

# WORK SESSION

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## Amendments to the Montgomery County Comprehensive Plan and Zoning Ordinance Regarding Large-Scale Solar Energy Systems

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# LARGE-SCALE SOLAR ENERGY SYSTEMS AMENDMENTS

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## ■ Rationale for Changes

- Policies adopted by the Board of Supervisors in 2016 related to solar energy did not address a number of key issues and impacts resulting from solar energy applications
- Virginia Clean Economy Act (2020) established clean energy goals for the Commonwealth, spurring projects across the state
- Solar projects in Montgomery County have been small in nature or accessory to a primary use until recent interest by large scale solar developers
- Landowners throughout the County seek to utilize solar energy land leases on their properties
- Streamlined regulations needed by staff to serve citizens and applicants



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Date	Action Item
April 2023	Board of Supervisors charges staff and the Planning Commission to study the issue
Spring 2023	Solar Energy Work Group appointed by the Planning Commission
Spring and Summer 2023	Solar Energy Work Group meetings and staff research
August 9, 2023	Community Open House and Planning Commission Work Session
Fall 2023	Continued staff research; integration of community feedback
October 11, 2023	Second Planning Commission Work Session
November 13, 2023	Third Planning Commission Work Session
December 13, 2023	Planning Commission Public Hearing



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- Input Received/Considerations in Drafting Language
  - Original draft language prepared by the Solar Work Group
  - Feedback received at public open house
  - Stakeholder feedback received
    - Local citizens
    - Farm Bureau
    - Industry representatives
    - Landowners
  - Education and training by staff
  - Review of other regulations
- Draft language proposed is an attempt to balance all of this feedback and find a compromise approach
- Language proposed must consider the entire County



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## ■ Comprehensive Plan

- Provides guidance and establishes County's development vision
- Updates proposed to the Utilities Chapter
  - Introductory Language added to Utilities: Introduction, Historic and Current Conditions and Trends
  - Various new Goals and Strategies to guide policy decisions and application review
- Vision and goals will be integrated into the upcoming Comprehensive Plan rewrite

## ■ Zoning Ordinance

- Provides binding development standards and regulations
- Outlines application procedures and submission requirements
- Contains enforcement mechanisms and penalties for noncompliance



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## Key Issues Addressed in the Proposed Amendments

1. Balancing solar development and other land uses
2. Compatibility of solar development and agricultural land uses
3. Project scale, siting, and design considerations
4. Application Standards



# LARGE-SCALE SOLAR ENERGY SYSTEMS AMENDMENTS

## 1. Balancing solar development and other land uses

<b>Total County Acreage</b>	<b>248,609 acres</b>
Town of Blacksburg	12,679 acres
Town of Christiansburg	9,439 acres
<b>Unincorporated Montgomery County</b>	<b>226,491 acres</b>
<b>Land Type</b>	
<b>Federal Lands</b>	<b>21,720 acres</b>
<b>Agricultural and Forestal Districts</b>	<b>23,232 acres</b>
<b>Conservation Easements</b>	<b>17,239 acres</b>
<b>Historic Districts</b>	<b>9,717 acres</b>
<b>Growth Areas</b>	<b>25,897 acres</b>
Residential Transition	11,685 acres
Urban Development Area	821 acres
Urban Expansion Area	5,660 acres
Village Expansion Area	7,731 acres
<b>Total Land Available for Solar</b>	<b>136,830 acres</b>

- Many of our peer jurisdictions, as well as recommendations from APA, ICMA, and other groups encourage the use of a percentage based acreage cap to address concerns about balancing solar with other land uses
- A 1% - 3% cap of total land is a typical approach in other jurisdictions
- In proposing an acreage cap, County staff used a methodology in alignment with the expressed desire to limit where solar facilities will be located within the County
- The Commission's recommendation is a cap of 4,500 acres, slightly more than 3% of available acres throughout the County (2.19% of unincorporated land)
  - Solar Work Group proposed a 1,500 acre cap (slightly more than 1% of available acres and 0.67% of total unincorporated land)



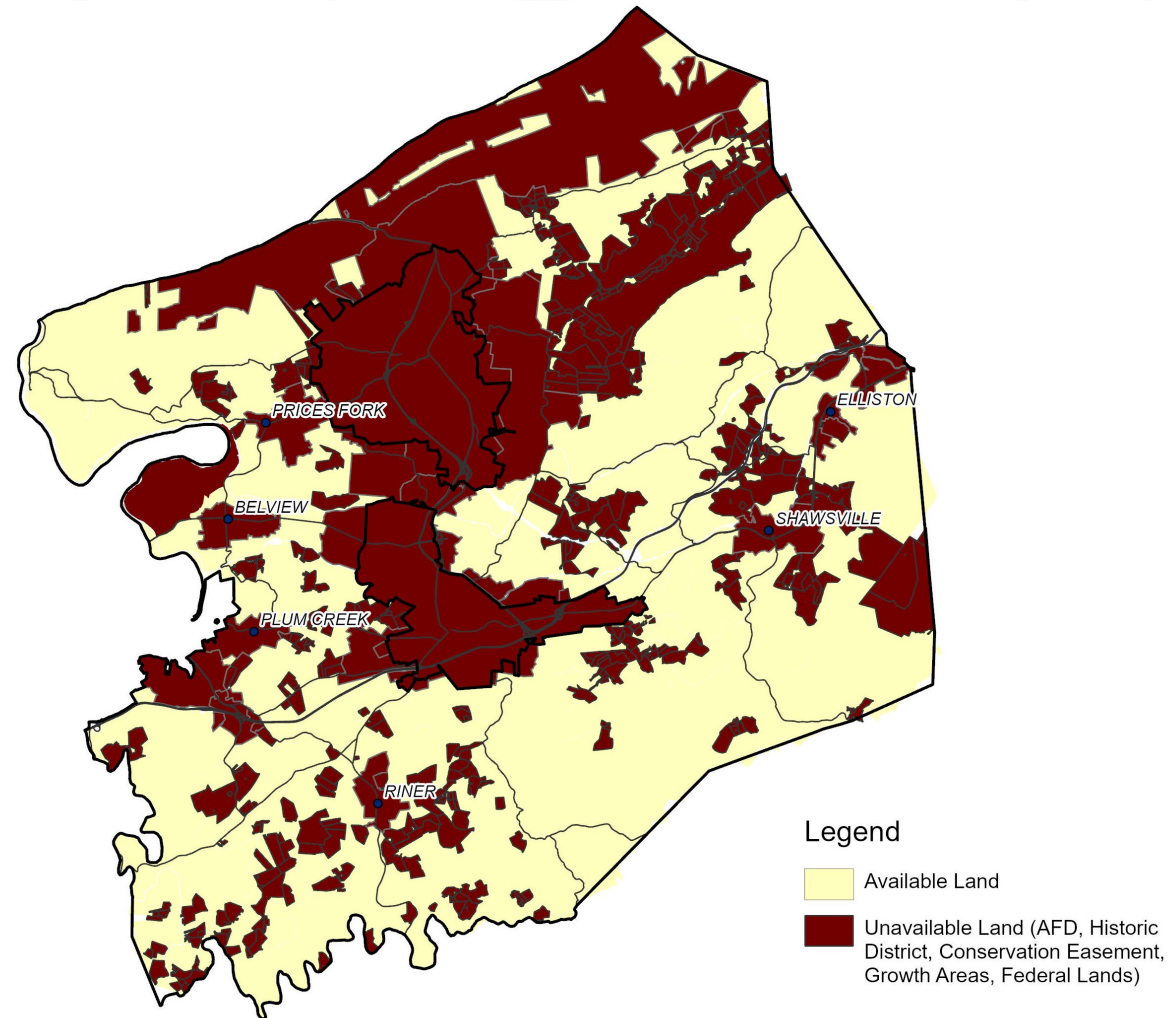


# LARGE-SCALE SOLAR ENERGY SYSTEMS AMENDMENTS

Other considerations not addressed by the Available Lands Map include:

- Topographical challenges
- Redevelopment of brownfield sites
- Proximity to transmission lines/power stations

These considerations can be addressed in the review of individual applications for Special Use Permit

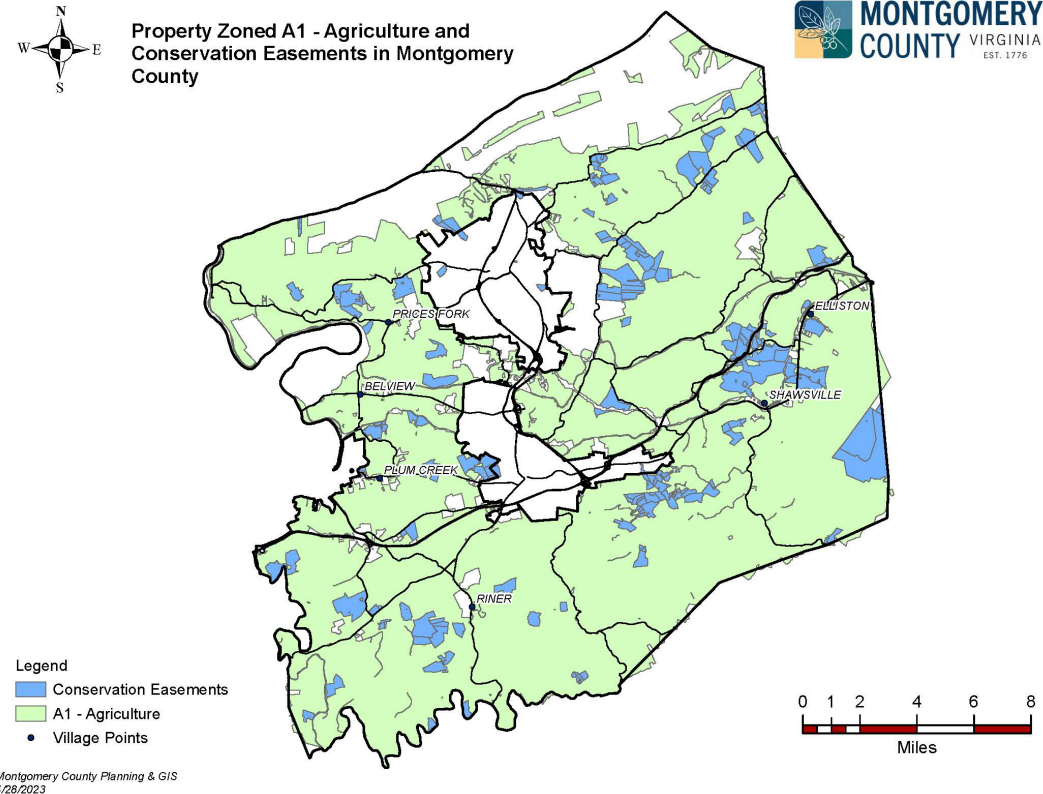




# LARGE-SCALE SOLAR ENERGY SYSTEMS AMENDMENTS

## 2. Compatibility of solar development and agricultural land uses

- Encourages shared agricultural uses
  - Grazing
  - Compatible crops
  - Pollinator-friendly groundcover
- Prohibits removal of top soil to allow for returned use to agriculture following decommissioning



# LARGE-SCALE SOLAR ENERGY SYSTEMS AMENDMENTS

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## 3. Project scale and siting considerations

- Discourages solar projects in the following areas:
  - Agricultural and Forestal Districts
  - Lands with Conservation Easements
  - Historic Districts
  - Growth Areas (Urban Expansion, Villages, UDAs)
- Encourages solar projects on brownfield sites
- Project scale and size will be evaluated during the review of each Special Use Permit application
  - Allows for consideration of adjacent projects, topographical considerations, existing vegetation, etc.



# LARGE-SCALE SOLAR ENERGY SYSTEMS AMENDMENTS

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## Definitions to be Removed

- *Solar energy system, minor*: no more than fifty (50) percent of the parcel size or one (1) acre (whichever is less)
- *Solar energy system, major*: more than fifty (50) percent of the parcel size or greater than one (1) acre in project area.

## Definitions to be Added

- *Battery energy storage system*
- *Solar energy system, community scale*: has the capacity to produce five or less megawatts.
- *Solar energy system, utility scale*: has the capacity to produce more than five megawatts.



# LARGE-SCALE SOLAR ENERGY SYSTEMS AMENDMENTS

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## Location of Projects in Relation to Other Approved Projects

- The Commission's recommendation is to not add language restricting placement of facilities adjacent to other solar facilities.
- The location of facilities would be considered during the review of each individual Special Use Permit application.

## Limitations on Project Size

- The Commission's recommendation is to not add language restricting the size of individual projects, and instead to consider project size during the review of each individual Special Use Permit.
- The Solar Work Group proposed project size limitations of 100 acres per project, with Community Scale facilities being limited to 50 acres, and Utility Scale facilities being limited to 100 acres.
- Public feedback received was mixed on the project size limitations, with solar developers stating that the 100-acre limitation would essentially prohibit Utility Scale Solar development within the County.



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## Minimum Setback Requirements

- The Commission's recommendation is to require a minimum 100-foot setback, while reserving the right to increase setbacks as a condition on each individual Special Use Permit application.
- The Solar Work Group recommended a 75-foot setback in Community Scale projects and a 150-foot setback in Utility Scale Projects.

## Minimum Required Buffers

- The Commission's recommendation is to require a buffer equal to the minimum setback per zoning district. Increased setbacks will be evaluated as part of the Special Use Permit application for each project.
- The Solar Work Group recommended a 50-foot-deep buffer in Community Scale Projects and a 75-foot-deep buffer in Utility Scale Projects.



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## Battery Storage Facilities

- The Commission's recommendation was to allow Battery Storage Facilities within both Community Scale and Utility Scale Solar projects.
- The Solar Work Group recommended Battery Storage Facilities would only be permitted within Utility Scale projects.

## Decommissioning of Projects *(Required by VA State Code)*

- Recommendation from the Commission includes the requirement of a decommissioning plan as part of the Special Use Permit Application
  - Must include an estimate to remove panels and equipment and return site to its previous conditions
  - Applicant must submit a bond/surety to the County for those costs
  - Bond or surety would be reevaluated every 2 years and revised if necessary



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## Shared Agricultural Uses/Return to Farmland

- The Commission's recommendation includes regulations to facilitate shared agricultural uses within solar projects and return to agricultural use after decommissioning through
  - Grazing
  - Growth of crops under panels
  - Planting of native pollinator friendly grasses and ground cover
  - Prohibits the removal of top soil from project sites





# LARGE-SCALE SOLAR ENERGY SYSTEMS AMENDMENTS

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## Other Considerations

- Special Use Permit Application requirements
  - Project Narrative
  - Concept Plan
  - Landscaping and Screening Plan
  - Identification of Environmental and Cultural Resources
  - Performance standards
    - Lot Requirements
    - Setbacks, Vegetative Buffers, Fencing, and Visual Impacts
    - Height Limits, Lighting, Safety Standards, and Building Code
    - Pollinator Habitats and Agrivoltaics
    - Battery Energy Storage Systems



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## Other Considerations (continued)

- Processing and Approval Standards
  - Community Meetings
    - A public meeting shall be held by the applicant for public input and questions.
  - Review of Application and Site Plan
    - Application to be reviewed by the County's Development Review Team and may contract a third party reviewer at the applicants expense.
  - Plans and Studies
    - Staff approval of a site, landscaping, lighting, maintenance, and safety plan, as well as environmental and cultural reports, shall be completed prior to the issuance of any permits or construction.



# LEGISLATION OF INTEREST RELATED TO SOLAR ENERGY SYSTEMS

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## House Bill 636 – Siting of Energy Facilities; Approval by the State Corporation Commission (SCC)

- Establishes procedure for a utility provider or individual power provider to obtain approval to site an energy facility rather than receiving approval by the locality
  - Applicants could apply to the SCC if:
    - i. Locality fails to approve or deny an application in a timely manner (120 days)
    - ii. Application complies with certain requirements but the locality denies
    - iii. Or the locality amends its zoning ordinance to add additional restrictions after locality notifies applicant that the application is compatible
  - Applies to solar facilities over 50 MW; wind facilities over 100 MW; or battery storage of 50 MW or more
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- Has been referred to Counties, Cities, and Towns Committee
  - Both APA Virginia and the VACO oppose this bill
    - County staff serves on APA Virginia's Legislative Committee
  - Patron and supporters argue that the bill is necessary to meet the goals outlined in the Clean Economy Act



# LEGISLATION OF INTEREST RELATED TO SOLAR ENERGY SYSTEMS

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## Senate Bill 255 – Shared Solar Programs - AEP

- Expands shared solar program to American Electric Power customers
  - Shared solar is already permitted for Dominion Energy customers
  - Approval could make community scale solar facilities more appealing to developers in the County
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- Has been referred to Committee on Commerce and Labor
  - APA Virginia has no plans to comment on this bill



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➤ Questions for Staff

