

ZONING ORDINANCE TEXT AMENDMENT (TA-23-04)

Solar Power Plant Use and Regulations

January 16, 2024 Board of Supervisors Meeting – PUBLIC HEARING

STAFF REPORT – Department of Planning

The purpose of this staff report is to provide information to the Planning Commission and Board of Supervisors to assist them in reviewing this proposed ordinance amendment. It may be useful to members of the general public interested in this proposed amendment.

Description:

Proposed text amendment to amend the use regulations for “solar power plant” per Section 5.2C (Business Uses) of the Zoning Ordinance. The amendment modifies the location restriction in Use Regulation 1 to state that solar power plants must be located adjacent to and all facilities located within one mile of the electrical substation located at 234 Double Tollgate Road (Tax Map #27A-4-D) or the electrical substation located at 362 Ramsburg Lane (Tax Map #13-A-62A). The term “behind-the-meter” solar is also clarified to include onsite consumption of solar-generated electricity and incidental resale through a net metering program.

Requested Action:

Conduct advertised public hearing and take action on the proposed text amendment.

Background:

A “solar power plant” is a business use set forth in Zoning Ordinance Section 5.2C and is defined as follows:

A utility-scale commercial facility with a rated nameplate capacity greater than 100kW (DC), which uses solar energy specifically for the conversion of sunlight into electricity by photovoltaics (a technology that converts light directly into electricity).

Use Regulation 1 establishes a strict limitation on the location and size of solar power plant sites. All plants that are not part of a “behind-the-meter” program are required to be located adjacent to and all facilities located within one mile of a pre-existing electrical substation of 138kV or higher voltage. There are two substations in the County that meet this specification – the Potomac Edison substation at 234 Double Tollgate Road (Tax Map #27A-4-D) and the Rappahannock Electric Cooperative (REC) substation located at 362 Ramsburg Lane (Tax Map # 13-A 62A).

One solar power plant has been approved since the 2010 adoption of this use and regulations – the 20MW Hecate Energy facility located in Double Tollgate (Phase I 10MW constructed and operational, Phase II 10MW to be constructed). One application for a new solar power plant is currently in process – Horus Virginia I LLC’s proposed 50MW plant located southwest of Berryville. These plant sites meet current requirements by being located or proposed to be located adjacent to these substation properties.

At their July 18, 2023 meeting, the Board of Supervisors voted unanimously on a resolution to initiate consideration of a text amendment that would propose the following changes to the “solar power plant” use and regulations:

1. Prohibit the development of any new solar power plants in the County.
2. Preserve solar power plants in existence or with zoning approval as conforming uses with the ability to expand within one mile of the pre-existing electrical substation which originally qualified the facility for development.
3. Protect the ability of County landowners to use “behind-the-meter” solar power primarily for their own onsite consumption and with incidental resale of excess power to service providers.

The Board adopted this resolution based on concerns that solar developers and some County property owners want the regulations to be relaxed so that solar power plants can be constructed in other parts of the County. Supervisors are also concerned with the potential loss of farmland due to conversion to nonfarm uses.

Proposed Text Amendment:

The text amendment accomplishes the Board’s three objectives set forth in the aforementioned resolution.

The Board’s first objective is to prohibit new solar power plant development. As noted previously, Use Regulation 1 strictly limits solar power plants to be located adjacent to and all facilities located within one mile of a 138kV or higher voltage substation. The Potomac Edison substation in Double Tollgate and the REC substation southwest of Berryville are the only two substations that meet this requirement. This current language can be interpreted as allowing new solar power plants in other areas of the County if future 138kV or higher voltage substations are built. Staff has interpreted that in this scenario the substation would have to be approved by special use permit and site development plan, constructed, and be operational before an application for a solar power plant could be filed for review.

To address this scenario and accomplish the Board’s first objective, the description of a qualifying substation in Use Regulation 1 is modified to read as follows:

*If such plant is not part of a “behind-the-meter” **solar** program, then such plant shall be adjacent to and all facilities located within one mile of ~~the a pre-existing~~ **electrical substation sub-station of 138-kV or higher voltage located at 234 Double Tollgate Road (Tax Map #27A-4-D) or the electrical substation located at 362 Ramsburg Lane (13-A-62A).***

The change would strengthen the location restriction by not allowing solar power plants to be developed adjacent to any future substations of 138kV or higher voltage that may be approved and constructed. This would limit development of all future solar power plants to the two existing substations operated by Potomac Edison and REC. This approach also furthers the

Board's second objective of ensuring that existing and approved solar power plants remain conforming rather than nonconforming uses. This includes Hecate Energy's Phase I and Phase II facilities and, if ultimately approved, the Horus Virginia I facility as all would comply with the proposed location restriction.

The text amendment also meets the Board's third objective of protecting the use of "behind-the-meter" solar which is electricity generated from solar panels primarily for onsite use. These systems are referred to "behind-the-meter" because the electricity is generated separately from the metered electricity provided by the electric service provider. Behind-the-meter solar can also include limited resale of excess power generated by the property owner to the electric service provider in exchange for credits, also known as "net metering." To reflect this practice and to further clarify the term, a new definition for behind-the-meter solar is proposed to be added at the end of Use Regulation 1:

For the purposes of this regulation, "behind-the-meter" solar includes onsite consumption of electricity generated by solar panels and the incidental resale of excess electricity through a net metering program.

This change would allow County property owners to continue to use solar energy generation and to participate in net metering programs without additional restrictions. Staff notes that behind-the-meter solar systems, whether ground-mounted and/or building-mounted solar arrays, are regulated as building features or accessory structures and are required to meet lot requirements such as building height limitations and setbacks. There are no specific limitations on the size of ground-mounted solar arrays aside from the limits that would be placed on other accessory structures. However the proposed language would require systems to be sized primarily to generate power for onsite use and a lesser or incidental amount of excess power to resell for credit via net metering.

Citizen Comments:

There were five speakers at the Planning Commission's December 1, 2023 public hearing who spoke in opposition to the text amendment:

- Bob Stieg (Clermont) – Mr. Stieg opposed the text amendment on grounds that it does not distinguish between solar power plants that remove land from agricultural production from those which do not. He said that consideration was not given to incentivizing agrivoltaics in solar power plant projects.
- John Bradfield (Durham, NC) – Owns 400 acres in Clarke County off Route 7 near the Opequon Creek. Mr. Bradfield opposed the text amendment on the following grounds:
 - The County can get greater revenue from solar power plants than from farming.
 - Approval of the County's existing plants and not allowing any new plants is unfair to property owners.
 - Appearance concerns can be addressed through regulations.
 - Harvesting energy from the sun is no different from harvesting crops.

- The text amendment is inconsistent with Virginia law pertaining to the State’s goals to achieve carbon neutrality.
- Rob Propes (Urban Grid) – Mr. Propes represents the company that has been working with the owners of the Audley Farm to develop a solar power plant on that property. He said that they understood that a solar power plant on Audley would be prohibited by current rules. He added that they thought the County would work with Urban Grid to relax regulations if the project was designed to allow agricultural production to continue, to minimize impacts to nearby properties, and if buy-in could be obtained from neighboring property owners. He claimed that “broad support” was being obtained from the community at the time the Board of Supervisors adopted the resolution to initiate the text amendment.
- Selena Smart (Boyce) – Opposed the text amendment on grounds that solar is a better alternative to allowing farms to be developed residentially and supports farmers by allowing them to have options.
- Chris King (400 Blossom Drive, Berryville) – Solar is a “good deal all around” and provides tax dollars to the County that can be invested in new infrastructure. He added that eliminating solar power plants as an option for farmers will only hurt them, and also noted that the Audley project would have zero impact and only benefits for the community,

Planning Commission Recommendation:

Following a duly advertised public hearing on December 1, 2023, the Commission voted 8-1-1 (Ohrstrom NAY, Glover absent) to recommend adoption of the text amendment as presented by Staff.

In opposing the text amendment, Chair Ohrstrom said that he thought the Commission should have attempted to draft reasonable regulations to allow well-sited solar power plants. He said that he understands that allowing solar power plants establishes precedent that could make it difficult to turn down future applications and allow plants to be developed throughout the County. He added that he did not think this would ultimately happen.

Staff Recommendation:

Staff has no outstanding concerns with the adoption of this text amendment.

History:

July 18, 2023.

Board of Supervisors voted unanimously to initiate text amendment and forward to Planning Commission for development, public hearings, and formal recommendation to the Board.

- August 29, 2023.** Placed on the Commission’s Work Session agenda for initial discussion.
- October 3, 2023.** Placed on the Commission’s Work Session agenda for continued discussion.
- November 3, 2023.** Commission voted 9-0-1 (Hunt absent) to schedule public hearing for the Commission’s December 1, 2023 Business meeting.
- December 1, 2023.** Commission voted 8-1-1 (Ohrstrom NAY, Glover absent) to recommend adoption of the text amendment.
- December 19, 2023.** Board voted unanimously to schedule public hearing for the Board’s January 16, 2024 meeting.
- January 16, 2024.** Placed on the Board of Supervisors’ regular meeting agenda and advertised for public hearing.

Ordinance Amendment Text (changes shown in bold italics with strikethroughs where necessary):

SOLAR POWER PLANT	
Permitted Use	None
Accessory Use	None
Special Use	AOC

Definition:

A utility-scale commercial facility with a rated nameplate capacity greater than 100kW (DC), which uses solar energy specifically for the conversion of sunlight into electricity by photovoltaics (a technology that converts light directly into electricity).

Use Regulations:

The following regulations establish minimum requirements and standards for the placement, construction and modification of large photovoltaic solar power plants, while promoting the safe, effective and efficient use of such energy systems.

1. **Location.** If such plant is not part of a “behind-the-meter” *solar* program, then such plant shall be adjacent to and all facilities located within one mile of ~~the a pre-existing~~ electrical ~~substation sub-station of 138 kV or higher voltage~~ ***located at 234 Double Tollgate Road (Tax Map #27A-4-D) or the electrical substation located at 362 Ramsburg Lane (13-A-62A). For the purposes of this regulation, “behind-the-meter” solar includes onsite consumption of electricity generated by solar panels and the incidental resale of excess electricity through a net metering program.***