



# JEFFERSON COUNTY, WEST VIRGINIA

## Office of Planning and Zoning

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### MEMO

**TO:** Planning Commission of Jefferson County  
**FROM:** Luke Seigfried, Chief County Planner  
**DATE:** May 13, 2025  
**RE:** Proposed Text Amendment to Section 2.2, Appendix C – Principal Permitted and Consitional Use Table, Section 4.18: Solar Energy Facility Screening and Maintenance Standards (ADD), and Section 8.20: Solar Energy Facilities of the Zoning and Land Development Ordinance (amended 2022) and Proposed Text Amendment to Section 20.302.J.3, Section 20.303.F.3, addition of Section 21.106.A and Section 21.106.B, and Amendment to Appendix A of the Subdivision & Land Development Regulations (amended 2024).

In December 2023, the County Commission expressed concern about the quality and quantity of Solar Facilities that have been approved and requested that the Planning Commission review Section 8.20 of the Zoning Ordinance and provide recommended edits based on the projects submitted thus far.

At the November 12, 2024 meeting, staff presented Planning Commission with are three possible amendments. Planning Commission directed staff to prepare text amendments to this effect.

#### 1) Conditional Use Permits

The original petition and text recommendation proposed requiring all proposed Solar Facilities to process as Conditional Uses rather than Principal Permitted Uses. Four of the five that have been approved have had at least a portion of the project process as a Conditional Use and any conditions placed on the approval by the BZA is being incorporated into the Concept Plan.

#### 2) Site Plan Requirement

One significant change that would give the County more authority related to the construction of the Solar Facilities would be to amend Section 8.20 of the Zoning Ordinance to require Solar Energy Facilities to process a Site Plan, in addition to the currently required Concept Plan. A Site Plan requirement could include a Public Hearing and would require posting a construction bond for site improvements such as landscaping and storm water management which would give the County more authority over ensuring the proposed design elements are constructed per the plans.

#### 3) Setback/Buffer/Landscaping

One of the issues that the Planning Commission and staff have received the most concern about relates the relationship between the solar panels and neighboring residential developments. Consideration of an increase in the landscape buffer/ screening and setbacks could address these concerns and provide more protection to the nearby existing residential developments.

At their April 29, 2025 meeting, Planning Commissioner Daniel Hayes requested to propose revisions to the Zoning and Land Development Ordinance (amended 2022) at the next available Planning Commission meeting. The proposed revisions to better define Solar Facility guidelines is for the Planning Commission's discussion and consideration (see attached).

### **Staff Reports and Comments**

Due to staff turnover this project is ongoing. Prior to beginning, staff would like to receive clear direction on specific changes the Planning Commission would like incorporated into the text amendments.

It should be noted that solar projects that have already obtained approvals under the current regulations would be grandfathered and permitted to continue under the current Zoning Ordinance requirements. Any new regulations or standards adopted in the future would apply only to new proposals.

### **Subdivision & Land Development Regulations (amended 2024) Process:**

**Note that West Virginia State Code §8A-4-5. Amendments to the subdivision and land development ordinance:** "After the enactment of the subdivision and land development ordinance by the governing body, all amendments to the subdivision and land development ordinance shall be made by the governing body after holding a public hearing with public notice."

### **Note that Jefferson County Subdivision and Land Development Regulations (amended 2024):**

#### **"Sec. 23.201 County Commission**

The County Commission is responsible for setting in place a means of administering these Subdivision and Land Development Regulations and ensuring enforcement of the County's Zoning Ordinance. As such it has the following powers and duties:

- A. Adoption and Amendment. As specified in Chapter 8A of the West Virginia Code, the County Commission has sole responsibility for the adoption and amendment of the subdivision and site development regulations. It is advised in these matters by staff and the Planning Commission."

### **Zoning and Land Development Ordinance (amended 2022) Process:**

**Note that West Virginia State Code §8A-7-8a. Amendments to the zoning ordinance by the governing body:** "a) Before amending the zoning ordinance, the governing body with the advice of the planning commission, must find that the amendment is consistent with the adopted comprehensive plan. If the amendment is inconsistent, then the governing body with the advice of the planning commission, must find that there have been major changes of an economic, physical or social nature within the area involved which were not anticipated when the comprehensive plan was adopted and those changes have substantially altered the basic characteristics of the area."

### **Note that Jefferson County Zoning and Land Development Ordinance (amended 2022):**

#### **"Section 12.4 Procedure for Initiating a Zoning Ordinance Text Amendment**

#### **C. Text Amendments by the Planning Commission**

If the Planning Commission determines that a text amendment to the Zoning Ordinance is required in accordance with its work plan, for the purpose of improving or clarifying the ordinance, or for consistency with adopted policies, the Planning Commission will develop a draft of the proposed amendment, receive public input, conduct a Public Hearing in accordance with Section 12.2D, and make a recommendation for action to the County Commission through a regular agenda request process. Any such amendment proposal will include the background and reasoning of the proposed amendment as well as a discussion of consistency with the adopted Comprehensive Plan.

With its recommendation, the Planning Commission will request that the County Commission schedule a workshop, if necessary, and a Public Hearing at dates to be determined by the County Commission to receive comment and take action on the proposed amendment.

#### **D. Text Amendments by the Planning Commission by Petition**

The Planning Commission may alternatively submit a text amendment by petition to the County Commission. The procedure for processing a formal text amendment petition initiated by the Planning Commission shall be as dictated in §8A-7-9 et seq of the West Virginia State Code, as amended. Petitions for a text amendment initiated by the Planning Commission shall be presented to the County Commission and submitted to the County Clerk for filing on the same date. Such petitions for a text amendment shall be clearly labeled as “§8A-7-9 Petition” in the heading and contain the following information:

1. Substantiation for the request;
2. Notation that said text amendment applies county-wide;
3. Discussion on why such proposal is consistent with the adopted Comprehensive Plan.

The County Commission is required to set a public hearing on the proposed Zoning Text amendment within 60 days of the date upon which the petition is presented to the County Commission at a County Commission meeting. The petition and related agenda request form must be submitted to the County Commission office for placement on a County Commission agenda at least one (1) week prior to the meeting date or in accordance with the agenda request procedure of the County Commission.”

If the Planning Commission chooses to move forward with this proposed text amendment, a Public Hearing will be required before both the Planning commission and the County Commission.

#### **Attachments**

- Solar Facilities – Draft Text Amendment
- 2045 Comprehensive Plan Solar Facility Extract
- Solar Memo Staff Report from 11.12.24 Planning Commission Meeting

## DRAFT TEXT AMENDMENTS - SOLAR FACILITY (04/29/25)

### Section 2.2: Terms Defined (ADD)

**Solar Energy Facility:** A facility primarily used to convert sunlight into electricity for sale to a public utility or for use off-site. Includes photovoltaic arrays, inverters, substations, battery storage, access roads, and related infrastructure.

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### Amend Appendix C – Principal Permitted and Conditional Uses Table:

Institutional Uses	NC	GC	HC	LI	MI	PND	OC	R	RG	RLIC	IC	V
Solar Energy Facility	NP	NP	NP	P	P	NP	NP	NP	NP	NP	P	NP

Additional Standards: Sec. 8.20

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### Section 4.18: Solar Energy Facility Screening and Maintenance Standards (ADD)

#### A. Screening Requirements

##### 1. Perimeter Buffer

- **Composition:** A continuous vegetative buffer consisting of native, non-invasive evergreen species.
- **Width:** Minimum of 30 feet.
- **Planting Specifications**
  - Trees planted in staggered rows, spaced no more than 10 feet apart.
  - Initial planting height of at least 8 feet, achieving a mature height sufficient to screen the facility within 3 years.

##### 2. Fencing

- If fencing is installed, it shall be located interior to the vegetative buffer and constructed of materials that blend with the natural surroundings.

##### 3. Topography Consideration

- In areas where natural topography provides adequate screening, the Planning Commission may modify buffer requirements accordingly.

#### D. Maintenance Requirements

##### 1. Maintenance Plan

- Applicants must submit a maintenance plan detailing:
  - Regular inspection schedules.

- Procedures for replacing dead or diseased vegetation within 60 days.
- Control measures for invasive species.

## 2. Financial Assurance

- A performance bond or other financial assurance may be required to ensure ongoing maintenance of the screening measures.

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## SECTION 8.20 (REVISE)

### Section 8.20 Solar Energy Facilities

Solar Energy Facilities shall process as a Principal Permitted Use ~~in areas inside of the Urban Growth Boundary and the Preferred Growth Area as delineated on the Future Land Use Guide in the Comprehensive Plan. Solar Energy Facilities shall process as a Conditional Use in areas outside of the Urban Growth Boundary (UGB) and Preferred Growth Area (PGA).~~

All projects shall process a Concept Plan in accordance with the requirements listed below under Subsection A. ~~For projects that require processing a Conditional Use Permit, a Concept Plan shall process subsequent to the Board of Zoning Appeals approval.~~

~~For projects that will occur across parcels located both inside and outside the County's UGB/PGA areas, an applicant may choose to process in two phases, with the first phase addressing the parcels located within the UGB/PGA areas as a Principal Permitted Use and the second phase processing a Conditional Use Permit to allow the Board to evaluate compatibility of the second the phase outside of the UGB/PGA areas. Should the Board issue a Conditional Use Permit, a Concept Plan shall process and shall include an exhibit depicting the full buildout of the entire Solar Energy Facility project.~~

A Pre-Proposal Conference is recommended for all solar projects, pursuant to the Jefferson County Subdivision and Land Development Regulations.

#### ~~A. Process for Solar Energy Facilities as a Conditional Use~~

~~1. Projects which will occur on properties located outside of the UGB/PGA areas as delineated on the Future Land Use Guide shall process a Conditional Use in accordance with Article 6.~~

~~2. In addition to the criteria established in Article 6, the following exhibits shall be included with the Conditional Use Permit application for the Board's evaluation:~~

~~a. Submit a sketch depicting the location of the proposed project and delineate the distance of the panels from the external property lines.~~

~~b. Submit a brief description of the timeline of the lease or operating plan, and an overview of the plan for removal of the solar energy facility. The~~

~~decommissioning plan and bond shall be in accordance with the West Virginia Department of Environmental Protection (WVDEP), pursuant to WV State Code §22-32-1, et. sec. or its successor.~~

~~3. Should the Board issue a Conditional Use Permit, the applicant shall proceed with application for a Concept Plan, pursuant to the criteria listed below under subsection B.~~

#### A. Process for Solar Energy Facilities as a Principal Permitted Use

1. A Concept Plan, pursuant to the Minor Site Development Concept Plan standards established in the Jefferson County Subdivision and Land Development Regulations, is required; **and must include the following additional details for all Solar Energy Facilities:**

1. **Location and dimensions of all proposed solar arrays, structures, fences, and access roads.**
2. **Buffer Plan showing:**
  - **Location, width, and extent of all required landscape buffers.**
  - **Species, height, and spacing of proposed vegetation.**
  - **Existing vegetation is to be preserved and how it contributes to the required screening.**
  - **Opacity calculations demonstrating 75% opacity at planting and 90% within 2 years.**
3. **Screening Cross-Sections at the property lines adjacent to residences, roads, and sensitive uses to demonstrate compliance with visual screening requirements.**
4. **Fence details if fencing is used as part of or in lieu of screening, including material, height, color, and design.**
5. **Maintenance Plan for landscaping, including irrigation (if applicable), replacement timelines, and responsible parties.**
6. **Visual Impact Assessment or line-of-sight renderings for properties and roads within 500 feet of the facility boundary.**

~~except that after the Planning Commission direction is given, the next steps are Application for a Zoning Certificate and Building Permit. In addition to the Concept Plan requirements outlined in the Subdivision Regulations, the Concept Plan shall also include the following criteria:~~

~~a. Property or Properties Location;~~

~~b. Access Points;~~

~~c. Anticipated location of all proposed components of the Solar Energy Facility. Each proposed solar panel is not required to be shown on the Concept Plan, if compliance with setbacks can be established by what is depicted on the Concept Plan; and~~

~~d. Landscaping, Buffering, Ground Cover Plan, and Fencing. The landscaping plan shall include a note stating, "It will be the responsibility of the landowner to replace any trees, shrubs, or vegetation that die." If the project is to be completed in phases, the Concept Plan shall reflect phasing of the project.~~

~~1. The Concept Plan shall be submitted pursuant to Section 4.10 and must include the following additional details for all Solar Energy Facilities:~~

~~7. Location and dimensions of all proposed solar arrays, structures, fences, and access roads.~~

~~8. Buffer Plan showing:~~

- ~~○ Location, width, and extent of all required landscape buffers.~~
- ~~○ Species, height, and spacing of proposed vegetation.~~
- ~~○ Existing vegetation is to be preserved and how it contributes to the required screening.~~
- ~~○ Opacity calculations demonstrating 75% opacity at planting and 90% within 2 years.~~

~~9. Screening Cross Sections at the property lines adjacent to residences, roads, and sensitive uses to demonstrate compliance with visual screening requirements.~~

~~10. Fence details if fencing is used as part of or in lieu of screening, including material, height, color, and design.~~

~~11. Maintenance Plan for landscaping, including irrigation (if applicable), replacement timelines, and responsible parties.~~

~~12. Visual Impact Assessment or line-of-sight renderings for properties and roads within 500 feet of the facility boundary.~~

## 2. Decommissioning Outline

a. A narrative outlining the decommissioning of the Solar Energy Facility shall be included with the Concept Plan. This narrative shall include a description of the timeline of the lease or operating plan, and a general plan for removal of the Solar Energy Facility.

b. The company shall provide to the Department of Engineering, Planning, and Zoning proof of application for a decommissioning plan and bond when such application is filed with the WVDEP as required by WV State Code §22-32-1, et. sec. or its successor.

c. Staff shall be notified by certified mail at least 60 days in advance of the intended decommissioning of the Solar Energy Facility. Staff will place the notice on the next regularly scheduled Planning Commission meeting under "non-actionable correspondence".

d. Failure of the Lessee or Property Owner to meet and/or comply with the decommissioning plan as approved by the WVDEP may result in legal action

pursuant to Article 3, Section 3.3 of this Ordinance and/or any applicable State Law.

### C. Setbacks, Landscaping, and Buffer Standards for a Solar Energy Facility

1. Multiple adjacent properties under the same ownership or lease by the same company shall be considered one property for the purpose of these regulations. Internal boundary lines on adjacent properties under the same ownership or lease by the same company are not subject to the setbacks or buffer requirements provided below.

#### 2. Setbacks

##### a. Solar Panels

i. Front, Side, and Rear Setbacks shall be 100 feet from all external/perimeter property lines and from the edge of the State ROW or Easement of any State Road.

ii. The above referenced setback may be decreased to 50 feet provided it includes a six foot high opaque buffer within the setback area comprised of two rows of evergreen trees that are six feet tall at the time of planting or a solid fence. Alternatively, a 50 foot strip of existing, mature woodlands may be allowed in lieu of a planted buffer or fence if documentation is submitted documenting how the existing mature woodlands complies with the required buffer standard.

iii. Solar panels and accessory components may be located on a common side or rear lot line of contiguous property owned by the same entity.

##### b. Accessory components, excluding solar panels and underground utilities.

i. Front, side, and rear setbacks shall be 25 feet from all external/perimeter property lines and from the edge of the State ROW or Easement of any State Road.

#### 3. Landscaping and Buffer Standards

a. Solar Panels shall provide a minimum 30-foot-wide vegetative buffer. This buffer shall contain a staggered triple row of native evergreen trees that are a minimum of 8 feet in height at the time of planting and are spaced to provide a minimum 75% visual opacity year-round within two years of installation.

b. No clear-cutting shall occur within the buffer zone unless specifically approved by the Zoning Administrator. Buffer vegetation shall be located as close as practicable to the solar panels while maintaining long-term survivability and



effectiveness. The use of fast-growing species in combination with slower-maturing native trees is encouraged to ensure immediate impact and long-term screening.

c. An 8-foot-tall opaque fence may be used in lieu of or in addition to vegetative buffering. Fences must be dark-colored and non-reflective.

d. Maintenance Requirements

i. A landscape maintenance agreement must be submitted with the Concept Plan and recorded with the property deed. This agreement must outline the property owner's responsibility to inspect, replace, and maintain vegetative buffers to ensure continued compliance.

ii. Dead, diseased, or dying plant material shall be replaced within 60 days of identification, with plantings that meet or exceed the initial installation size and opacity requirements.

iii. Failure to maintain the buffer shall constitute a zoning violation and be subject to enforcement action, including fines and potential suspension of operational permits.

~~a. Existing natural vegetation may be used to meet these buffer requirements only if a certified arborist or landscape architect provides documentation verifying that the existing vegetation meets or exceeds the above opacity and height standards and can be sustained with normal maintenance practices.~~  
~~a. Solar Panels that are located within 200 feet of any residence, Category 1 Historic Resource, Institution for Human Care, Church, or similar use or structure as determined by the Zoning Administrator, shall provide a 20 foot wide buffer along common property lines. The buffer shall be provided anywhere within the 200 foot radius from the structures/uses herein and is not required to be provided along the entire length of the common property line.~~

~~b. The buffer screen may be either vegetative or opaque fencing and may be placed anywhere within the buffer area. No structures, materials, or vehicular parking shall be permitted within the side and rear yard buffers. Existing, natural vegetation may be used in lieu of a planted buffer if documentation is submitted to the Zoning Administrator verifying how the existing natural vegetation complies with the required buffer standard.~~

~~c. Accessory Components (excluding solar panels) that are located within 200 feet of any residence, Category 1 Historic Resource, Institution for Human Care, Church, or similar use as determined by the Zoning Administrator, shall comply with the commercial provisions of 108 of 136 Section 4.11, with the exception~~

~~that the Zoning Administrator can allow the use of existing, natural vegetation as appropriate to achieve the intent of the required buffering.~~

#### 4. Security and Access

a. A security fence with secured gates shall be erected around the operating areas of the Solar Energy Facility with a minimum height of six feet and a maximum height of ten feet.

i. Arrangements shall be made with the appropriate Fire Department for Access. A letter documenting approval of access from the Fire Department shall be provided with the Zoning Certificate application. The Fire Department shall respond within 15 days of the date of the letter. If no response is provided, the Fire Department shall be deemed by this Ordinance to have approved the access.

ii. Upon three business days' notice by the Department of Engineering, Planning, and Zoning, access shall be provided to Staff.

D. A Zoning Certificate based on an approved Concept Plan is required prior to initiating any use regarding Solar Energy Facilities.

In addition to the standards found in Section 8.20, any Zoning Certificate regarding Solar Energy Facilities shall be issued conditioned on all other State Regulations and approvals being granted, including, but not limited to, the WV Public Service Commission, WVDEP applicable NPDES Permits and Decommissioning Bonds, Fire Marshal approval, Building Permits through the Department of Engineering, Planning, and Zoning, and approval of the Stormwater Management Report pursuant to the Jefferson County Stormwater Management Ordinance.

E. Stormwater Management Stormwater Management shall be required in accordance with the Jefferson County Stormwater Management Ordinance. Solar Energy Facilities may be exempt from providing stormwater management if the conditions for granting exemption under Article I.D.2.h of the Stormwater Management Ordinance are satisfied.

#### F. General Requirements

1. **Buffer Enforcement:** All landscape buffers must be fully installed prior to final inspection and operation of the facility. Temporary fencing or screening may be required to meet initial opacity standards.
2. **Ongoing Maintenance:** Landscape screening shall be maintained in good health and shall meet the required visual opacity thresholds throughout the life of the facility. The Planning and Zoning Department shall have the authority to inspect screening at any time and require replacement or remediation if the buffer is compromised.

3. Financial Surety: A performance bond, escrow, or letter of credit equal to 125% of the total buffer installation cost shall be required to ensure completion and survival of all screening elements for a period of five (5) years following final approval.
4. Annual Certification: The operator shall submit an annual affidavit or third-party inspection report verifying compliance with landscape and screening requirements, including a photographic record from designated locations.
5. Violation: Failure to maintain required screening shall constitute a zoning violation and may result in daily fines, suspension of use permits, or other enforcement measures until compliance is restored.
6. Less than 10% of the soil can be disturbed on a site for development of solar farm facilities. This includes utilities, roadways, accessories, fencing, batteries, and solar panels.

- ~~1. Design, construction, and installation of the Solar Energy Facility shall conform to applicable industry standards, including those of the American National Standards Institute (ANSI), Underwriters Laboratories (UL), the American Society for Testing and Materials (ASTM) or other similar certifying organizations and shall comply with the West Virginia Fire and Building Codes, including compliance with the Jefferson County Building Code.~~
- ~~2. Prior to commencing the transmission of electricity, the Solar Energy Facility shall provide documentation evidencing an interconnection agreement or similar agreement with the applicable public utility or approved entity in accordance with applicable law.~~
- ~~3. Generation of electrical power shall be limited to photovoltaic panels, provided that any on-site buildings may utilize integrated photovoltaic building materials.~~
- ~~4. Solvents necessary for the cleaning of the Solar Panels shall be biodegradable.~~
- ~~5. Internal wiring, excluding that which is on or between the Solar Arrays, connected to substations or between Solar Panels, shall be located underground, except where necessary to mitigate impact to environmental and/or terrain features.~~
- ~~6. Onsite lighting shall be the minimum necessary for security and onsite management and maintenance and shall comply with the standards outlined in the Subdivision Regulations. 109 of 136~~
- ~~7. Photovoltaic Panels shall use antireflective glass that is designed to absorb rather than reflect light.~~
- ~~8. Ground Cover comprised of natural vegetation is required. Ground cover that uses native or naturalized perennial vegetation and that provides foraging habitat that is beneficial for songbirds, gamebirds, and pollinators is encouraged but not required.~~

- ~~9. Collocation of other agricultural activities such as small market hand-picked crops, grazing, and apiary activities are permitted and encouraged.~~
- ~~10. No signage or advertising is permitted on the Solar Energy Facility other than an identifying sign at the entrance of the Facility that shall be approved by the Zoning Administrator in accordance with Article 10. All other signage must be approved by Special Exception by the Board of Zoning Appeals.~~
- ~~11. Solar Energy Facilities shall comply with Article 8, Section 8.9 of this Ordinance.~~
- ~~12. The Solar Energy Facility Use is not considered abandoned until such time it is Decommissioned.~~
- ~~13. Damaged or unusable panels shall be repaired, replaced, or removed within 60 days from discovery of damage; provided, however, longer periods may be approved by the County Engineer due to extenuating circumstances.~~

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## **SUBDIVISION & LAND DEVELOPMENT REGULATIONS AMENDMENTS**

### **Amend Section 20.302 – Subdivision Plat General Review Standards**

#### **Subsection J: Landscaping (ADD)**

3. For subdivision plats involving solar energy facilities, required landscaping shall:
  - Include a minimum 30-foot-wide buffer with staggered triple rows of native evergreen trees, each a minimum of 8 feet at planting, to achieve 75% opacity at time of planting and 90% within two years.
  - Be supported by a landscape maintenance plan that includes seasonal inspections, invasive species control, and replacement of dead or diseased plantings within 60 days.
  - Allow the use of fencing only in combination with vegetative screening unless a waiver is granted. Fencing shall be opaque, dark, and no higher than 8 feet.
  - Be incorporated into stormwater best management practices where feasible (e.g., bio-swales, infiltration zones).

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### **Amend Section 20.303 – Site Plan General Review Standards**

#### **Subsection F: Landscaping (ADD)**

3. For solar energy facilities, landscaping shall:
  - Be located to fully screen the facility from adjoining parcels and public rights-of-way within two years of installation.
  - Incorporate a mix of evergreen species, native grasses, and/or berms where terrain or adjacent uses require additional screening.

- Include a permanent access plan and enforceable maintenance schedule for vegetation and fencing.  
Be bonded at 125% of installation cost for a period of five (5) years to ensure establishment and survival.
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### **Add Section 21.106 – Screening Standards for Solar Energy Facilities**

#### **A. Screening Standards:**

1. A 30-foot-wide buffer is required around all solar facilities adjacent to residential, institutional, historic, or conservation lands.
2. Plantings shall consist of staggered rows of native evergreen trees, 8 feet minimum height at installation, spaced no more than 10 feet apart.
3. A visual screen shall be established to block at least 90% of the facility from view within 2 years from all public rights-of-way and adjacent parcels.
4. Berms and fencing may be used in combination with vegetation but not as a standalone method unless approved by the Planning Commission.

#### **B. Maintenance and Enforcement:**

1. A landscape maintenance agreement must be recorded with the site plan.
  2. All plantings must be inspected annually and maintained to sustain opacity. Dead or failing vegetation shall be replaced within 60 days or next planting season.
  3. Failure to maintain required screening shall constitute a zoning violation and may result in fines, permit suspension, or required remediation.
  4. A performance bond shall be held for five (5) years post-installation to ensure survival and performance of all landscape elements.
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### **Appendix A – Plan & Plat Standards**

- **Section 1.2 – Concept Plan:** Add requirement for visual simulation/renderings of proposed screening from adjacent roads and parcels.
- **Section 1.3 – Preliminary Site Plan:** Add submittal of landscape and screening plan with species, spacing, opacity calculations, and maintenance schedule.

last several decades, newer subdivisions and commercial developments are increasingly built to a level of density that requires water and sewer services. The population growth of Jefferson County and the development pattern that has occurred has resulted in additional demands placed on the County's water resources and wastewater facilities. At the same time, federal and state regulations limit discharges into and from Jefferson County's water bodies, which eventually flow into the Chesapeake Bay. These guidelines and regulations have created additional demands for water and sewer suppliers to upgrade their facilities. While many of the County's utilities have upgraded their facilities to meet Chesapeake Bay Watershed Protection program requirements, it may be difficult to finance future upgrades to the County's water and sewer infrastructure.

Jefferson County's residents and businesses expect infrastructure capacity, facilities, and services to be available to meet current needs while ensuring the ability to accommodate future expansion of the services.

Businesses considering relocation or expansion to Jefferson County are able to better plan for their needs knowing that infrastructure and services are in place, or that documentation for plans to expand services exist. Coordination of future land use plans with water and sewer plans allows local residential and business development to be targeted to areas where water and sewer services and other infrastructure and services are readily available. Local utility and service providers will have a reasonable expectation of where growth will occur and what the potential maintenance and operating costs of expanding services would be. Encouraging the utility and service providers to coordinate the creation of their service plans for infrastructure and service improvements with the growth areas identified in the Future Land Use Guide would enhance the providers planning efforts and local land use planning efforts.

In January 2022, a text amendment was made to the Envision Jefferson 2035 Plan by County Commission on the permitting of solar energy facilities in the

County. The process laid out in that text amendment defined solar energy facilities as principally permitted uses within the UGB and PGA and as conditional uses outside of a UGB or PGA. This Plan supports the reassessment of the solar energy facility development process and recommends requiring a site plan and additional stipulations on vegetative buffers, setbacks, and agrovoltaics. This Plan also supports the installation and use of renewable energy sources by residents and businesses.

development program and small business coaching efforts, which focus on cultivating the talent that resides in Jefferson County. Creating opportunities that allow residents with a variety of skills and talents to be employed at jobs located in Jefferson County will also continue to be of importance. With the increasing number of highly skilled workers that have relocated into the community and the presence of Shepherd University, American Public University System (APUS), and other educational facilities, Jefferson County has workforce that is attractive to a wide variety of employers. In order to continue to attract and maintain employers, it is imperative to expand opportunities for residents of all ages to obtain the skills that would attract employers and for employers to find and retain a highly skilled, local workforce available to meet their needs by improving and expanding connections and mentoring programs between educational institutions, residents and employers. Such networks provide a chance for employers to work closely with both educational institutions and potential workers. Co-op or mentorship

programs can be an important factor in improving both the quality of Jefferson County's workforce and encouraging residents to stay in the County, working for employers that are a part of this program.

A robust transportation network is also important to the economic vitality of a community. With the improvements to the local and regional transportation and infrastructure networks that upcoming or in progress, the atmosphere for attracting a diversity of businesses to the County is constantly refining. As transportation access to and through Jefferson County has improved in recent years, it has become increasingly easier to move goods and people to and from the County. In the past several years, Jefferson County has worked to reduce unnecessary regulatory barriers which were impacting the viability of economic development in the County, allowing urban level commercial, office and industrial activity to be located in the municipalities within the Urban Growth Boundary and Preferred Growth Areas, where the infrastructure will be available to support these uses.

Within the unincorporated area, the County's industrial park and properties zoned industrial are also important to the economic growth of the County. Within the municipalities, public and private reinvestment in the urban cores has occurred and is continuing to grow. The County's downtown concentrations of local and regional government agencies, small offices shops and boutiques, restaurants, and services attract visitors and residents alike. These unique features help make downtown areas of Jefferson County a place for community.

Due to the rising growth in the County, there has been an increasing need to assess the viability of alternative and renewable energy sources that may assist in maintaining the quality of life of Jefferson County's residents and businesses. Alternative and renewable energy sources ranging from water, solar, and wind power to various biofuels, plant crops, and geothermal systems might be used to complement or replace existing power sources. There are efforts underway at the local and state level to encourage the conservation of energy



and the utilization of alternative energy sources, notably some projects incorporated into the expansion of the American Public University System (APUS) in Charles Town and Ranson. These projects include the use of solar collectors that serve as cover for parked cars, electric car charging stations, and building improvements and materials that limit the use of energy needed for heating, cooling, and lighting. The improvements undertaken by APUS can serve as a role model to new development in Jefferson County and to the redevelopment of existing structures and sites. Another option for energy sourcing is natural gas, which an increasing number of businesses are using in their manufacturing process due to the lower costs and cleaner emissions. The expansion of natural gas into Jefferson County would aid economic development efforts while providing an alternative to electricity for residential and commercial purposes.

**The Jefferson County Development Authority (JCDA) works to encourage and assist the development and growth of businesses and industry in the County.**

**Small businesses, which can range from restaurants and artisan cottage industries to small technology and service firms, are an integral part of the local economy and will need opportunities to grow stronger. Building on these assets will give the County a strong identity in its core business strengths.**







# Jefferson County, West Virginia

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## MEMO

**TO: Planning Commission**

**FROM: Jennifer M. Brockman, AICP, Chief County Planner/Acting Zoning Administrator**

**DATE: November 12, 2024**

**RE: Solar Energy Facility Text Discussion**

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The 3-year history of the development of the current Solar Energy Facility language found in Section 8.20 of the Jefferson County Zoning and Land Development Ordinance is detailed in the following pages. In December 2023, the County Commission expressed concern about the quality and quantity of Solar Facilities that have been approved and requested that the Planning Commission review Section 8.20 of the Zoning Ordinance and provide recommended edits based on the projects submitted thus far.

There are three possible amendments that the Planning Commission may want to consider discussed below. It should be noted that unless any of the currently approved five Solar Facilities expire, the solar projects that have already obtained approvals under the current regulations would be grandfathered and permitted to continue under the current Zoning Ordinance requirements. Any new regulations or standards adopted in the future would apply only to new proposals.

1) Conditional Use Permits

The original petition and text recommendation proposed requiring all proposed Solar Facilities to process as Conditional Uses rather than Principal Permitted Uses. Four of the five that have been approved have had at least a portion of the project process as a Conditional Use and any conditions placed on the approval by the BZA is being incorporated into the Concept Plan.

2) Site Plan Requirement

One significant change that would give the County more authority related to the construction of the Solar Facilities would be to amend Section 8.20 of the Zoning Ordinance to require Solar Energy Facilities to process a Site Plan, in addition to the currently required Concept Plan. A Site Plan requirement could include a Public Hearing and would require posting a construction bond for site improvements such as landscaping and storm water management which would give the County more authority over ensuring the proposed design elements are constructed per the plans.

3) Setback/Buffer/Landscaping

One of the issues that the Planning Commission and staff have received the most concern about relates the relationship between the solar panels and neighboring residential developments. Consideration of an increase in the landscape buffer/ screening and setbacks could address these concerns and provide more protection to the nearby existing residential developments.

**The history of the current Solar Energy Facility language found in  
Section 8.20 of the Jefferson County Zoning and Land Development Ordinance:**

**ZTA19-03:**

- 12-10-19: Landowner petition requesting that the Planning Commission consider a proposed text amendment to the Zoning Ordinance to create a process to allow Solar Farms in the Rural Zoning District only as a Conditional Use.
- 02-11-20: The PC appointed a subcommittee and directed the subcommittee to draft a text amendment to allow solar energy facilities as a Principal Permitted Use. The Planning Commission specifically directed the committee to develop requirements to address fencing, screening, and decommissioning of solar energy facilities.
- 06-02-20: PC Public Hearing on ZTA19-03 including language to allow solar energy facilities as a Principal Permitted Use in multiple Zoning Categories and requiring a Concept Plan, Zoning Certificate, Building Permits, and Decommissioning Plan.
- 06-23-20: PC set recommended draft ZTA19-03 text amendment to CC for their consideration.
- 09-11-20: CC Public Hearing on recommended version of ZTA19-03 text amendment.
- 10-01-20: CC approved ZTA19-03 text amendment with an effective date of November 16, 2020.  
[11-14-20 Temporary Restraining Order filed;  
12-10-20 Agreed Order vacating ZTA 19-03 and directing reconsideration by the PC (vacated by vote of the County Commission.)]
- 02-09-21: PC held Public Hearing to received public input on ZTA19-03. The PC closed the hearing and called a special meeting for 02-23-21 to allow additional time to review the written comments submitted.
- 02-23-21: PC determined that allowing solar facilities as a principal permitted use was consistent with the Comprehensive Plan and noted that if there were any conflicts with the Plan, there had been changes of a social nature, which support alternative energy. The PC directed Legal Counsel to draft Findings of Fact and Conclusions of Law for their review during the March meeting.
- 03-09-21: PC made a recommendation to the CC that the proposed text amendment is consistent with the Comp Plan, and noted that if there were any conflicts with the Plan, that there had been changes of a social nature, which support alternative energy.
- 03-18-21: CC received the Planning Commission's recommendation draft ZTA19-03 and scheduled a Public Hearing for April 12, 2021 @ 6:00 PM.
- 04-12-21: CC held PH on ZTA19-03 and voted to approve the text amendment with minor edits based on public input.
- 08-16-21: Judge McLaughlin issued a decision on Civil Case #CC-19-2021-C-33 which overturned Zoning Text Amendment ZTA19-03.

**Envision Jefferson Comprehensive Plan Amendment:**

- 09/02/21: CC directed the PC to develop an amendment to the Comprehensive Plan to clarify that solar facilities be recognized as a principal permitted use throughout the rural and residential zoning districts in accordance with WV Code 8A-3-11.
- Comp Plan Amendment Discussions: 9/28/21 Workshop; 10/5/21 Work Session; 10/12/21 discussion
- 12/7/21: PC Comprehensive Plan Solar Facility Text Amendment Public Hearing
- 12/14/21: PC voted to forward recommended Comp Plan text amendment re: solar facilities in the rural and residential districts to County Commission.

- 02/03/22: CC Comprehensive Plan Solar Facility Text Amendment Public Hearing
- 04/05/22: CC recommended a final revision to the draft amendment to the Envision Jefferson 2035 Comprehensive Plan. Pursuant to State Code, their revised draft was forwarded to the Planning Commission for final approval.
- 04/12/22: PC formally accepted the CC's recommended revisions to the draft amendment, which included the following revision to the Infrastructure and Technology Recommendations on Page 93 of the Comprehensive Plan:

“Encourage public entities to utilize alternative and renewable energy sources for a variety of energy needs, specifically Solar Energy Facilities in areas inside of the Urban Growth Boundary and the Preferred Growth Area as a Principal Permitted Use, and outside of the Urban Growth Boundary and the Preferred Growth Area, by the Conditional Use Process (Recommendation 8).”

Following their approval to accept the proposed amendment to the Comprehensive Plan, the Planning Commission directed Staff to revise the previous text amendment to the Zoning Ordinance to incorporate provisions in accordance with the Comprehensive Plan, as amended.

#### **ZTA22-01:**

- 04/19/22: PC Special Meeting to review the draft of the text amendment to the Zoning Ordinance (File ZTA22-01).
- 05/17/22: PC Public Hearing on the draft ZTA22-01.
  - The draft amendment included provisions to allow Solar Energy Facilities to process as a Permitted Use on parcels located within the Urban Growth Boundary and Preferred Growth Area as identified on the Future Land Use Guide in the Envision Jefferson 2035 Comprehensive Plan. The amendment also includes provisions to allow Solar Energy Facilities to process as a Conditional Use on parcels located outside of the Urban Growth Boundary and Preferred Growth Area.
  - ZTA22-01 proposed revisions to Article 2, Section 2.2, Terms Defined; Article 8, Supplemental Use Regulations, [creation of new Section 8.20, Solar Energy Facilities]; and Appendix C, Principal Permitted and Conditional Uses Table.
  - PC recommended the proposed text to the CC for their review and approval.
- 06/09/22: CC Public Hearing on the recommended draft text amendment ZTA22-01. Motion to approve did not pass.
- 06/16/22: CC voted to reconsider ZTA22-01 which was approved as presented at the Public Hearing, effective immediately.

[07/07/23: CC by vote of 2-1 repealed the Solar Energy Facility provisions of the Zoning Ordinance without the required public hearing process.

12/21/23: Moved to rescind action of CC on 7/7/23 regarding the Solar Text Amendment and further requested that the PC review Section 8.20 of the Zoning Ordinance and provide recommended edits based on the projects submitted thus far.]

## **Section 8.20 Solar Energy Facilities**

Solar Energy Facilities shall process as a Principal Permitted Use in areas inside of the Urban Growth Boundary and the Preferred Growth Area as delineated on the Future Land Use Guide in the Comprehensive Plan. Solar Energy Facilities shall process as a Conditional Use in areas outside of the Urban Growth Boundary (UGB) and Preferred Growth Area (PGA).

All projects shall process a Concept Plan in accordance with the requirements listed below under Subsection B. For projects that require processing a Conditional Use Permit, a Concept Plan shall process subsequent to the Board of Zoning Appeals approval.

For projects that will occur across parcels located both inside and outside the County's UGB/PGA areas, an applicant may choose to process in two phases, with the first phase addressing the parcels located within the UGB/PGA areas as a Principal Permitted Use and the second phase processing a Conditional Use Permit to allow the Board to evaluate compatibility of the second the phase outside of the UGB/PGA areas. Should the Board issue a Conditional Use Permit, a Concept Plan shall process and shall include an exhibit depicting the full-buildout of the entire Solar Energy Facility project.

A Pre-Proposal Conference is recommended for all solar projects, pursuant to the Jefferson County Subdivision and Land Development Regulations.

### **A. Process for Solar Energy Facilities as a Conditional Use**

1. Projects which will occur on properties located outside of the UGB/PGA areas as delineated on the Future Land Use Guide shall process a Conditional Use in accordance with Article 6.
2. In addition to the criteria established in Article 6, the following exhibits shall be included with the Conditional Use Permit application for the Board's evaluation:
  - a. Submit a sketch depicting the location of the proposed project and delineate the distance of the panels from the external property lines.
  - b. Submit a brief description of the timeline of the lease or operating plan, and an overview of the plan for removal of the solar energy facility. The decommissioning plan and bond shall be in accordance with the West Virginia Department of Environmental Protection (WVDEP), pursuant to WV State Code §22-32-1, et. sec. or its successor.
3. Should the Board issue a Conditional Use Permit, the applicant shall proceed with application for a Concept Plan, pursuant to the criteria listed below under subsection B.

### **B. Process for Solar Energy Facilities as a Principal Permitted Use**

1. A Concept Plan, pursuant to the Minor Site Development Concept Plan standards established in the Jefferson County Subdivision and Land Development Regulations is required; except that after the Planning Commission direction is given, the next steps are Application for a Zoning Certificate and Building Permit. In addition to the Concept Plan requirements outlined in the Subdivision Regulations, the Concept Plan shall also include the following criteria:
  - a. Property or Properties Location;
  - b. Access Points;
  - c. Anticipated location of all proposed components of the Solar Energy Facility. Each proposed solar panel is not required to be shown on the Concept Plan, if compliance with setbacks can be established by what is depicted on the Concept Plan; and
  - d. Landscaping, Buffering, Ground Cover Plan, and Fencing. The landscaping plan shall include a note stating, "It will be the responsibility of the landowner to replace any trees, shrubs, or vegetation that die."

If the project is to be completed in phases, the Concept Plan shall reflect phasing of the project.

## 2. Decommissioning Outline

- a. A narrative outlining the decommissioning of the Solar Energy Facility shall be included with the Concept Plan. This narrative shall include a description of the timeline of the lease or operating plan, and a general plan for removal of the Solar Energy Facility.
- b. The company shall provide to the Department of Engineering, Planning, and Zoning proof of application for a decommissioning plan and bond when such application is filed with the WVDEP as required by WV State Code §22-32-1, et. sec. or its successor.
- c. Staff shall be notified by certified mail at least 60 days in advance of the intended decommissioning of the Solar Energy Facility. Staff will place the notice on the next regularly scheduled Planning Commission meeting under “non-actionable correspondence”.
- d. Failure of the Lessee or Property Owner to meet and/or comply with the decommissioning plan as approved by the WVDEP may result in legal action pursuant to Article 3, Section 3.3 of this Ordinance and/or any applicable State Law.

## C. Setbacks, Landscaping, and Buffer Standards for a Solar Energy Facility

1. Multiple adjacent properties under the same ownership or lease by the same company shall be considered one property for the purpose of these regulations. Internal boundary lines on adjacent properties under the same ownership or lease by the same company are not subject to the setbacks or buffer requirements provided below.

### 2. Setbacks

#### a. Solar Panels

- i. Front, Side, and Rear Setbacks shall be 100 feet from all external/perimeter property lines and from the edge of the State ROW or Easement of any State Road.
- ii. The above referenced setback may be decreased to 50 feet provided it includes a six foot high opaque buffer within the setback area comprised of two rows of evergreen trees that are six feet tall at the time of planting or a solid fence. Alternatively, a 50 foot strip of existing, mature woodlands may be allowed in lieu of a planted buffer or fence if documentation is submitted documenting how the existing mature woodlands complies with the required buffer standard.
- iii. Solar panels and accessory components may be located on a common side or rear lot line of contiguous property owned by the same entity.

#### b. Accessory components, excluding solar panels and underground utilities.

- i. Front, side, and rear setbacks shall be 25 feet from all external/perimeter property lines and from the edge of the State ROW or Easement of any State Road.

### 3. Landscaping and Buffer Standards

- a. Solar Panels that are located within 200 feet of any residence, Category 1 Historic Resource, Institution for Human Care, Church, or similar use or structure as determined by the Zoning Administrator, shall provide a 20 foot wide buffer along common property lines. The buffer shall be provided anywhere within the 200 foot radius from the structures/uses herein and is not required to be provided along the entire length of the common property line.
- b. The buffer screen may be either vegetative or opaque fencing and may be placed anywhere within the buffer area. No structures, materials, or vehicular parking shall be permitted within the side and rear yard buffers. Existing, natural vegetation may be used in lieu of a planted buffer if documentation is submitted to the Zoning Administrator verifying how the existing natural vegetation complies with the required buffer standard.
- c. Accessory Components (excluding solar panels) that are located within 200 feet of any residence, Category 1 Historic Resource, Institution for Human Care, Church, or similar use as determined by the Zoning Administrator, shall comply with the commercial provisions of Section

4.11, with the exception that the Zoning Administrator can allow the use of existing, natural vegetation as appropriate to achieve the intent of the required buffering.

#### 4. Security and Access

a. A security fence with secured gates shall be erected around the operating areas of the Solar Energy Facility with a minimum height of six feet and a maximum height of ten feet.

i. Arrangements shall be made with the appropriate Fire Department for Access. A letter documenting approval of access from the Fire Department shall be provided with the Zoning Certificate application. The Fire Department shall respond within 15 days of the date of the letter. If no response is provided, the Fire Department shall be deemed by this Ordinance to have approved the access.

ii. Upon three business days' notice by the Department of Engineering, Planning, and Zoning, access shall be provided to Staff.

D. A Zoning Certificate based on an approved Concept Plan is required prior to initiating any use regarding Solar Energy Facilities.

In addition to the standards found in Section 8.20, any Zoning Certificate regarding Solar Energy Facilities shall be issued conditioned on all other State Regulations and approvals being granted, including, but not limited to, the WV Public Service Commission, WVDEP applicable NPDES Permits and Decommissioning Bonds, Fire Marshal approval, Building Permits through the Department of Engineering, Planning, and Zoning, and approval of the Stormwater Management Report pursuant to the Jefferson County Stormwater Management Ordinance.

#### E. Stormwater Management

Stormwater Management shall be required in accordance with the Jefferson County Stormwater Management Ordinance. Solar Energy Facilities may be exempt from providing stormwater management if the conditions for granting exemption under Article I.D.2.h of the Stormwater Management Ordinance are satisfied.

#### F. General Requirements

1. Design, construction, and installation of the Solar Energy Facility shall conform to applicable industry standards, including those of the American National Standards Institute (ANSI), Underwriters Laboratories (UL), the American Society for Testing and Materials (ASTM) or other similar certifying organizations and shall comply with the West Virginia Fire and Building Codes, including compliance with the Jefferson County Building Code.

2. Prior to commencing the transmission of electricity, the Solar Energy Facility shall provide documentation evidencing an interconnection agreement or similar agreement with the applicable public utility or approved entity in accordance with applicable law.

3. Generation of electrical power shall be limited to photovoltaic panels, provided that any on-site buildings may utilize integrated photovoltaic building materials.

4. Solvents necessary for the cleaning of the Solar Panels shall be biodegradable.

5. Internal wiring, excluding that which is on or between the Solar Arrays, connected to substations or between Solar Panels, shall be located underground, except where necessary to mitigate impact to environmental and/or terrain features.

6. Onsite lighting shall be the minimum necessary for security and onsite management and maintenance and shall comply with the standards outlined in the Subdivision Regulations.

7. Photovoltaic Panels shall use antireflective glass that is designed to absorb rather than reflect light.

8. Ground Cover comprised of natural vegetation is required. Ground cover that uses native or naturalized perennial vegetation and that provides foraging habitat that is beneficial for songbirds, gamebirds, and pollinators is encouraged but not required.

9. Collocation of other agricultural activities such as small market hand-picked crops, grazing, and apiary activities are permitted and encouraged.
10. No signage or advertising is permitted on the Solar Energy Facility other than an identifying sign at the entrance of the Facility that shall be approved by the Zoning Administrator in accordance with Article 10. All other signage must be approved by Special Exception by the Board of Zoning Appeals.
11. Solar Energy Facilities shall comply with Article 8, Section 8.9 of this Ordinance.
12. The Solar Energy Facility Use is not considered abandoned until such time it is Decommissioned.
13. Damaged or unusable panels shall be repaired, replaced, or removed within 60 days from discovery of damage; provided, however, longer periods may be approved by the County Engineer due to extenuating circumstances.