



COUNTY OF ALBEMARLE PLANNING
STAFF REPORT SUMMARY

Proposal: ZTA 2023-01 Commercial Solar	Staff: William D. Fritz, AICP
Planning Commission Public Hearing: January 14, 2025	Board of Supervisors Hearing: Not yet scheduled
Proposal: To establish regulations for solar energy facilities and battery energy storage facilities. The proposed ordinance: - Defines Solar Energy Facility, Battery Energy Storage Facility and terms used to regulate these facilities. - Allows accessory solar and battery energy storage by right in all districts. The existing ordinance does not directly address these activities. These activities are currently permitted by interpretation. The proposed ordinance defines what is accessory. - Allows solar energy installations by right over existing impervious areas. - Allows solar energy with a panel zone of up to 21 acres on existing parcels by right in the Rural Areas. Only 21 acres of panel zone is permitted on existing parcels. Division of land does not increase the panel zone area allowed. - Requires a special use permit for larger scale solar special in the Rural Areas zoning district. Currently any facility over one half acre requires a special use permit. - Allows larger scale battery energy storage system by special use permit in the Rural Areas zoning district and Industrial districts. The existing ordinance does not address battery energy storage. Large systems have been permitted by special use permitted when associated with a solar energy system in the Rural Areas. - Establishes regulations for height, fencing, setbacks from property lines and streets, setbacks from other facilities, and screening. - Requires that facilities over 2 acres must be Virginia Pollinator Smart certified. - Restricts facilities within high scoring forest blocks identified in the Comprehensive Plan. - Establishes decommissioning requirements for projects requiring a special use permit.	
RECOMMENDATIONS: Staff recommends the Planning Commission support this zoning text amendment and recommend approval to the Board of Supervisors.	

STAFF CONTACT: William D. Fritz, AICP
PLANNING COMMISSION: January 14, 2025
BOARD OF SUPERVISORS: Not yet scheduled

PETITION: ZTA 2023-01 Commercial Solar

ORIGIN: Resolution by the Board of Supervisors

PROPOSAL: To adopt regulations for solar energy and battery energy systems.

PUBLIC PURPOSE TO BE SERVED: The current ordinance allows solar energy systems of one-half acre or greater by special use permit in the Rural Areas. There are no performance standards for solar energy systems. The ordinance does not address battery energy systems in any way. The lack of regulations for energy systems complicates the review process and does not provide for certainty for residents or applicants. The proposed regulations are intended to allow reasonable deployment of solar and battery energy storage systems with predictable outcomes, and performance standards to address the impacts of facilities.

BACKGROUND: In June 2017 the ordinance was amended to allow “solar energy systems” in the Rural Areas by special use permit. In September 2022 the Board of Supervisors held a work session to discuss solar energy systems. The Board of Supervisors adopted a resolution of intent to amend the ordinance in November 2022. The Board of Supervisors also authorized funding for a consultant to develop the proposed ordinance. The Planning Commission held a work session in February 2023 and the Board of Supervisors held a work session in June 2023. In February/March 2024 staff distributed a draft ordinance for public review and received 93 responses. A workshop was held with the community in June 2024.

Staff is aware of the conflicting viewpoints surrounding solar and battery facilities. The development of the proposed ordinance was guided by addressing the land use impacts potentially caused by solar and battery energy facilities. The ongoing review and update of the Comprehensive Plan is the appropriate place for the discussion of the relative merits of solar and battery energy facilities.

SUMMARY OF THE PROPOSED ORDINANCE: The proposed ordinance includes supplemental regulations. The supplemental regulations establish minimum requirements for by-right facilities. All special use permits are reviewed for compliance with supplemental regulations. The Board of Supervisors may impose conditions exceeding the minimum supplemental regulations during review of any special use permit. The Board of Supervisors may modify or waive any supplemental regulation upon making the necessary findings contained in [Chapter 5.1 of the Zoning Ordinance](#).

The proposed ordinance:

- Defines Solar Energy Facility, Battery Energy Storage Facility and terms used to regulate these facilities.
- Allows accessory solar and battery energy storage by right in all districts. The existing ordinance does not directly address these activities. These activities are currently permitted by interpretation. The proposed ordinance defines what is accessory.

- Allows solar energy installations by right over existing impervious areas.
- Allows solar energy with a panel zone of up to 21 acres on existing parcels by right in the Rural Areas. Only 21 acres of panel zone is permitted on existing parcels. Division of land does not increase the panel zone area allowed.
- Requires a special use permit for larger scale solar in the Rural Areas zoning district. Currently any facility over one half acre requires a special use permit.
- Allows larger scale battery energy storage system by special use permit in the Rural Areas zoning district and Industrial districts. The existing ordinance does not address battery energy storage. Large systems have been permitted by special use permitted when associated with a solar energy system in the Rural Areas.
- Establishes regulations for height, fencing, setbacks from property lines and streets, setbacks from other facilities, and screening.
- Requires that facilities over 2 acres must be Virginia Pollinator Smart certified.
- Restricts facilities within high scoring forest blocks identified in the Comprehensive Plan.
- Establishes decommissioning requirements for projects requiring a special use permit.

ANALYSIS OF THE PROPOSED ZONING TEXT AMENDMENT

Zoning Ordinance section 33.6(B) establishes factors to be reasonably considered by the Planning Commission and Board of Supervisors in the review of ZTAs. Each factor is reviewed below:

(i) the existing use and character of property

Larger energy facilities in the Rural Areas are permitted by special use permit. This allows the use and character of property to be considered on a case-by-case basis during the review of the special use permit. Existing impervious areas have stormwater impacts, and the impact of grading accounted for during the installation of the impervious area. Using existing impervious areas results in minimal environmental impacts to the site. By-right panel zones of 21 acres in the Rural Areas is based on the minimum by-right lot size permitted without use of a development right. Parcels of 21 acres may be created for residential use, removing them from possible agricultural or forestal use. Staff is recommending only one 21-acre area be permitted by-right on any existing parcel. Regulations for accessory uses are based on the impacts that may occur from other by-right accessory activities such as the construction of sheds, garages or other structures.

(ii) the comprehensive plan

The proposed ordinance has been evaluated against the existing comprehensive plan. Solar and battery facilities help the County to meet Comprehensive Plan goals related to renewable-energy production.

Background (Page 1.6)

Promote the conservation and efficient use of energy resources

Natural Resources (Page 4.45) the Comprehensive Plan states:

In 2010, members of the community and representatives of the County, the City, and UVA began a local planning process to find ways to lower the community's energy consumption and, thus, greenhouse gas emissions. The Committee, known as the Local Climate Action Planning Process (LCAPP) Steering Committee, recommended that the City, County, and UVA:

- Continue to demonstrate leadership in energy and carbon reductions at the local level;
- Build on existing synergies by continued collaboration of City, County, UVA, and community partners;
- Integrate the role of energy and carbon emissions in projects and planning;
- Equip the community at all levels to make informed decisions about the impacts of carbon emissions and energy; and
- Identify and promote actions that enable the community to reap the health, economic and environmental benefits that accompany sound energy-based decisions.

The proposed Comprehensive Plan is still under development. Proposed language under consideration would acknowledge that solar energy is a key source of renewable energy at the individual level and utility level. The proposed language recognizes the employment and tax impact of solar as well as the resiliency it offers to the power grid. Utilization of existing structures, paved areas and brownfields is identified as more suitable than using valuable ecological lands for siting facilities.

The provisions of the proposed ordinance are intended to allow for the deployment of renewable energy and to mitigate the impact of the installation of facilities. The proposed ordinance attempts to encourage use of already impacted lands, buildings and other impervious areas, by making use of those areas by-right. The accessory regulations are intended to allow homeowners and businesses to have a viable option to install solar and battery systems with clearly defined performance requirements. These accessory uses offer additional resiliency opportunities. Use of agricultural land is permitted but limited.

(iii) the suitability of property for various uses

Use of existing buildings and impervious areas for solar energy does not result in any additional ground disturbance or storm water. Use of these areas is proposed to be by-right. Use of rural land for by-right facilities is limited to accessory uses or a 21-acre panel zone for any existing parcel. As stated previously 21 acres is the minimum lot size in the Rural Areas without the use of a development right. The proposed ordinance clarifies that solar facilities are subject to the same requirements of other types of development such as erosion control measures and restrictions on locating in floodplains and stream buffers. Solar energy facilities are not permitted in high value forested areas as identified in the Comprehensive Plan. This is similar to recent requirements adopted by the Board of Supervisors for personal wireless service facilities.

(iv) the trends of growth or change

Solar and battery energy facilities continue to expand and changes in technology are likely to increase the use of these energy sources. Adopting an ordinance that addresses the potential impacts of these uses is prudent.

(v) the current and future requirements of the community as to land for various purposes as determined by population and economic studies and other studies

As stated previously the proposed ordinance makes use of existing buildings and impervious areas by-right. This double use of land is efficient and minimizes the loss of land for other activities. The use of solar and battery energy storage as accessory has the same impacts as any other accessory use. The loss of agricultural or forested land has been a consistent concern raised during the review of this zoning text amendment as well as during the review of special use permits. The by-right use of a 21-acre area in the Rural Areas for solar attempts to balance the desire for solar energy with the loss of rural land. As stated previously this acreage matches what can be removed from agricultural/forestral activity by-right currently. Larger facilities would require a special use permit. During the review of the special use permit the impacts of the facility on agricultural/forestral or otherwise significant lands will be evaluated.

(vi) the transportation requirements of the community

These types of facilities have limited impacts to transportation resources. The primary impact is during construction. Traffic associated with by-right activities is similar to what would occur with other by-right activities. Transportation impacts associated with larger projects will be evaluated during the special use permit process.

(vii) the requirements for airports, housing, schools, parks, playgrounds, recreation areas, and other public services

Solar and battery energy systems do not impact these identified services. Staff has verified that solar facilities can be near airports. Some solar facilities have been constructed or are proposed to be constructed within the airport perimeter. The proposed ordinance includes a requirement to verify that the proposed facility will not impact airport operations.

(viii) the conservation of natural resources

The proposed ordinance clarifies that solar and battery energy facilities are subject to regulations intended to protect natural resources. Staff has commented previously on the provisions of the proposed ordinance to protect natural resources.

(ix) the preservation of flood plains

The proposed ordinance prohibits solar and battery energy facilities in flood plains.

(x) the protection of life and property from impounding structure failures

Solar and battery energy facilities have no unique impacts to impounding structures.

(xi) the preservation of agricultural and forestal land

Staff has previously commented on the impact of the proposed ordinance on agricultural and forestal lands. The proposed ordinance is an attempt to balance the installation of solar and battery energy storage with the preservation of these lands while taking into consideration the level of activity currently permitted by-right.

(xii) the conservation of properties and their values

The proposed ordinance includes provisions for setbacks, screening, noise and lighting. These regulations are intended to mitigate negative impact on adjoining properties. The ordinance also includes provisions for decommissioning of larger facilities. The decommissioning of a site will allow future use of the land.

(xiii) the encouragement of the most appropriate use of land throughout the County

The production and use of renewable energy is identified in the comprehensive plan as desirable. Solar energy can consume significant amounts of land. The proposed ordinance makes the use of existing buildings and other impervious areas a by-right activity. This utilizes land as efficiently as possible. The development areas are the most suitable for residential development, commercial, industrial and other employment generating activities. Solar facilities do not require the types of resources available in the development areas. Utilizing the development areas for solar, other than rooftop and over other impervious areas, would be an inefficient use of land. This leaves the rural area of the County as the only area available for larger scale solar projects. Solar facilities substantially remove land from agricultural or forestal activity. While some agricultural activities may be compatible with solar it is a reduced level from what could be achieved without the solar facility. At the end of the productive life of a solar facility the land may be returned to agricultural or forestal activity but likely at a reduced level. The proposed ordinance allows limited by-right use of agricultural and forestal land. This permitted level of activity is consistent with current regulations that allow subdivision of land. Larger scale solar facilities are subject to special use permit review and the appropriateness of the project will be evaluated during the review of any application. Battery energy facilities less than 500 square feet are considered accessory and are consistent with the size of other permitted accessory structures. Battery energy facilities exceeding 500 square feet are allowed only by special use permit and their appropriateness will be evaluated during the review of any application.

(xiv) equity

The proposed regulations are designed to impose the minimum number of regulations to prevent barriers to deployment for small scale systems. Regulations are proposed to prevent the concentration of facilities near each other. Multiple projects in proximity may result in impacts that would be best addressed during a special use permit. This allows public participation and review of the impacts of large facilities or multiple projects that have the impact of a large facility.

This ordinance will be reviewed by the three (3) criteria previously established by the Board for amendments:

Administration/Review Process: The proposed ordinance establishes supplemental regulations. These regulations improve the review process for by right and special use permit projects. With clear regulations the administration of applications is improved and made consistent.

Housing Affordability: The proposed ordinance does not impact housing affordability.

Implications to Staffing/Staffing Costs: No increase in costs is anticipated. Clarity in regulations may reduce review time and the costs associated with review.

RECOMMENDED ACTION

Staff recommends the Planning Commission support this zoning text amendment and recommend approval to the Board of Supervisors.

ATTACHMENTS

Attachment 1 – Proposed Ordinance

Attachment 2 – Public comments received on the draft distributed December 19, 2024