jefferson County Commission, WV

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Alexandra Beaulieu

From: Jessica Carroll
Sent: Thursday, September 10, 2020 11:39 AM
To: Jane Tabb - County Commission (vinemont.farm@gmail.com); Patsy Noland; 'Josh Compton'; 'calebhudsonforjeffersonwv@gmail.com'; Lorenzet1@earthlink.net
Cc: Stephanie Grove; Sandra McDonald; Alexandra Beaulieu
Subject: Fw: please read: re solar installations
Attachments: Solar Installations final draft sept 10th.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

From: nicola bastian <nicolabastian@yahoo.de>
Sent: Thursday, September 10, 2020 11:19:29 AM
To: JCCInfo
Subject: Fw: please read: re solar installations

----- Forwarded Message -----

From: nicola bastian <nicolabastian@yahoo.de>
To: Jcda Info <info@jcda.net>
Sent: Thursday, September 10, 2020, 11:18:54 AM EDT
Subject: Fw: please read: re solar installations

please forward to Ag committee
thanks
icola

----- Forwarded Message -----

From: nicola bastian <nicolabastian@yahoo.de>
To: Jane Tabb <vinemont.farm@gmail.com>; into@jeffersoncountywv.org <into@jeffersoncountywv.org>
Sent: Thursday, September 10, 2020, 11:06:43 AM EDT
Subject: please read: re solar installations

Please include in your public comments file
Thank you all for loving our county and continuing doing what is best for many !

nicola
304 535 6907

From
Nicola Bastian
Millville WV 25432
nicolabastian@yahoo.de
304 535 6907

To whom it may concern,

I am writing today to urge our Jefferson County officials and residents to consider addressing following questions/ issues regarding Solar Farm Installations before committing to re-zone and permit big size solar installations. .

1) re DECOMMISSIONING

- a) Is there appropriate bonding issued so the companies can be held responsible for any clean-up/ environmental damage?
 - b) If panels are to break due to acts of God and men , where will they be disposed of ? Broken panels cannot be recycled are considered ,hazardous waste‘ (cadmium – a cancer agent, and lead, both used in welding connections.
 - c) Collection sites for broken and recyclable panels need to be planned ahead of time.
- 2) For determining BEST LOCATION:
- a) Establish data of ground testings and use most polluted fields . It will make the most sense to help them ,recover‘ by taking them out of farming for a while.
 - b) Reconsider whether it would not be more fair to place solar installations near areas devastated by a shrinking coal industry and give people there the opportunity to get into the solar business. Rather then in a county that was mostly unaffected by that change.

3) Re: WATER

- a) Cleansing of panels necessary – with water and/or chemicals?
- b) Rain water runoff regulation with large size installations?
- c) Water/soil pollution via lead and cadmium leaks from broken panels (quick responsible removal of broken panels needs to be pre-regulated and violations promptly addressed)

4) Re: WEST VIRGINIA UNDER OUTSIDE ECONOMIC CONTROL

- a) If we anticipate a future with increased solar participation in the energy production portfolio, why not consider seriously to produce solar panels in Jefferson County. The Rockwool site would lend itself perfectly and would truly be of benefit to our county in terms of employment and expandability ,self reliance, recycling panels, and control what goes into the making of it. Important especially in times of insecurity in China trade relationships.
- b) By the time that business would be flourishing , WV laws regulating use of solar energy will have tipped in favor of localities using their own solar produced energy. Then we can say, these installations truly benefit our county in important ways.

I support whole heartedly to have alternatives for farmers to make a living , . That is an issue we all should seriously address before we commit to further reduce land available for food production, especially in times when it seems more important then ever to have food grown close to to urban centers like DC and Baltimore.

I pray this matter will be tabled until the questions can be fully answered and the impact understood.
Or at least until WV favors local solar power use, i. e. passes the Power Purchase Agreement !
Frederick , Md has a solar installation that powers many of its local government buildings.

Thank you for your consideration.

Questions?

Please contact

nicolabastian@yahoo.de

Alexandra Beaulieu

From: Sandra McDonald
Sent: Thursday, September 10, 2020 12:31 PM
To: 'Jane Tabb'; 'Josh Compton'; 'Patsy Noland (patsynol@gmail.com)'; 'Caleb Hudson'; Ralph Lorenzetti; Ralph Lorenzetti
Cc: Jessica Carroll; Alexandra Beaulieu
Subject: Opposition to proposed solar facility
Attachments: Scanned Hunter Building Commission.pdf

Commissioners-

Mr. Aitcheson dropped off a notebook with this in it for each of you. I'll place the notebook in your mailbox in the hallway.

Thanks,

Sandy

-----Original Message-----

From: Helpdesk@jeffersoncountywv.org [mailto:Helpdesk@jeffersoncountywv.org]
Sent: Thursday, September 10, 2020 12:31 PM
To: Sandra McDonald <Sandy@jeffersoncountywv.org>
Subject: Scanned Hunter Building Commission

This is scanned and sent to you from Hunter Building Commission Offices

Attachment File Type: pdf, Multi-Page

multifunction device Location: Hunter House - 1st Floor - Front Offices Area
Device Name: XRX9C934E1DB4F9

Contact Commission Offices
Hunter Building

Opposition to Proposed
Utility-Scale Solar Facility
Text Amendment

Robert D. Aitcheson

September 11, 2020

To: Jefferson County Commission
From: Robert D. Aitcheson
Re: Proposed Text Amendment - Utility Scale Solar Facilities [ZTA19-03]

1. Enclosed you will find the following:

Tab 1 - Spotsylvania County Virginia Board of Supervisors Resolution No. 2019-37 with Conditions (23 pages)

Tab 2 - Culpepper County Virginia Utility Scale Solar Facility Development Policy dated October 1, 2019 (16 pages)

Tab 3 Jefferson County Development Authority letter to this Commission dated August 19, 2020, Regarding Large Scale Solar Energy Facilities (3 pages)

2. Spotsylvania County, Virginia

After detailed analysis and lengthy public hearings, and contrary to the recommendations of its Planning Commission, the Board of Supervisors approved by a 6-1 vote a 6,350 acre utility- scale solar facility, the largest on the East Coast. Three parcels of land make up the total acreage, 5,200 acres, 905 acres and 245 acres. Only the Resolution for the 245 acre parcel is enclosed here, but **the conditions for each parcel are the same, regardless of the acreage.**

Please note the very detailed conditions upon which this project was approved, including the bonding, setback and buffer requirements. Bonding is not just to cover decommissioning cost, but compliance in **all** phases of the project. Obviously, a great deal of time and energy went into the fashioning of all these exacting conditions.

In talking with Wanda Parrish, the Spotsylvania County Director of Planning, she indicated that she regrets they did not spend more time on the final buffer and setback requirements. She said they started out with a 400 foot setback all the way around and ended up with a "rolling" setback which varies at different locations around the perimeter. She indicated to me that this arrangement is not optimal.

3. Culpeper County, Virginia

The enclosed policy was approved by the Board of Supervisors, pending the drafting of a local ordinance, which I am informed is in process. Once again, please note the detailed requirements for any applicant seeking to construct a utility-scale facility in Culpeper County.

4. Jefferson County Development Authority

Even though the Commission has already received it, this letter is included here for emphasis. Specifically, the Commission should take note that the **“American Planning Association has prepared a model zoning ordinance in its PAS Memo, Sept. 1/Oct 2019, Planning for Utility-Scale Solar Energy Facilities” that includes reasonable conditions based on the experience of several Virginia jurisdictions**”. (Emphasis added)

The JCDA did the homework that our Planning Commission should have done, rather than ramming through a proposal wholly inadequate to protect the citizens of this County from the shell companies of out-of-state investors and their local minions.

The American Planning Association has made it easy for this Commission to adopt a legitimate, effective ordinance/text amendment with ample protections for the taxpaying citizens of our County. The drafting work is done for you.

5. Conditional Use Permit (CUP) vs. Principal Permitted Use (PPU)

As you know, designating utility-scale solar facilities as a PPU in the Rural Zoning District or **any** zoning district results in (a) the citizens affected by the project having **no input** and (b) the project being totally **unregulated** at the local level.

Moreover, every nearby jurisdiction that has considered this issue has opted to require a CUP or “Special Use Permit” as some jurisdictions call it. Among those counties are:

Virginia

Clarke County
Frederick County
Spotsylvania County
Culpeper County
Loudoun County

Maryland

Howard County
Frederick County
Washington County

There is simply no way to justify trying to re-invent the wheel in this instance at the expense of the taxpaying citizens who would be potentially negatively impacted by such projects. In addition to requiring a CUP, this Commission needs to adopt strict standards to which the Board of Zoning Appeals must adhere in its consideration of any such projects.

6. Bonding

As you can see from the enclosed, the necessary bonding requirements cover much more than decommissioning. Also included are the construction phase, operations, monitoring and maintenance. It is required that the bonds have sufficient, financially sound sureties, such as an A++ rated bonding company insurer, cash, a letter of credit, etc. Also note that the compliance with the bonds is the responsibility of the property owner and lessee, if the property is leased, the developer, all contractors and all successors and assigns. Finally, the sufficiency of the amount of the bonds are to be reviewed periodically, i.e. every 2 ½ to 3 years. These performance bonds are crucial in protecting the citizens of this County and insuring compliance with all conditions.

7. In addition to the failure of the proposed text amendment to adopt the CUP methodology and the failure to require adequate bonding and financial surety, I oppose the document under consideration because it:

fails to establish strict standards of review for the Board of Zoning Appeals in a CUP process, recognizing that the BZA has the authority to grant variances;

fails to limit the portion or percentage of any parcel in the Rural District, in existence as of July 1, 2020, which may be used for such solar panel facilities;

fails, alternatively, to provide a soils analysis basis (as under the former LEESA system) to determine what rural agricultural land may be used for a solar facility;

fails to require proximity to an existing transfer station and transmission lines;

fails to base our ordinance on the model ordinance of the American Planning Association consistent with the recommendations of our own JCDA.

8. Conclusion

Notwithstanding the vigorous and partisan advocacy of certain of the Planning Commission and staff, it should be readily apparent that inadequate consideration has been given by the Planning Commission to this proposal. It should be obvious to even a casual observer that there is a lot more thought and work to be done before a text amendment can be adopted by this Commission. Rather than taking the chance on sending it back to the Planning Commission and getting another shoddy work product, you should instruct legal counsel to prepare an ordinance similar to the American Planning Association's model zoning ordinance in its PAS Memo, Sept./Oct. 2019, "Planning for Utility-Scale Solar Energy Facilities" for consideration by this Commission in lieu of what has been presented.



Robert D. Atcheson

County of Spotsylvania

Founded 1721



Board of Supervisors
GREG BENTON
KEVIN W. MARSHALL
TIMOTHY J. McLAUGHLIN
DAVID ROSS
GARY F. SKINNER
PAUL D. TRAMPE
CHRIS YAKABOUSKI

Interim County Administrator
ED PETROVITCH
Deputy County Administrator
MARK L. COLE
P.O. BOX 99, SPOTSYLVANIA, VA 22553
Voice: (540) 507-7010
Fax: (540) 507-7019

Service, Integrity, Pride

At a meeting of the Spotsylvania County Board of Supervisors held on April 11, 2019, on a motion by Mr. Benton and passed 6 to 1 with Mr. Ross opposed, the Board adopted the following resolution:

RESOLUTION NO. 2019-37

Special Use Permit SUP18-0002

RiverOak Timberland Investments, LLC ("Owner") (Sustainable Property Holdings, LLC ("Applicant") - sPower Solar Energy Facility Site B):

WHEREAS, the Owner, through the Applicant, requests Special Use Permit approval to develop a 30 MW solar energy facility on an Agricultural 3 (A-3) zoned and unaddressed property constituting a site of approximately 245 acres. The property is located in western Spotsylvania County approximately 650 feet south of the intersection of W. Catharpin Road and Post Oak Road. The property is located outside of the Primary Development Boundary. The property is identified for Rural Residential development on the Future Land Use Map of the Comprehensive Plan. Tax Parcel 28-A-58. Livingston Voting District; and

WHEREAS, staff has reviewed the subject application and recommends approval as stated in the staff report and the executive summary; and

WHEREAS, the Spotsylvania County Planning Commission held a public hearing on December 19, 2018, duly advertised in a local newspaper for a period of two weeks, and interested citizens were given an opportunity to be heard; and

WHEREAS, the Spotsylvania County Planning Commission voted to postpone the subject case to January 2, 2019 to provide an opportunity for the Applicant to supply four plans recommended by staff for incorporation as conditions and to allow the Planning Commissioners additional time to review the application and consider public hearing input, with a vote of 5-2; and

WHEREAS, the Spotsylvania County Planning Commission voted to integrate condition comments and changes from SUP18-0001 into the subject case's conditions, as applicable, with a vote of 5-2; and

WHEREAS, on January 2, 2019, the Spotsylvania County Planning Commission voted to postpone the vote on the subject case to January 16, 2019 to allow staff time to address comments from the Planning Commission, with a vote of 5-2; and

WHEREAS, the Spotsylvania County Planning Commission recommended approval with a vote of 4-3; and

WHEREAS, the Spotsylvania County Board of Supervisors held a public hearing on February 26, 2019, duly advertised in a local newspaper for a period of two weeks, and interested citizens were given an opportunity to be heard; and

WHEREAS, the Spotsylvania County Board of Supervisors considered the Special Use Permit request in accordance with Sec. 23-4.5.7, Standards of Review, and finds that the application with the recommended conditions satisfies the following standards:

1. That the proposed use is in accord with the comprehensive plan and other official plans adopted by the county;
2. That the proposed use or development of the land will be in harmony with the scale, bulk, coverage, density, and character of the area or neighborhood in which it is located;
3. That the proposed use will not hinder or discourage the appropriate development and use of adjacent land and buildings or impair the value thereof;
4. That the proposed use will not adversely affect the health or safety of persons residing or working in the neighborhood of the proposed use;
5. That the proposed use will not be detrimental to the public welfare or injurious to property or improvements within the neighborhood;
6. That the proposed use is appropriately located with respect to transportation facilities, water supply, wastewater treatment, fire and police protection, waste disposal, and similar facilities;
7. That the proposed use will not cause undue traffic congestion or create a traffic hazard; and
8. That the proposed use will have no unduly adverse impact on environmental or natural resources.

WHEREAS, general welfare and good zoning practice are served by approval of the Special Use Permit application;

NOW, THEREFORE, BE IT RESOLVED that the Spotsylvania County Board of Supervisors does hereby approve SUP18-0002 Sustainable Property Holdings, LLC - sPower Solar Energy Facility Site B with the conditions listed below:

A. General:

1. The solar energy facility ("Facility") to be developed on current Tax Parcel 28-A-58 ("Property") pursuant to special use permit SUP18-0002 ("Special Use Permit"), shall be developed in conformance with the Generalized Development Plan titled "Generalized Development Plans Spotsylvania Solar Energy Center B Special Use Permit—SUP 18-0002 Livingston Magisterial District Spotsylvania County, VA", as last revised November 20, 2018 ("GDP") which is attached hereto and incorporated herein by reference. To the extent that the conditions herein are contrary to the GDP, the conditions herein shall supersede the GDP and control. SUP18-0002, along with SUP18-0001 and SUP18-0003, constitute the Spotsylvania Solar Energy Center ("Project"). The verbs "shall" and "must" as used throughout this Special Use Permit denote a mandatory act or requirement.
2. The Facility shall not be designed, constructed, or operated in any configuration or makeup of panels intended to allow the Project to generate greater than five hundred megawatts (500 MW) of power.
3. This Special Use Permit is issued to the owners of the Property and shall run with the land unless and until this Special Use Permit is revoked, lapses, expires, or is voided. The applicant acting on behalf of the owners of the Property in applying for this Special Use Permit is Sustainable Property Holdings, LLC. These conditions shall bind the applicant, any and all owners, occupants, and users of the Property, jointly and severally, which shall also be referred to at times collectively as the "Operator".
4. The Operator shall secure and at all times maintain public liability insurance for personal injuries, death, and property damage, and umbrella insurance coverage, for the duration of the Special Use Permit in the minimum amounts set forth below, and shall include the County as co-insured:
 - a. Commercial General Liability covering personal injuries, death and property damage: \$2,000,000 per occurrence/ \$6,000,000 aggregate;
 - b. Automobile Coverage: \$1,000,000 per occurrence;
 - c. Excess Liability: \$5,000,000;
 - d. Workers Compensation and Employers Liability Insurance in accordance with applicable statutory amounts.
5. The Operator's Commercial General liability insurance policy and excess liability policy shall specifically include the County and its officers, boards, employees, volunteers, attorneys, agents, and consultants as additional insureds.
6. The Operator's insurance policies shall be issued by an insurance company licensed to do business in the State and with an AM Best's rating of at least A.
7. The Operator shall provide the Zoning Administrator Certificates of Insurance annually, and the amounts of required insurance shall be reviewed every two years for adequacy of coverage by the County's carrier. As determined solely by the County's insurance carrier, insurance premiums or coverage shall be increased when necessary to protect the County.

8. The Operator's insurance policies shall contain an endorsement obligating the insurance company to furnish the County with at least thirty (30) days prior written notice in advance of the cancellation of the insurance.
9. The Operator's insurance renewal or replacement policies or certificates shall be delivered to the Zoning Administrator at least fifteen (15) days before the expiration of the insurance that such policies are to renew or replace.
10. Prior to the issuance of a land-disturbing permit, the holder of the Special Use Permit shall deliver to the Zoning Administrator a copy of each of the policies or certificates representing the insurance in the required amounts.
11. Access to the Property and the Facility for inspections or monitoring by the County, including its employees, agents and representatives, shall be provided to any of these parties within twenty-four (24) hours of the date and time written notice is provided to the Operator.
12. The Operator shall fully comply with all state and federal laws and regulations that apply to the construction or maintenance of the Project or use of the Property.
13. The storage on the Property of power generated by the Facility is prohibited.
14. Any batteries stored or utilized on the Property during the operation of the Facility shall be for the operation of vehicles or maintenance equipment on the Property, for backup support during power outages to ensure the safety, security, and continued monitoring of the Facility and shall not be used to store power for transmission to the power grid. Any batteries stored on the Property shall be stored indoors on an impervious surface and any batteries stored or utilized on the Property shall be removed from the Property and disposed of safely at the first sign of damage, leakage, or corrosion.
15. The use of biosolids on the Property is prohibited.
16. Photovoltaic panels manufactured using the GenX chemical are prohibited on the Property.
17. Photovoltaic panels containing Cadmium Telluride, also referred to as "Cad Tel", shall not be used on the Property in an amount which would cause the total number of panels containing Cadmium Telluride used in the Project to exceed thirty percent (30%) of the total panels used in the Project.
18. Inverters and solar panels, measured from the grade of the ground on which the structures sit to their highest possible point, shall not exceed a height of fifteen (15) feet.
19. After construction is complete and the Facility begins operating, lighting on the Property not included in or expressly exempted from the Spotsylvania County ordinances shall be located, screened or shielded so that adjacent residential lots and adjacent roads are not directly illuminated and shall not exceed 0.5 footcandles at the Property boundary.
20. Soil testing shall be performed in accordance with the "Proposed Soil Testing and Remediation Plan Operations Phase", dated December 13, 2018, incorporated by reference herein and attached hereto as "Exhibit A", and shall:

- a. Include sampling designed in accordance with the Environmental Protection Agency's "Guidance on Choosing a Sampling Design for Environmental Data Collection for Use in Developing a Quality Assurance Project Plan" Chapter 7.
 - b. Include the collection of samples at a frequency of at least 1 sample per 100 acres.
 - c. Include samples collected over a variety of site conditions. Samples shall:
 - 1. Be mapped to display the site's location and differentiate panels within proximity based on the panel's manufacturer and model.
 - 2. Include one sample collected from each side of each onsite stream or river at its most upstream and most downstream locations.
 - 3. Be analyzed for Cadmium Telluride and all metals identified in the "Guidance for Developing Ecological Soil Screening Levels (Eco-SSLs)" Attachment 1-4, Table 1.1.
 - 4. Be analyzed for type, acidity, and nutrient levels, including Nitrogen, Phosphorus, Potassium, Magnesium, Sulfur, and Calcium.
 - d. Include test reports provided to the Zoning Administrator prior to the issuance of a land-disturbing permit and every five (5) years thereafter which are accompanied by an executive summary of the results.
 - e. Include a test report provided to the Zoning Administrator prior to and immediately following decommissioning.
 - f. Include, as determined solely by the County, additional studies warranted by abnormal results, as determined solely by the County, to be performed by the Operator, at the Operator's cost, including but not limited to an Environmental Site Assessment, conducted in accordance with the applicable American Society for Testing and Materials, now known as ASTM International, standards and subsequent tests, as deemed necessary by the County or the Virginia Department of Environmental Quality ("VDEQ"). Results of all required testing shall be shared with the County free of charge and without demand therefor.
 - g. Comply with the conditions, which shall supersede and control, to the extent the "Proposed Soil Testing and Remediation Plan Operations Phase", dated December 13, 2018 is contrary to the conditions herein, as determined solely by the County.
21. A sealed dry-waste container shall be maintained at the Facility for the disposal of any damaged solar panels.
22. When the Facility reaches the end of its operational life, or its use is otherwise discontinued or substantially reduced, the Operator shall decommission it according to the following requirements, as well as those found in the Spotsylvania County Code of Ordinances, Section 23-4.5.7, all of which requirements supersede the decommissioning plan submitted by the Operator, and shall bear all costs of decommissioning. To the extent these conditions are more restrictive or intense than

those in Section 23-4.5.7, as determined solely by the County, these conditions shall control:

- a. The decommissioning of the Facility must include the complete removal of the Facility, including, but not limited to, all of the facilities and structures above and below ground on the Property related in any way to the collection, conduction, or storage of solar energy and their appurtenances, installed at any time during the construction or operation of the Facility. This must include, at least, the removal from the Property of all of the following: solar panels, panel trackers, anchors, supports, footers, mounts, inverters, inverter buildings, electrical conductors, electrical cables, substation components, internal fencing, structures, and all other equipment and structures on the Property unless otherwise limited herein.
- b. The decommissioning must also include at least the following: the Facility will be disconnected from the utility power grid; solar panels must be disconnected from the on-site electrical system; all work must be undertaken with conventional construction equipment; all materials must be disposed of safely; solar panels must be removed from their support frames and packaged in a manner that ensures that they sustain no damage during their disconnection and removal from the Property; all hazardous materials must be removed and disposed of or recycled in accordance with all applicable laws and regulations; all concrete must be removed and recycled offsite by a recycling facility or used onsite as fill material as part of a stabilization or regrading plan which meets all applicable laws and regulations as determined solely by the Zoning Administrator or Erosion and Sediment Control/Virginia Stormwater Management Program Administrator ("Program Administrator"), as applicable; and grading must be minimized to the maximum extent possible under all applicable laws and regulations as determined solely by the Program Administrator or Zoning Administrator, as applicable. To the extent possible, all solar panels and equipment must be delivered to a designated recycling facility for recycling and material re-use; all electrical interconnection, transmission, and distribution lines and cables must be recycled offsite at a recycling facility; all steel and metal including, but not limited to, support posts and internal fencing must be recycled offsite by a recycling facility; and electrical and electronic devices including, but not limited to, inverters, transformers, panels, support structure, lighting fixtures, and their respective shelters must be recycled offsite by a recycling facility.
- c. After removal of the above, the ground must be restored to the original topography prior to the beginning of the decommissioning. In other words, holes, ditches, ruts, and the like created by removing underground conduit, support footers, or any other decommissioning activity must be filled in to restore the topography of the Property and allow for stabilization.
- d. At the outset of the decommissioning, the Operator shall produce to the Zoning Administrator an inventory of all the materials on the Property which will be removed or are otherwise subject to the provisions herein. At the completion of the decommissioning, the Operator shall produce to the Zoning Administrator a report detailing compliance with all of the requirements

herein including, but not limited to, details of the removal and disposition of materials required herein, including an explanation of why any material was not recycled. This detailed report must explain how each requirement related to the decommissioning set out herein has been met and must be certified by a third party engineer licensed in Virginia.

- e. The decommissioning of the Facility may include, at the discretion of the person depicted in the land records of Spotsylvania County as of the date of completion of decommissioning as the Property owner, the removal of perimeter fencing. All fencing internal to the perimeter fencing must be removed as set out above. The decommissioning must not include the following: removal of stream crossings, de-compacting or removing gravel roads or paths established for the operation of the Facility, or removal of permanent stormwater management features.
- f. Further, the Property must be restored to the agricultural condition of the Property as of the date of approval of this Special Use Permit with the additional requirement that the Property must be stabilized so as to adequately control, prevent, and minimize, any and all erosion and sediment runoff. Stabilization must be completed according to all standards established under applicable laws and regulations as determined by the Program Administrator or Zoning Administrator, as applicable. Prior to stabilization, all soils compacted by decommissioning work or by construction or operation of the Facility, except gravel roads and paths established for the operation of the Facility, shall be de-compacted, scarified, and restored six (6) inches in depth.
- g. All onsite decommissioning work must be performed only between the hours of 7:00 a.m. and 5:00 p.m. on Monday through Friday.
- h. County staff shall be granted access to the Property on twenty-four (24) hour prior notice to monitor all decommissioning work.
- i. The Zoning Administrator must be provided a monthly report detailing the decommissioning work performed and progress toward completion.
- j. The Operator, throughout its operation until the decommissioning is complete, shall guarantee the decommissioning and stabilization of the Property. The Operator shall provide and maintain for the County's benefit surety for performance of the decommissioning equal to the estimated cost of decommissioning the Facility on the Property as set forth herein. Such surety must be irrevocable and must be maintained in full as set forth herein until the Facility decommissioning has been completed as required herein. The highest total estimated cost must be calculated by the Operator and include, at least, the following delineated by line item:
 - i. Total cost related to complying with all the decommissioning work required by this Special Use Permit.
 - ii. Costs related to creating, maintaining, and re-stabilizing all construction entrances identified on the Property, with a separate line item for each such construction entrance.
 - iii. Costs for mobilization.
 - iv. Costs for removal and disposal of all materials set forth above line itemed by category of facility. For example, "cost to remove conduit,"

- “cost to remove panels,” “cost to remove panel support structure”
“cost to remove inverters,” etc. Such costs must not be reduced by any
estimated credits or setoffs for recycling, reuse, or otherwise.
- v. Costs to de-compact, scarify, and restore all soils required herein.
 - vi. Costs to stabilize land disturbed by the decommissioning work and as
otherwise required herein.
 - vii. Costs to meet the recycling requirements herein excluding any
anticipated credits or setoff generated by the recycling.
 - viii. Costs of trucking, hauling, and equipment use.
 - ix. Costs for soil testing pursuant to Condition A.20.e set out herein.
 - x. Costs of all labor and estimated man-hours to perform the
decommissioning work required herein.
 - xi. Costs must assume an increase in labor and equipment costs of two
percent (2%) a year every year until the completion of
decommissioning and must assume commencement of
decommissioning after year thirty (30) of operation.
 - xii. Costs for contingencies and for weather delay.
 - xiii. Costs for insurance.
 - xiv. Costs associated with transportation traffic planning, traffic mitigation,
and road restoration on all roads utilized for decommissioning within
Spotsylvania County for the duration of the impact of
decommissioning on Spotsylvania County roadways.
 - xv. The certification of a third party engineer licensed in Virginia
affirming that the Operator’s highest total cost estimate is accurate.
- k. The highest total estimated cost may be reduced by any estimated funds
generated from resale or recycling of the removed materials, so long as such
funds are of a type that the County or any third party would generate in the
event the Operator fails or refuses to decommission the Facility. Each
reduction shall be listed as a separate line item in the estimated cost. Any
reductions shall be certified by a third-party engineer licensed in Virginia that
they are accurate.
- l. Prior to the issuance of a land-disturbing permit to construct the Facility and
in no case later than three (3) months after approval of this Special Use
Permit, the Operator shall produce to the County an estimate of the above
costs by line item. The amount of the estimated costs on which the surety
shall be based shall be no less than the Ten Thousand Nine Hundred Fifty-
Seven Dollars (\$10,957.00) per disturbed acre of land already estimated in the
“Project Decommissioning and Site Restoration Cost Estimate” attached
hereto as “Exhibit G” as provided by the applicant, as reduced by any
applicable recycling credits allowed for herein. The estimate shall be signed
and sealed by a third party engineer licensed in Virginia and shall include a
statement by the engineer that “The total estimated cost provides for the
complete decommissioning of the Facility and stabilization of the Property as
defined and required in SUP18-0002.”

- m. The Operator must provide surety to guarantee that the decommissioning work can be performed by the County if not performed by the Operator as required herein. Surety must be provided by a cash bond deposited with the County, by an irrevocable letter of credit provided for the County's benefit, or by a surety bond listing the County as the obligee. Cash bond shall be in the form of a cashier's check or certified check deposited with the County which has cleared all issuing institutions. Any interest accruing on such funds shall be added to the total amount and retained by the County for decommissioning. This deposit shall be accompanied by a letter agreement, acceptable to, and issued by, the Zoning Administrator, confirming that the cash deposit is to be held by the County to guarantee the performance of the decommissioning work required herein and should the Facility be abandoned, or should the decommissioning work not be diligently undertaken or performed according to the requirements herein, or should this Special Use Permit be revoked, lapse, expire, or be voided, all as determined solely by the County, the County may expend the deposited funds to undertake the decommissioning work required herein without more after providing written notice to the person identified as owner of the Property in the land records of Spotsylvania County as of the date of the notice. Within six (6) months of the completion of the decommissioning work required herein by a person or entity other than the County or a contractor engaged by the County, as confirmed by the Zoning Administrator, the cash bond and accrued interest, less any amounts expended by the County as allowed for herein, shall be released to the person identified as owner of the Property in the land records of Spotsylvania County as of the date of the completed decommissioning or as otherwise directed by that owner of the Property.
- n. An irrevocable letter of credit shall mean an instrument provided by a lending institution guaranteeing payment to the County within seventy-two (72) hours of the County's written notice to the institution that the Facility has been abandoned or the decommissioning work has not been diligently undertaken or performed according to the requirements herein and demand to the institution for the funds, without more. This letter of credit shall have no expiration date or required renewal and shall remain in effect for the benefit of the County and shall under no circumstances be withdrawn before the decommissioning work required herein is completed or the amount guaranteed has been fully drawn by the County. The letter of credit shall require that the County be notified six (6) months prior to any cancellation or alteration of the letter of credit. Should the County receive notice that the letter of credit will be cancelled or otherwise become unavailable or decrease, or should this Special Use Permit be revoked, lapse, expire, or be voided, the County may, without more, and without notice to the Operator, immediately draw down the entirety of the letter of credit and convert the surety to a cash bond to be deposited with the County and subject to the terms herein; this shall be specifically reflected in the language of the irrevocable letter of credit. The County may expend the guaranteed funds without more to undertake the decommissioning work required herein after providing written notice to the

person identified as owner of the Property in the land records of Spotsylvania County as of the date of the notice. Within six (6) months following the completion of the decommissioning work required herein by a person or entity other than the County or a contractor engaged by the County, as confirmed by the Zoning Administrator, the letter of credit shall be released by the County.

- o. A surety bond shall mean a bond issued by a company with an AM Best rating of A++, that is Trcasury listed, and that is licensed to do business in the Commonwealth of Virginia. The surety bond shall list the County as an obligee and shall remain in effect for the benefit of the County and shall under no circumstances be withdrawn or cancelled before the decommissioning work required herein is completed or the amount guaranteed has been fully paid to the County. The surety bond shall require that the County be notified six (6) months prior to any cancellation or alteration of the bond. Should the County receive notice that the surety bond will be cancelled or otherwise become unavailable or decrease below the limits required herein, or should this Special Use Permit be revoked, lapse, expire, or be voided, the County may, without more, and without notice to the Operator, immediately file a claim, which the Operator shall not contest, for the entirety of the amount of the bond, the guarantor shall pay the amounts guaranteed and the County shall convert the surety to a cash bond to be deposited with the County and subject to the terms herein; this shall be specifically reflected in the language of the surety bond. The County may expend the guaranteed funds without more to undertake the decommissioning work required herein after providing written notice to the person identified as owner of the Property in the land records of Spotsylvania County as of the date of the notice. Within six (6) months following the completion of the decommissioning work required herein by a person or entity other than the County or a contractor engaged by the County, as confirmed by the Zoning Administrator, the surety bond shall be released by the County.
- p. The amount of the surety required shall escalate as follows. Beginning on the date on which the first land disturbing permit is issued for the Project (referred to in this subsection as the "Surety Date"), and for the next five (5) years, no surety shall be required. Beginning on the fifth anniversary of the Surety Date, and thereafter for years six (6) through ten (10) after the Surety Date, the Operator shall provide and maintain surety in an amount equal to 20% of the most recently estimated decommissioning costs. Beginning on the tenth anniversary of the Surety Date, and thereafter for years eleven (11) through fifteen (15) after the Surety Date, the Operator shall provide and maintain surety in an amount equal to 40% of the most recently estimated decommissioning costs. Beginning on the fifteenth anniversary of the Surety Date, and thereafter for years sixteen (16) through twenty (20) after the Surety Date, the Operator shall provide and maintain surety in an amount equal to 60% of the most recently estimated decommissioning costs. Beginning on the twentieth anniversary of the Surety Date, and for years twenty-one (21) through twenty-five (25) after the Surety Date, the Operator shall provide and

maintain surety in an amount equal to 80% of the most recently estimated decommissioning costs. Beginning on the twenty-fifth anniversary of the Surety Date, and for every year thereafter, the Operator shall provide surety in an amount equal to 100% of the estimated decommissioning costs. This escalation allowed herein shall not be interpreted to reduce the Operator's liability for decommissioning costs as set forth herein.

- q. The estimated costs and surety to meet the above requirements shall be reviewed by the Zoning Administrator who shall determine if the estimates adequately reflect the decommissioning costs and that the surety will guarantee performance. Should the Zoning Administrator determine that estimated costs and surety are insufficient, the Zoning Administrator shall determine adequate surety and communicate the deficiencies to the Operator who shall then provide the adequate surety prior to the issuance of any land-disturbing permit.
- r. Should this Special Use Permit be revoked, lapse, expire, or be voided, the County may immediately draw down all of the surety funds and convert them into a cash bond for the purposes of decommissioning as set forth hereunder. In such a case, no contractual agreement shall be required for the cash bond. This shall be reflected in the surety provided.
- s. The costs of decommissioning and any amount of required surety for decommissioning shall be reviewed by the Zoning Administrator every thirty (30) months on the anniversary of the date this Special Use Permit is approved and an updated decommissioning plan shall be submitted to the County prior to that date. The decommissioning surety shall be adjusted by the Operator, if necessary, to reflect the then current decommissioning cost as determined by the Zoning Administrator. When determining the amount of the total estimated decommissioning costs for the surety escalation in paragraph A.22.p, the Operator shall use the amount established by the Zoning Administrator's most recent review. The decommissioning requirements set out herein shall not be amended, reduced, or otherwise changed through any decommissioning plan required to be submitted herein, or any approval thereof, without first amending this Special Use Permit. The Zoning Administrator shall not approve any decommissioning plan, but shall only use it to determine the adequacy of the surety.
- t. Should the funds guaranteed for the decommissioning work as of the Decommissioning Commencement Date, as defined hereafter in paragraph A.22.x, for any reason not be sufficient for the County to complete the decommissioning work as allowed for herein, the Operator, which includes all owners, occupants, and users of the Property, jointly and severally, remain liable to the County for the difference between the guaranteed funds and the amounts required to decommission the Property and shall pay the difference to the County upon demand. The County shall not be liable to any party in any way for the funds drawn pursuant to the conditions set out herein and expended in relation to decommissioning.
- u. Should the Facility be abandoned, or should this Special Use Permit be revoked, lapse, expire, or be voided, or should the decommissioning work not

be diligently undertaken or performed according to the requirements herein as determined solely by the County and should the County draw down funds for the purpose of performing the decommissioning work herein and mobilize its contractors to perform the decommissioning work or otherwise incur liability to its contractors for the performance of the decommissioning work, the Operator shall have no right to perform the decommissioning work required herein unless specifically authorized by the County in a writing that confirms that the County has incurred no liability to any contractors to perform the work or that any such liability is transferrable as deemed acceptable by the County.

- v. The Operator shall immediately, upon written demand by the County or any person or entity authorized to act on behalf of the County, without more, grant or release to the County, or any person or entity authorized to act on behalf of the County, under terms deemed acceptable solely by the County, all necessary real property rights, personal property rights, either or both, as determined solely by the County, other than fee simple ownership or a leasehold interest of the real property, so that the County or any person or entity authorized to act on behalf of the County may undertake any decommissioning work required herein that has not otherwise been performed as required herein. This shall include, but not be limited to, releasing any interest in the personal property, facilities, fixtures, and structures which are to be removed and recycled, disposed or otherwise demolished.
- w. The amount of surety guaranteed herein shall not be reduced for any reason except as allowed for herein.
- x. Decommissioning shall begin immediately after the Facility has, for a period of three (3) months, ceased operating as a solar energy facility collecting and storing energy and then transferring and distributing it to the electrical grid (the "Decommissioning Commencement Date") and shall be diligently pursued, as determined solely by the County, and completed within one (1) year from the Decommissioning Commencement Date, providing a one-year decommissioning period. Prior to its expiration, the County may extend this one year decommissioning period by six (6) months if the County finds, in its sole discretion, that the Operator commenced decommissioning the Facility immediately after the Decommissioning Commencement Date, diligently and continuously worked to decommission the Facility throughout the decommissioning period, and is reasonably expected to complete decommissioning within the additional six-month period. This provision does not in any way limit the County's authority under Section 23-4.5.7.
- y. Periods during which the Facility is not operational for maintenance, repair, or due to catastrophic events beyond the Operator's control, during which the Operator works diligently to return the Facility to full operating status, shall not trigger the decommissioning requirement herein. The Operator must provide written notice and evidence of the above to the Zoning Administrator during the period in which the Facility is not fully operational. Such notice shall identify the last day on which the Facility was fully operational. Failure of the Operator to provide such written notice or evidence precludes it from

contesting the County's reasonable determination of the last day on which the Facility was fully operational. Regardless of the efforts of the Operator to return the Facility to full operational status, if the Property does not operate as a solar energy facility collecting and storing energy and then transferring and distributing it to the electrical grid after the catastrophic event, for a period of two (2) years, as determined by the County in its sole discretion, the Special Use Permit shall be void and the Operator shall commence decommissioning no later than the 730th day after the last day the Facility was fully operational.

- z. Any change of ownership, lessee, or party responsible for decommissioning of the Facility, or change in any part of the contact information, shall be reported to the Zoning Administrator within sixty (60) days of the change(s).
23. Prior to the issuance of a land-disturbing permit, the Operator shall request an informal review of the Facility by the Department of Defense's Siting Clearinghouse.

B. Construction:

1. The Operator shall comply with the "Spotsylvania Solar Energy Center Traffic Mitigation Plan" dated December 13, 2019, attached hereto as "Exhibit B" and incorporated by reference herein. To the extent that the "Spotsylvania Solar Energy Center Traffic Mitigation Plan" dated December 13, 2019 is contrary to the conditions herein, as determined solely by the County, the conditions herein shall supersede and control.
2. The Operator shall shuttle at least twenty percent (20%) of the workforce to and from the site during construction. Employees ride-sharing with a minimum of three (3) employees per vehicle may contribute to this requirement. Compliance with this requirement shall be demonstrated through the Operator's monthly provision to the Zoning Administrator of a transportation log which provides the following information: License Plate Number, Vehicle type (Oversize Load, heavy delivery, delivery, shuttle, employee vehicle carrying three (3) or more persons, employee vehicle carrying less than three (3) persons, or guest, which is someone not related to the Project or its construction), Entry time, and Exit time. "Oversize Load" shall be defined as any vehicle that requires a Hauling Permit from the Virginia Department Motor Vehicles.
3. No less than seventy percent (70%) of material deliveries shall occur between the hours of 9:00 a.m. and 2:45 p.m. from August 1 through May 31 during construction of the Facility. Compliance with this requirement shall be demonstrated through the Operator's monthly provision to the Zoning Administrator of a transportation log which provides the following information: License Plate Number, Vehicle type (Oversize Load (as defined in paragraph B.2), heavy delivery, delivery, shuttle, employee vehicle carrying three (3) or more persons, employee vehicle carrying less than three (3) persons, or guest, which is someone not related to the Project or its construction), Entry time, and Exit time.

4. The Operator shall fully fund any temporary or permanent signage as requested or required by the County Transportation Planner or the Virginia Department of Transportation ("VDOT").
5. If required by the National Park Service, the Operator shall acquire and provide to the Zoning Administrator an approved permit from the National Park Service for commercial use of the intersection of Brock Road and Orange Plank Road and any other haul routes over affected National Park Service roads.
6. The Operator shall document the condition of all haul routes, including public and private roads, by video recordings which shall at a minimum record the full width of the roadway plus a five-(5) foot buffer. The videos shall be recorded prior to the issuance of a land-disturbing permit on a clear day and be organized by road segment.
7. Construction and operational traffic shall only use the access points to the Property identified on the GDP.
8. All construction activity on the Property shall be limited to the following:
 - a. All clearing, grading, and construction of the Property shall be limited to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between 8:00 a.m. and 6:00 p.m. Saturday and Sunday. The act of replacing a broken panel on an already established array, even if located within the 400 acres of then currently disturbed land area, and the repair work required to be undertaken within twenty-four (24) hours as set out in Sections C.1.c, C.2.c, and C.3.c herein, shall be exempt from this provision;
 - b. Pile driving within 500 feet of any residential property boundary shall cease no later than 5:00 p.m. Monday through Saturday. Pile driving anywhere on the Property is prohibited on Sundays. These prohibitions shall not apply to the use of an auger; and
 - c. Oversize Load deliveries are prohibited on Orange Plank Road, West Catharpin Road, and Post Oak Road during prime school bus traffic between the hours of 6:10 a.m. and 8:40 a.m. and 2:45 p.m. and 4:30 p.m., or any amendment thereof due to inclement weather, during the Spotsylvania County Public Schools instructional year.
9. The Operator shall designate at least one public liaison and publicize a toll-free phone number and email address for communication with the liaison during construction. At a minimum, the information shall be published on the Operator's website and provided to the County's Public Information Officer for publication on the County's website and other social media. The liaison shall act as a point of contact between citizens and construction crews. The liaison shall be available in person and by phone during active construction hours and shall respond to any questions related to the Facility or Property. The liaison role shall commence prior to issuance of a land-disturbing permit and remain a minimum of six (6) months following issuance of the final Certificate of Occupancy for the Facility. The liaison shall prepare a monthly report detailing the complaint, complaint date, resolution, and resolution date. The report shall be provided to the Zoning Administrator on the first business day of each

month throughout the construction period and an additional six (6) months following issuance of the final Certificate of Occupancy for the Facility.

10. Advance notice shall be mailed by first class mail to properties within 1,000 feet of a pile driving location no less than seven (7) days prior to the start of such activities and shall include the estimated start date, estimated end date, and the liaison's contact information. The notice and a list of recipient addresses shall also be mailed to the Zoning Administrator no less than seven (7) days prior to the start of such activities.
11. The following noise-reducing practices shall be followed to reduce construction noise:
 - a) Trucks and engine-powered equipment shall include mufflers and engine shrouds no less effective than those originally installed by the manufacturer;
 - b) Trucks and engine-powered equipment shall be maintained in proper tune according to manufacturers' specifications; and
 - c) The use of noise-producing signals, including horns, whistles, alarms, and bells shall be for safety warning purposes only.
12. Construction staging areas, parking areas, portable sanitation facilities, and solid waste collection areas shall be set back a minimum of 500 feet from any residential property boundary, and the area shall be shielded from view, and shall employ sound dampening shrouds, barriers, fencing, and/or berms to reduce noise impacts.
13. The Operator shall participate in a Joint Construction Traffic Reaction Team, which shall also include County Staff and should include VDOT, the Spotsylvania County Sheriff's Office, and the Virginia State Police to identify and expeditiously resolve or mitigate traffic issues that arise during the construction phase of the Facility. The Operator shall assist in resolving and implementing solutions to traffic issues.
14. Prior to issuance of a land disturbing permit, the Operator shall secure a VDOT Land Use Permit and post surety for the estimated cost of repairs to public roads based on an estimate reviewed and approved by the County's Transportation Planner and VDOT.
15. Any pavement damage to roads, including shoulders and aprons, attributable to construction of the Facility shall be repaired by the Operator within 120 days of issuance of the final Certificate of Occupancy for the Facility at the Operator's expense or within forty-eight (48) hours after receiving notice from the County's Transportation Planner that the damage has made a road unsafe.
16. Wildlife corridors shall be established through the preservation of on-site resource protection areas ("RPA") and the supplementation of raised wildlife-compatible fencing in order to establish a minimum of three (3) passages, each of which each shall cross the entirety of the site to allow small wildlife unimpeded passage through the Facility, including:
 - a. Raised wildlife-compatible fencing shall be used to connect the two disconnected segments of Plentiful Creek RPA on GDP page EX 2-1.

C. Erosion and Sediment Control:

Unless specifically defined in this Section C, all terms and abbreviations used herein shall be as defined in Spotsylvania County Code of Ordinances, Chapters 6A, 8, and 19A.

1. Stormwater Conveyance Channels and Sediment Basins

- a. Stormwater conveyance channels ("SCC") and diversion ditches shall be designed for permanent stormwater control and shall utilize check dams or weirs to control sediment transport. Rock check dams shall be installed in SCC immediately following construction and the establishment of final grade. Check dams shall be installed per the Virginia Erosion and Sediment Control Handbook ("VESCH") or per VDOT detail EC-4 standards and details as applicable. Check dams should be evaluated for sediment accumulation after each runoff-producing storm event and remediated as necessary to maintain function.
- b. SCC, vegetated swales, or diversion dikes shall be installed to divert overland sheet flow or shallow concentrated flow to a stabilized outlet or a sediment trapping facility during construction. When used at the top of a slope, the structure shall protect exposed slopes by diverting storm run-off away from the slopes to a stabilized outlet or sediment trapping device. When used at the base of a slope, the SCC shall protect downslope areas by diverting sediment-laden runoff to a sediment-trapping facility or stabilized outlet.
- c. Sediment basins shall be equipped with measuring devices to accurately determine the sediment capacity of the basin. Sediment shall be removed from basins when accumulation reaches twenty-five percent (25%) of the required wet storage volume for each individual basin. In no case shall sediment cleanout levels be higher than one (1) foot below the bottom of the de-watering device. Remediation crews shall remove sediment or be able to correct any Erosion and Sediment Control ("ESC") issues within twenty-four (24) hours. The daily presence of these crews shall be indicated in the monitoring report. When Sediment Basins or traps are cleaned the intended use and location of the removed material shall be indicated in the monitoring report.
- d. ESC measures shall be installed as a first step in any land disturbing activity area and shall be made functional before upslope land disturbance takes place. Unless subject to stricter standards set out herein, all ESC measures shall at a minimum comply with VESCH and VDOT standards and details as applicable. Unless subject to stricter standards set out herein, the overall ESC plan shall comply with VESCH minimum standards.

2. Monitoring and Reporting

- a. The Operator shall have one Responsible Land Disturber ("RLD") and at least one VDEQ Certified Erosion Control Inspector ("ECT") per land-disturbing activity area. These land-disturbing activity areas shall not exceed 400 acres in aggregate within the Project at any one time. Once land is stabilized, it shall not count towards the 400 acres of disturbed land. Stabilization and whether an area is fully stabilized shall be determined solely by the Program

Administrator. The RLD and ECI shall both be required to be knowledgeable of environmental permit compliance requirements, be experienced in ESC and Stormwater Management Best Management Practice installation, operation, and maintenance requirements. The RLD will also keep a daily log of activity documenting all Facility activities, including, but not limited to, construction, environmental permit compliance and corrective measures implemented, site visitors (i.e. non-Project staff), waterbody and wetland crossings, and ESC installation and maintenance activities.

- b. The RLD shall provide e-reporting to a central File Transfer Protocol ("FTP") site to which the Program Administrator shall be granted access. Reports will be submitted no later than next day following any inspections and shall include the inspection report for each disturbed area of development. Site inspections and reports shall be conducted and reported at a minimum as required by the Virginia Stormwater Management Program ("VSMP") permit. Any corrective actions done in the field shall be e-mailed to the Program Administrator within twenty-four (24) hours of completion.
- c. Post-rainfall event inspections shall be required for any runoff-producing event (equal to or greater than one quarter (0.25) inches of rain within a twenty-four (24)-hour time period) and shall be maintained on site and logged in an e-report uploaded to a central FTP server to which the Program Administrator shall be granted access. An ECI shall evaluate erosion control measures and sediment basins to determine if maintenance is required. Any remediation that is required shall be performed immediately and reported to the Program Administrator within twenty-four (24) hours.
- d. Water quality testing shall occur through the use of a stream gauge, which collects data on rainfall, turbidity and sediment loads, and pollutant loads. These gauges shall be placed at each intake and discharge point on the site, as determined by the Program Administrator. The testing shall be reported in a monthly Water Quality Discharge Report which shall provide a summary of marginal increases or decreases of the measurements.

3. Site Stabilization Conditions

- a. Windrows, filter socks, or slope breaks shall be constructed interior to array fields using soil, organic material, or mulch to reduce runoff velocity and sediment. These devices shall be a minimum six (6) inches in height above final grading. These devices shall be installed parallel to slope with a maximum spacing of 200 feet, or as needed based on slope and drainage area. These devices shall be maintained during site stabilization process and may remain during operation.
- b. Sediment barriers such as silt fences, mulch berms, or brush barriers shall be used to temporarily intercept and detain small amounts of sediment from disturbed areas of limited extent and to decrease the velocity of sheet flows. Temporary sediment barriers shall be installed at the base of slopes adjacent to road crossings until disturbed vegetation has been reestablished.

- c. Sediment barriers shall be inspected daily by the Operator in accordance with Virginia Erosion and Sediment Control Program ("VESCP") and VSMP guidelines to identify any damage incurred during construction and after each runoff-producing rainfall as defined in C.2.c herein. The inspection reports shall be emailed to the Program Administrator within twenty-four (24) hours of a qualifying rainfall event. Sediment barriers that are not functioning properly must be cleaned and restored to good working condition or replaced immediately.
- d. All disturbed soils shall be seeded and temporarily stabilized within seven (7) days after final grade is reached on any portion of the Property. Seed mixes used for permanent stabilization shall provide self-propagating, low maintenance groundcover that will minimize erosion and sedimentation while providing wildlife and pollinator habitat benefits.
- e. Drill seeding shall be used as the primary mechanism for installation of seed. In areas where access is limited, hydroseed or spraying of seed is an approved method of application. In areas that are drill seeded, mulch shall not be at a depth which inhibits germination, as field-determined. All seeding installation, bed preparations, seed mixes, lime, fertilizer, and mulch shall meet VESCH minimum standards and specifications for permanent and/or temporary seeding as applicable.
- f. Slopes at a grade of thirty-three percent (33% (3:1)) or steeper shall be stabilized with steep-slope soil stabilization blankets or erosion-control fabric, such as bonded fiber blankets or jute thatching. The blanket shall be nontoxic to vegetation and to the germination of seed and shall be entwined and anchored to the slope.

D. Burning and Fire, Rescue, and Emergency Management:

1. The Operator shall follow the policies and procedures contained in the "Emergency Response Plan – Construction", dated November 19, 2018, attached hereto as "Exhibit C" and incorporated herein by reference, throughout the course of the Facility's construction. To the extent the "Emergency Response Plan – Construction", dated November 19, 2018 is contrary to the conditions herein, as determined solely by the County, the conditions herein shall supersede and control.
2. The burning of timber waste shall be limited to no more than fifty percent (50%) of the timber waste produced by the construction of the Facility to include, but not be limited to, all clearing and grading of the Property. This shall be evidenced by a report submitted every thirty (30) days to the Zoning Administrator detailing the amount of timber waste burned and the amount of timber waste mulched or disposed of offsite over the previous thirty (30) days. The burning of any other matter shall be prohibited.
3. The burning of timber waste shall be done only if via open pit incineration using incinerator 2018 model T-300-Trench burner or newer, in accordance with the manufacturer's recommendations, a copy of which shall be provided to the Fire

Marshal. Open pit incineration shall be done in accordance with the above-referenced Emergency Management Plan - Construction, except that any open pit incineration shall be set back a minimum of 2,000 feet from any boundary line of the Property. Trenches shall be maintained at depths in accordance with the trench burner specifications and such specifications shall be provided by the Operator to the Fire Marshal. The Operator shall be required to demonstrate sufficient access to proposed trench pit locations for Fire, Rescue, and Emergency Management ("FREM") vehicles prior to the County issuance of any burning permit. Sufficient access shall be determined by an inspection from the Fire Marshal or designee.

4. The Operator shall follow the policies and procedures contained in the "Emergency Response Plan - Operations", prepared by sPower dated November 19, 2018 attached hereto as "Exhibit D" and incorporated herein by reference. To the extent the "Emergency Response Plan - Operations", prepared by sPower and dated November 19, 2018 is contrary to the conditions herein, as determined solely by the County, the conditions herein shall supersede and control.
5. The Operator shall follow the policies and procedures contained in the "Site Specific Safety Plan - Construction", dated November 19, 2018 attached hereto as "Exhibit F" and incorporated herein by reference. To the extent the "Site Specific Safety Plan - Construction", dated November 19, 2018 is contrary to the conditions herein, as determined solely by the County, the conditions herein shall supersede and control.
6. The Operator shall install signage within the Facility and provide to the Fire Chief a Wayfinding Map that shows each road segment within the Facility with a designated name and/or identifier and each array with an individual identifier prior to the approval of any site plan or land disturbing permit.
7. All roads within the Property shall be designed, planned, and constructed for adequate FREM access as determined by the Fire Chief based on all applicable standards and regulations at the time of site plan review. All roads within the Property shall be constructed pursuant to the International Code Council Section 503 for adequate FREM access. Road aggregate material shall be placed in accordance with the requirements of the applicable specifications governing the type of material or construction being used and shall be compacted at optimum moisture, within \pm two (2) percentage points of optimum per Appendix C of VDOT's Road & Bridge Specifications.
8. All internal crossings shall be permanent and be designed to a minimum of FAST Act standards for EV2 and EV3 class vehicles, with a rating defined as H-20 per the VDOT IIM-S&B-86.1 guidance document.
9. As each portion of the Facility becomes operational the Operator shall install and maintain video cameras throughout said portion, and, upon completion, the entire Facility shall be covered by comprehensive remote surveillance. The cameras shall be monitored twenty-four (24) hours a day by the Operator for potential security, hazard, and general maintenance concerns. These camera feeds shall be recorded and recordings shall be retained a minimum of six (6) months and shall be made available

upon request in cases of emergency as determined by the County Fire Marshal or the County Sheriff.

10. Two (2) 50,000-gallon water tanks shall be located on the Property and those tanks shall provide off-site access for FIRE use in an emergency at a location approved by the Fire Chief. The tanks shall remain at least fifty-percent (50%) full at all times in order to serve potential FIRE needs.
11. A minimum twenty-(20) foot-wide fire break shall be maintained around the perimeter of the Property and within the Property between the arrays, inverters, and generators and the Property boundary. Portions of the fire break that are vegetative shall be mowed and maintained to a height of four (4) inches or less. Fire breaks may include surface materials, such as gravel, provided they are devoid of all combustible materials.
12. All timber waste, which is not burned, shall be mulched and utilized onsite or disposed of offsite. The storage of mulched timber waste ("Mulch") on site shall be limited in accordance with the following:
 - a. Mulch storage shall be set back a minimum of 500 feet from the Property boundary.
 - b. Mulch storage shall not be located within any RPA.
 - c. Stored Mulch shall be kept in piles or rows which shall not exceed ten (10) feet in height, fifteen (15) feet in width, and 150 feet in length.
 - d. Stored Mulch shall not be compacted.
 - e. Piles and rows of stored Mulch must be separated by a minimum of ten (10) feet from any other Mulch pile or row.
 - f. Piles and rows of stored Mulch shall be regularly wetted to maintain a minimum fifty percent (50%) moisture content.
 - g. Piles and rows of stored Mulch shall be turned or reassembled at least once every ninety (90) days.
 - h. Piles and rows of stored Mulch shall be monitored weekly by taking an internal temperature reading at the center of the pile; if Mulch is stored in a row then internal readings shall be taken every twenty (20) linear feet.
 - i. Piles and rows of stored Mulch shall be immediately wetted and turned or reassembled when the internal temperature reading reaches a minimum 160 degrees Fahrenheit.
 - j. Piles and rows of stored Mulch shall be immediately turned or reassembled when the internal temperature reaches a minimum 140 degrees Fahrenheit.

E. Landscaping, Maintenance, Setbacks, and Buffers:

1. The Operator shall follow the Invasive Species Management Plan which is attached hereto as "Exhibit E" and is incorporated by reference herein. To the extent the Invasive Species Management Plan is contrary to the conditions herein, as determined solely by the County, the conditions herein shall supersede and control.
2. Inverters and generators shall be set back a minimum of 400 feet from the boundary of the Property.

3. No structure, improvement, or equipment, including but not limited to, solar arrays and supporting structures, shall be located within 425 feet of any real property improvement that complies with all legal requirements for residential occupancy ("Residential Structure"). This shall not apply to construction or maintenance equipment, which is temporary in nature, during the periods when it is actively being used during construction or maintenance activities. This setback shall not apply along any boundary shared between the Property and another property owned by the Operator.
4. No structure, improvement, or equipment, including but not limited to, solar arrays and supporting structures, shall be located within 425 feet of the center point of any lot that is the subject of a residential site plan application or is part of an approved residential site plan as of the date the Facility's site plan application is deemed complete by the Department of Planning. This shall not apply to construction or maintenance equipment, which is temporary in nature, during the periods when it is actively being used during construction or maintenance activities. This setback shall not apply along any boundary shared between the Property and another property owned by the Operator.
5. The minimum setback of any structure, improvement, or equipment, including but not limited to, inverters, generators, and solar arrays and supporting structures, from any VDOT right-of-way shall be one hundred (100) feet. This shall not apply to construction and maintenance equipment which is temporary in nature during the periods when it is actively being used during construction or maintenance activities.
6. These setback requirements do not apply to fencing, berms, landscaping, plantings, access roads, bridges, and above-ground utility poles.
7. Fencing shall be to the interior of all berms and re-vegetated buffers with plantings required in the document attached hereto as "Exhibit H."
8. No trees shall be removed from any one hundred-(100) foot setback area or one hundred-(100) foot preserved buffer as shown on Exhibit H except for the removal of non-native species (which is anything not included in the native species list in the County's Design Standards Manual ("DSM")), hand-clearing for safety or the removal of dead or dying trees, or any clearing necessary for ingress/egress or infrastructure connectivity.
9. The shared boundaries between the Property and abutting parcels and between the Property and any VDOT right-of-way shall be screened with berms with plantings, preserved vegetation, re-vegetated areas with plantings, and vegetated areas left to regrow as applicable according to Exhibit H.
10. Plantings required in Exhibit H shall comply with the GDP's Landscape Plan except that to the extent the GDP's Landscape Plan is contrary to the conditions herein, as determined solely by the County, the conditions herein shall supersede and control.
11. Only earth, which is defined as soil, shall be used to create any berm on the Property.
12. Re-vegetated buffers with plantings and berms with plantings required in Exhibit H shall be installed with each phase of the Facility's development during site grading and prior to the driving of pilings within 1,000 feet of the required buffers and berms.

13. A landscaped buffer consisting of a row of compact evergreen trees with a minimum height of six (6) feet every ten (10) feet shall be required between the Operator's Entrance 4 and the adjacent parcel 28A-1-21A.
14. At site plan, a Landscape Architect, licensed and certified in accordance with Virginia Code Title 54.1, shall design all buffers and berms so that they minimize visibility, maximize survivability and stability, and minimize losses from deer or other wildlife consumption.
15. Plant and tree species shall be installed as early as possible following establishment of erosion and stormwater management controls, and shall be selected based upon their ability to provide the desired screening after two (2) years of growth.
16. The Operator shall use a variety of native plants and native evergreen trees, selected from the County's DSM, which are drought tolerant, environmentally friendly, and compatible with local wildlife.
17. If, in the sole discretion of the Director of Planning, supplemental plantings are needed to effectuate the intent of these conditions to provide adequate screening, the Operator shall engage a Landscape Architect, licensed and certified in accordance with Virginia Code Title 54.1, to design such supplemental plantings consistent with the requirements herein.
18. Understory vegetation and seeding shall conform with the County-approved seed list.
19. The landscaping bond as required by Article 6 of the DSM shall be in effect for three (3) years after the planting of landscaping. Because the landscaping is to be done in phases, this bond will not be fully released until the last phase of the landscaping is completed and three (3) years has elapsed from that date.
20. Operator shall be responsible for maintaining all planted trees and shrubs. Operator shall have an Arborist certified by the International Society of Arboriculture inspect all plantings biennially in August to determine which, if any, trees and shrubs require replacement. Operator shall replace such trees and shrubs as indicated by the Arborist and shall submit to the Zoning Administrator by December 31st of that year a report of the Arborist's findings and the replacement plantings installed, if any.

F. Biological:

1. A minimum of a four (4)-person landscaping team with necessary equipment, supplemented by additional staffing and equipment as needed during high-growth rate periods, shall minimize uncontrolled and/or undesired growth.
2. The Operator shall follow the requirements of Exhibit E as applicable to these provisions in F. To the extent the relevant portions of Exhibit E are contrary to the conditions herein, as determined solely by the County, the conditions herein shall supersede and control.
3. Herbicide use shall be limited to non-residual herbicides that break down in the soil within fourteen (14) days.
4. Herbicides and fertilizers shall be applied following manufacturers specifications and shall not be applied during rain, when wind speed exceeds ten (10) miles per hour, or within fifty (50) feet of any surface water body.

5. Fertilizers shall not contain phosphorus, except that fertilizers applied during construction in order to establish vegetative growth may contain phosphorus if determined necessary to support the growth. Fertilizer composition as regulated by Sec. 10.1-104.2 of the Code of Virginia shall be based upon soil testing. All fertilizers shall be applied by a Virginia Department of Agriculture and Consumer Sciences Certified Fertilizer Applicator and fertilizer shall only be applied at rates, times, and by methods that are consistent with standards and criteria for nutrient management promulgated pursuant to Sec. 10.1-104.2 of the Code of Virginia.
6. Pesticides shall be limited to biorational pesticides and shall be applied by a licensed pest control professional.
7. Only biodegradable soap and water may be used for cleaning of solar panels during operation of the Facility.
8. The Operator shall ensure employees are trained to identify the Loggerhead shrike and the Northern long-eared bat, and be instructed to contact the Virginia Department of Game and Inland Fisheries should either species be identified.
9. The Operator shall not plant and shall remove invasive species identified in Virginia Department of Conservation and Recreation's ("VDCR") "Virginia Invasive Plant Species List" and VDEQ's invasive seed in the "Frequently Asked Questions (FAQ) Native vs. Invasive Plant Species for Erosion and Sediment Control" dated April 2017.
10. Seed mixtures shall be developed and identified on the Landscape Plan of the Site Plan based on guidance from VDEQ related to invasive species and utilizing VDCR's Virginia Solar Site Native Plant Finder.
11. The Operator shall spread pollinator supportive seed mixture within a minimum of fifty percent (50%) of new landscape buffers and adopt best management practices to increase pollinator activity during operation of the facility in order to achieve a minimum score of 145 points on VDCR's "Virginia Solar Site Pollinator/Bird Habitat Scorecard" dated March 2018.
12. Rumble Strip Locations shall be in place during construction to reduce the introduction of invasive seeds.

G. Water:

1. The Operator shall only utilize public water during the construction and operations phases of the Facility. No on-site groundwater shall be used during the construction or operation of the Facility. Wells shall only be accessed to perform water testing.
2. Any connection by the Operator to the public water system for bulk use (greater than a single ¾" meter) shall be controlled by the Spotsylvania County Utilities Department ("Utilities Department") in a manner that will not negatively impact the existing distribution system. Said connection shall include a pressure sustaining function and flow control function, with the setting of those functions at the discretion and direct control of the Utilities Department. The County does not guarantee any volume of bulk withdrawal available to the Operator.
3. For the Project, bulk withdrawal from the 531-foot pressure zone as determined by the Utilities Department shall be limited to between the hours of 10 p.m. and 4 a.m.

with a maximum aggregate volume usage of 69,000 gallons per day from October to April and 56,000 gallons per day from May to September.

4. For the Project, bulk withdrawal from an upgraded public water system shall be limited to between the hours of 10 p.m. and 4 a.m. with a maximum aggregate volume usage of 166,000 gallons per day from October to April and 153,000 gallons per day from May to September. Upgraded public water system referenced above shall be defined as increasing the water transmission main size within the 531-foot pressure zone from twelve (12) inches to sixteen (16) inches from the existing Lake Bottom Booster Station to the main 12-inch loop feed within the Fawn Lake Subdivision. This will include all appurtenances (i.e., fire hydrants, pressure reduction valves, etc.) as required by the Utilities Department.

BE IT FINALLY RESOLVED that the Spotsylvania County Board of Supervisors' approval and adoption of any conditions does not relieve the Applicant and/or subsequent owners from compliance with the provisions of any applicable Spotsylvania County Ordinances, rules, regulations, or adopted standards. To the extent anything in this Special Use Permit is less restrictive than the County's Ordinances, or its rules, regulations, or adopted standards, the lessened restriction shall be superseded and the County's Ordinances, or its rules, regulations, or adopted standards shall control and be applicable to the approved use, but the superseded condition shall not be deemed unlawful, unenforceable, or otherwise rendered void so as to void the Special Use Permit as set out below. The Spotsylvania County Board of Supervisors' decision to approve this Special Use Permit is predicated on the Spotsylvania County Board of Supervisors' understanding that the above conditions the Spotsylvania County Board of Supervisors hereby imposes upon this Special Use Permit are valid, lawful, and shall apply to the approved use for the life of the use; therefore, these conditions, independently and in the aggregate, are not severable from the Spotsylvania County Board of Supervisors' action to approve this Special Use Permit. Should any condition imposed by this Special Use Permit be found to be unlawful, unenforceable, or otherwise rendered void, this Special Use Permit shall be void and the use shall be deemed unlawful.

(SEAL)

A COPY TESTE:



Aimee R. Mann

Deputy Clerk to the Board of Supervisors



302 N. Main Street
Culpeper, Virginia 22701

UTILITY SCALE SOLAR FACILITY DEVELOPMENT POLICY

WHEREAS, the Code of Virginia (1950), as amended, at Title 67, Section 67-103. Role of Local Governments in Achieving Objectives of the Commonwealth Energy Policy, addresses the regulatory arrangement in the Commonwealth of Virginia as to renewable energy; and

WHEREAS, the General Assembly of the Commonwealth of Virginia has enacted statutes that limit a locality's ability to establish ordinances regarding renewable energy facilities by requiring such ordinances to:

1. Be consistent with the provisions of the Commonwealth Energy Policy pursuant to subsection C of §67-102;
2. Provide reasonable criteria to be addressed in the siting of any renewable energy facility that generates electricity from wind and solar resources. The criteria shall provide for the protection of the locality in a manner consistent with the goals of the commonwealth to promote the generation of energy from wind and solar resources; and
3. Include provisions establishing reasonable requirements upon the siting of any renewable energy facility, including provisions limiting noise, requiring buffer areas and setbacks, insuring limits on mass grading and addressing generation facility decommissioning; and

WHEREAS, Culpeper County will require those requesting to establish utility scale solar energy generation facilities in the A-1 (Agricultural) and RA (Rural Area) Zoning Districts to obtain a conditional use permit, pursuant to Article 17 of the Culpeper County Zoning Ordinance; and

WHEREAS, in accordance with Article 17 of Appendix A of the Culpeper County Code, any solar energy generation facilities found to: 1) Adversely affect the health or safety of persons residing or working in the neighborhood of the proposed use; 2) Be detrimental to the public welfare or injurious to the property or improvements in the neighborhood; or 3) Be in conflict with the purposes of the Comprehensive Plan of the County of Culpeper, will be not be approved under any circumstance; and

WHEREAS, Culpeper County expressly intends to limit "utility scale solar sprawl" in order to preserve farmland, protect historic resources and insure development is compatible with neighboring properties by limiting both the overall number of acres dedicated to this land use in the County and by limiting the size of individual projects;

NOW THEREFORE BE IT RESOLVED that the Board of Supervisors will review renewable energy facility use permit applications on a case-by-case, individual basis in consideration of the factors and criteria set forth in the application submittal. The County reserves the right to collect reasonable building permit fees, plan review fees and other associated fees as needed to properly administer the goals established in this policy; and

BE IT FURTHER RESOLVED that the attached Draft Example Conditions for Renewable Energy Facility Use Permits and the stipulations outlined below shall be used as a guideline in the consideration of all applications for such facilities.

UTILITY SCALE SOLAR FACILITIES – GENERAL GUIDELINES

1. Culpeper County seeks to establish “draft” or “example” conditions for renewable energy facility use permits as an addendum (SEE EXHIBIT A) to this policy to help guide the County’s review of and the applicant’s submission of any future applications for renewable energy generation facilities. The County shall consider the economic impact of any conditions considered, attendant to the conditional use permit, to be imposed upon the Solar Energy Generation Facility.
2. Studies* reflect that the operation of Solar generation facilities, post-construction, do not pose any identified noise, toxicity, or EMF/Radiation concerns. Thus, each of these factors would unlikely be considered as the sole reason for denial of a conditional use permit.
3. Culpeper County seeks to ensure that any utility scale renewable energy generation facility is consistent with and furthers the goals as found in the most current Comprehensive Plan. Furthermore, Culpeper desires to balance this land use with the various and valuable existing and planned land uses and resources throughout the County and to that end, the following elements, at a minimum, should be considered, studied, researched, and vetted with each and every application for a renewable energy facility:
 - A. Culpeper County desires to protect the County’s historic properties and resources as identified by balancing those interests with the interests of the solar generation facilities.
 - i. Setbacks and buffering should be considered when an application is adjacent to such resource.
 - ii. Certain property, because of its historic value, should be discouraged from this land use entirely.
 - B. Culpeper County desires to protect and enhance its agricultural and rural heritage and resources.
 - i. Among other things size and scale of a renewable energy generation facility should strongly be considered in order to maintain the County’s rural viewshed and character.
 - ii. Siting of a facility on prime agricultural soils is discouraged. Non-agricultural producing lands or land which is of lower agricultural value should be explored first, e.g. State Land Evaluation and Advisory Council

¹ *For example, based upon “Health and Safety Impacts of Solar Photovoltaics” produced by the NCClean Energy Center, NC State University, which also cites numerous additional studies and sources

(SLEAC) and soils classification may be considered in determining agricultural value.

- iii. In order to protect the integrity of agricultural soils, mass grading of sites shall be limited to fifty (50) acres at a time.
- iv. Facilities on or adjacent to agricultural and forestal district properties shall take into account the impact upon such districts, if any.
- v. A plan should be developed with any proposal to minimize any negative visual impact to the greatest extent possible.

C. Culpeper County desires to protect and enhance its economic and employment producers.

D. Culpeper County desires to protect its interests at the Culpeper Regional Airport. Any application for a utility scale solar facility shall include the data necessary to perform an analysis using the Solar Glare Hazardous Analysis Tool (SGHAT) available from the Federal Aviation Administration.

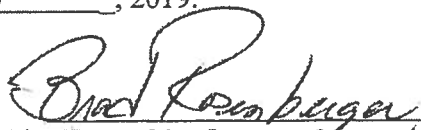
E. All solar panels will be designed to minimize the reflection of light.

- 4. The applicant shall provide information demonstrating the local economic benefits of the project or a cost/benefit analysis. Prior to the issuance of a land disturbance permit, the Applicant may also enter into a written agreement with the County providing for payments to the County in addition to real estate taxes.
- 5. The applicant must provide written comments from the relevant electric company regarding the capacity of the transmission lines as part of any use permit application. An applicant can satisfy this requirement by submitting proof of application for interconnection to the electricity system.
- 6. Adequate bonding shall be required for all phases of all projects, including but not limited to: an Erosion and Sediment Control Bond, Stormwater Management Bond, Construction and Performance Bond, Landscaping Bond, Decommissioning Bond, and Liability Insurance.
- 7. The applicant shall provide a decommissioning plan, which will be required to be updated every three (3) years to insure (i) that the real property will be returned to its original condition upon closure of any facility, or at the end of its useful life, and (ii) that decommissioned equipment and panels are disposed of appropriately and in an environmentally sound manner. Favor will be given to decommissioning plans that provide for recycling of equipment and panels. In any event, decommissioning shall be guaranteed by cash, commercial surety, letter of credit, performance bond, etc. subject to the approval of the County Attorney and in accordance with any adopted County policy. Favor shall be afforded to surety in the form of cash and letter of credit. Moreover, final reporting at the conclusion of decommissioning will be required before any guarantee is released. Decommissioning surety shall be in place and adequate for the complete decommissioning of the project from its onset until it is decommissioned.

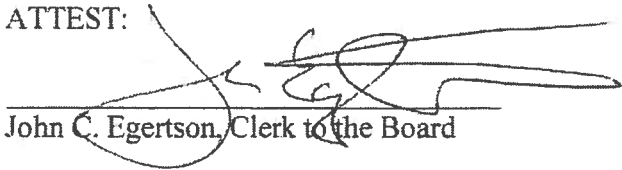
8. Noise, traffic, parking and other impacts are identified with regard to the construction and decommissioning attendant to these projects. Applications for utility scale solar facilities shall address mitigation of impacts not only upon completion of the facility, but also these and other identified impacts occurring during construction and at the time of decommissioning. A traffic and parking plan must be provided with any conditional use permit application. Stormwater management must be specifically addressed as part of any application, at all stages of construction, operation, and decommissioning. During construction, mass grading of an approved site shall be limited to fifty (50) acres disturbed at any given time.
9. Site Plan, Building Permit, Plan Review, and other associated fees will be collected based upon the County fee schedule. Reductions of such fees will not be negotiated.
10. No facility shall be located on a property designated by the Virginia Department of Historic Resources (DHR) as included within a historic battlefield boundary, pursuant to the federal Civil War Sites Advisory Commission *Report on the Nation's Civil War Battlefields* as updated by the National Park Service (SEE EXHIBIT B). Any facility adjacent to designated battlefield lands which were placed in an historic conservation easement prior to application being filed for such facility will be discouraged. Any facility adjacent to a significant historic resource shall have a vegetative buffer pursuant to Article 33-9(c)(4) of the Culpeper County Zoning Ordinance. Screening of historically significant properties and the viewshed for those properties is desired. The County may require screening of any use, or portion thereof, upon determination that the use would otherwise have a direct negative visual impact. Visual impact on property designated as historic by its inclusion in the Comprehensive Plan or as defined by 9VAC15-60-10 (Definitions) of the Code of Virginia as a "Historic Resource" shall be minimized to the greatest extent possible.
11. The cumulative impact of previously approved or permitted sites shall be considered. Specifically, it is intended that approximately 2,400 total acres or 240 megawatts of production serve as an upper target for utility scale solar development, which is representative of the County's footprint on the electrical grid.
 - A. The Culpeper County Comprehensive Plan emphasizes the County's commitment to the preservation of agriculture as its primary industry. The limitation of utility scale solar development furthers this goal. A limit of 2,400 acres equates to one percent (1%) of the total land mass of Culpeper County.
 - B. Based upon the population projections of the 2015 Culpeper County Comprehensive Plan, the residential consumption of power by 2040 would be approximately 162 MW. It is recognized that solar power produced in Culpeper County will not necessarily be consumed in Culpeper County, nevertheless, the County's own energy needs are a reasonable basis for the limitation of 240 MW of utility scale solar development.

12. The scope or scale of utility scale solar projects will have a direct correlation to numerous factors of concern. These include potential land disturbance, the ability to effectively screen and landscape a project, the traffic and other impacts during the construction process, the ease of decommissioning and other factors. In light of this, any single utility scale solar application should be limited to no more than 300 acres of actual panel installation.
13. Applicants for utility scale solar developments should provide preliminary information as to the phasing of the project, identifying watersheds and specifying the phasing of land disturbance activity in order to comply with the fifty (50) acre limitation in numbers 3 and 7, above. This information should also include proposed Virginia native species of grasses and other plantings which are non-invasive. Invasive non-native species will not be permitted.
14. Use permit conditions for any utility scale solar development shall include provisions to insure that adequate erosion control, stormwater management and building code inspections are insured, potentially through third parties, the cost of which shall be fully covered by the developer of the project. The cost of plan review by third parties shall also be addressed.
15. Applications that include evidence of project viability will be viewed more favorably than those absent such evidence. The following are helpful in determining a project's viability and are encouraged to be included in the applicant's submittal to the County.
 - A. Written comments from the relevant electric company regarding the capacity of the transmission lines or other electrical infrastructure as part of any use permit application, e.g., submitting proof of application for interconnection to the electrical system;
 - B. Offtake agreement, power purchase agreement, or other communication or document that identifies a clear path to an off taker or purchaser of the electricity generated from the project; and,
 - C. Further, preference will be given to projects and agreements that provide for the local use of the electricity being generated.

This Policy is adopted effective October 1, 2019.


The Honorable Brad Rosenberger
Chairman, Culpeper County Board of Supervisors

ATTEST:


John C. Egertson, Clerk to the Board

Approved as to form:

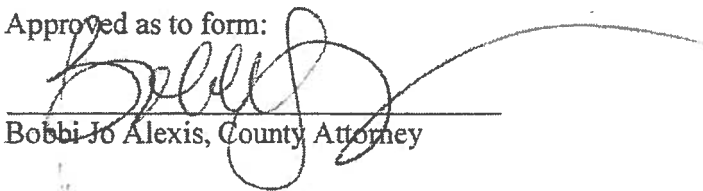

Bobbi Jo Alexis, County Attorney

EXHIBIT A

Draft Example Conditions for Renewable Energy Facility Use Permits

The following stipulations are suggested as a condition of approval for any utility scale solar facility. These conditions are not all inclusive, as additional conditions may be deemed necessary in order to mitigate impacts based upon specific site conditions. Likewise, the conditions below may need to be modified, or even deleted based upon specific site conditions. Final conditions set for any use permit will be at the sole discretion of the Culpeper County Board of Supervisors.

1. **Use Permit is nontransferable.** This permit shall be granted solely for the subject property for operation of a utility scale solar facility. This conditional use permit shall be binding on any successors, assignees, current or future lessee, sub-lessee, or owner of the renewable energy facility. The permit shall not be assignable to a third party absent the written consent of the Board of Supervisors of Culpeper County. It is important that successors-in-interest be on written notice of the Permit and its terms and conditions.
2. **Access.** Access for inspections shall be accommodated for staff and/or other appropriate County officials with a 24-hour notice to the applicant.
3. **Maintenance of site features.** All site features, including landscaping, fencing, etc. shall be properly maintained throughout the life of the permit. Maintenance of such features may be guaranteed by a surety agreement and a surety acceptable to the Culpeper Attorney as required by the Board of Supervisors. If any structures at the facility site have been determined to be unsafe under the Uniform Statewide Building Code (USBC) by the County's Building Official, said structure shall be required to be repaired by the facility owner, site owner, or operator to meet federal, state, and local safety standards, or to be removed by the owners or operator. The owners or operator must complete the repair, or removal of the structure, as may be lawfully authorized under the USBC.
4. **Submission of site plan.** A site plan in accordance with Article 20 of Appendix A of the Culpeper County Code shall be submitted prior to issuance of any building permits. The County may choose to contract with a third-party plan reviewer to help with this site plan review process. All fees associated with any third-party plan review shall be paid by the applicant or its successors-in-interest.
5. **Decommissioning of facility.** Either at the end of its lifespan or in the event of inactivity for more than two consecutive years, this facility must be decommissioned. All solar panels and pilings shall not be anchored with concrete footings for ease of removal after the useful life of the facility. The decommissioning plan shall include the removal of all surface and subsurface features. The plan shall be updated every three (3) years as necessary.
 - a. **Notice of inactivity-** The applicant or owner shall be responsible for notifying the Zoning Administrator within 30 days of the facility becoming inactive or after it no longer produces electric power for transmission by a public utility. Notification shall be provided in writing.

- b. Except for an event of force majeure, if the Facility remains inactive for more than twelve (12) consecutive months, the Permit may be subject to revocation; provided, however, that, if after such 12-month period, Applicant or its financing provider is diligently working to restore the Facility to operation, then, so long as the restoration process remains active, the Permit shall not be revoked in the instance of a force majeure.
 - c. Decommissioning process- Upon completion of the facility's lifespan or following revocation of the special use permit, the facility shall be decommissioned and the site shall be returned to the condition which existed prior to construction of the facility, including removal of all equipment and debris.
 - d. Trenches or other borings or excavations made in association with the facility shall be filled and compacted.
 - e. All wetland protections, natural vegetation, erosion control, and stormwater features shall remain in place.
 - f. The Applicant or owner shall provide a decommissioning plan to staff and obtain all required permits prior to conducting decommissioning activities.
 - g. All decommissioning activities shall be completed within nine (9) months of providing notice of inactivity.
 - h. If the facility is not removed within the specified time herein, the County may cause the removal of the facility, with costs being borne by the project owner, the property owner, or both.
 - i. Components of the Facility removed from the site as a part of decommissioning shall be handled and disposed of in compliance with all applicable legal requirements (local, state, and federal law and regulations). Applicant shall emphasize the feasible and cost-effective re-use or recycling of components, including any "extended producer responsibility" programs offered by vendors of the particular component, over landfill disposal.
 - j. In no event, shall any hardware, parts, structures, or any portions of the project that are damaged, replaced, and/or decommissioned be brought to or disposed of in a landfill or solid waste transfer station in Culpeper County.
 - k. A surety agreement for decommissioning and surety in a form acceptable to the County Attorney shall be submitted prior to the issuance of a construction permit. The surety amount shall be reviewed every 3 years and adjusted according to inflation. The surety agreement and guarantee may also specify that the land owner is responsible for decommissioning in the event that the applicant/project owner fails to perform.
6. **Surety for Decommissioning.** Prior to the issuance of any building permit for the Property, the Applicant shall enter into a surety agreement for decommissioning and post surety in a form acceptable to the County Administrator and the County Attorney in an amount determined appropriate by the Board of Supervisors based on the size and scope of the permitted project.
- a. The surety amount shall be reviewed and adjusted by an independent professional engineer. The independent professional engineer shall be selected and compensated by the Applicant, but selection of the independent professional engineer is conditioned upon and subject to approval by the County Administrator and/or his designee.
 - b. The amount of the requisite surety, thereafter, shall be set in an amount equal to a reasonable estimate of the projected gross cost of decommissioning the Facility.

- c. Every three (3) years, an independent professional engineer shall review the surety amount and shall determine whether it should be revised, according to inflation and other relevant cost variables to ensure that the posted surety will cover the projected gross cost. Again, the independent professional engineer shall be selected and compensated by the Applicant, but selection of the independent professional engineer is conditioned upon and subject to approval by the County Administrator and/or his designee.
 - d. The surety document and/or funds shall be released, but only after the decommissioning is complete and the Applicant has submitted a report to the County Administrator and/or his designee demonstrating compliance with all decommissioning requirements to the satisfaction of the County Administrator and/or his designee.
7. **Fire & EMS coordination and training.** The applicant will work proactively with the Director of Emergency Services to develop an Emergency Response Plan which will include an agreed-upon set of procedures and protocols for managing risk of fire and for responding in the event of an emergency at the facility (i) at the time of and during construction, (ii) post-construction and during the course of regular operations, and, (iii) at decommissioning.

The applicant at a minimum will provide:

- a. Emergency communications direction as well as emergency phone numbers and key points of contact.
 - b. Special training for fire and emergency services personnel and a tour of the site to ensure upfront awareness of the site and equipment as well as points of ingress/egress.
 - c. Designated shut off procedure and location for equipment shut off.
 - d. Maps outlining the location of key equipment such as the location of lockboxes, inverters, transformers, system/electrical cut-off switches and points of ingress/egress at the facility.
 - e. The Emergency Response Plan shall be submitted and reviewed in conjunction with the Permit application material and adopted as part of the Permit approval documentation.
8. **Noise.** All construction activities shall be limited to the hours of 8:00 a.m. to 6:00 p.m., Monday-Saturday and will be prohibited on Sundays. This condition shall apply to noise generated during the construction of the facility and to its ongoing operation and maintenance and any replacement of equipment or decommissioning of the facility.
9. **Entrance requirements.** The following conditions shall apply to the property entrances:
- a. The applicant shall obtain all required permits from VDOT and complete all required improvements to the property entrances prior to issuance of a building permit.
 - b. In the event that there is damage to the adjoining properties as a result of ingress/egress of construction vehicles, the applicant shall remedy all damage in full prior to issuance of a certificate of occupancy.
 - c. Access roads are to be marked with identifying signage.
10. **Landscaping Plan.** The intent of any landscaping plan is to provide buffering, screening of adjacent uses such as residential dwellings, public facilities and or resources, historic properties and resources, and public transportation corridors, etc. The following conditions shall govern the installation of landscaping in accordance with the approved plan:

- a. A Preliminary Landscaping Plan shall be submitted, reviewed and approved in conjunction with the Permit review and approval.
 - b. All landscaping shown on the approved landscaping plan shall be installed and shall be in good condition prior to issuance of a Certificate of Occupancy and prior to beginning production of electric power.
 - c. In the event that the applicant requires a minor deviation from the approved landscaping plan or site plan, such deviation shall be provided on a revised plan sheet for review and approval by the County Administrator and/or his designee.
 - d. In areas where there is not at least 50' of a native timber buffer remaining on the project parcel, a minimum of a double row of evergreens will be planted within any required setback and/or buffer area. All native timber buffers are subject to review and approval by the County. The use of native timber and natural screening is preferable. Such evergreens shall be planted, at a minimum, on fifteen (15) foot centers, with rows offset. The evergreens installed shall have an anticipated mature height of thirty (30) to forty (40) feet. The composition of this landscape buffer may be a mixture of evergreens and/or deciduous trees as deemed appropriate by the Board of Supervisors. These evergreens shall be planted during the appropriate time of year, subsequent to the completion of construction. (This requirement may be reduced or waived if agreed to, in writing, by the owner of the adjacent residence, including residences across a public right of way.) The composition and layout above is suggested as a typical planting arrangement, however the County reserves the right to modify this depending on the circumstances.
 - e. Evergreen plantings shall have a minimum beginning planting height of 6 feet. Any deciduous tree shall have a minimum caliper of two to two and one-half inches measured six inches above final grade at the time of planting.
 - f. All landscaping will be reviewed by the County following installation, at one-year completion, and as necessary after this to ensure the landscaping is being maintained.
 - g. A surety agreement for landscape maintenance in a form acceptable to the County Attorney shall be submitted and approved prior to the issuance of any building permits. The amount of the surety shall be determined by an independent landscape architect selected and compensated by the Applicant but approved by the County Administrator and/or his designee. The amount of the surety shall be equal to a reasonable estimate of the amount needed to establish, and following establishment, to maintain the landscaping required by the approved landscaping plan for two (2) years after initial installation. Once the landscaping has been successfully established, the surety amount will be reduced to that needed for two (2) years of maintenance thereafter. The surety will be released only after decommissioning is complete.
 - h. The County reserves the right to impose conditions on the site plan approval which specify species of landscaping, for example pollinator species.
 - i. The use of herbicides and pesticides shall be limited or prohibited.
11. **Signage.** No signage of any type may be placed on the facility other than notices, warnings, and identification information required by law. During construction only, limited signage may be permitted to identify the companies performing the construction and to provide notice to the general public.

12. **Security/Fencing.** The facility should be enclosed by security fencing not less than six (6) feet in height. Type of fencing shall be in keeping with the area character as much as possible. For example, board fencing may be a more suitable security fencing which more closely matches area character and/or improves aesthetics. However, any fencing desired shall be required to meet the standards of the National Electric Code and other applicable safety regulations. To the extent possible, all required fencing shall be placed behind planned perimeter landscaping.
13. **Lighting.** Lighting shall be the minimum necessary for safety and/or security purposes and shall use shielded fixtures to minimize off-site glare. Any desired lighting shall comply with Article 32 of the Zoning Ordinance. The full site plan shall include a photometric plan that depicts the location, type, power and predicted lighting levels of each permanent fixture.
14. **Structures.** Any proposed structures shall be of a neutral color so as to reduce visual obtrusiveness. Any supporting electrical and mechanical equipment such as racking for the panels, inverters, etc. must be of a neutral color that is identical to, or closely compatible with, the color of the supporting structure so as to make related equipment more visually unobtrusive.
 - a. The storage of power generated by the facility is prohibited. No batteries shall be used in conjunction with the facility to store power for electrical transmission.
15. **Acquiring Permits.** Zoning and Building permits must be obtained within 24 months of obtaining this conditional use permit, otherwise the conditional use permit shall be null and void.
16. **Setbacks/Buffers.** A minimum setback of one hundred and fifty (150) feet shall be maintained from any above ground equipment to the nearest property line. This requirement may be reduced or waived if agreed to in writing by the owner of the adjoining property. This area may include the requirement to maintain any existing vegetation and/or fencing that is in place and may require supplementary landscaping. These setback requirements shall not apply to any interior property lines that may exist.
17. **Annual Notice of Activity.** The County will require as practical for the owner of an approved facility to provide an annual statement of activity to the County Administrator and/or his designee. This will help ensure that the facility is still actively producing electricity for the power grid.
18. **Violation of Conditions.** A Notice of Violation shall be sent to the owner of the facility and the landowner if there is evidence that suggests the use is not in conformance with any of the adopted conditions of approval. If violations remain after notice of violation is received, any continued violation of any of the conditions of approval shall be grounds for revocation of the conditional use permit.
19. **Construction Traffic Management Plan.** The Applicant shall submit a proposed construction traffic management plan to the County Administrator and/or his designee for review and approval as part of the full site plan. The construction traffic management plan shall:

- a. Provide vehicle and trip estimates, propose steps to manage traffic safely and minimize inconvenience to the travelling public.
- b. Provide procedures for communication with area residents about construction and anticipated traffic conditions.
- c. Prohibit any personnel associated with the Facility, while working on the construction of the Facility, from parking their vehicles at locations other than the Facility. Provide onsite parking for all associated construction related activities. Offsite parking and use of shuttles from offsite parking areas may be utilized if approved in advance by the County Administrator and/or his designee.
- d. Provide for truck deliveries to be avoided during the periods that school buses are scheduled to use the roads in the vicinity of the Facility.

20. Maximum Height of Facility. Except for the collection yard and substation, the solar panels (when at their highest point during operations) and other structures comprising the Facility shall not exceed a height of 12 feet from the ground surface at the location of the particular structure. The County Administrator and/or his designee may approve minor deviations from this limitation as part of the review of the full site plan to account for low-lying areas in which structures higher than twelve (12) feet merely provide a uniform height across an adjacent group of structures and does not materially affect the apparent height of the Facility from off-site locations.

21. Erosion and Sediment Control Plan. The Applicant shall submit prior to the issuance of any land disturbance permits a proposed erosion and sediment control plan in accordance with Chapter 8 of the Culpeper County Code. The erosion and sediment control plan shall:

- a. Adhere to the Virginia Erosion and Sedimentation Control Regulations and the Virginia Erosion and Sedimentation Control Handbook (a/k/a the "Green Book").
- b. Provide that no topsoil will be removed from the Facility but instead will be used on site to establish ground cover.
- c. Incorporate riparian buffers of at least 50 feet from the top-of-bank of all stream segments.
- d. Incorporate a protocol developed in coordination with the County Administrator and/or his designee, the Culpeper County Soil and Water Conservation District, and the Virginia Department of Environmental Quality ("DEQ") that specifies the phased construction of designated units of land so that the total area of disturbed land at any one time is appropriately limited given the nature of the construction activities, the size of the Project, the topography and water resources of and in the Project Area, and the erosion and sediment controls to be employed. The protocol will be designed to ensure that ground cover is expeditiously established, and appropriate site stabilization achieved throughout construction.
- e. Include sufficient surety to guarantee that funding is available to implement and maintain all required erosion and sediment control measures.
- f. Provide for Applicant funding, for the period of construction, and as needed a third-party erosion and sediment control inspector, to be selected and directed by the County Administrator and/or his designee.
- g. Final phasing plan shall be fully determined with the submission of the full site plan. No land disturbing activity associated with any phase of the project shall disturb more than 50 acres at a time. Each phase shall be fully stabilized prior to a permit will be issued for the next land disturbance phase.

22. Stormwater Management Program Permit. Prior to the start of construction of the Facility, Applicant shall apply for and obtain from the DEQ a Virginia Stormwater Management Program Permit ("VSMP Permit"), including a proposed Stormwater Pollution Prevention Plan ("SWPPP"), for the construction of the Facility.

23. Vegetation Management Plan. The Applicant shall submit a proposed vegetation management plan for ground cover within the fence lines of the Facility to the County Administrator and/or his designee for review and approval as part of the full site plan, which shall:

Describe in detail the design of the ground cover, which will consist primarily of native grasses and associated low-growing species.

- a. Include a general plan and schedule for managing the growth of the vegetation over the operational life of the Facility so as to maintain a neat and clean appearance.
- b. Include measures to prevent and control noxious weeds and invasive species.
- c. Emphasize mowing and other mechanical means as the primary method of managing vegetation growth.
- d. Identify any class of herbicide to be used and provide that use of any such herbicide will be in accordance with its approved label.
- e. Demonstrate that the quantity of herbicides expected to be used annually for the Facility will be less than the amounts that generally were used on the agricultural fields hosting the Facility during the 12 months prior to the start of construction.
- f. Provide that only biodegradable soap and water, and no other chemicals, may be used to clean the surface of solar panels.
- g. Provide for the review by the County Administrator and/or his designee of any proposed significant changes to the vegetation management plan during the operational life of the Facility.

24. Protection of Soils. In addition to using only biodegradable soap and water to clean solar panels and the above limitations on herbicides, Applicant shall take the following steps to ensure the protection of soils from the operation of the Facility:

- a. Promptly make an oral report to the County Administrator and/or his designee of (1) any breakage or loss of integrity of any component that has the potential to result in hazardous materials reaching the ground surface; and (2) any spillage of fluid other than water to the ground surface, such as the leakage from an inverter or transformer cooling oil. Within 7 days following the incident, Applicant shall provide a written, follow-up report to the County Administrator and/or his designee that describes in detail the incident, the area affected, and the measures taken by Applicant to respond to and/or remediate the situation.
- b. Take representative soil samples from the Project Area prior to land disturbance activities for the project, then once during the first year of operation to establish a baseline of constituents important for agricultural productivity and compare the results to paired samples of those constituents from the same locations taken at the start of decommissioning. Any significant difference that may adversely affect agricultural productivity and that is reasonably attributable to the operation of the Facility shall be addressed as part of Applicant's obligation to return the area to substantially the condition that existed prior to construction.
- c. A sealed dry-waste container shall be maintained at the Facility for the disposal of any damaged solar panels.

25. Local Contractor and Job Fairs. No later than ninety (90) days prior to the start of construction of the Facility, the Applicant shall hold at least two (2) contractor and job fairs, one on a weekday evening and one on a Saturday, in Culpeper County. The purpose of the contractor and job fairs shall be to attract qualified construction sub-contractors with operations in Culpeper County and individual job applicants who reside in Culpeper County for the construction or operation of the Facility. The contractor and job fairs shall be advertised in the local newspaper at least two (2) weeks in advance.

26. Emphasis on Local Employment. The Applicant shall, in any request for proposals for the employment of non-specialized services such as but not limited to, landscaping and grounds maintenance, road construction, and similar non-technical services, ensure that its contractors include a requirement to use best commercial efforts to attract and retain companies based in Culpeper County or the Town of Culpeper, or persons residing in either jurisdiction.

27. Road Repair. The Applicant shall repair expeditiously any damage to public roads or related infrastructure caused by the construction traffic for the Facility as required or determined by the County or VDOT, which shall be contemplated and covered by the surety/bonding and the liability insurance policy.

28. Permit Duration. This Permit shall be valid for a specified length of time from the start of commercial operations of the Facility, which shall be the date on which the Facility first delivers non-test energy to the high-voltage transmission system, -- or until hereunder this Permit lawfully terminated or terminated as a matter of ordinance or other law prior to the natural expiration date, whichever is sooner. At the end of the specified amount of time -- unless hereunder this Permit decommissioning is lawfully permitted to be required sooner, the Facility shall be deemed to have reached the end of its lifespan and decommissioning shall begin.

29. Reconstruction.

- a. This Permit authorizes only the initial construction, operation and decommissioning of the Facility and does not authorize the reconstruction or substantial change in location of the major land-disturbing components of the Facility, such as the collection yard, pilings, racking, roads, buried collection lines, and fencing. Any such reconstruction may be authorized only pursuant to the County's requirements at the time applicable to new projects.
- b. This condition does not apply to routine maintenance, repair and replacement of components and does not preclude the wholesale replacement of operating components of the Project not involving significant land disturbance, such as the replacement of operating components of the collection yard, solar panels, inverters, and pyranometers. Any equipment replacement program that will result in significant truck traffic potentially disruptive to neighbors shall be undertaken only after approval by the County Administrator and/or his designee of a traffic management plan and shall be limited to the hours of 8:00 a.m. to 6:00 p.m., Monday through Saturday.

30. Panel Specifications and Composition. At the time of construction, the Applicant shall provide to the County Administrator, with a copy to the County Attorney, a written panel specification disclosure document that includes the composition, toxicological information, and the physical and chemical properties of all of the solar panels being utilized for the Project.

31. Corporate Structure, Associations, and Information.

- a. The Applicant upon issuance of the Permit, shall provide written contact information/relational charts to the County Administrator, with a copy to the County Attorney, regarding its business structure and its affiliations, including but not limited to its affiliations, members, parent company, and subsidiaries.
- b. Applicant and all successors-in-interest, including current and future owners, lessees, sub-lessees, and permitted assignees shall provide the County Administrator, with a copy to the County Attorney, written notice of changes of ownership within thirty (30) days thereof.

32. Substantial upgrades and/or changes in design and/or operation. Any substantial upgrades or changes made to the design or operation of the solar facility and/or the Project that are planned shall be disclosed to the County Administrator and/or his designee at least (ninety) 90 days before the intended implementation of the upgrades or changes – except as provided herein. Any substantial upgrades and/or changes resulting solely from a bona fide emergency and force majeure shall be disclosed no later than (sixty) 60 days thereafter.

33. Additional Measures to Mitigate Construction Impact. The Applicant shall implement the following additional measures during construction:

- a. Maintain all construction-related vehicles in good working order.
- b. Provide notice to owners or tenants of homes located on properties adjacent to areas where construction activity will take place when such activity will occur.
- c. Designate a specific individual and provide that individual's name and contact information to the County Administrator and/or his designee, to which questions, complaints, or concerns during construction may be directed.
- d. Prior to the initiation of construction, mail a notice of construction activity to all property owners whose properties are adjacent to areas on which the Facility will be constructed or who reside along all roads from the nearest primary road to those points that have been identified to the County Administrator and/or his designee as points at which workers, materials, and supplies will be delivered. The notice shall summarize upcoming construction activities, describe the areas in which construction will occur, including the main routes of delivery, and provide the name and contact information of the Facility representative to whom any complaints, concerns, or comments may be addressed.
- e. Provide adequate portable sanitation facilities that are located in a manner that facilitates ease of disposal but that are not within one hundred and fifty (150) feet of any property boundary of a parcel on which a home is located and whose owner is not participating in the Facility.
- f. Prohibit any personnel associated with the construction of the Facility from overnight lodging at the Facility.

34. Operator's Commercial General Liability Coverage. The Applicant shall secure and maintain at all times public liability insurance for personal injuries, death, and property damage, including damage to public roads, and umbrella insurance coverage for the duration of the Permit in a minimum amount as established by the Board of Supervisors.

- a. The Operator shall provide the County Administrator and/or his designee Certificates of Insurance annually, and the amounts of required insurance shall be reviewed every two years for adequacy.

Exhibit B

CIVIL WAR BATTLEFIELD BOUNDARY AREAS CULPEPER COUNTY, VA



RAPPAHANNOCK
COUNTY

FAUQUIER
COUNTY

MADISON
COUNTY

ORANGE
COUNTY

SPOTSYLVANIA
COUNTY

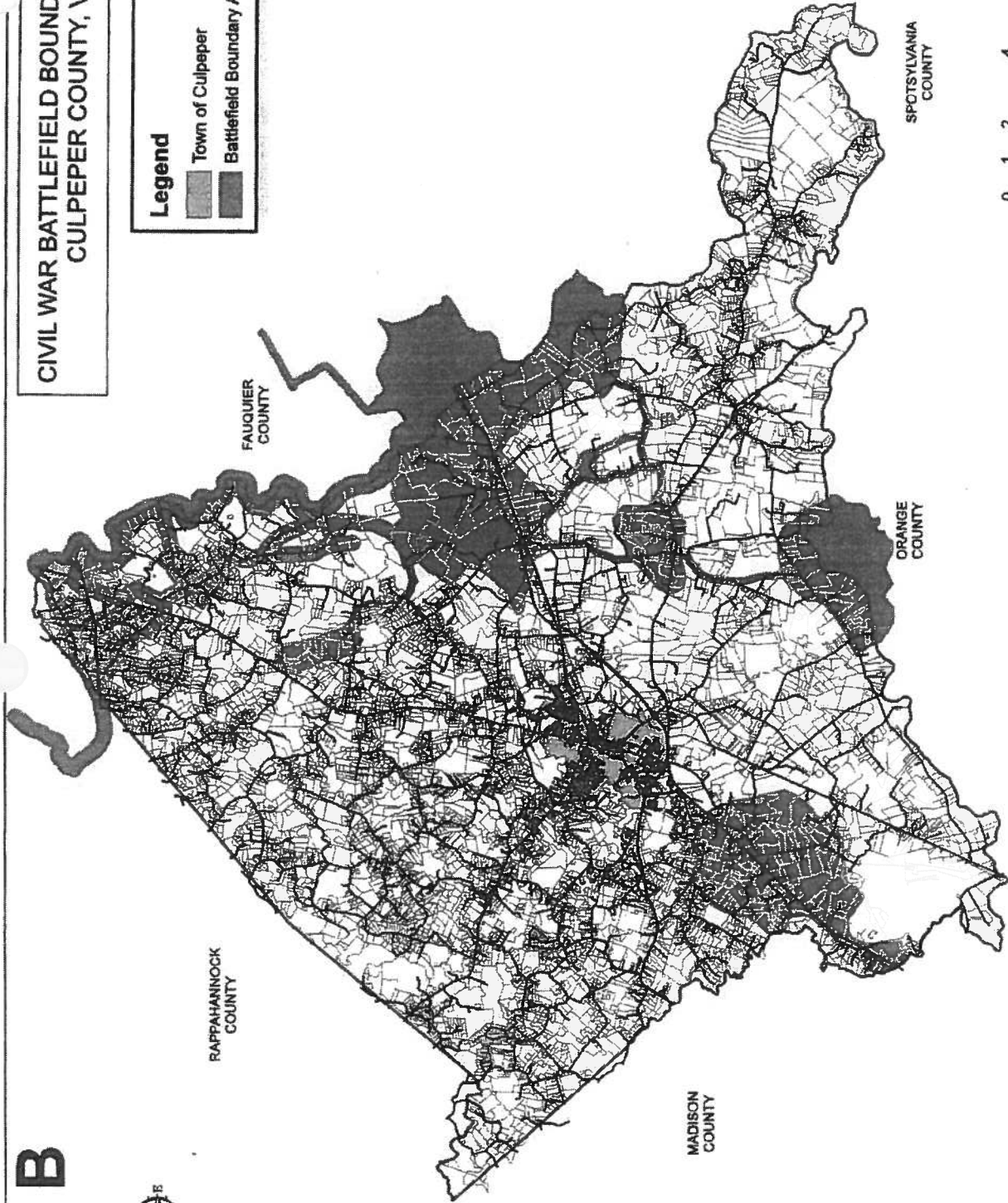
STAFFORD
COUNTY

Legend

- Town of Culpeper
- Battlefield Boundary Area

PREPARED BY
CULPEPER COUNTY PLANNING DEPARTMENT

DATE: 10-1-2019



★

Jefferson County | Development Authority

August 19, 2020

The Honorable Commissioner Jane Tabb, President
The Honorable Commissioner Josh Compton
The Honorable Commissioner Caleb Hudson
The Honorable Commissioner Ralph Lorenzetti
The Honorable Commissioner Patsy Noland
Jefferson County Commission
P. O. Box 250
Charles Town, West Virginia 25414

Dear Jefferson County Commissioners:

By majority vote with one abstention at its regular board meeting on August 18, 2020, the Jefferson County Development Authority (JCDA) voted to respectfully submit the following recommendations regarding the proposed amendments to the County Zoning Code to Allow Solar Energy Facilities as Principal Permitted Use.

The JCDA supports the appropriate development and use of alternative energy in Jefferson County. Alternative energy, including solar energy, can help strengthen and enhance the overall economic well-being of businesses, create well-paying jobs, and maintain the high quality of life of residents in our county.

The County Planning staff has assured us that the proposed zoning amendment specifically addresses large-scale solar facilities as a principal land use and, as such, would have no effect on small- or medium-scale solar facilities including residential rooftop solar systems.

Issues and Recommendations

Issue 1: Potential impact of large-scale solar energy facilities such as solar farms.

Envision 2035, Appendix D, Goals & Objectives, Goal 10, Objective 9 states: "Encourage the creation of and use of a variety of energy sources (including renewable energy) within Jefferson County in ways that respect the character of the county."

Recommendation. In keeping with this **Envision 2035** requirement to encourage a variety of energy sources in ways that respect the character of the county, the JCDA recommends that the County Commission should update the zoning code to authorize large-scale solar energy facilities while also establishing guardrails to reduce any potentially negative effects of these facilities on the view shed, storm water runoff, and other environmental matters in Jefferson County. Specifically, the JCDA recommends that the County Commission should take the following actions:

- a. Establish that large-scale solar energy facilities would be permitted only as a conditional use in appropriate zoning categories rather than as a permitted use.
- b. Develop conditions for approval of such solar energy facilities with input from the public. The American Planning Association has prepared a model zoning ordinance in its PAS Memo, "Planning for Utility-Scale Solar Energy Facilities" that includes reasonable conditions, based on experience in several Virginia jurisdictions.
- c. Consider limiting the size of individual large-scale solar energy facilities and also limiting the overall amount of land throughout the county used for such facilities. The County should consider best practices used in other states and counties on this topic.
- d. Place reasonable restrictions on the nature of the solar panels (or other energy-producing technology that could be used) at these facilities to protect the view shed and control storm water runoff.
- e. Ensure that the zoning code will require that owners of large-scale solar energy facilities, and landowners who lease land for these facilities, must use best practices for controlling and mitigating storm water caused by the facilities.
- f. Establish clear requirements and procedures for the county's monitoring and enforcement of any large-scale solar energy facilities that are built in this county. For example, ensure the landowner or renter follows the zoning requirements for setbacks, screening, and so forth. In addition, the County Commission should identify the county office that will be responsible for monitoring these facilities and ensure that the responsible office receives adequate funding to perform this function.
- g. Identify potential negative impacts of large-scale solar energy facilities on the county's public safety response capabilities and indicate the specific actions the County Commission will take to mitigate the negative impacts.

Issue 2: Educate county residents and businesses on placing solar energy facilities on their property.

It is important that county residents and businesses have clear information on the benefits and potential challenges with placing large-scale solar energy production facilities on their property and on leasing their property to others for this purpose.

Recommendation.

The JCDA recommends that if the proposed zoning amendment is adopted, the County Commission should establish educational programs to help landowners determine whether to lease their land for solar farms. The education programs should include such topics as:

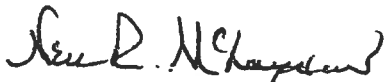
- a. How to determine whether a parcel of land is better suited for this purpose rather than an agricultural purpose;
- b. Landowners' potential liability for leasing land to an energy producer. This might include, for example, the landowners' liability for administering a "decommission plan" of the solar farm on their property including in the case of when the solar producer does not follow the decommissioning requirements or storm water requirements.

The JCDA is eager to collaborate with the County Commission to increase the availability and production of alternative energy in the county, as outlined in the Envision 2035 document. To this end, the JCDA

will examine opportunities and challenges with the development of small and medium-size alternative energy facilities in Jefferson County (such as rooftop solar installations and cooperative arrangements where a group of landowners jointly generate solar energy to serve multiple houses). In addition, the JCDA also supports legislative proposals to authorize Power Purchase Agreements (PPA) which are necessary for the development of smaller facilities and more efficient rooftop systems. The availability of PPAs in West Virginia and in this county would be very helpful in expanding the renewable energy industry and would produce many well-paying jobs for county residents. Please see the JCDA's letter to state legislators in support of PPA, as attached.

As a next step, JCDA is planning to facilitate a public dialogue to inform the public about renewable energy options and to gain resident input on the types of alternative energy production that could be appropriate in Jefferson County.

Sincerely,



Neil R. McLaughlin, President

Attachment:

Correspondence dated January 20, 2020, from the JCDA to State Legislators in Support of S.B. 611, a proposal to authorize power purchase agreements in West Virginia.

Alexandra Beaulieu

From: Sandra McDonald
Sent: Thursday, September 10, 2020 12:32 PM
To: 'Jane Tabb'; 'Patsy Noland (patsynol@gmail.com)'; 'Josh Compton'; 'Caleb Hudson'; Ralph Lorenzetti; Ralph Lorenzetti
Cc: Jessica Carroll; Alexandra Beaulieu
Subject: Comments Solar Facility
Attachments: Scanned Hunter Building Commission.pdf

-----Original Message-----

From: Helpdesk@jeffersoncountywv.org [mailto:Helpdesk@jeffersoncountywv.org]
Sent: Thursday, September 10, 2020 12:31 PM
To: Sandra McDonald <Sandy@jeffersoncountywv.org>
Subject: Scanned Hunter Building Commission

This is scanned and sent to you from Hunter Building Commission Offices

Attachment File Type: pdf, Multi-Page

multifunction device Location: Hunter House - 1st Floor - Front Offices Area
Device Name: XRX9C934E1DB4F9

Contact Commission Offices
Hunter Building

Updated with Additions
Suggestion I

*Done
Rockwell
9-10-20*

Any commercial electric generating facility, whether powered by coal, gas, wind or solar, must receive from the West Virginia Public Service Commission either a siting certificate or a certificate of necessity. Generally, the type of certificate depends upon whether the user of the electricity is out of state or in state. Until July of this year there were no specifications regarding site OR location.

Senate Bill 583, which addresses solar electric generating facilities, became law in July 2020. This law imposes restrictions on public utilities wanting to sell electricity generated from a solar facility to **WV users**. One of the purposes of this law was to set forth a Public Policy on eligible sites for a solar electric generating facility. A copy of the law's definition of "eligible site" is attached.

The rules of the PSC for a certificate of necessity or a site certificate require local approval. In Jefferson County, one evidence of such approval would be a zoning certificate. Our zoning ordinance must reflect the public policy of this state. Adopt a definition on eligible sites for commercial solar energy facilities and public utilities which levels the playing field. An example is attached. This is our chance to tell the State where Jefferson County wants these facilities located.

Definitions

Eligible Site

Eligible site means any site that has been previously used in electric generating, industrial, manufacturing or mining operations, including, but not limited to, brownfields, closed landfills or hazardous waste sites. In the event there is no available site as defined above, an eligible site shall include any parcel of land which existed on July 1, 2020 and is within ~~100~~ feet of an electric transmission line with a capacity of 138 K.V.

300

Solar Energy Facility

A facility located on an eligible site that generates electricity from sunlight by utilization of photovoltaic (PV) technology and distributes the generated electrical power. On-site components of the facility may include solar panels and other accessory components including, without limitation, Essential Utility Equipment, transformers, inverters, cabling, electrical lines, substations, and other improvements necessary to support generation, collection, storage and transmission of electrical power.

Site Size

An eligible site may only be located on a tract or parcel of land which existed before July 1, 2020 and occupy no more than 33 1/3% of the said tract or parcel notwithstanding the size of the parcel of land. Transfer or assignment of development rights between parcels or tracts of land is prohibited unless the parcels or tracts are owned by the same individual or entity as of July 1, 2020, and have a shared boundary.

Setback

A solar energy facility, including fencing, must be a minimum of 200 feet from all property lines and State Road rights of way.

Landscape Buffer

Appearance and visual impact shall be minimized by a buffer and greenspace, including evergreen trees around the solar energy facility. The trees shall be 6 feet in height when planted and likely to reach a height of 20 feet at maturity. The trees shall be planted every 15 linear feet.

Height

No solar collection panel shall exceed 6 feet in height when installed. All other structures shall not exceed 20 feet in height. The solar arrays shall be installed at a minimum of 12 feet apart.

Use Agreement

Before a Zoning Certificate shall issue, the solar energy facility's owner or operator shall provide documentation evidencing an interconnection or similar agreement for the purchase or acquisition of the electricity to be produced.

30. Panel Specifications and Composition. At the time of construction, the Applicant shall provide to the County Administrator, with a copy to the County Attorney, a written panel specification disclosure document that includes the composition, toxicological information, and the physical and chemical properties of all of the solar panels being utilized for the Project.

-
1. **Use Permit is nontransferable.** This permit shall be granted solely for the subject property for operation of a utility scale solar facility. This conditional use permit shall be binding on any successors, assignees, current or future lessee, sub-lessee, or owner of the renewable energy facility. The permit shall not be assignable to a third party absent the written consent of the Board of Supervisors of Culpeper County. It is important that successors-in-interest be on written notice of the Permit and its terms and conditions.

County Commission of Jefferson

8. The Operator's insurance policies shall contain an endorsement obligating the insurance company to furnish the County with at least thirty (30) days prior written notice in advance of the cancellation of the insurance.
9. The Operator's insurance renewal or replacement policies or certificates shall be delivered to the Zoning Administrator at least fifteen (15) days before the expiration of the insurance that such policies are to renew or replace.
10. Prior to the issuance of a land-disturbing permit, the holder of the Special Use Permit shall deliver to the Zoning Administrator a copy of each of the policies or certificates representing the insurance in the required amounts.
11. Access to the Property and the Facility for inspections or monitoring by the County, including its employees, agents and representatives, shall be provided to any of these parties within twenty-four (24) hours of the date and time written notice is provided to the Operator.
12. The Operator shall fully comply with all state and federal laws and regulations that apply to the construction or maintenance of the Project or use of the Property.
13. The storage on the Property of power generated by the Facility is prohibited.
14. Any batteries stored or utilized on the Property during the operation of the Facility shall be for the operation of vehicles or maintenance equipment on the Property, for backup support during power outages to ensure the safety, security, and continued monitoring of the Facility and shall not be used to store power for transmission to the power grid. Any batteries stored on the Property shall be stored indoors on an impervious surface and any batteries stored or utilized on the Property shall be removed from the Property and disposed of safely at the first sign of damage, leakage, or corrosion.
15. The use of biosolids on the Property is prohibited.
16. Photovoltaic panels manufactured using the GenX chemical are prohibited on the Property.
17. Photovoltaic panels containing Cadmium Telluride, also referred to as "Cad Tel", shall not be used on the Property in an amount which would cause the total number of panels containing Cadmium Telluride used in the Project to exceed thirty percent (30%) of the total panels used in the Project.
18. Inverters and solar panels, measured from the grade of the ground on which the structures sit to their highest possible point, shall not exceed a height of fifteen (15) feet.
19. After construction is complete and the Facility begins operating, lighting on the Property not included in or expressly exempted from the Spotsylvania County ordinances shall be located, screened or shielded so that adjacent residential lots and adjacent roads are not directly illuminated and shall not exceed 0.5 footcandles at the Property boundary.
20. Soil testing shall be performed in accordance with the "Proposed Soil Testing and Remediation Plan Operations Phase", dated December 13, 2018, incorporated by reference herein and attached hereto as "Exhibit A", and shall:

Alexandra Beaulieu

From: Jessica Carroll
Sent: Thursday, September 10, 2020 4:17 PM
To: Jane Tabb - County Commission (vinemont.farm@gmail.com); Patsy Noland; 'Josh Compton'; 'calebhudsonforjeffersonwv@gmail.com'; Lorenzet1@earthlink.net
Cc: Stephanie Grove; Sandra McDonald; Alexandra Beaulieu
Subject: Fw: Zoning Text Amendment ZTA 19-03 Solar Energy Facilities Public Comment
Attachments: Untitled 7.pdf; ATT00001.txt

From: Christine Marshall <balmertmarshall@icloud.com>
Sent: Thursday, September 10, 2020 2:54:01 PM
To: JCCInfo
Subject: Zoning Text Amendment ZTA 19-03 Solar Energy Facilities Public Comment

Dear Planning Commissioners,

Thank you for providing the public the opportunity to comment on the proposed Zoning Ordinance Text Amendment ZTA 19-03 Solar Energy Facilities (SEF) and Stormwater Management Ordinance Amendment.

I want to start by saying there seems to be some confusion regarding the legality of Merchant Generators and Power Purchase Agreements generating and selling electricity in West Virginia. During the first Jefferson County Commission (JCC) Workshop, Ms. Beaulieu stated that in her conversation with a legal representative of the Public Service Commission (PSC) that rules are being developed to address non-utility facilities. She did not mention if this rule development is by the WV Legislature or the PSC. Rules allowing SEF development and sales of energy by Merchant Generators need clarification before changes are made to the Jefferson County Zoning and Land Development Ordinances. Please delay the passing of the text amendment. That said, the JCC and Planning Commission (PC) should take the opportunity to work with third party consultants and the public on the development of a plan for SEF that is conducive to preserving and creating a quality of life for the various communities in JC. In addition to examining the long term financial out come of siting SEF here (taxes and decommissioning liability), effects on neighboring communities, property values, the preservation of scenic, historic landscapes and farming should be evaluated.

Possible improvements to the draft text amendment are as follows:

- Development of SEF should process under the Conditional Use Permits process in all zones, complete with both Concept Plans and Site Plans that can be modified specific to the unique location of the project. This is especially important when considering stormwater management plans, adjacent properties and primary land use in the proposed location.
- The JCC and PC should have in place a very detailed plans for decommissioning. Decommissioning Plan requirements should also have a funding mechanism in place for future removal of all equipment and restoration of land to its former condition. This will ensure that future taxpayers will not be left to pay for site restoration on potentially thousands of acres of land.
- Section 8.20.B.2 - Setbacks

a. Solar Panels - i. Front, Side and Rear. Please increase the setback to 150 feet and add a 50 foot vegetative buffer between property lines, roads, right of ways and the fencing that surrounds the SEF primary structures.

- Section 8.20.B.3 - Buffering Landscaping, Security and Access a. & b. - Please require the addition of a 50 foot wide vegetative buffer screen along all property lines.

d. Security Fences - please require fences of a minimum height to exclude deer or 8 feet. Please also consider wildlife migration and create corridors to allow for the passage between large tracts of fenced land. Consider consulting with the US Fish and Wildlife Services for advice.

- Section 8.20.B.4 - Stormwater Management Stormwater Management Plans (SMP) should be site specific and included in the Site Plan. SEF should not be exempt from providing SMPs.

- Section 8.20.B.5 - Decommissioning Plan a.i. - Please provide more sensitive triggers for initiating the decommissioning process than “ceased producing electricity for a period of 12 months”.

b.i. - Please develop a specific County Solar Decommissioning Guidelines (referenced in the Text Amendment but not provided) or Ordinances before passing this Zoning Text Amendment. Guidelines can then be used to develop site specific plans.

b.ii. - If the JCC or PC does not have the legal authority to require a Decommissioning Bond of SEF owners, the JCC must reach out to the state legislature to create state law that permits the county government to require Decommissioning Bonds.

Attached is a document that explores in detail aspects to cover when developing SEF within a county. Contained there in are examples of Ordinances and Zoning requirements. I believe some of these components could be added to Jefferson County’s own Zoning Ordinance document.

Thank you for you considering my thoughts.

Christine Marshall
Jefferson County, WV



([https://www5.smartadserver.com/click?](https://www5.smartadserver.com/click?imgid=25668863&insid=9609335&pgid=584791&ckid=6090275809519896157&uii=377844259397580398&acd=1599741392250&opid=6043830700016619872&opdt=15997)

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PAS MEMO — SEPTEMBER/OCTOBER 2019

Planning for Utility-Scale Solar Energy Facilities

[Download PDF version \(pdf\) \(/publications/document/9184153/\)](#)

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 (<http://there100.org/>)", 100 global corporations committed to sourcing 100 percent renewable electricity by 2050) and governments (e.g., the [Virginia Energy Plan](https://www.dmme.virginia.gov/DE/VirginiaEnergyPlan.shtml) (<https://www.dmme.virginia.gov/DE/VirginiaEnergyPlan.shtml>) 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.

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.





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.

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, 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).



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).

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.

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.

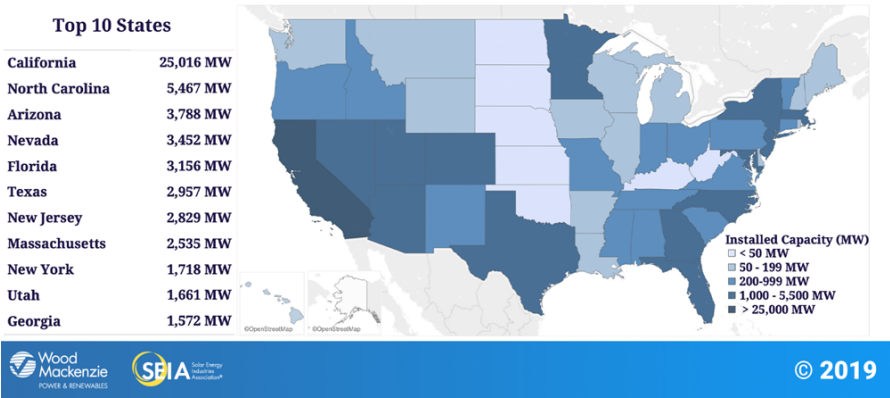


Figure 3. Utility solar capacity in the United States in 2019. Courtesy Solar Energy Industry Association.

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.

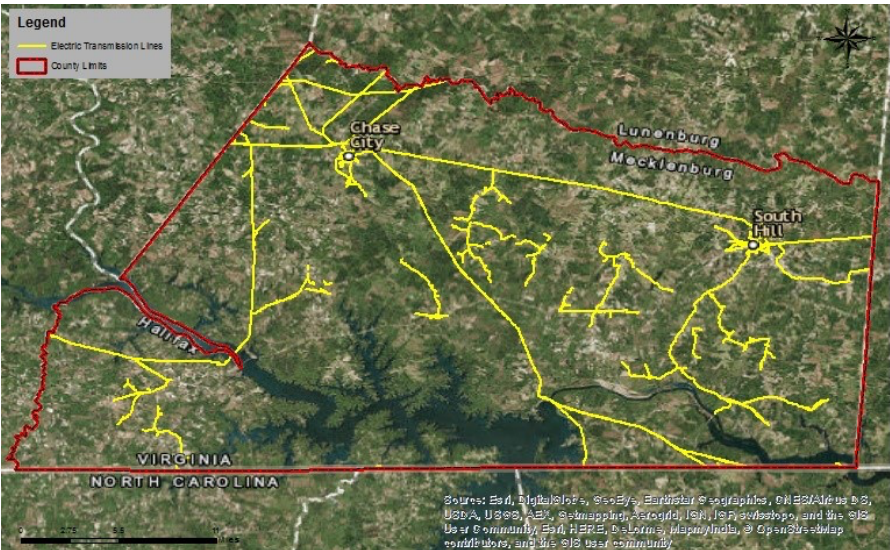


Figure 4. Electric transmission lines in Mecklenburg County, Virginia. Courtesy Berkley Group.

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 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.

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.



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

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 reevaluated 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).

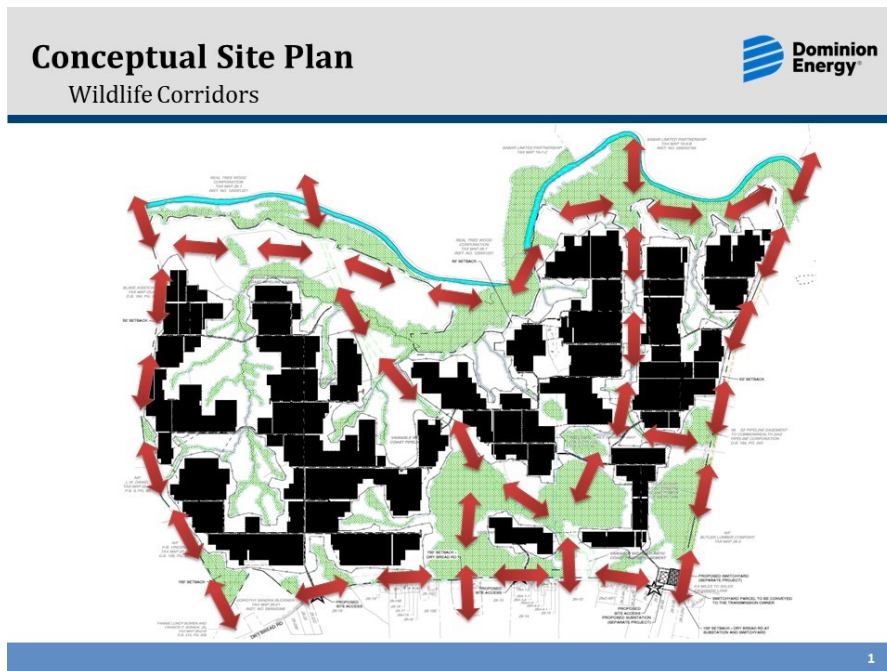


Figure 6. A conceptual site plan for a 1,491-acre utility-scale solar facility showing wildlife corridors throughout the site. Courtesy Dominion Energy.

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 submission 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).



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

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* (<https://law.lis.virginia.gov/vacode/title15.2/chapter22/section15.2-2232/>)). 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 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 specific planning and zoning recommendations below](#) outline comprehensive plan and zoning ordinance amendments, the application process, and conditions for consideration during the permitting process.

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 discussions 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.

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 complicate 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.

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.
 1. 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 hereby 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 recommended 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.

ABOUT THE AUTHOR

Darren K. Coffey, AICP, is co-owner and chief executive officer of The Berkley Group, a local government consulting firm in Virginia. Prior to forming The Berkley Group, he worked as a land-use planner for various localities in North Carolina and Virginia. The Berkley Group began working on utility-scale solar planning issues in early 2017 as that industry began to take off in Virginia. Coffey has bachelor of science degrees in economics and geography from James Madison University and a master of arts in geography from Rutgers University, and he attained AICP certification in 2000. He may be reached at darren@bgllc.net (<mailto:darren@bgllc.net>).

The author would like to thank Denise Nelson, PE, CFM, ENV SP, Berkley Group Environmental Engineer, for her contributions to this article.

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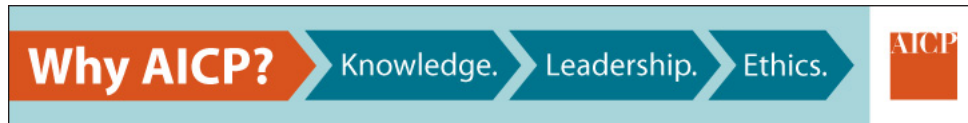
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Alexandra Beaulieu

From: Jessica Carroll
Sent: Friday, September 11, 2020 10:38 AM
To: Jane Tabb - County Commission (vinemont.farm@gmail.com); Patricia Noland; Josh Compton; calebhudsonforjeffersonwv@gmail.com; Lorenzet1@earthlink.net
Cc: Stephanie Grove; Sandra McDonald; Alexandra Beaulieu
Subject: FW: Attention: Solar Energy Facilities Public Hearing

From: Cheryl Pullen <ccpullen@verizon.net>
Sent: Friday, September 11, 2020 9:21 AM
To: JCCInfo <info@jeffersoncountywv.org>
Subject: Attention: Solar Energy Facilities Public Hearing

Dear Jefferson County Commissioners:

Re: Amendment to the Zoning and Land Development Ordinance

I am excited about the potential addition of solar energy. Coming from Doddridge County, a fracking mess, and believing in Climate Change, the addition of non-fossil fuel energy sources is important to me.

I would, however, ask that an environmental impact study be done to assess potential impact on wildlife to include birds, as well as the land and water given our special topography. Making sure to do this right is also very important.

Thank you for considering my message.

Cheryl Pullen
Shepherdstown, WV 25443
304 876 8142

Alexandra Beaulieu

From: Jessica Carroll
Sent: Friday, September 11, 2020 10:36 AM
To: Jane Tabb - County Commission (vinemont.farm@gmail.com); Josh Compton; Patricia Noland; Lorenzet1@earthlink.net; calebhudsonforjeffersonwv@gmail.com
Cc: Stephanie Grove; Sandra McDonald; Alexandra Beaulieu
Subject: FW: #ZTA19-03

From: Leah Rampy <leah.rampy9@gmail.com>
Sent: Friday, September 11, 2020 9:30 AM
To: JCCInfo <info@jeffersoncountywv.org>
Subject: #ZTA19-03

I am in favor of solar renewable energy facilities in Jefferson County. However I do not favor a blanket acceptance of these facilities. I ask that you modify the proposed principal permitted use to a conditional use process. It is important to manage the number, size and location of such facilities.
Thank you.

Leah Rampy
Shepherdstown

Alexandra Beaulieu

From: Jessica Carroll
Sent: Friday, September 11, 2020 11:48 AM
To: Jane Tabb - County Commission (vinemont.farm@gmail.com); Patricia Noland; Josh Compton; calebHUDSONforjeffersonwv@gmail.com; Lorenzet1@earthlink.net
Cc: Stephanie Grove; Sandra McDonald; Alexandra Beaulieu
Subject: FW: Solar facilities public comment

From: Lew Prillaman <lew.prillaman@gmail.com>
Sent: Friday, September 11, 2020 11:39 AM
To: JCCInfo <info@jeffersoncountywv.org>
Subject: Solar facilities public comment

To the members of the Jefferson County Commission:

In considering the proposed solar energy facilities for Jefferson County, the Jefferson County Commission has another opportunity to get the county back on track to reviving the Envision 2035 Comprehensive Plan. By revising the zoning ordinance to make the principal permitted use conditional and by calling for an environmental impact assessment that requires soil samples and geotechnical analysis the JCC will establish an excellent precedent for any future proposals for solar development.

Let's bring solar energy to Jefferson County, but let's make sure that the groundwork we are laying now will, first and foremost, serve our entire community.

Many thanks for this opportunity to make public comments.

Lew Prillaman

Shepherdstown, WV

Alexandra Beaulieu

From: Jessica Carroll
Sent: Friday, September 11, 2020 10:39 AM
To: Jane Tabb - County Commission (vinemont.farm@gmail.com); Patricia Noland; Josh Compton; calebHUDSONforjeffersonwv@gmail.com; Lorenzet1@earthlink.net
Cc: Stephanie Grove; Sandra McDonald; Alexandra Beaulieu
Subject: FW: Jefferson County Commission, WV: Website Form Notification

From: WebmastervJCC <webmaster@jeffersoncountywv.org>
Sent: Friday, September 11, 2020 7:44 AM
To: JCCInfo <info@jeffersoncountywv.org>
Subject: Jefferson County Commission, WV: Website Form Notification

A new entry to a form/survey has been submitted.

Form Name: County Commission Contact
Date & Time: 09/11/2020 7:43 AM
Response #: 1511
Submitter ID: 4972
IP address: 99.203.81.55
Time to complete: 3 min. , 53 sec.

Survey Details

Page 1

1. Name

Sabrina Stenswold

2. Email

Sstenswold@gmail.com

3. Questions or Concerns

Please consider how solar farms will be dismantled should the need arise. Solar panels abandoned in a field quickly become an environmental hazard. That process should have oversight. I appreciate your efforts to help farmers and preserve our county's natural beauty.

4. Would you like to receive email notifications from Jefferson County?

☐ Yes

Thank you,
Jefferson County Commission, WV

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Zoning

From: Robert Aitcheson <bob.aitch46@gmail.com>
Sent: Sunday, September 13, 2020 4:00 PM
To: <christine@spiritofjefferson.com>; Chrissy Wimer; Connect@WeAreTheObserver.com; Elizabeth Wheeler; Joyce Rawn; Morgan Sell; Rusty Morgan; Vinemont.farm@gmail.com; Zickafoose, Jayson; Zoning; calebhudsonforjeffersonwv@gmail.com; jjcomptom05@gmail.com; Ralph Lorenzetti; tim ross; webmaster@journal-news.net
Subject: Solar Update

Follow Up Flag: Follow up
Flag Status: Flagged

In a letter dated August 19, 2020 to the Jefferson County Commission, the Jefferson County Development Authority made recommendations regarding large utility-scale solar energy facilities in our County.

The first recommendation was that a large scale solar energy facility be permitted ONLY as a Conditional Use rather than as a Permitted Use and only in APPROPRIATE zoning districts. Other recommendations include limiting the size of each large scale facility and the amount of land throughout the County which can be used for this purpose; protecting the view-shed and controlling stormwater runoff.

The letter also identifies a PAS Memo of the American Planning Association entitled “Planning for Utility-Scale Solar Energy Facilities” which contains a model zoning ordinance. This article is most informative respecting the nature of, and problems with these facilities. It also addresses the arguments of proponents supporting the insinuation of these large scale facilities into mostly rural communities. See www.planning.org/PSA/memo/2019/Sep-Oct.

We want to THANK the Executive Director and Staff of the Development Authority for researching the above article and forwarding it to the County Commission. The obvious question arises: why did this information have to first come from the Development Authority rather than the Planning and Zoning Department? In reviewing the public records of this year, it appears the above article and the model ordinance were NEVER presented to, nor discussed by members of the Planning Commission. WHY NOT?

A public hearing was held by the County Commission on September 11th on the large scale solar facility text amendment. It was agreed that the County Commission would leave the public comment period open for two weeks. Accordingly, you have until September 25th to submit written comments to the County Commission on this proposed text amendment.

Doug Rockwell
Bob Aitcheson

Ladies and Gentlemen,

In the past five weeks we have seen the proposed Solar Facility will not cause any of the following:

- i. Ground pollution
- ii. Water/stream pollution
- iii. Air pollution/building of smokestacks
- iv. Noise pollution

Instead, Solar Facilities will provide:

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SEP 21 2020

- i. Maintained Storm Water Management to prevent erosion
- ii. Provide "Green Space"
- iii. Support wildlife and better ground cover for nesting birds
- iv. Reduce the carbon footprint of the county with renewable energy

**JEFFERSON COUNTY PLANNING
ZONING & ENGINEERING**

The Solar Facilities will be in a limited area, with close access to substations and/or High Lines, preventing a scattered patchwork pattern around the county, nowhere near the 90% of the county as has been expressed.

Solar Facilities are community friendly, while providing adequate screening where needed, reducing the need for excessive setbacks.

Farmland will be saved from permanent, residential growth and does not require new water and sewer infrastructures. Additional emergency services will not be needed. Schools will not have an influx of new students to cause crowding or over population of classrooms or add to a financially stressed school system.

At the end of the lease agreement the land will be returned to its original condition, allowing the land to support agriculture again, should that be the desire of the landowner. This keeps the "Family Farm", in the family. The land under the Solar Facilities will be taxed as commercial, same as renting a house, and the county will get revenue without obligations that would be required, by a housing development, and there is no evidence that such a long-term lease would cause land rental prices to rise. On the contrary, it may help stabilize land leasing.

But above all else, if the economics of agriculture were as lucrative as many non-agricultural people believe, there would be no need for such an enterprise as this. In fact, there would have been no need for any housing developments in this county either, as farmers would continue to farm the land and have other family members take their place upon their retirement. With no one to continue the farming operation, the farmland must have a purpose and the only thing left is housing and all the demands that go with it, or it can adopt a new, productive identity. Farmland, without an active farmer, is an expensive park that someone must pay for, or else a new, permanent housing development. Solar Facilities can and will change that.

There is concern that losing agriculture in the county would be an issue. There is only a small amount of direct sales of local grown produce marketed here. There are no large mills or processing plants for grain or livestock, so there is no expectation of great local consumption to be lost.

Housing developments have few residual jobs. When building is complete, the crew moves to the next project, in the next county or state.

Loss of Viewshed isn't a major concern as vegetative screening will cover most all concerns. Setbacks should not be excessive. In years past at meetings about county development, and looking towards my own retirement and wanting all options open, my opinion for years has been, "If viewshed is so important, buy it." Otherwise you are dictating and legislating away my retirement, my property and my pursuit of happiness... There was once great controversy over a housing development in the county. When all the legal wrangling received attention at the state level, the concept that if you are not that property, contiguous to that property, or contiguous to the property contiguous to that property, you do not have a dog in the fight. People that do not live near the proposed array cannot really say they have lost Viewshed.

Some express favor of solar, but that it needs to be regulated strictly to Brownfield Sites and abandoned coal fields where terrain is unacceptable. What do you call a tract of land that had decades of herbicides, fungicides, and insecticides including Malathion, Guthion, Parathion, and heavy metals such as Arsenic? Brownfield Sites? Some orchards, that used those products, were turned into housing developments. By the way, "thion" products, are nerve gas derivatives.

Some people want clean and green energy to make the world a better place, but not here. Ironical, yes? Panels are built to take impacts of anything Nature can throw at them shy of a Cat 5 hurricane, major earthquake or a tree falling directly on it. Therefore, there will be a low chance of leakage or static pollution.

The discussions and workshops have consumed a more than adequate period of time to complete extensive and proper research by the county officials and, emotions aside, the facts are favorable for Solar Facilities here. The fiscal year for farmers is near an end. Crops for next year must be planned for, including items such as seed, fertilizer, herbicides, fungicides, insecticides and marketing. If needed, planning for the "other" alternative must be looked at and studied.

So, in conclusion, allow Solar Facilities to be installed. Allow maximum acreage to be used within the very limited area and can be economically installed, with as few restrictions as possible, especially setbacks. The County basically receives free revenue without obligations. Let's get this done.

My name is Richard Zigler. I farm in Jefferson County on Roper North Fork Road, Charles Town, West Virginia. I have made what I believe is a fair summary of the issue of Solar Arrays in our county.

Thank you for your time,

A handwritten signature in black ink, appearing to read "Richard A. Zigler". The signature is stylized with a large initial "R" and a long, sweeping underline.

Richard A. Zigler

9/18/20

September 25, 2020

RE: **Public Comment on File #ZTA19-03** - a proposed text amendment to the Zoning Ordinance to incorporate provisions to allow Solar Energy Facilities to process in Jefferson County.

Dear Jefferson County Commissioners,

For a long while, individuals have been unable to spur the transition or acceptance of substantial alternative energy sources. As businesses are recognizing climate change - or the impacts of industry powered by fossil fuels – they are desiring sustainable, renewable energy and governments are beginning to make changes to enable the development.

WV, which ranks 48th in the nation for solar energy production, is still not prepared to open the market, at least not for individuals, but is deciding to make some change to lure larger economic investments. This past legislative session, with power purchase agreements still not approved, we saw some movement in the passage of SB583 for utility development by First Energy and American Electric.

We are told this does not apply to solar facilities being considered in Jefferson County, but it should be noted that this bill refers to large scale installations and specifies appropriate, eligible sites as brownfields, closed landfills, hazardous waste sites or former industrial / mining sites. Land with very little options as to future possibilities.

For some reason our Planning Commission proposed for anyone who wishes to convert land in 8 zones, encompassing 90% of use designations, as eligible to allow these facilities, by – right. Our Comp Plan is clear that non-agricultural use in Rural areas should be evaluated under the conditional use permitting process. The residential growth zone was oddly added at the last minute by the request of 1 engineering firm. The application to consider solar facilities came as a reasonable request for conditional use in rural zones, as it should be. This is how the ordinance, if it goes into effect, should be altered not to allow this as a principal permitted use.

It is understandable that landowners want to diversify operations and retain their land with options. These are individual decisions, but the impact spans outside a parcel's boundary. These facilities require large tracts of land. During the workshop with industry representatives, and from the Interconnection Developers, we heard most projects would occupy 500 – 800 acres.

For perspective, consider what other “businesses” in Jefferson Co occupy the most land –

Shepherd Univ – 323 acres

Charles Town Races – 300 acres

Summit Point Motosports – 800 acres.

Perhaps the Planning Commission could consider area wide planning, to identify size of parcels facilities would be acceptable to cover, or a percentage of zones that could be eligible. While this is not a typical designation, it is a protective measure that can be implemented.

Large scale solar only began to take a foot in the US since 2000. For an industry with a very little regulations and presence in WV, we have no idea how the PSC or WV DEP plans to further permit this. The County Ordinance ZTA19-03 offers a few guidelines (buffer/screening/fencing) for a facility installation, and other than asking for a small surety that used sites will be reclaimed properly, we should be considering some type of Environmental review.

Often, these companies must perform soil samples, geotechnical evaluations and a hydrology study (sediment and erosion control, before and after construction). Why not obtain the results or require these analyses are conducted, and include any impacts to wetlands, loss of habitat and the surrounding area to be verified as benign prior to the approval of the land use?

If the guidelines of the Ordinance are changed to a Conditional Use, this allows the County the opportunity to evaluate the potential impacts of each project to ensure proper siting in a location that won't jeopardize the safety of operations, the general public or have negative impacts to the natural and surrounding environment. It is not unreasonable for an environmental assessment to be conducted by the Developer or Interconnection customer.

Thank You for closely evaluating the proposed guidelines and holding the workshops to ensure the appropriate measures are taken beforehand. This will go a long way in not only moving us in the direction of sustainable energy production, but a reliable investment to our County, that won't do more harm than good in the anticipated 30-year life cycle of these facilities.

Sincerely,

Anastasya Tabb
Shepherdstown, WV

Alexandra Beaulieu

From: Sandra McDonald
Sent: Monday, September 28, 2020 10:13 AM
To: 'Jane Tabb'; 'Josh Compton'; Ralph Lorenzetti; Ralph Lorenzetti; 'Caleb Hudson'; 'Patsy Noland (patsynol@gmail.com)'
Cc: Alexandra Beaulieu
Subject: FW: Jefferson County Commission, WV: Website Form Notification

Follow Up Flag: Follow up
Flag Status: Flagged

From: WebmastervJCC [mailto:webmaster@jeffersoncountywv.org]
Sent: Friday, September 25, 2020 5:05 PM
To: JCCInfo <info@jeffersoncountywv.org>
Subject: Jefferson County Commission, WV: Website Form Notification

A new entry to a form/survey has been submitted.

Form Name: County Commission Contact
Date & Time: 09/25/2020 5:05 PM
Response #: 1532
Submitter ID: 5012
IP address: 73.132.83.225
Time to complete: 3 min. , 38 sec.

Survey Details

Page 1

1. Name

Lisa Payne

2. Email

lisagpayne@comcast.net

3. Questions or Concerns

I was unable to submit my public comment regarding the proposed amendment to allow Solar Facilities in Jefferson County. My comments follow:

September 25, 2020
Jefferson County Commissioners
124 E. Washington Street
Charles Town, West Virginia 25414

I am writing to comment on the proposed Solar Facilities Amendment.

Although county planners have stated that the Comprehensive Plan permits alternative forms of power generation, the plan does state that this would be for local power. Although appears as a minor issue, it has the potential to limit future opportunities for such facilities to be developed, because of the existing solar facilities long-term contracts committed to generating power to out of state buyers. When changes to the zoning occur, a Comprehensive Plan loses some of it's power and the vision of the county is diminished.

The proposed amendment must require that the applicant be obtain special permission after a public hearing and after considerations are made to determine the impact(s) to neighboring property owners and viewsheds that bring tourism to the area. Appropriate screening and buffers should also need to be included in the requirements for building solar facilities. Thank you for your consideration of my comments.

Respectfully,

Lisa G. Payne
372 Apple Jack Lane
Harpers Ferry, WV 25425

4. Would you like to receive email notifications from Jefferson County?

(o) Yes

Thank you,
Jefferson County Commission, WV

This is an automated message generated by the Vision Content Management System™. Please do not reply directly to this email.

Alexandra Beaulieu

From: Sandra McDonald
Sent: Thursday, October 1, 2020 3:36 PM
To: 'Jane Tabb'; 'Josh Compton'; 'Patsy Noland (patsynol@gmail.com)'; 'Caleb Hudson'; Ralph Lorenzetti; Ralph Lorenzetti
Cc: Alexandra Beaulieu
Subject: FW: Letter Regarding Solar Energy Panels on Farms

From: Stanley Dunn [mailto:stanleydunn40@gmail.com]
Sent: Thursday, October 01, 2020 3:28 PM
To: JCCInfo <info@jeffersoncountywv.org>
Subject: Letter Regarding Solar Energy Panels on Farms

Jefferson County Commission Members:

My name is Stanley Dunn and I am a lifelong resident of Jefferson County, West Virginia. I began farming in 1958, at the age of eighteen. I started a dairy operation in 1962 with 40 cows. Along with the dairy operation; crop farming was a part of the day-to-day operations, as well. In my later years, I retired from the dairy operation and began beef farming, in addition to crop farming. Today, I would like to share with you some of my experiences and beliefs for the future of Jefferson County.

Solar and wind energy are the cleanest producers for electric energy. The three properties being proposed are in a very rural part of Jefferson County and the least developed area of the county for housing. Solar projects will provide extra income for some farmers.

We do not want our country burning coal and polluting the air. Like coal, natural gas is a limited resource also. Natural gas has become so expensive that some power plants have gone back to burning coal. What will we do when all of the natural gas is depleted? Solar energy is a must for our future! Solar energy does not need any large bodies of water to cool them down as large power plants need.

We have been building houses and industries on farm land for more than a century. Farmers may utilize solar energy to increase their income; after a period of time, the land can be returned back to agricultural use, if needed.

As better and longer lasting batteries are produced for the energy needs of motor vehicles; we will plug-in for our cheapest energy, our county will need to double our energy resources.

The federal government subsidizes ethanol plants to produce ethanol to add to gasoline from corn. A large quantity of corn has to be grown in order to produce ethanol. The corn crop requires a large amount of fertilizer and fuel to be produced, as well as having some air pollution.

From 1959 to 2020, we have seen great changes in yields of corn, soybeans and wheat. Around 1959, corn yielded 60 to 70 bushels per acre to currently producing between 200 to 250 bushels per acre. Wheat, in

1959, produced 30 to 35 bushels per acre to currently producing between 70 to 90 bushels per acre. Soybeans, in 1959, produced 30 to 35 bushels per acre and currently produces between 60 to 90 bushels per acre.

Farmers have been blessed with improved science that has led to increases in yields within their crop farms and improved genetics that have helped to increase milk production all across the county. Additionally, farmers are constantly improving their business and management skills to improve their crop yield incomes through the years.

I started a dairy operation in 1962 with 40 cows, producing 12,000 pounds of milk per year, per cow. In 1998 my herd of 300 cows produced 28,000 pounds of milk per year, per cow. Our country will never go hungry and we will help to feed the rest of the world also.

Jefferson County supports the thoroughbred horse industry which provides employment for the county. The thoroughbred industry provides sport and entertainment for the county. This industry covers over 2000 acres of farmland in Jefferson County that could otherwise be utilized for producing food in our county and our country.

Respectfully submitted,

Stanley Dunn