



ZRA-197

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Petitioner

Howard County Planning Board

February 4, 2021

Proposed Amendment

The purpose of this ZRA is to implement recommendations of the Solar Task Force based on DPZ's analysis and consistency with the Zoning Regulations.

Commercial Solar Facility



Current definition: “ground mounted solar collectors ... where less than 50% of the power generated is consumed by the principal use on the site”

Accessory Solar Collectors

Ground-Mount



Building/Roof-Mount



Current definition: “primary purpose of generating electrical power to be consumed primarily by the principal use”

Background and Timeline

- 2012 Council Bill 39-2012 (ZRA-142) created the Commercial Solar Facility (CSF) use and added it to RC and RR as a Conditional Use.
- 10 acre minimum lot size / 75 acre maximum use size
 - Prohibited on Agricultural Land Preservation Program properties
- CZ 2013 The Accessory Solar Collector use was created and added in all zoning districts, except R-HED, OT, and SC.
- 2016 Council Bill 59-2016 (ZRA-164)
- Allowed CSF on ALPP properties
 - Agricultural Preservation Board (APB) review
 - Exempted from the 2% use cap on ALPP and 1 acre on cluster subdivision pres parcels
 - Visual impact analysis - scenic views
 - Glare study

Background and Timeline

- 2017 The APB developed criteria to determine if the CSF meets the intent of section 106.1.D.1.a.
- 2018 Six proposals for CSFs on ALPP properties were submitted to the APB between June of 2018 and August of 2019.
- 2019 The APB revised their Commercial Solar Facility policy to limit the size of facilities on ALPP properties to 10 acres or 10% of the property, whichever is less.
- Only applies to the APB's recommendation to the Hearing Examiner.
 - Zoning Regulations permit up to 75 acres.
- 2020 CR 133-2019 - Commercial Solar Facilities Task Force
- Study commercial solar facilities on ALPP parcels.
 - 14 meetings starting on January 23, 2020 and ending on July 14, 2020.
 - Public Hearing May 28, 2020 - 16 individuals/organizations and 12 written testimonies.
 - Task Force recommendations released July 24, 2020 (Attachment B).

Solar Task Force Recommendations

- Update the current solar definitions in Section 103.0.
- Allow rooftop solar collectors in all zoning districts and allow all power generated to be sent off-site.
- Allow ground-mount CSFs in more zoning districts.
- Eliminate the glare study requirement for CSF conditional uses.
- Limit the size of ground-mount CSF on ALPP properties to 2MW.
- Add a preliminary and final review by the APB to allow input on the placement and other details of the project prior to submittal of a conditional use plan.

ZRA-197 DPZ RECOMMENDATION MATRIX

Use	Definitions			Proposed Zoning Districts			Allowed on Ag Pres	Major Changes
	Current Definition	Solar Task Force Definition	DPZ Definition	Principal Use By Right	Accessory Use	Conditional Use		
Commercial Solar Collector	Not Defined	A solar collector connected directly to the electrical distribution or transmission system separately from any other electrical service on the property on which it is hosted and whose generated electrical power is not primarily consumed by the principal use. Note: This is purely a definition to assist with clarifying the other definitions.	A SOLAR COLLECTOR CONNECTED DIRECTLY TO THE ELECTRICAL DISTRIBUTION OR TRANSMISSION SYSTEM SEPARATELY FROM ANY OTHER ELECTRICAL SERVICE ON THE PROPERTY ON WHICH IT IS HOSTED AND WHERE ELECTRICAL POWER GENERATED MAY BE USED ON OR OFF-SITE.	This is purely a definition to assist with clarifying the other definitions.			N/A	
Solar Collector, Rooftop	Solar Collector, Accessory: A building mounted or ground mounted solar collector which is an accessory use to a principal use and is used for the primary purpose of generating electrical power to be consumed primarily by the principal use. A ground mounted accessory solar collector may be located on a different lot than the principal use.	A solar collector or commercial solar collector and all supporting electrical and structural components that is attached to the rooftop of an existing structure or integrated into the building envelope, where the solar panels themselves act as a building material or structural element. Examples include rooftop net-metering, rooftop aggregated net-metering, and commercial rooftop including community solar.	A SOLAR COLLECTOR OR COMMERCIAL SOLAR COLLECTOR AND ALL SUPPORTING ELECTRICAL AND STRUCTURAL COMPONENTS THAT IS ATTACHED TO THE ROOFTOP OF AN EXISTING STRUCTURE OR INTEGRATED INTO THE BUILDING, WHERE THE SOLAR PANELS THEMSELVES ACT AS A BUILDING MATERIAL OR STRUCTURAL ELEMENT.	All Zoning Districts	All Zoning Districts	None	Yes	All power generated from rooftop and building mounted solar collectors may be sent off-site.
Solar Collector, Accessory Use Ground-Mount	Solar Collector, Accessory: A building mounted or ground mounted solar collector which is an accessory use to a principal use and is used for the primary purpose of generating electrical power to be consumed primarily by the principal use. A ground mounted accessory solar collector may be located on a different lot than the principal use.	A solar collector and all supporting electrical and structural components that is mounted onto the ground or is a canopy and is used for the purpose of generating electrical power to be consumed primarily by the principal use. A ground mounted accessory solar collector may be located on a different lot than the principal use, including systems eligible for net meter aggregation by state net metering regulations. Examples include ground-mounted aggregated net-metering.	A SOLAR COLLECTOR AND ALL SUPPORTING ELECTRICAL AND STRUCTURAL COMPONENTS THAT IS ATTACHED TO THE GROUND OR A CANOPY ON A PROPERTY THAT CONTAINS A PRINCIPAL USE OR AN ADJACENT LOT; WHERE ELECTRICAL POWER GENERATED IS USED BY THE PRINCIPAL USE AND EXCESS ELECTRICAL POWER GENERATED MAY BE USED FOR NET METERING, INCLUDING NET METER AGGREGATION, ACCORDING TO STATE NET METERING REGULATIONS.	None	All Zoning Districts ***** 3% lot coverage on residential lots	None	Yes	Allows excess power generated by solar collectors to be used for net metering. ***** Codifies DPZ policy regarding accessory structure lot coverage requirement exemption and increases the percentage from 2 to 3.
Solar Collector, Commercial Ground-Mount	Solar Facility, Commercial: A series of ground mounted solar collectors used to generate photovoltaic power, where less than 50% of the power generated is consumed by the principal use on the site	A commercial solar collector and all supporting electrical and structural components that is mounted onto the ground or is a canopy and is no more than the maximum system size according to state net metering regulations. Examples include community solar (virtual net metering) and small-scale power purchase agreements (PPAs) located off-site from customer.	A COMMERCIAL SOLAR COLLECTOR AND ALL SUPPORTING ELECTRICAL AND STRUCTURAL COMPONENTS THAT IS MOUNTED ONTO THE GROUND OR A CANOPY.	None	None	Current: RC, RR ***** Proposed: B-1, B-2, CE, M-1, M-2, PEC, POR	Yes, with 16 acre/34% limitation	Creates a two step review process for the Ag Pres Board *****Removes the glare study requirement. *****Establishes a maximum size of 16 acre/34% on Ag Pres. ***** Expands principal use ground mounted commercial solar to commercial and industrial areas through CU process.

ALPP Size Limitation

Proposed Limitation: 16 acres or 34% of the property, whichever is less

- The National Renewable Energy Lab estimates that 8 acres is needed per MW, therefore a 2MW solar facility will require 16 acres of land.
- ALPP Eligibility
 - 66% of the parcel shall be USDA Class I through IV soils
 - Property can enter the program if CSF 34% or less
- Public Service Commission -
 - CSF > 2MW requires Certificate of Public Necessity and Convenience
 - CPNC preempts local zoning – Prohibition would conflict

Proposed Amendments - Recap

- Update the current solar definitions in Section 103.0.
- Allow rooftop commercial and accessory ground-mount solar collectors in all zoning districts.
- Exempt accessory ground-mount solar collectors from the accessory structure lot coverage requirement in Sec. 128.0.A.12, **PROVIDED THEY DO NOT COVER MORE THAN 3% OF THE LOT.**
- Allow ground-mount commercial solar facilities in B-1, B-2, CE, M-1, M-2, POR, and PEC as a Conditional Use.
- Eliminate the requirement for a glare study in Sec. 131.0.N.52.
- Limit the size of ground-mount commercial solar facilities on parcels that are in the Agricultural Land Preservation Program to 16 acres or 34% of the parcel, whichever is less.
- Add a preliminary and final review by the Agricultural Preservation Board in Sec. 131.0.N.52 for Commercial Solar Facilities to allow input on the placement and other details of the project prior to submittal of a conditional use plan.

CB57-2020

- Created 4 Criteria in County Code for the evaluation of ZRAs
- Went into affect on January 5, 2021.

Evaluation

Section 16.208.(d) of the Howard County Code

- 1. The compatibility, including potential adverse impacts and consequences, of the proposed Zoning Regulation Amendment with the existing and potential uses of the surrounding areas and within the same zoning district.**

Sec. 103.0

The proposed definitions are unlikely to result in adverse impacts on existing or potential uses.

Rooftop Solar in All Zoning Districts

- Currently allowed as an accessory solar collector if power is used by principal use
- Main difference is that all power can be sent off-site
- 800+ building permits – 0 official complaints

Evaluation

Section 16.208.(d) of the Howard County Code

- 1. The compatibility, including potential adverse impacts and consequences, of the proposed Zoning Regulation Amendment with the existing and potential uses of the surrounding areas and within the same zoning district.**

Sec. 128.0.A.12 – Accessory Structure Lot Coverage Exemption on Residential Lots

This amendment codifies an existing DPZ policy; therefore, it is unlikely to have any adverse impacts on existing and potential uses.

Sec. 131.0.N.52. – Allow CSF in B-1, B-2, CE, M-1, M-2, PEC, and POR

- Commercial ground-mount solar collector facilities are relatively unobtrusive uses that do not produce adverse impacts such as traffic, noise, odors, etc
- Glare – Mitigated through the use of single axis tracking panels

Evaluation

Section 16.208.(d) of the Howard County Code

- 1. The compatibility, including potential adverse impacts and consequences, of the proposed Zoning Regulation Amendment with the existing and potential uses of the surrounding areas and within the same zoning district.**

Sec. 131.0.N.52.a – Maximum CSF size on ALPP – 16 acres or 34% of property

Decreasing the maximum size of commercial ground-mount solar collector facilities on properties in the ALPP from 75 acres to 16 will help ensure that the properties remain viable for farming and mitigate the visual impact of large solar facilities on the rural character of RC/RR zoned areas.

Evaluation

Section 16.208.(d) of the Howard County Code

- 1. The compatibility, including potential adverse impacts and consequences, of the proposed Zoning Regulation Amendment with the existing and potential uses of the surrounding areas and within the same zoning district.**

Section 131.0.N.52.i. – Elimination of the glare study requirement

Eliminating the requirement for a glare study is unlikely to result in adverse impacts, due to the use of single axis tracking panels.

Evaluation

Section 16.208.(d) of the Howard County Code

- 1. The compatibility, including potential adverse impacts and consequences, of the proposed Zoning Regulation Amendment with the existing and potential uses of the surrounding areas and within the same zoning district.**

Section 131.0.N.52.I. – Preliminary and Final Review of CSF by APB

This process change reduces potential impacts to the low density residential and agricultural land uses in the RC/RR zoning districts, since the intended result is better placement of solar facilities on existing farms.

Evaluation

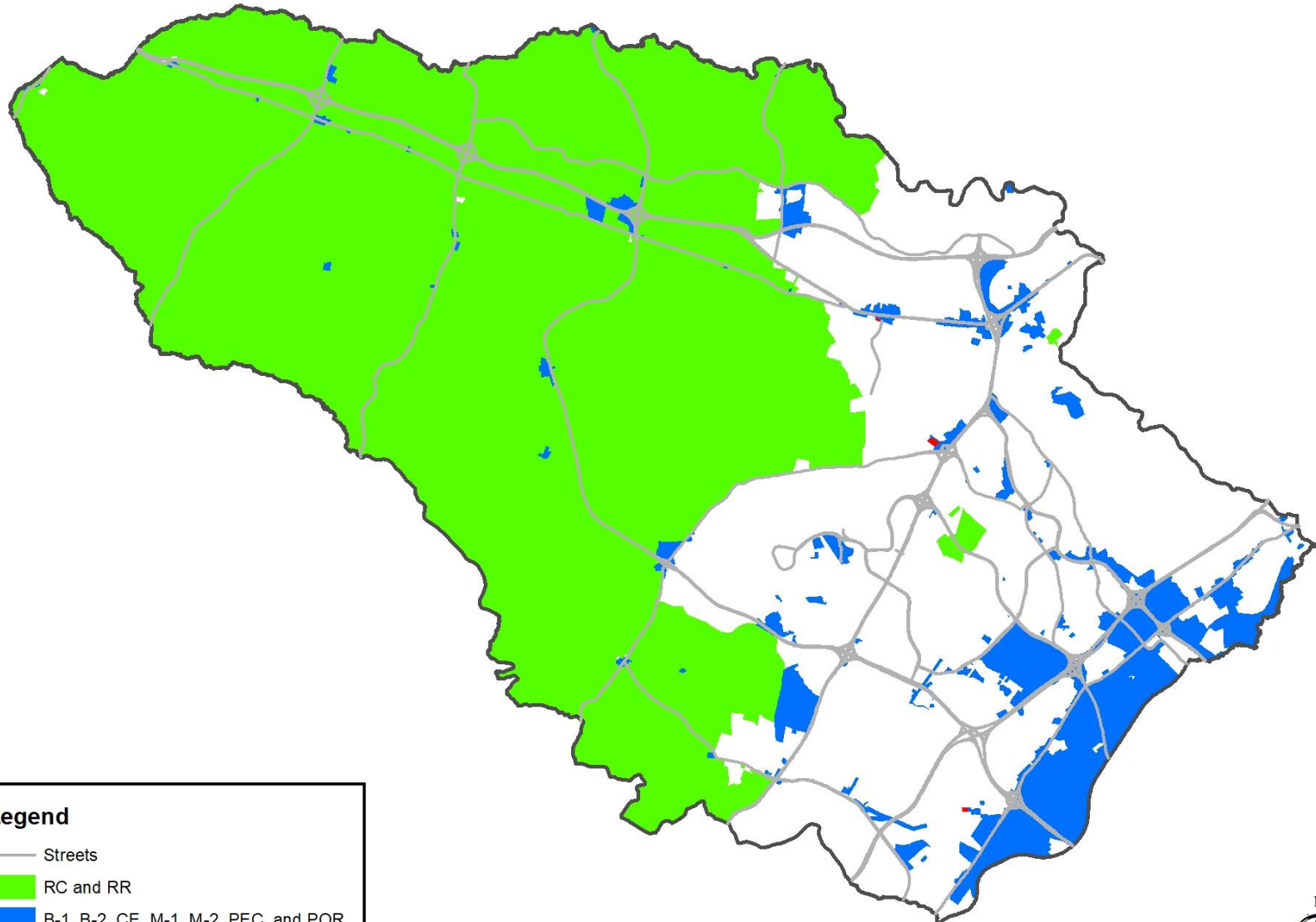
Section 16.208.(d) of the Howard County Code

- 2. The properties to which the Zoning Regulation Amendment could apply and, if feasible, a map of the impacted properties.**

The proposed amendments:

- Expand commercial ground-mount solar collector facilities to commercial and industrial zoning districts (B-1, B-2, CE, M-1, M-2, PEC, and POR)
- Extend accessory ground-mount solar collectors to R-H-ED, OT, and SC
- Limit the size of commercial ground-mount solar collector facilities on ALPP properties and eliminate the requirement for a glare study for commercial ground-mount solar collector facilities (RC and RR)
- Allow commercial rooftop and accessory ground-mount solar collectors in all zoning districts

Impacted Areas - ZRA-197



Legend

- Streets
- RC and RR
- B-1, B-2, CE, M-1, M-2, PEC, and POR
- R-HED, OT, and SC



Evaluation

Section 16.208.(d) of the Howard County Code

3. Conflicts in the Howard County Zoning Regulations as a result of the Zoning Regulation Amendment.

The amendments are in harmony with the Legislative Intent of the Zoning Regulations.

DPZ has not identified any conflicts in the Zoning Regulations related to:

- The updated definitions
- Expansion of accessory ground-mount and rooftop solar collectors to all zoning districts
- Limiting the size of ground mount commercial solar on ALPP properties
- Elimination of the glare study requirement
- The new APB review process

Evaluation

Section 16.208.(d) of the Howard County Code

3. Conflicts in the Howard County Zoning Regulations as a result of the Zoning Regulation Amendment.

DPZ analyzed the purpose statement of each zoning district to determine which zoning districts are appropriate for commercial ground-mount solar collector facilities.

- The single/multifamily residential, institutional, and mixed-use zoning district's purpose statements appear to conflict with large scale commercial solar collector facilities.
- The B-1, B-2, CE, M-1, M-2, PEC, and POR purpose statements do not necessarily conflict with large scale commercial ground mount solar collector facilities, and were therefore identified as the most appropriate zoning districts to allow them in.

Evaluation

Section 16.208.(d) of the Howard County Code

- 4. The compatibility of the proposed Zoning Regulation Amendment with the Policies and objectives, specifically including the environmental policies and objectives, of the Howard County General Plan.**

The proposed amendments are in harmony with the following *PlanHoward* 2030 policies that encourage the use of renewable energy sources such as solar.

POLICY 4.12 - "Develop an energy plan that prepares for different future energy scenarios, examines options for various kinds of future energy sustainability, promotes conservation and renewable resources, and sets targets to reduce greenhouse gases."

POLICY 5.3 – "Promote future energy and green industries." Implementing Action b. Management. Explore evolving energy markets, plus options for enabling developing technologies, which reveal new opportunities to create, store, consume, and invest in energy commodities and related assets.