



Committee: Joint
Staff: Pamela Dunn, Senior Legislative Analyst
Livhu Ndou, Legislative Attorney
Purpose: Final action – vote expected
Keywords: #solar collection, #solar panels, #AR zone

AGENDA ITEM #4B
February 23, 2021
Action

SUBJECT

ZTA 20-01, Solar Collection System – AR Zone Standards

EXPECTED ATTENDEES

Casey Anderson, Chair, Montgomery County Planning Board
Robert Kronenberg, Deputy Director, Planning Department
Ben Berbert, Zoning Coordinator, Planning Department
Adriana Hochberg, Climate Change Coordinator, Office of the County Executive
Stan Edwards, Chief, Environmental Policy and Compliance, Department of Environmental Protection
Jeremy Criss, Director, Office of Agriculture
Mike Scheffel, Director of Planning and Promotions, Office of Agriculture
Doug Lechluder, Stakeholder Co-Chair
Leslie Elder, Stakeholder Co-Chair

COUNCIL DECISION POINTS & COMMITTEE RECOMMENDATION

- Joint meetings of the Planning, Housing, and Economic Development Committee and Transportation and Environment Committee resulted in a recommendation to approve ZTA 20-01 with amendments. The joint committee amendments primarily specify additional environmental protection standards and allow for a different type of agriculture under solar panels.
- The Council held a worksession on January 26, 2021 to consider additional amendments. The Council approved by straw vote (6-3) additional amendments that include a prohibition of the use on Soil Classification II soils (in addition to Soil Classification I soils as recommended by the joint committee), the requirement for conditional use approval (including the use-specific standards required for site plan approval under an earlier draft), and the requirement that the Planning Department produce an impact report no later than December 31, 2023.

DESCRIPTION/ISSUE

Solar panels are only allowed in the AR zone as an accessory use; the Zoning Ordinance defines that as a facility that produces no more than 120% of on-site electrical needs. ZTA 20-01 would revise the Solar Collection System use standards to allow larger facilities in the Agricultural Reserve (AR) zone. The total amount of collection systems on all parcels would be limited to 1,800 acres. Any collection system constructed under the proposed text amendment must be designated pollinator-friendly under the Maryland Pollinator-Friendly Designation Program or be planted with crops suitable for grazing. Facilities larger than those needed to meet 200% of on-site energy needs would be prohibited on Soil Classification I and II soils and would require a conditional use approval.

SUMMARY OF KEY DISCUSSION POINTS

None

This report contains:

Staff Memorandum for Council session on January 26, 2021
ZTA 20-01 as amended by the joint committee and Council

Pages

1-12
©1-12

Alternative format requests for people with disabilities. If you need assistance accessing this report you may [submit alternative format requests](#) to the ADA Compliance Manager. The ADA Compliance Manager can also be reached at 240-777-6197 (TTY 240-777-6196) or at adacompliance@montgomerycountymd.gov

Action

M E M O R A N D U M

January 21, 2021

TO: County Council

FROM: Jeffrey L. Zyontz, Senior Legislative Analyst

SUBJECT: Zoning Text Amendment 20-01, Solar Collection System – AR Zone Standards

PURPOSE: Approve or amend the joint committee recommendations concerning ZTA 20-01

Potential Participants:

Casey Anderson, Chair, Montgomery County Planning Board
Robert Kronenberg, Deputy Director, Planning Department
Ben Berbert, Zoning Coordinator, Planning Department
Adriana Hochberg, Climate Change Coordinator, Office of the County Executive
Stan Edwards, Division Chief, Department of Environmental Protection
Doug Lechluder, Stakeholder Co-Chair
Leslie Elder, Stakeholder Co-Chair
Jeremy Criss, Director, Office of Agriculture
Mike Scheffel, Director of Planning and Promotions, Office of Agriculture

Committee Recommendation: On July 22, 2020, and then revised on January 14, 2021, the Planning, Housing, and Economic Development Committee and the Transportation and Environment Committee (4-1, Councilmember Friedson opposed) recommended approval of ZTA 20-01 with the following amendments:

- 1) Restrict the limited use solar facilities to Maryland’s net metering program, **including all COMAR references.**
- 2) Expand the definition of AR zoned accessory solar facilities from 120% of on-site use to 200%.
- 3) **Delete the code’s current provision of facilities larger than 2MW and prohibit such facilities in the AR zone.**
- 4) Prohibit solar facilities in stream buffers and wetlands.
- 5) Prohibit solar facilities on slopes steeper than 15%.
- 6) Specifically prohibit stripping topsoil from the site.

- 7) Expand the required plants under solar panels to include all agrivoltaic plants and to ensure that the land under the solar facilities are used for agricultural purposes.
- 8) Specify necessary findings concerning forest conservation and tree protection.
- 9) State the site plan requirement for stormwater management.
- 10) Add a requirement to minimize tree loss, consistent with forest conservation.
- 11) Limit the use of concrete to electrical and transformer pads.
- 12) Require screening within 200 feet of a neighboring house, with an opportunity for the Planning Board to waive the planting requirement.
- 13) Delete the requirement for fencing.
- 14) Prohibit limited use solar facilities on Soil Classification I soils.
- 15) Amend the total acreage monitoring responsibility from DPS to Planning staff **to specify that it must include any required setbacks and all acreage within the fenced or shrubbed area of the solar facility.**

On July 22, 2020, the joint committee discussed, but did not recommend amendments for:

- any special consideration of scenic easements;
- limiting the coverage of a solar facility to a percentage of a parcel's land area;
- changing any text regarding the classification of a limited use solar facility as either a principal or accessory use; and
- prohibiting solar facilities on soil classifications other than Category I soils.

Councilmembers Riemer and Katz appointed a stakeholders group. Each Councilmember appointed four participants.¹ The stakeholder group produced a majority report (©11-12) and 2 minority reports (©13-30).² Both minority reports were supported by half of the appointed stakeholders. On January 14, 2021, the joint committee discussed the recommendations of the Stakeholder Group.³ The joint committee agreed to support all of the recommendations in the majority report.⁴ Amendments recommended by a majority of stakeholders are identified in **bold** in the list of joint committee recommended changes above.

Background

ZTA 20-01, lead sponsors Councilmember Riemer and Council Vice President Hucker and co-sponsor Councilmember Rice, was introduced on January 21, 2020. ZTA 20-01 would revise the Solar Collection System use standards to allow larger facilities in the Agricultural Reserve (AR) zone. The total amount of collection systems on all parcels would be limited to 1,800 acres. Appropriate vegetation is permitted

¹ Doug Lechlinder, Co-Chair; Leslie Elder, Co-Chair; Randy Stabler; Caroline Taylor; Lauren Greenberger; Al Bartlett; Douglas Boucher; and Frances Yuhas.

² In spite of the shortcomings of Zoom meetings and the interruption by a pandemic, Thanksgiving, Christmas, New Years, two Senate races in Georgia, and an insurrection at the Capitol Building, the stakeholders produced three documents. Staff stands in awe of the group's dedication. Despite all the internal pressures, external pressures, and strongly held opinions, the stakeholders upheld the County's tradition of civil discourse.

³ The staff report for that meeting, which addressed all of the Stakeholder recommendations (majority and minority recommendations), can be found at:

https://www.montgomerycountymd.gov/council/Resources/Files/agenda/cm/2021/20210114/20210114_PHEDETE1.pdf.

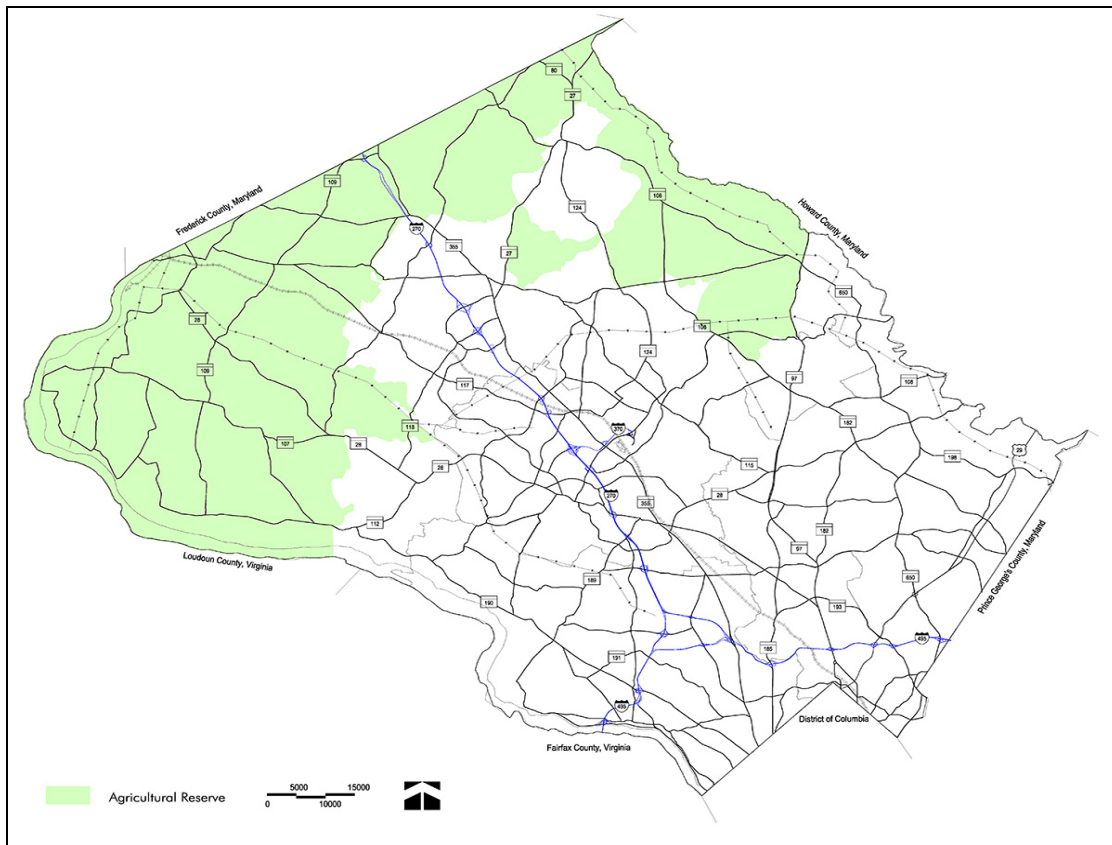
⁴ The Stakeholder recommendation to restrict personal property taxes received from solar facilities to programs that support agriculture is being addressed in a separate Bill 5-21, Agricultural Land Preservation - Solar Collection System - Dedication of Business Personal Property Tax Revenue, sponsored by Councilmember Friedson and introduced on January 19, 2021.

and encouraged under and around the solar panels, with a focus on adhering to the Maryland Pollinator-Friendly Designation Certificate criteria or on including grazing of livestock, apiculture, and similar uses.

Solar panels are currently allowed in the AR zone as an accessory use. The Zoning Ordinance defines accessory use as a facility producing no more than 120% of on-site electrical needs. ZTA 20-01 would expand the opportunities for solar power. The joint committee recommendation would allow a solar facility (in the AR zone) rated at 200% of on-site energy needs without a requirement for site plan approval. It would allow solar facilities as a principal use with a Planning Board-approved site plan.

Facilities in the AR zone that exceed accessory use standards must obtain site plan approval. The site plan approval for solar facilities in the AR zone would allow for the designation of Maryland’s Pollinator-Friendly Designation Certificate criteria or on usage to include grazing of livestock, apiculture, and similar uses to continue the maintenance and care of the land. Whether the facilities would be used in conjunction with crop production, grazing herds, regenerative farming or a similar use, site plan approval would require grading and soil removal to be minimized.

An uncodified provision of the ZTA would require the Planning Director to annually report on the number of total acres used for Solar Collection Systems. The purpose of this reporting would be to alert the Council on the difference between the acreage used for solar in the AR zone and the 1,800-acre limit.



ZTA 20-01 applies to solar facilities that produce less than 2 megawatts.⁵ It responds to solar facilities allowable under the Maryland net metering program. As of 2016, net metering is available statewide until the aggregate capacity of net-metered systems reaches 1,500 MW (megawatts), which is roughly about equal to 10% of Maryland's peak demand for electricity in 2014.

Public Hearing

The Council conducted a public hearing on March 3, 2020.⁶ The testimony did not reflect any grand consensus. One constituency said it was premature to allow industrial uses in the AR zone, at least until other options have been researched.⁷ Other testimony supported an immediate reduction in carbon emissions to minimize climate change and to meet County and State clean energy goals. A number of amendments to ZTA 20-01 were recommended in testimony. A full summary of public hearing testimony may be found in the October 13, 2020 memorandum to Council.⁸

Joint Committee-Recommended Amendments to ZTA 20-01

1. Restrict facilities to solar facilities within Maryland's net metering program.

The Maryland Residential Community Solar program allows Maryland residents to purchase subscriptions for energy from community solar arrays, gaining the same economic advantages as having solar modules directly on their residences. In support of this program, the Maryland Energy Administration developed the Residential Community Solar Grant program. The program provides a monetary incentive for Maryland residents who wish to purchase (own) the energy benefits of the array. Low-to-moderate income (LMI) residents who subscribe to a community solar array under an ownership model are incentivized at a higher rate than other subscribers. Subscriptions must be to a community solar array within the subscriber's electric utility service area.⁹

The Community Solar program requires a solar facility to be subscribed to users in the same utility service area as the facility. The County is served by 3 power companies: Potomac Electric Power Company (PEPCO), Potomac Edison, and Baltimore Gas and Electric. Most of the AR zone is served by Potomac Edison. The urbanized area of the County is served by PEPCO.

⁵ The Maryland Court of Appeals ruled that, under State law, the County's zoning and subdivision regulations are preempted by the Maryland Public Service Commission (PSC) for large solar facilities. The Court's decision in Board of County Commissioners of Washington County v. Perennial Solar means that the PSC has the final say on the location of solar projects that require a Certificate of Public Convenience and Necessity from the PSC. This certificate requirement applies to projects of at least 2 megawatts (roughly 10 acres) in size. In the absence of a change in State law, the County is powerless to regulate large solar facilities. The PSC must consider local zoning but, as in the situation that provoked the Court's decision, the PSC may overrule zoning.

⁶ The Council met face-to-face in an open meeting. It seems like a lifetime ago.

⁷ Soil Conservation Service, Agricultural Preservation Advisory Board, Agricultural Advisory Committee, Montgomery Countryside Alliance, Montgomery Agricultural Producers, Sugarloaf Citizens Association, Montgomery County Farm Bureau, Conservation Montgomery, Bethesda-Chevy Chase Chapter Izaak Walton League, Montgomery County Chapter – Climate Mobilization, Rustic Roads Advisory Committee.

⁸ https://www.montgomerycountymd.gov/council/Resources/Files/agenda/col/2020/20201013/20201013_10.pdf.

The memorandum does not repeat material in the Council's October 13, 2020 memorandum (hyperlink in #5) footnote related to the merits of proceeding with ZTA 20-01 with or without any amendments.

⁹ <https://energy.maryland.gov/residential/Pages/Community-Solar.aspx>.

The Aggregate Net Energy Metering (ANEM) program is also part of the program. This program allows the interconnection of a solar facility on a piece of property to specific customers. The only entities that qualify for ANEM are:

- non-profit;
- agriculture; or
- local or State government.

Both the Community Solar program and Aggregate program benefit the customers of the local electric power companies. (Facilities that produce no more than 200% of on-site energy use are also part of the net metering program.)

The joint committee recommends defining solar facilities as those that comply with the requirements of the State's net metering program under Maryland Code §7-306 COMAR 20.50.10 and COMAR 20.62, including Community Solar Energy Regeneration Systems, Aggregate Net Metering, and projects limited to a percentage of on-site energy use.¹⁰

2. The state net metering program limits land holdings at a single location to be limited to a maximum rating of 2 megawatts (AC). A landowner who also owns an abutting or confronting property must include the facilities on all of the owner's property when determining if the site complies with the maximum size. Expand the definition of accessory solar facilities from 120% of on-site use to 200%.

Solar panels as an accessory use is currently limited to 120% of on-site energy consumption (baseline annual customer energy use). There are limits on structure heights. ZTA 20-01 as introduced would not change that limitation. Maryland net metering policy allows a maximum of 200% of on-site energy consumption to take advantage of net metering.¹¹

Solar panels as an accessory use do not require site plan approval. There is no maximum height for accessory solar panels.

The joint committee recommended allowing solar facilities that produce up to 200% of on-site energy used as an accessory use.

3. Facilities larger than 2 MW

The Maryland Court of Appeals ruled that, under State law, the County's zoning and subdivision regulations are preempted by the Maryland Public Service Commission (PSC) for large solar facilities. The Court's decision in *Board of County Commissioners of Washington County v. Perennial Solar* means that the PSC has the final say on the location of solar projects that require a Certificate of Public Convenience and Necessity from the PSC. This certificate requirement applies to projects of at least 2 MW (roughly 10 acres) in size. In the absence of a change in State law, the County is powerless to regulate

¹⁰ <https://codes.findlaw.com/md/public-utilities/md-code-public-util-sect-7-306-2.html>;
<http://mdrules.elaws.us/comar/20.50.10>.

¹¹ Net metering is an electricity billing mechanism that allows consumers who generate some or all of their own electricity to use that electricity anytime, instead of when it is generated. When solar panels produce more electricity than needed, that energy is sent to the grid in exchange for credits.

large solar facilities. The PSC must consider local zoning but, as in the situation that provoked the Court's decision, the PSC may overrule zoning.

Currently, the zoning code indicates that larger facilities are to be approved under the same standards as a public utility. Testimony suggested retaining this requirement as guidance to the PSC on what it must consider. ZTA 20-01, as introduced, would amend this provision (lines 74-77) to acknowledge that these larger facilities are exempt from zoning. This was done to put readers on notice of the State law.

From the standpoint of giving the PSC notice of what standards would apply, retaining the current code makes some sense.

The joint committee recommended deleting the current code provision concerning facilities larger than 2 MW and specifically prohibiting facilities larger than 2MG in the AR zone. The purpose of the prohibition in the face of state preemption is to provide guidance to PSC that such larger facilities are undesirable in the County's master plan and comprehensively zoned agricultural area.

4. Planting under solar panels

As drafted, ZTA 20-01 would allow plants and crops conducive to agrivoltaic systems, pollinator-friendly plants, or plants suitable for grazing. Some testimony noted that Maryland's pollinator-friendly certification is still in a draft stage. The Pollinator-Friendly Designation Program Bill (SB 1158) was signed by Governor Hogan in May 2017.¹² SB 1158 established a pollinator-friendly designation program for commercial ground-mounted solar facilities. That program is now in effect and a State employee with the Department of Natural Resources is working closely with individuals interested in pursuing the pollinator-friendly designation.

Other testimony communicated that, whatever the State's program requires, the County should require that at least 75% of the plants be native to Maryland.¹³ Some speakers wanted more latitude in using other plants that increase agricultural output. Based on research in multiple states, both crops and pollinator-friendly plants are able to co-exist with solar facilities. Crops that have successfully been grown directly under solar panels include, but are not limited to, tomatoes, peppers, beans, carrots, chard, kale, and herbs. Appendix II includes a list of agrivoltaic applications in Maryland.

The County Executive supports the co-location of solar arrays with agricultural crops, even though this is still very much in the experimental stages throughout the country. He recommends installation of solar panels 6-8 feet off the ground to allow crops to benefit from proper sunlight and rainfall. Proposals for solar projects should include a plan for establishing and sustaining agricultural activities.

The joint committee recommends expanding the list of allowable plantings to include any other agrivoltaic plant material and requiring a Planning Board finding that the land under the solar panels will be used for agricultural purposes. As proposed by the joint committee, the finding would ultimately read as follows:

For property zoned AR proposed for use as a Solar Collection system:

* * *

¹² http://mgaleg.maryland.gov/2017RS/chapters_noln/Ch_372_sb1158E.pdf.

¹³ A list of native trees, shrubs, and flowers, as well as non-native plants, can be found in Table 1 of Appendix II.

- d. must provide evidence that the area under the solar facility will be actively used for farming or agricultural purposes by satisfying one of the following requirements:
 - i. designated pollinator-friendly under the Maryland Pollinator-Friendly Designation Program;
 - ii. planted, managed, maintained, and used for grazing farm animals; or
 - iii. planted, managed, maintained, and used for any other agrivoltaic plant material;

The joint committee was informed by Arjun Makhijani, Ph.D. on the synergies between farming and solar facilities. The research paper he authored and the PowerPoint slides he presented to the joint committee are included in the material attached to this memorandum at the request of Councilmember Riemer on ©37-123.

In addition to requiring agricultural uses under the panels, the joint committee recommends prohibiting the use of concrete, except for pads for electrical equipment and transformers. The prohibition on concrete is to maximize the area for plant material and, in the event that the solar facility is no longer used, to minimize the cost of converting the area back to traditional agriculture.

- 5. Consideration of prohibiting solar facilities based on trees, steep slopes, and wetlands

The joint committee addressed concerns about keeping solar facilities off of environmentally-sensitive features. ZTA 20-01’s requirement that larger facilities require site plan approval triggers a requirement for compliance with forest conservation and stormwater management approvals. In addition, the Planning Board’s Environmental Guidelines must be respected. *The joint committee recommended specifying necessary findings concerning forest conservation and stormwater management, required by site plan approval and adding an additional requirement to minimize tree loss.* The attached draft includes the following necessary finding for site plan approval:

E. Necessary Findings

* * *

- 5. For property zoned AR proposed for use as a Solar Collection system:

* * *

e. removing of trees or landscaping otherwise required or attached as a condition of approval of any plan, application, or permit for the installation or operation of a Solar Collection System is prohibited:

- i. the forest conservation requirements of Chapter 22A must be satisfied;
- ii. any tree in or on a floodplain, stream buffer, steep slope, critical habitat, contiguous forest, or historic site, and any champion tree or other exceptionally large tree must be left undisturbed unless a disturbance is allowed under Section 22A-12(b)(1);

The Executive suggested that this text did not afford forests sufficient protection. He points out that the proposed ZTA imposes no limits on the amount of trees/forests that could be removed to accommodate solar projects; his preference is for a clear statement that prohibits the removal of forested land (©124).

Section 22A-12(b)(1) allows the Planning Director some discretion:

The primary objective of the forest conservation plan should be to retain existing forest and trees and avoid reforestation in accordance with this Chapter. The forest conservation plan must retain

certain vegetation and specific areas in an undisturbed condition unless the Planning Director finds that:

- (A) the development would make maximum use of any available planning and zoning options that would result in the greatest possible forest retention;
- (B) reasonable efforts have been made to protect the specific areas and vegetation listed in the plan; and
- (C) the development proposal cannot be reasonably altered.

If the Council has a problem with this level of Planning Director discretion, the last phrase “unless a disturbance is allowed under Section 22A-12(b)(1)” could be deleted.

The Planning Board recommended prohibiting solar facilities on slopes greater than 15%. Planning staff recommended a restriction on slopes greater than 8%.

The joint committee recommended an amendment prohibiting solar facilities on slopes greater than 15%.

6. Screening, including fencing

The current code requires site plan approval for solar installations, except when the use is an accessory use. ZTA 20-01 extends that requirement to the AR zone. When visible from a residential use or a road, screening that satisfies Section 59.6.5.3.C.8 (Option A) is required. Option A requires a 30-foot planting area and a 6-foot fence. The Rustic Roads Advisory Committee requested the option for a screening waiver by the Planning Board. The Planning Board also made that recommendation.

A 6-foot fence around solar facilities is currently a requirement for limited use approval in non-AR zones and is a proposed requirement in ZTA 20-01. The Planning Board recommended deleting the fence requirement. Industry representatives reported in testimony that a fence is required by insurance companies.

The joint committee recommends deleting the fence requirement without authorizing the Planning Board to prohibit a fence.

The joint committee recommended that screening only be required within 200 feet of a neighboring house.

7. Consideration of prohibiting solar facilities based on soil classification

Testimony was concerned about the use of agriculturally-productive soils in the AR zone for solar facilities. The Executive recommends prohibiting solar facilities on all Soil Classifications I, II, and III. The Planning Board recommended discouraging the use of solar facilities on “prime soils”.¹⁴

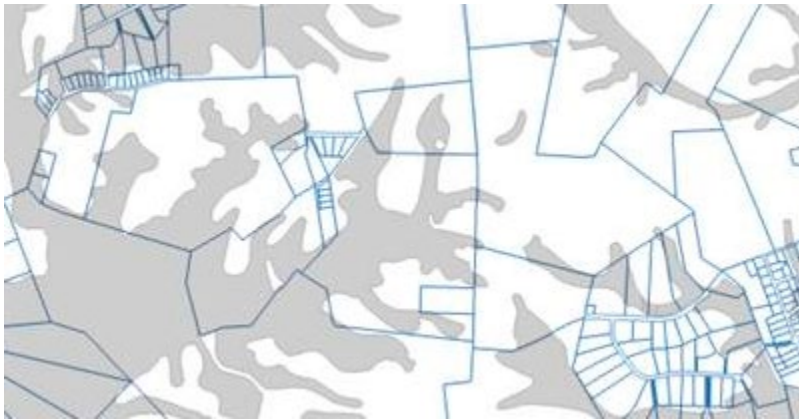
The joint committee recommended prohibiting solar on the best agricultural soils (Soil Classification Category I soils). In the view of the majority, exclusions on additional soil types, in addition to the other restrictions recommended by the Committee, would so limit the possible placement of solar facilities as to make the placement of 1,800 acres of solar facilities impossible. The non-soil restrictions (tree/forest

¹⁴ The Committee spent some time reviewing the differences between Soil Classifications I, II, and III and prime soils. After excluding parkland, steep slope areas, and land covered by easements, there are 14,000 more acres classified in categories I, II, and III than in prime soils.

conservation, steep slopes, stream valley buffers, and wetlands) limits solar in the AR to a maximum of 45,145 acres.

Staff was informed that Councilmember Friedson will offer an amendment to prohibit solar facilities on Classification II soils in addition to the joint committee’s recommended prohibition on Classification I soils. That recommendation would allow solar facilities on approximately 20,300 acres of the 101,500 acres of AR zoned land.

The outline shapes of soil categories resemble an amoeba.



A solar facility rate at 2 megawatts would require about 15 acres. (The area required will vary with the topography, the separation between rows of solar panels, and the efficiency of the panels.) When parcel outlines are overlaid on that shape, the number of parcels with a contiguous 15-acre area on non-protected soils is significantly diminished. The joint committee’s recommendation would retain the opportunity for 15-acre solar facilities on 377 parcels. Using Soil Classifications I and II, 110 parcels in the AR zone would have at least 15 acres of contiguous area. Of those possible properties, many are too far from electrical lines to make a solar facility feasible.

During the first joint committee meeting, Councilmembers Friedson and Jawando pursued amendments to prohibit large solar facilities on more than Classification I soils but did not succeed in persuading a majority of the joint committee.

The County Executive is concerned about placing no restrictions on the location of solar collection systems other than exempting Class I soils. He continues to support the exemption of Class II soils unless the full Council can limit incursions into those soils by allowing a review of soil conditions and impacts on a case-by-case basis (©124).

8. Office of Agriculture review of site plan application for solar facilities in the AR zone

The joint committee, based on a majority recommendation of the Stakeholders Group, recommends including the Office of Agriculture as a reviewing County agency in the Planning Department’s Development Review Committee process for solar facility use site plan applications in the AR zone.

9. Keeping track of the acreage limit

The joint committee recommends having the Planning Director monitor the acreage of land used for site plan-approved solar projects. The Planning Department administers site plan approval and all of the projects to be counted against the 1,800-acre limit require site plan approval. At the recommendation of the Stakeholder Group, the joint Committee's recommendation would have the Planning Department include any required setbacks and all acreage within the fenced or shrubbed area of the solar facility in calculating the area limit.

Councilmember proposed amendments not recommended by the joint committee –known to Staff

10. Conditional Use Approval for facilities that produce more than 200% of on-site energy use

A requirement for conditional use approval of facilities larger than required to produce 200% of on-site energy needs was a significant point of discussion in the Stakeholder deliberations. It was supported by the Agricultural Reserve stakeholders (©26-30) and opposed by half of the stakeholders (©13-25). Councilmember Rice proposes an amendment to ZTA 20-01 to make a conditional use approval requirement for solar facilities larger than 200% of on-site use. Under his proposal, site plan approval would still be required with all of the standards recommended by the joint committee. The “clean” text of his proposal may be found on ©31-36.

Some land use classifications require conditional use approval. These uses require a subjective finding that the use would be compatible with its surroundings. All conditional uses require a detailed application¹⁵, a quasi-judicial hearing, and approval of the Hearing Examiner based on the findings

¹⁵ Section 59.7.3.1.B

The applicant must submit the following for review:

- a. application form and fees as approved by the District Council;
- b. proof of ownership or authorization;
- c. statement of how the proposed development satisfies the criteria to grant the application;
- d. certified copy of official zoning vicinity map showing the area within at least 1,000 feet surrounding the subject property;
- e. list of abutting and confronting property owners in the County tax records;
- f. list of any civic, homeowners, and renters associations that are registered with the Planning Department and located within 1/2 mile of the site;
- g. Traffic Statement or Study, accepted for review by the Planning Director;
- h. map showing existing buildings, structures, circulation routes, significant natural features, historic resources, zoning, and legal descriptions on the proposed development site and within 500 feet of the perimeter boundary;
- i. existing and proposed dry and wet utility plan if changes to these facilities are proposed;
- j. written description of operational features of the proposed use;
- k. if exterior changes are proposed, plans of the proposed development showing:
 - i. footprints, ground-floor layout, and heights of all buildings and structures;
 - ii. required open spaces and recreational amenities;
 - iii. layout of all sidewalks, trails, paths, roadways, parking, loading, and bicycle storage areas;
 - iv. rough grading;
 - v. landscaping and lighting;
 - vi. approved Natural Resources Inventory/Forest Stand Delineation, if required under Chapter 22A;
 - vii. Forest Conservation Plan application, if required under Chapter 22A, or an approved preliminary forest conservation plan; telecommunication tower applications must include an approved Forest Conservation Plan or a letter from the Planning Department confirming that a Forest Conservation Plan is not required under Chapter 22A;
 - viii. Stormwater Management Concept or Water Quality Plan application, if required under Chapter 19 ; and

required by the Council.¹⁶ The decision of the Hearing Examiner can be appealed to the Board of Appeals and the Circuit Court. As introduced, ZTA 20-01 would not require conditional use approval.

It is not necessary to make solar facilities in the AR zone a conditional use for the purpose of requiring a finding of conformance with the Functional Plan for the Preservation of Agriculture and Rural Open Space. Site plan approval requires a Planning Board finding that the plan “substantially conforms with the recommendations of the applicable master plan and any guidelines approved by the Planning Board that implement the applicable plan”.¹⁷

There are no hard and fast rules for determining which uses in the Zoning Ordinance require a conditional use approval. The same land use may require conditional use approval, depending upon certain circumstances.¹⁸ It does give jurisdiction to the Hearing Examiner to make the initial determination of

ix. supplementary documentation showing or describing how the application satisfies previous approvals and applicable requirements.

- l. development program and inspection schedule detailing any construction phasing for the project; and
- m. for a telecommunication tower application, photographic simulations of the tower and site seen from areas with a direct view of the tower, including a minimum of at least 3 directions.

¹⁶ Section 59.7.3.1.E

- 1. To approve a conditional use application, the Hearing Examiner must find that the proposed development:
 - a. satisfies any applicable previous approval on the subject site or, if not, that the previous approval must be amended;
 - b. satisfies the requirements of the zone, use standards under Article 59-3, and to the extent the Hearing Examiner finds necessary to ensure compatibility, meets applicable general requirements under Article 59-6;
 - c. substantially conforms with the recommendations of the applicable master plan;
 - d. is harmonious with and will not alter the character of the surrounding neighborhood in a manner inconsistent with the plan;
 - e. will not, when evaluated in conjunction with existing and approved conditional uses in any neighboring Residential Detached zone, increase the number, intensity, or scope of conditional uses sufficiently to affect the area adversely or alter the predominantly residential nature of the area; a conditional use application that substantially conforms with the recommendations of a master plan does not alter the nature of an area;
 - f. will be served by adequate public services and facilities including schools, police and fire protection, water, sanitary sewer, public roads, storm drainage, and other public facilities. If an approved adequate public facilities test is currently valid and the impact of the conditional use is equal to or less than what was approved, a new adequate public facilities test is not required. If an adequate public facilities test is required and:
 - i. if a preliminary subdivision plan is not filed concurrently or required subsequently, the Hearing Examiner must find that the proposed development will be served by adequate public services and facilities, including schools, police and fire protection, water, sanitary sewer, public roads, and storm drainage; or
 - ii. if a preliminary subdivision plan is filed concurrently or required subsequently, the Planning Board must find that the proposed development will be served by adequate public services and facilities, including schools, police and fire protection, water, sanitary sewer, public roads, and storm drainage; and
 - g. will not cause undue harm to the neighborhood as a result of a non-inherent adverse effect alone or the combination of an inherent and a non-inherent adverse effect in any of the following categories:
 - i. the use, peaceful enjoyment, economic value or development potential of abutting and confronting properties or the general neighborhood;
 - ii. traffic, noise, odors, dust, illumination, or a lack of parking; or
 - iii. the health, safety, or welfare of neighboring residents, visitors, or employees.
- 2. Any structure to be constructed, reconstructed, or altered under a conditional use in a Residential Detached zone must be compatible with the character of the residential neighborhood.
- 3. The fact that a proposed use satisfies all specific requirements to approve a conditional use does not create a presumption that the use is compatible with nearby properties and, in itself, is not sufficient to require conditional use approval.
- 4. In evaluating the compatibility of an agricultural conditional use with surrounding Agricultural or Rural Residential zoned land, the Hearing Examiner must consider that the impact does not necessarily need to be controlled as stringently as if it were abutting a Residential zone.

¹⁷ Section 59.7.3.E.2.g.

¹⁸ Those circumstances may be the zone, the neighboring zone, the size of the use or the land use on the neighboring site.

approval. Site plan approval by the Planning Board would still be required if the conditional use is approved.

From the standpoint of an applicant, conditional use approval adds uncertainty to a project beyond the conditions that may be imposed by site plan approval. Section 7.3.1.E.3 states:

The fact that a proposed use satisfies all specific requirements to approve a conditional use does not create a presumption that the use is compatible with nearby properties and, in itself, is not sufficient to require conditional use approval.

On the other hand, the provisions for approving conditional uses recognizes the unique circumstances of such uses. Section 7.3.1.E.4 states:

In evaluating the compatibility of an agricultural conditional use with surrounding Agricultural or Rural Residential zoned land, the Hearing Examiner must consider that the impact does not necessarily need to be controlled as stringently as if it were abutting a Residential zone.

Site plan approval includes a subjective finding such as “substantial master plan conformance” and “compatibility” with existing and proposed adjacent development. It does not include the same negative presumption provision as exists in the conditional use approval.

The Office of Agriculture found that Howard and Baltimore Counties required conditional use approval for solar facilities in agricultural areas. Prince George’s and Frederick Counties did not require conditional use approval.

In the past 2 years, the typical (median) conditional use approval has taken 6.2 months from the time of application to the Hearing Examiner’s written decision.¹⁹ An appeal to the Board of Appeals with a granted request for oral argument would add approximately 3 months to the process.

The County Executive supports the recommendation by the members listed in the Agriculture and Preservation subgroups to require that solar collection systems producing more than 200% of onsite use in the Ag Reserve be allowed as a conditional use with participation in the review process by the Office of Agriculture (©124). In making this recommendation, the Executive seems to suggest **removing** the requirement for site plan approval.

11. Administration of 1,800-acre limit

At the Council meeting, Councilmember Jawando will recommend lowering the limit to 1,200 acres and limiting the rate of site plan approvals:

- j. the land area within the site plan application, in addition to all other site plan approvals for solar facilities in the AR zone, will not exceed 400 acres within one year of [effective date], 800 acres within 2 years after [effective date] and up a total maximum 1,200 acres no sooner than 3 years after [effective date].

¹⁹ The shortest time to approval was 3.7 months; the longest time was 15 months.

Zoning Text Amendment No.: 20-01
Concerning: Solar Collection System –
AR Zone Standards
Draft No. & Date: 6 – 2/18/21
Introduced: January 21, 2020
Public Hearing: March 3, 2020
Adopted:
Effective:

**COUNTY COUNCIL FOR MONTGOMERY COUNTY, MARYLAND
SITTING AS THE DISTRICT COUNCIL FOR THAT PORTION OF
THE MARYLAND-WASHINGTON REGIONAL DISTRICT WITHIN
MONTGOMERY COUNTY, MARYLAND**

Lead Sponsors: Councilmember Riemer and Council Vice President Hucker
Co-Sponsor: Councilmember Rice

AN AMENDMENT to the Montgomery County Zoning Ordinance to:

- revise the Solar Collection System use standards to allow larger facilities in the AR zone;
- amend the provisions for Solar Collection Systems in other zones; and
- amend the provisions for site plan approval in the AR zone.

By amending the following sections of the Montgomery County Zoning Ordinance, Chapter 59 of the Montgomery County Code:

<u>Division 3.1.</u>	<u>“Use Table”</u>
<u>Section 3.1.6.</u>	<u>“Use Table”</u>
Division 3.7.	“Miscellaneous Uses”
Section 3.7.2.	“Solar Collection System”
Division 7.3.	“Regulatory Approvals”
Section 7.3.4.	“Site Plan”

EXPLANATION: ***Boldface** indicates a Heading or a defined term.*
Underlining indicates text that is added to existing law by the original text amendment.
[Single boldface brackets] indicate text that is deleted from existing law by original text amendment.
Double underlining indicates text that is added to the text amendment by amendment.
[[Double boldface brackets]] indicate text that is deleted from the text amendment by amendment.
** * * indicates existing law unaffected by the text amendment.*

OPINION

ZTA 20-01, Lead Sponsors Councilmember Riemer and Council Vice President Hucker and Co-Sponsor Councilmember Rice, was introduced on January 21, 2020. ZTA 20-01 would revise the Solar Collection System use standards to allow larger facilities in the Agricultural Reserve (AR) zone.

In its report to the Council, the Montgomery County Planning Board and Planning staff recommend the following (differences from the Planning staff recommendations are noted):

- Discourage (Planning staff would prohibit) solar on prime agricultural soils.
- Prohibit solar on 15% slopes (Planning staff would say 8%) or on highly-erodible soils.
- Add all agrivoltaic crop production to the list of plants that can be grown under solar facilities.
- Prohibit solar on soils that are seasonally flooded.
- Delete the fencing requirement.
- Protect scenic views (Planning staff would prohibit disturbance) through site plan review.

The Council conducted a public hearing on March 3, 2020. The testimony did not reflect any grand consensus. One constituency said it was premature to allow industrial uses in the AR zone, at least until other options have been researched. Other testimony supported an immediate reduction in carbon emissions to minimize climate change. A number of amendments to ZTA 20-01 were recommended. A full summary of public hearing testimony may be found in the October 13, 2020 memorandum to Council.

The Council referred the text amendment to the Planning, Housing, and Economic Development (PHED) Committee and the Transportation and Environment Committee (meeting together as the “joint committee”) for review and recommendation.

On July 22, 2020 and then amended on January 14, 2021, the Planning, Housing, and Economic Development Committee and the Transportation and Environment Committee (4-1, Councilmember Friedson opposed) recommended approval of ZTA 20-01 with the following amendments (changes made on January 14 are indicated in bold):

- 1) Restrict the limited use solar facilities to Maryland’s net metering program, **including all COMAR references.**
- 2) Expand the definition of AR zoned accessory solar facilities from 120% of on-site use to 200%.
- 3) **Delete the code’s current provision for facilities larger than 2MW and prohibit such facilities in the AR zone.**
- 4) Prohibit solar facilities in stream buffers and wetlands.
- 5) Prohibit solar facilities on slopes steeper than 15%.
- 6) Specifically prohibit stripping topsoil from the site.
- 7) Expand the required plants under solar panels to include all agrivoltaic plants and to ensure that the land under the solar facilities is used for agricultural purposes.
- 8) Specify necessary findings concerning forest conservation and tree protection.
- 9) State the site plan requirement for stormwater management.
- 10) Add a requirement to minimize tree loss, consistent with forest conservation.
- 11) Limit the use of concrete to electrical and transformer pads.
- 12) Require screening within 200 feet of a neighboring house, with an opportunity for the Planning Board to waive the planting requirement.
- 13) Delete the requirement for fencing.
- 14) Prohibit limited use solar facilities on Soil Classification I soils.
- 15) Amend the total acreage monitoring responsibility from DPS to Planning staff **to specify that it must include any required setbacks and all acreage within the fenced or shrubbed area of the solar facility.**

The joint committee believes the changes would require agricultural uses under the panels and would assure a better fit into the environmental fabric of the area zoned AR. The increased opportunity for solar facilities would help meet new State and County clean energy goals.

After worksessions considering the recommendations of the joint committee and all testimony received, on October 13, 2020, January 26, 2021, and February 23, 2021 the Council revised the amendments made by the joint committee. The Council required Conditional Use approval for solar facilities larger than 200% of on-site energy use but less than 2 megawatts (AC) instead of site plan approval. In doing so, it retained the joint committee proposed standards for site plan review but made them standards for Conditional Use approval with one exception. In addition to a prohibition of these facilities on Soil Classification I soils, the Council prohibited facilities on Soil Classification II soils.

For these reasons, and because to approve this amendment will assist in the coordinated, comprehensive, adjusted, and systematic development of the Maryland-Washington Regional District located in Montgomery County, Zoning Text Amendment No. 20-01 will be approved as amended.

ORDINANCE

The County Council for Montgomery County, Maryland, sitting as the District Council for that portion of the Maryland-Washington Regional District in Montgomery County, Maryland, approves the following ordinance:

Sec. 1. DIVISION 59-3.1 is amended as follows:

Division 3.1. Use Table

* * *

Section 3.1.6. Use Table

The following Use Table identifies uses allowed in each zone. Uses may be modified in Overlay zones under Division 4.9.

USE OR USE GROUP	Definitions and Standards	Ag	Rural Residential			
		AR	R	RC	RNC	
* * *						* * *
MISCELLANEOUS						
Noncommercial Kennel	3.7.1	P	P	P	P	
Solar Collection System	3.7.2	L/C	L	L	L	
* * *						

Key: P = Permitted Use L = Limited Use C = Conditional Use Blank Cell = Use Not Allowed

* * *

Sec. 2. DIVISION 59-3.7 is amended as follows:

Division 3.7. Miscellaneous Uses

* * *

Section 3.7.2. Solar Collection System

A. Defined

Solar Collection System means an arrangement of panels or other solar energy devices that provide for the collection, inversion, storage, and distribution of solar energy for electricity generation, space heating, space cooling, or water heating. A Solar Collection System includes freestanding or mounted devices. Solar Collection Systems are facilities that comply with the requirements of the State’s net metering program under Maryland Code §7-306, COMAR 20.50.10, and COMAR 20.62, including Community

23 Solar Energy Generating Systems, Aggregate Net Energy Metering Systems,
24 and projects limited to a percentage of on-site energy use. A Solar Collection
25 System larger than 2 megawatts (AC) is prohibited in the Agricultural
26 Reserve Zone.

27 **B. Use Standards**

28 1. Where a Solar Collection System is allowed as a limited use, it must
29 satisfy the following standards:

30 ~~[[1]]~~a. In the Agricultural Reserve zone, ~~[[all of the standards in~~

31 Subsection 3.7.2.B.2 and the following standards apply:]] a

32 Solar Collection System is allowed where the system produces

33 up to 200% of annual baseline energy use on-site and must

34 satisfy the following requirements:

35 i. Solar panels may encroach into a setback as allowed

36 under Section 4.1.7.B.5.c and may exceed the maximum

37 height as allowed under Section 4.1.7.C.3.b.

38 ii. Written authorization from the local utility company

39 must be provided for a Solar Collection System that will

40 be connected to the utility grid.

41 iii. Removal of trees or landscaping otherwise required or

42 attached as a condition of approval of any plan,

43 application, or permit for the installation or operation of a

44 Solar Collection System is prohibited.

45 [a. A Solar Collection System must be an accessory use as defined
46 in Section 3.1.3.]

47 [b][[a. Written authorization from the local utility company must be

48 provided for a Solar Collection System that will be connected

49 to the utility grid.]]

- 50 [c][[b. Removal of trees or landscaping otherwise required or attached
51 as a condition of approval of any plan, application, or permit for
52 the installation or operation of a Solar Collection System is
53 prohibited.]]
- 54 [d. Solar panels may encroach into a setback as allowed under
55 Section 4.1.7.B.5.c and may exceed the maximum height as
56 allowed under Section 4.1.7.C.3.b.]
- 57 [e. A freestanding Solar Collection System is allowed only as an
58 accessory use where the system produces a maximum of 120%
59 of on-site energy consumption and must satisfy the same
60 development standards as an accessory structure.]
- 61 [[c. Except as allowed under Subsection 59.7.3.4.E.5.b, the site
62 must be designated pollinator-friendly under the Maryland
63 Pollinator-Friendly Designation Program.]]
- 64 [[d. Cumulatively, on all AR zoned land, a maximum of 1,800 acres
65 of land may be covered by solar panels.]]
- 66 [[2]]b. In Rural Residential, Residential,
67 Commercial/Residential, Employment, and Industrial zones,
68 where a Solar Collection System is allowed as a limited use, [it
69 must either satisfy Subsection 59.3.7.2.B.1.a through
70 Subsection 59.3.7.2.B.1.e or] it must satisfy the following
71 standards in either [[subsection a or b]] Subsection
72 59.3.7.2.B.2.a or 59.3.7.2.B.2.b:
- 73 [[a. The Solar Collection System must be an accessory use as
74 follows:]]
- 75 **i. Systems producing 120% or less of on-site energy use**

76 The Solar Collection System may be an accessory use
77 under the following standards:

78 (a) the system produces a maximum of 120% of on-
79 site energy [[consumption]] use;

80 [[ii.]](b) [[encroachment]] solar panels may encroach
81 into a setback as allowed under Section
82 4.1.7.B.5.C; and

83 [[iii.]](c) the panels may exceed the [[a]] maximum
84 height allowed under 4.1.7.C.3.b.

85 **[[b]]ii. Systems Producing more than 120% of on-site**
86 **energy use**

87 The Solar Collection System must satisfy the following
88 standards:

89 [a][[i.]](a) Site plan approval is required under Section
90 7.3.4.

91 [b][[ii.]](b) The site must be a minimum of 3 acres in
92 size.

93 [c][[iii.]](c) The system may produce a maximum of 2
94 megawatts (AC).

95 [d][[iv.]](d) All structures must be:

96 [i][[A.]](1) 20 feet in height or less;

97 [ii][[B.]](2) located at least 50 feet from any
98 property line; and

99 [iii][[C.]](3) surrounded by a minimum 6-foot-tall
100 fence.

101 [e][v.](e) If a structure for a Solar Collection System
102 is located in an area visible to an abutting
103 residential use or a road:

104 [i][A.](1) only solar thermal or photovoltaic
105 panels or shingles may be used;

106 [ii][B.](2) the panels or shingles must use
107 textured glass or an anti-reflective coating;
108 and

109 [iii][C.](3) screening that satisfies Section
110 59.6.5.3.C.8 (Option A) on the sides of the
111 facility visible from the residential use or
112 road is required.

113 [f][vi.](f) The Solar Collection System must be
114 removed within 12 months of the date when the
115 use is discontinued or abandoned by the system
116 owner or operator, or upon termination of the
117 useful life of the system. The Solar Collection
118 System will be presumed to be discontinued or
119 abandoned if no electricity is generated by the
120 system for a period of 12 continuous months.

121 [g][vii. If licensed by the Public Service Commission, [A] a
122 system designed to produce more than 2 megawatts (AC)
123 [may be allowed as a public utility use under Section
124 3.6.7.E] is not restricted by Chapter 59.]]

125 2. A Solar Collection System may be allowed as a Conditional Use in
126 the AR zone if it exceeds a facility rated at more than 200% of on-site
127 energy use and is less than 2 megawatts (AC). Where a Solar

128 Collection System is allowed as a conditional use in the AR zone, it
129 may be permitted by the Hearing Examiner under Section 7.3.1.

130 Conditional Use and the following standards:

131 a. The Solar Collection System is prohibited:

132 i. on soils classified by the United States Department of
133 Agriculture as either Soil Classification Category I or
134 Category II;

135 ii. in a stream buffer;

136 iii. on wetlands; or

137 iv. on slopes equal to or greater than 15%.

138 b. Scraping topsoil from the site is prohibited.

139 c. Grading and any soil removal are minimized.

140 d. The solar collection system is compliant with the requirements
141 of the State’s net metering program under Maryland Code §7-
142 306, COMAR 20.50.10, and COMAR 20.62.

143 e. The area under the solar facility must be actively used for
144 farming or agricultural purposes by satisfying one or more of
145 the following requirements:

146 (i) designated pollinator-friendly under the Maryland
147 Pollinator-Friendly Designation Program;

148 (ii) planted, managed, maintained, and used for grazing farm
149 animals; or

150 (iii) planted, managed, maintained, and used for any other
151 agrivoltaic plant material.

152 f. The applicant must provide evidence that the local utility
153 company will allow the Solar Collection System to be
154 connected to the utility grid.

- 155 g. The applicant must provide evidence that the application was
- 156 submitted to the Office of Agriculture.
- 157 h. Removal of trees or landscaping otherwise required or attached
- 158 as a condition of approval of any plan, application, or permit for
- 159 the installation or operation of a Solar Collection System is
- 160 prohibited.
- 161 i. Any tree in or on a floodplain, stream buffer, steep slope,
- 162 critical habitat, contiguous forest, or historic site, and any
- 163 champion tree or other exceptionally large tree is left
- 164 undisturbed unless a disturbance is allowed under Section 22A-
- 165 12(b)(1).
- 166 j. Except for pad areas for transformers and electrical equipment,
- 167 the use of concrete is prohibited.
- 168 k. Screening that satisfies Section 59.6.5.3.C.8 (Option A) on the
- 169 sides of the facility within 200 feet of any neighboring house is
- 170 required; however, a fence may not be required or prohibited.
- 171 l. The Hearing Examiner’s decision must consider the
- 172 recommendations of the Office of Agriculture.
- 173 m. The applicant must include a calculation of the total acreage
- 174 used for the Solar Collection System, including any required
- 175 setbacks and all acreage within the fenced or shrubbed area.
- 176 n. The land area approved for the Conditional Use, in addition to
- 177 all other Conditional Use approvals for solar facilities in the AR
- 178 zone, will not exceed 1,800 acres of land.

179 * * *

180 **Sec. 2. DIVISION 59-7.3 is amended as follows:**

181 **Division 7.3. Regulatory Approvals**

182 * * *

183 **Section 7.3.4. Site Plan**

184 * * *

185 **E. Necessary Findings**

186 * * *

187 [[5. For property zoned AR proposed for use as a Solar Collection system:
 188 a. grading and any soil removal will be minimized; and
 189 b. the site must be designated pollinator-friendly under the
 190 Maryland Pollinator-Friendly Designation Program, or any land
 191 on which the solar generation facility is located that is not
 192 designated as pollinator friendly must be planted, managed, and
 193 maintained in a manner suitable for grazing farm animals.]]

194 * * *

195 **Sec. 3. Reporting.** The Planning Department must prepare an impact report
 196 no later than December 31, 2023, with input from the Office of Agriculture as well
 197 as community stakeholders. The report must cover topics such as:

- 198 • assessment of different agricultural practices on land beneath panels;
- 199 • impact from installations on forests, streams, wetlands;
- 200 • impact on the ability of diverse communities to access farming or
- 201 remain in farming;
- 202 • how the availability of solar has measurably impacted agriculture
- 203 generally, including any measurable impacts on operations of lease or
- 204 tenant farmers, including land prices;
- 205 • any measurable impact on “local food” production;
- 206 • any measurable impacts of solar provision on carbon emissions in
- 207 Montgomery County and the electricity grid generally.

208 The impact report must recommend to the County Council whether the solar ZTA
209 program should be continued, expanded, or discontinued based directly on any
210 measurable and substantive impacts discovered in the report.

211

212 **Sec. 4. Effective date.** This ordinance becomes effective 20 days after the
213 date of Council adoption.

214

215 This is a correct copy of Council action.

216

217

218 _____
219 Selena Mendy Singleton, Esq.
Clerk of the Council