LEAGUE OF WOMEN VOTERS® OF MARYLAND

TESTIMONY TO THE SENATE EDUCATION, ENERGY AND THE ENVIRONMENTCOMMITTEE

SB 931– Public Utilities - Generating Stations - Generation and Siting (Renewable Energy Certainty Act)

POSITION: Information Only

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Date: February 28, 2025

Although the League of Women Voters of Maryland is a strong supporter of expanding the production of electricity with technology that does not contribute to climate pollution, we have never studied the topic of solar siting on a statewide basis. We recognize that various parts of the state may have differing views on what is appropriate and desirable for their communities so **we are taking no position on SB 931.**

However, one of our local Leagues, the League of Women Voters of Montgomery County Maryland, has studied that topic extensively as it relates to siting solar in the Agricultural Reserve. Excerpts from two facts sheets they published on the subject follow this testimony. We believe the experience and insights in these documents may provide you with a better understanding of some of the issues related to solar siting and assist you in your deliberations of this SB 931.

When you take a look at the following documents you will see that the policy makers and the stakeholders in Montgomery County underwent an extensive process to develop the current Zoning Text Amendment that outlines the parameters for siting solar on agricultural land. LWVMD is not in the position to say whether those parameters make sense for the entire state, but LWV Montgomery County asked us to make sure that you are aware that at least one jurisdiction in Maryland has already studied this issue and enacted zoning laws based on much public input and their unique feature, the Agricultural Reserve.

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The following is an excerpt from the League of Women Voters of Montgomery County December 2021 Fact Sheet: PRESERVING THE AGRICULTURAL RESERVE

PROPOSED SOLAR DEVELOPMENT

In January 2020, a zoning text amendment, ZTA 20-01 Community Solar in the Agricultural Reserve (AR), was proposed to revise the AR zoning code "to allow the blending of solar arrays with farmland on a small portion of the Agricultural Reserve." The measure was to allow up to 1,800 acres of AR zoned land to be utilized for commercial solar production. Also included was a proposal to increase the amount of solar energy allowed to be generated as an accessory use to farming from 120% of the onsite consumption to 200%.

Responses to the proposed ZTA 20-01 were complex and divergent except for one point of agreement: the production of solar energy is a timely and urgent goal. All interest groups reiterated the need for locating solar energy sources in the county and for using those sources to contribute clean energy to the county's energy grid, especially given that the county is not well suited for wind or nuclear energy. Nevertheless, conservationists and farmers disagreed with environmentalists and solar developers on how this should be accomplished.

The arguments surrounding ZTA 20-01 clearly reflect different opinions about the Agricultural Reserve's purpose and illuminate the complexity of locating solar arrays, especially on farmland, a dilemma many communities across the country are facing. When ZTA 20-01 was first introduced, the goal was to site solar fields on 1,800 acres of any class of soil. Additionally, the ZTA proposed the co-development of solar and farming; solar production in the Agricultural Reserve would be a "blending of solar arrays with farmland. Farmland and solar can go together.... Visionary farmers are pioneering 'dual use' of land beneath solar arrays by cultivating pollinator friendly wildflowers...grazing sheep and growing vegetable crops for local food and grapes for local wine." The science of combining farming and solar on the same plot of land is called agrivoltaics ("agri" comes from agriculture; photovoltaics are the conversion of light into energy) and is a new, rapidly growing research area.

Arguments Against ZTA 20-01

The strongest opposition to locating solar arrays in the Agricultural Reserve comes from farmers and conservationists who want to maintain the master plan zoning of the land for farming as the primary use. The opposing arguments include:

1) The Agricultural Reserve has been a bastion of climate protection for 40 years; it improves air quality through vegetative cover, provides water quality protection particularly in sensitive headwater areas, sequesters carbon through forestation and cover crops, supports managed growth and controls the public costs of urban sprawl.
2) Local food production has taken on new urgency as the potential for the reserve to meet the need for table crops increased during the pandemic.
3) Some farm owners currently collect solar energy on their farms to supply the farm's energy needs. This use of solar is considered "accessory" to farming and is provided for in the current zoning ordinance as "limited use." Limited use is available to additional farms in the reserve.
4) Landowners who lease farmland likely will opt to install solar for annual rent payments greater than tenant farmers' payments. Fifty-seven percent of land farmed in the reserve is rented, not farmed, by its owner—so farmers renting land and would-be farmers searching for land to rent will lose out if forced to compete for land access with the deep-pocketed solar industry. Land rents being offered by the solar industry are sometimes more than 20 times higher than what many land-leasing farmers currently pay.

5) Opening the Agricultural Reserve to non-farm uses threatens the legal tools that have protected the reserve so far. ZTA 20-01 lowers the bar and could lead to additional acres being targeted by the zoning amendment. Opening the reserve to non-farming uses encourages other challenges to primary farmland use.

Support for ZTA 20-01

1) State policymakers project that if the state adopts a 100% clean energy standard, Montgomery County's share of solar will likely be around 2,500 megawatts, based on our population. Producing 2,500 megawatts requires between 12,500 and 20,000 acres of solar arrays. Farmland in the Agricultural Reserve is needed to provide enough space to meet this goal.
2) Solar installation on county rooftops is inadequate to meet the goal of 2,500 megawatts. According to data from the National Renewable Energy Laboratory, rooftop solar could only account for 25- 50% of the county's share of solar energy under a 100% clean energy standard. The county has issued approximately 9,300 permits for residential rooftop solar. With 390,000 housing units, the county has a long way to go and the clock is ticking. Rooftop solar is limited by rooftop space available and the time it takes to scale up the placement of solar panels on rooftops.
3) The solar projects allowed by ZTA 20-01 do not require any public money; they are privately financed on private land zoned AR.
4) Because the Agricultural Reserve is not zoned for commercial development, the land is considerably cheaper than most land in the county. Installation of solar energy collectors on inexpensive open land offers solar developers' greater profits on their investments.

Outcome of the Debate

After much deliberation and adoption of several amendments in the Planning, Housing, and Economic Development Committee, ZTA 20-01 was presented to the County Council and council members agreed they required more input from "stakeholders." A town meeting was called in November for solar installers, farmers and supportive organizations to speak to the pertinent issues. This discussion resulted in the formation of a workgroup consisting of individuals representing the stakeholders. Assisted by council staff, the stakeholder workgroup met to discuss in greater detail the issues surrounding solar on farmland and proposals to amend ZTA 20-01. Stakeholders and council members were asked to submit amendments in writing to council staff so that proposed amendments could be organized and posted online.

ZTA Provisions Adopted

The working group recommendations adopted by the council in February of 2021 included that commercial solar be permitted as a Conditional Use on a limit of 2% of the Agricultural Reserve and that the hearing examiner in the Conditional Use process require proof that the proposal has been submitted to the Office of Agriculture for comment. The hearing examiner's decision must consider the recommendations of the Office of Agriculture.

Additional features of the text amendment include:

1) The installation must have secured written authorization for acceptance of the power to be generated by the local utility servicing the area in which the generating field is installed.
2) The land having soil classifications I and II may not be used for solar installation.
3) Topsoil may not be removed from the site.
4) Except for pad areas for transformers and electrical equipment, the use of concrete is prohibited.
5) The types of solar generation materials are limited and must be removed within one year of discontinuation of use.

6) The area under the solar panels must be actively used for farming or agricultural purposes including pollinator-friendly plants, grazing farm animals and/or other agrivoltaic plant material.
7) Conservation of trees, scenic views, stream buffers, and wetlands is required and 15% slopes, susceptible to high levels of erosion, may not be utilized for solar installation.
8) The Planning Department must prepare an impact report after two years with input from community stakeholders and the Office of Agriculture.
9) The amount of solar energy allowed as an accessory use to farming was raised from 120% to 200% of onsite use.

State regulations apply to solar generation throughout Maryland. Among these regulations is the percentage of green energy to be supplied by the utility companies. Potomac Edison, the utility servicing most of the Agricultural Reserve, is meeting its current renewable energy requirements as reflected in its tariff document filed with the state and is only accepting applications that are placed on a waiting list. This limitation impacts not only commercial installation, but accessory use as well. There is a significant possibility that the required level of green energy will be increased in the near future and some farmers are looking at solar installation as a way to boost income from their farms.

Ongoing Solar Concerns

One of the basic assumptions that undergirds ZTA 20-01 is that farmland used for solar installations will continue to be productive as farmland. The County Council has authorized a pilot program to determine the viability of co-developing land for solar and farming. The agrivoltaic pilot is proposed for the Poolesville golf course property owned by the Montgomery County Revenue Authority. The pilot proposes a 1- to 2-acre solar array that will promote different types of agricultural production under the solar panels. The National Renewable Energy Laboratory has been contracted to assist in planning the types of solar collection and approaches to agriculture to ensure a meaningful pilot. There is no evidence that solar and farming are compatible in the Agricultural Reserve. In fact, copious research and reams of abstracts about agrivoltaics, nationally and internationally, support the idea that the science is new, burgeoning, and short on examples where the two simultaneous uses of farmland can be brought to scale.

A second concern emerging from the debate around placing solar arrays in the Agricultural Reserve is whether the county is opting for rezoning farmland in a rush to meet clean energy goals without a broader inquiry into where and how solar might be implemented throughout the entire county. The proposed use of farmland in the Agricultural Reserve for solar generation is only one of the many alternative uses to agriculture that have been proposed for the area. The initial and the ongoing actions taken by the county government to preserve the land for farming are described below.

The following is an excerpt from the League of Women Voters of Montgomery County December 2024 Fact Sheet: THE AGRICULTURAL RESERVE: CHALLENGES AND ISSUES

Solar Projects in the Agricultural Reserve

ZTA 20-01, Montgomery County Council's most recent ordinance governing SCS in the Agricultural Reserve (and other county AR zones) is known as Zoning Text Amendment 20-01, Solar Collection System, AR Zone Standards.

The ZTA revised use standards to allow for larger facilities in the AR zone and amended provisions for site plan approval in the AR zone and other zones. It includes the following:

- An SCS is allowed as a conditional use of two megawatts or as an accessory use to farming where the system produces up to 200% of baseline energy use on-site (does not require site plan approval).
- The area under the solar facility must satisfy one of the following: designated pollinator-friendly,

maintained in a manner suitable for grazing farm animals, or maintained for other agrivoltaics plant material.

- Cumulatively, on all AR-zoned land, a maximum of 1,800 acres of land may be covered by solar panels.
- SCS are restricted from being sited on soils classified category 1 and 2 (USDA); from stream buffers and wetlands; and on slopes steeper than 15%. Topsoil may not be stripped from the site.
- Forest Conservation requirements must be met.
- Use of concrete is prohibited except for transformers and electrical equipment.
- Written authorization from the local utility company that allows the SCS to be connected to the utility grid must be submitted.
- Facilities in the AR zone that are not developed as accessory to farming must comply with the zoning conditional use process which includes obtaining site plan approval from the County Hearing Examiner and Planning Board.
- An SCS must be removed within 12 months of the date when the use is discontinued.
- Montgomery Planning must submit an annual impact report to the County Council.

Montgomery Planning Impact Report on SCS in the AR Zone

In response to the requirement of ZTA 20-01 that an annual report on the impact of the SCS in the AR Zone be submitted to the County Council, Montgomery Planning presented its December 28, 2023, report, which includes "a recommendation to the County Council on whether the solar program should be contained, expanded, or discontinued based directly on any measurable and substantive impacts."

The Planning Board's report includes the following:

A. The Planning Board has recommended two projects for conditional use approval:

1) Riggs Road/Free Fein Solar, 5011 Riggs Road, Gaithersburg, MD. Approved to construct a two-megawatt SCS on approximately 7.73 acres (4.9 acres for the solar array and 2.8 acres for the access drive). Located on Category III, IV, and V soils. Construction has not begun. Project will not prohibit equestrian facilities, has little impact on the environment, and applicant will install pollinator plantings below the solar arrays.

2) Gregg Road Solar, 4434 Gregg Road, Brookeville, MD. Approved to construct a two-megawatt SCS on approximately 12.84 acres (8.77 acres for the solar array and four acres for a Forest Conservation area). Project will be on Category III and IV soils, include pollinator plantings, and screening of site. Forest Conservation Plan has been submitted. No final approval yet from the hearing examiner.

B. Hurdles for SCS in the AR Zone:

1) Two-megawatt limitation and the exemption of solar installations on Category I and II soils.

2) Utility approval for a project to connect to the grid. Available capacity to absorb new electric generation by local power circuits does not always exist. (The AR is at the edge of the service areas for all three electricity providers—PEPCO, BG&E, and Potomac Edison.)

3) Two-megawatt limit requires upgrades to regional power stations which are expensive and sometimes unprofitable. Size restrictions also discourage investment in small projects when larger capacity projects may be available elsewhere.

C. Recommendations for SCS in the AR Zone:

1) Advised the County Council to improve coordination with utility companies.

2) Recommended increased size from two megawatts to five megawatts to match the state cap.

3) Recommended conversion of SCS to "limited use." Currently the "conditional use" designation requires a process for approval that is rather costly and lengthy.