PZ-1 Zoning Review

Community: Brentwood, MD

PZ-1: Review zoning requirements and identify restrictions that intentionally or unintentionally prohibit solar PV development. Compile findings in a memo. (Required for Bronze)

To assist your local government, the national solar experts at SolSmart have conducted a review of your community's zoning and land use regulations to assess the use of best practices, possible barriers (i.e. height restrictions, set-back requirements, etc.) and gaps related to solar PV development. Below, please find the outcome of the review. By reading the narrative and signing the statement at the bottom of the page, your community will satisfy the PZ-1 pre-requisite and be one step closer to achieving SolSmart designation.

Summary

The Brentwood **Zoning Code** was accessed and reviewed during September 2023. The code was accessed via the Brentwood website (through the Code enforcement and zoning page link.) The Zoning code is on **Chapter 320 Zoning (§ 320-1)** on the eCode360 online platform**.**

A search for "photovoltaic" yielded **0** result.

- A search for "solar" yielded **15** results.
- A search for "renewable energy" yielded **1** result.
- A search for "clean energy" yielded **0** results.

The current language in the Brentwood Code incorporates a language in the article **§ 50-2 Adoption of standards - which expose: "**The building **regulations in force and effect in Prince George's County** are hereby **adopted to be the building regulations for the Town of Brentwood**" and also in the **Chapter 320 Zoning: §320-1. Use of residential property for business purposes. -expose: "**No person shall permit the use of any residential property within the Town of Brentwood, Maryland, for business purposes **except as permitted by the zoning regulations of Prince George's County, Maryland.**"

Thus, this review focused on the Prince George's County Code, September 18, 2023 online version.

A search for "photovoltaic" yielded 0 result.

- A search for "solar" yielded **24** results.
- A search for "renewable energy" yielded 0 result.
- A search for "clean energy" yielded 0 result.

Best Practice Review

The City of Brentwood's **Zoning Ordinance applicable code** was reviewed to determine if it incorporates **best practice regulations for solar energy**. Incorporating best practices improves transparency of processes and clarity of development standards and can enhance the growth of the local solar market in an organized and efficient manner.

Purpose or Intent			
The code does NOT contain a purpose or intent for including solar energy regulations in the code.			
Code Language			
Sec 27-102 Purposes			
Reviewer Comments	Best Practice: ☐	Needs Improvement: ☒	Barrier: ☐
Purpose or intent for including solar energy regulations in the code is absent from the code.			

Suggested Language

At minimum the provision of clean, renewable and locally generated power could be incorporated into the Sec 207-102. Below are additional examples of language related to purpose and intent in a longer format.

Brentwood (Prince George's County) **has** adopted the following regulations to encourage the efficient and effective development and use of solar energy systems while protecting the public health, safety, and welfare of Brentwood's citizens.

Solar energy is a renewable energy resource and valuable economic resource that can be utilized throughout the **Brentwood** (Prince George's County) for the following purposes (the following bullet points are optional depending on community goals and plans):

1) To implement the following objectives of the **Comprehensive Plan**:
    a) Encourage the use of local renewable energy resources.
    b) Promote sustainable building design and practices.
    c) Encourage economic development while preserving the community's historic resources and character.
2) To meet the goals of the Climate Action Plan, Sustainability Plan, Clean Energy Resolution.
    a) [**REFERENCE GOALS OR TARGETS**]
3) To decrease the community's reliance on fossil fuel power sources and reduce greenhouse gas emission/achieve carbon reduction goals.
    a) [**REFERENCE SPECIFIC GOALS OR TARGETS**]
4) To enhance the reliability and resiliency of the local power grid and make more efficient use of the local electric distribution infrastructure.
5) To promote consumer choice and allow residents and businesses to use local, renewable energy while displacing fossil fuel generation.
6) To improve air quality and protect public health.

Definitions

The code contains definitions for solar energy.

Code Language	Section: **Sec. 27-2500 Definitions.**

§202. Definitions.

Sec. 27-2500 Definitions

Solar energy systems (large-scale)

A facility consisting of solar panels, modules, and related equipment (e.g., heat exchanger, pipes, inverter, wiring, storage) that collects solar radiation and transfers it as heat to a carrier fluid for use in water heating or space heating and cooling, and/or that collects solar energy and converts it into electricity. Large-scale solar energy systems generate in excess of 100 kilowatts of energy. As a principal use, a solar energy collection system is designed to meet demands for a large area and is typically mounted on the ground.

Solar energy systems (small-scale)

A facility consisting of solar panels, modules, and related equipment (e.g., heat exchanger, pipes, inverter, wiring, storage) that collects solar radiation and transfers it as heat to a carrier fluid for use in water heating or space heating and cooling, and/or that collects solar energy and converts it into

electricity. Small-scale solar energy systems generate a maximum of 100 kilowatts of energy. As an accessory use, a solar energy collection system is designed to primarily meet on-site demands (but may include transfer of excess electricity to an electric utility grid) and components are typically mounted on the roof(s) of principal or accessory structures, but may be mounted on other parts of structures, or on the ground.

Reviewer Comments	Best Practice: ☐	Needs Improvement: ☒	Barrier: ☐

The Definitions section does not contain all the definitions for solar PV listed in the "Suggested Language" below, however, definitions do exist for **Solar Energy System (small scale and large scale)**.

Definitions form the basis of understanding for the terms used throughout the solar energy section of the ordinance and reduces the chance for misinterpretation. At a minimum, a local government should include definitions that distinguish between solar energy system type (roof-mounted vs ground-mounted) and use (accessory vs primary) to provide clarity and a foundation on which to specify permissible uses in specific zoning districts and provide development standards.

Suggested Language

1) ***Solar energy system****:* A device, array of devices, or structural design feature, the purpose of which is to provide for generation or storage of electricity from sunlight, or the collection, storage, and distribution of solar energy for space heating or cooling, daylight for interior lighting, or water heating.
2) ***Solar photovoltaic system****:* A solar energy system that converts solar energy directly into electricity, the primary components of which are solar panels, mounting devices, inverters, and wiring.
3) ***Grid*-connected solar energy system**: A solar photovoltaic system that is connected to an electric circuit served by an electric utility company.
4) ***Roof-mounted solar energy system***: A solar photovoltaic system mounted on a rack that is ballasted on, or is attached to, the roof of a building or structure. Roof-mount systems are accessory to the primary use.
5) ***Ground-mounted solar energy system (Accessory Use)***: A solar photovoltaic system mounted on a rack or pole that is ballasted on, or is attached to, the ground and the system is accessory to the primary use.
6) ***Ground-mounted solar energy system (Primary Use)*:** A solar photovoltaic system mounted on a rack or pole that is ballasted on, or is attached to, the ground and is the primary land use for the parcel(s) on which it is located. Primary use systems are permitted through a discretionary approval process.
7) ***Community-scale solar energy system*:** A solar photovoltaic system that qualifies for the [STATE COMMUNITY SOLAR PROGRAM NAME – if applicable].

Roof-mounted Accessory Use Solar

The code explicitly permits accessory use roof-mounted solar PV systems as a by-right or allowed use.

Code Language	**Sections: 27-5203. Standards Specific to Accessory Uses and Structures (b) Standards for Specific Accessory Uses and Structures**

13) Solar Energy Systems, Small-Scale

(A) The facility **may be located on the roof of a principal or accessory structure**, on the side of such structures, on a pole, or on the ground in accordance with the standards in **Section 27-5202(c), Location of Accessory Uses and Structures.**

(B) The facility shall comply with the maximum height standards for the zone in which it is located, provided that a roof-mounted system shall not extend more than 15 feet above the roofline of the structure on which it is mounted.
(C) Where an existing structure exceeds the applicable height limit, a solar energy system may be located on its roof irrespective of applicable height standards, provided the system extends no more than five feet above the roof surface.
(D) The property owner shall be responsible for negotiating with other property owners in the vicinity to establish any solar easement designed to protect solar access for the solar energy system, and for recording any such solar easement with the Land Records of Prince George's County.

Table 27-5201(b): Accessory Use/Structure Table for Rural and Agricultural, and Residential Base Zones
P = Permitted by Right **SE =** Allowed only with approval of a Special Exception **X =** Prohibited

Subtitle 27: Zoning Ordinance > PART 27-5 USE REGULATIONS

Table 27-5201(b): Accessory Use/Structure Table for Rural and Agricultural, and Residential Base Zones
P = Permitted by Right SE = Allowed only with approval of a Special Exception X = Prohibited

Accessory Use/Structure	Rural and Agricultural Base Zones			Residential Base Zones								Use-Specific Standards
	ROS	AG	AR	RE	RR	RSF-95	RSF-65	RSF-A	RMF-12	RMF-20	RMF-48	
Retail sales (as accessory to a manufacturing, warehouse, or wholesale use)	X	X	X	X	X	X	X	X	X	X	X	27-5203(b)(11)
Retail sales (as accessory to a multifamily development)	X	X	X	X	X	X	X	X	X	X	X	
Satellite dish antenna	P	P	P	P	P	P	P	P	P	P	P	27-5203(b)(12)
Solar energy systems, small-scale	P	P	P	P	P	P	P	P	P	P	P	27-5203(b)(13)

Table 27-5201(c): Accessory Use/Structure Table for Nonresidential, Transit-Oriented/Activity Center, and Other Base Zones
P = Permitted by Right **SE =** Allowed only with approval of a Special Exception **X =** Prohibited

Table 27-5201(c): Accessory Use/Structure Table for Nonresidential, Transit-Oriented/Activity Center, and Other Base Zones P = Permitted by Right SE = Allowed only with approval of a Special Exception X = Prohibited																
Accessory Use/Structure	Nonresidential Base Zones					Transit-Oriented/Activity Center Base Zones									Other Base Zones	Use-Specific Standards
						NAC	TAC		LTO		RTO-L		RTO-H			
	CN	CS	CGO	IE	IH		Core	Edge	Core	Edge	Core	Edge	Core	Edge	RMH	
Recreational program, before- and after-school	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
Retail sales (as accessory to a manufacturing, warehouse, or wholesale use)	X	P	X	P	P	X	X	X	X	X	X	X	X	X	X	27-5203(b)(11)
Retail sales (as accessory to a multifamily development)	P	P	P	P	P	X	P	P	P	P	P	P	P	P	X	
Satellite dish antenna	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	27-5203(b)(12)
Solar energy systems, small-scale	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	27-5203(b)(13)

Table 27-5201(d): Accessory Use/Structure Table for Planned Development Zones
A = Permitted, Unless the District Council Prohibits the Use in the PD Basic Plan
SE = Allowed only with the approval of a Special Exception **X** = Prohibited

Subtitle 27: Zoning Ordinance > PART 27-5 USE REGULATIONS

Table 27-5201(d): Accessory Use/Structure Table for Planned Development Zones A = Permitted, Unless the District Council Prohibits the Use in the PD Basic Plan SE = Allowed only with the approval of a Special Exception X = Prohibited								
Accessory Use/Structure	Planned Development Zones							Use-Specific Standards
	R-PD	NAC-PD	TAC-PD	LTO-PD	RTO-PD	MU-PD	IE-PD	
Retail sales (as accessory to a manufacturing, warehouse, or wholesale use)	X	X	X	X	X	X	A	27-5203(b)(11)
Retail sales (as accessory to a multifamily development)	X	X	X	X	X	X	X	
Satellite dish antenna	A	A	A	A	A	A	A	27-5203(b)(12)
Solar energy collection system, small-scale	A	A	A	A	A	A	A	27-5203(b)(13)

Table 27-5201(e): Accessory Use/Structure Table for Overlay Zones
A blank cell means the use is allowed only if allowed in underlying base zone
X = Prohibited, irrespective of treatment by underlying base zone
SE* = Allowed only with approval of a Special Exception, irrespective of treatment by underlying base zone P* = Permitted by right, irrespective of treatment by underlying base zone

Subtitle 27: Zoning Ordinance > PART 27-5 USE REGULATIONS

Table 27-5201(e): Accessory Use/Structure Table for Overlay Zones A blank cell means the use is allowed only if allowed in underlying base zone X = Prohibited, irrespective of treatment by underlying base zone SE* = Allowed only with approval of a Special Exception, irrespective of treatment by underlying base zone P* = Permitted by right, irrespective of treatment by underlying base zone														
Accessory Use/Structure	CBCAO Zones			APAO Zones							MIO (1)			Use-Specific Standards
	RCO	LDO	IDO	APA-1	APA-2	APA-3S	APA-3M	APA-4	APA-5	APA-6	APZ	CZ	HINA	
Outdoor storage (as an accessory use)														27-5203(b)(9)
Produce stand (as accessory to farm or community garden)												X		27-5203(b)(10)
Recreational program, before- and after-school												X		
Retail sales (as accessory to a manufacturing, warehouse, or wholesale use)												X		27-5203(b)(11)
Retail sales (as accessory to a multifamily development)														
Satellite dish antenna														27-5203(b)(12)
Solar energy collection system, small-scale														27-5203(b)(13)
Stable, private														27-5203(b)(14)

Table 27-5101(c): Principal Use Table for Rural and Agricultural, and Residential Base Zones
P = Permitted by Right **SE =** Allowed only with approval of a Special Exception **X =** Prohibited

Subtitle 27: Zoning Ordinance > PART 27-5 USE REGULATIONS

Table 27-5101(c): Principal Use Table for Rural and Agricultural, and Residential Base Zones P = Permitted by Right SE = Allowed only with approval of a Special Exception X = Prohibited														
Principal Use Category	Principal Use Type	Rural and Agricultural Base Zones			Residential Base Zones									Use-Specific Standards
		ROS	AG	AR	RE	RR	RSF-95	RSF-65	RSF-A	RMF-12	RMF-20	RMF-48	
														standard
Utility Uses	Solar energy systems, large-scale	X	P	P	SE	SE	X	X	X	X	X	X		27-5102(d)(6)(A) and refer to special exception standard
	Public utility uses or structures, major	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE		Refer to special exception standard
	Public utility uses or structures, minor	P	P	P	P	P	P	P	P	P	P	P		
	Wind energy conversion system, large-scale	X	SE	SE	X	X	X	X	X	X	X	X		Refer to special exception standard

Reviewer Comments	Best Practice ☒	Needs Improvement ☐	Barrier ☐
Solar Energy Systems (Small-Scale and Large Scale) roof-mounted solar (solar panel) is identify as a by-right or allowed accessory use.			
Applicable SolSmart Credit: PZ-5, accessory use solar codified and allowed			
Suggested Language			

Roof-mounted Solar Height	
Option 1	The code does NOT exempt roof-mounted solar PV from height restrictions.
Option 2	The code does NOT allow roof-mounted solar PV to exceed height restrictions by a defined number.

Code Language	Section: **Subtitle 27: Zoning Ordinance > PART 27-5 USE REGULATIONS**

(13) Solar Energy Systems, Small-Scale

(A) The facility may be located on the roof of a principal or accessory structure, on the side of such structures, on a pole, or on the ground in accordance with the standards in Section 27-5202(c), Location of Accessory Uses and Structures.

(B) The facility shall comply with the maximum height standards for the zone in which it is located, provided that a roof-mounted system **shall not extend more than 15 feet above the roofline** of the structure on which it is mounted.

(C) Where an existing structure exceeds the applicable height limit, a solar energy system may be located on its roof irrespective of applicable height standards, provided the system extends no more than five feet above the roof surface.

(D) The property owner shall be responsible for negotiating with other property owners in the vicinity to establish any solar easement designed to protect solar access for the solar energy system, and for recording any such solar easement with the Land Records of Prince George's County.

(6) Utility Uses

(A) Solar Energy Systems, Large-Scale

(i) Maximum lot coverage of the facility and any associated equipment shall not exceed 65 percent.

(ii) Adequate access for maintenance of the facility shall be provided.

(iii) The facility shall **not exceed a height of 20 feet**.

(iv) The property owner shall be responsible for negotiating with other property owners in the vicinity to establish any solar easement designed to protect solar access for the solar energy systems and for recording any such solar easement in the **Land Records of Prince George's County**.

(v) In the Rural and Agricultural Area as designated on the Growth Policy Map in the General Plan (as may be amended from time to time), the facility shall **comply with requirements for designated scenic or historic viewsheds**.

Reviewer Comments	Best Practice ☒	Needs Improvement ☐	Barrier ☐

Height limits are often imposed on buildings within specific zoning districts to satisfy several planning objectives such as protection of views, controlling neighborhood character, density, and access to sunlight. In many districts, buildings, particularly those with flat rooftops, are constructed up to the **maximum allowed height**, thereby limiting a building's ability to install solar unless exemptions are provided. Many local governments exempt antennas, chimneys, flagpoles, and mechanical equipment from height limits to allow for their placement and use. Since solar panels are most efficient when installed at an angle equal to a location's latitude, local governments should **consider exempting solar energy systems from height limits.**

Height limits should not be a barrier for solar energy systems on pitched or sloped roofs. Solar energy systems are usually attached at the same slope as the roof but with a few inches of space in between to allow for access to wiring and to promote airflow around the panels. There should be space, usually

3 feet, between the roof peak and the edge of the panels to allow for emergency access and ventilation opportunities in case of a fire.

Applicable SolSmart Credit: PZ-6, roof-mounted solar exemptions

Suggested Language

On a pitched/sloped roof, solar energy systems **(Small-Scale and Large Scale)** shall be installed parallel to the roof surface and may not extend beyond the edge of the roof peak.

For flat roofs, local governments can select from one of the following two options depending on how the zoning ordinance addresses the height of rooftop appurtenances, chimneys, antennas, and/or rooftop mechanical equipment.

1. *If the ordinance exempts certain features/structures from height limits, then it is recommended that roof-mounted solar energy systems also be exempted from height limits.*

On a flat roof, solar energy systems are exempt from zoning district height limits.

2. *If the ordinance does not include any exemptions, then it is recommended to allow roof-mounted solar energy systems to exceed a districts height limit.*

On a flat roof, solar energy systems are permitted to exceed the zoning district height limits by up to **10 feet**.

Ground-mounted Accessory Use Solar

The code does NOT explicitly permit accessory use ground-mounted solar PV systems as a by-right or allowed use in at least 1 zoning district.

Code Language	Section:		
Reviewer Comments	Best Practice ☐	Needs Improvement ☒	Barrier ☐

Solar energy systems or **ground-mounted solar (Small-Scale and Large Scale)** is not identified as a by-right or allowed accessory use in some zoning districts.

Sometimes a property is not suitable for a roof-mounted solar system because the building has structural limitations, or the rooftop is shaded. In these instances, a small ground-mounted solar PV system can still allow the property owner to install solar and enjoy the benefits.

Allowing accessory use ground-mounted solar may not be appropriate for dense urban cores or highly developed areas but it can be suitable for less dense parts of a community, in areas where lot sizes are bigger, and/or in commercial and industrial zoning districts where a primary use might have available land for a ground-mounted system.

Applicable SolSmart Credit: PZ-7, accessory use ground-mounted solar codified and allowed in at least 1 zoning district

Suggested Language

Ground-mounted solar energy systems **(Small-Scale and Large Scale)** are a permitted accessory use within all zoning districts, when incidental to one or more permitted primary and/or accessory structure(s), subject to the following development standards.

Ground-mounted Solar Setbacks			
The code does NOT contain setback standards for accessory use ground-mounted solar PV.			
Code Language	Sections:		
Reviewer Comments	Best Practice ☐	Needs Improvement ☒	Barrier ☐
Accessory use ground-mounted solar energy systems should have **similar setback requirements to other residential accessory use structures**. These setbacks generally allow accessory structures to be built closer to a property line than primary structures. Applying **less restrictive setback requirements** allow a ground-mounted solar PV system to operate efficiently through appropriate sizing, optimal siting, and ensuring access to adequate sunlight. Rural communities or those with large lots can be less restrictive and allow solar energy systems to encroach into established residential accessory use setbacks.			
Applicable SolSmart Credit: PZ-8, accessory use ground-mounted solar exemptions			
Suggested Language			
Ground-mounted solar energy systems shall comply with the accessory structure setback requirements of the zoning district in which it will be installed.			

Ground-mounted Solar Placement			
The code does NOT contain placement standards for accessory use ground-mounted solar PV.			
Code Language	Sections:		
Reviewer Comments	Best Practice ☐	Needs Improvement ☒	Barrier ☐
Depending on the character and typical lot size of the community, it may be appropriate to encourage the siting of accessory use ground-mounted PV systems in the side or rear yard of a property. Rural communities or those with large lots can be less restrictive and allow solar energy systems in front yards.			
Suggested Language			
Ground-mounted solar energy systems **(Small-Scale and Large Scale)** shall be located in the side or rear yard of the property.			

Ground-mounted Solar Lot Coverage/Impervious Surface			
The code does NOT exempt accessory use ground-mounted solar PV from lot coverage and/or impervious surface standards.			
Code Language	Section: **Section 10.03.28: Accessory Land Uses and Structures**		
Reviewer Comments	Best Practice ☐	Needs Improvement ☒	Barrier ☐
As long as the area beneath a ground-mounted solar PV system is pervious (e.g. grass, native vegetation, etc.) the system should be exempt from lot coverage and impervious surface requirements. The tilt and spacing of solar panels allow for precipitation to drain into the pervious ground cover. Ground-mounted PV systems are not analogous to paved driveways or accessory structures like sheds, garages, or accessory dwelling units and therefore do not need to be included in lot coverage or impervious surface calculations.			
Applicable SolSmart Credit: PZ-8, accessory use ground-mounted solar exemptions			
Suggested Language			
Ground-mounted solar energy systems are exempt from lot coverage and impervious surface requirements if the area under the system contains vegetative ground cover.			

Ground-mounted Solar Primary Use			
The code does NOT include standards for primary use ground-mounted solar PV.			
Code Language	Sections:		
Reviewer Comments	Best Practice ☐	Needs Improvement ☒	Barrier ☐
The code does not contain for primary use solar energy systems. If the **community** has enough usable land that could be developed for a **large-scale solar energy system**, they should include **development standards for primary use solar energy systems into the zoning code**. Some preexisting uses in residential zones with difficult redevelopment potential may be appropriate and desirable areas for SES such as **landfills, brownfields, scrap yards, and or defunct gravel banks** and may warrant special consideration for streamlined review regardless of the district where they are located.			
Applicable SolSmart Credits: PZ-9, primary use ground-mounted solar pathway			
Suggested Language			
See pages 12 -13 in SolSmart's Best Practice Guidance for Solar and Zoning for a list of state model solar ordinances that contain template language for primary use solar energy systems.			

Barrier Review

Solar energy standards should serve to guide and enable solar development, not create ambiguity, or restrict solar development. Certain design and performance standards can create significant barriers to solar PV. The inclusion of any of the following standards are not best practices and will likely impact the local government's ability to achieve SolSmart Gold designation. The statements containing NOT align with best practices.

Roof-mounted Solar Screening	
The code does NOT require screening for roof-mounted solar PV systems.	
Code Language	Section:
None	
Reviewer Comments	
It is not a best practice to require screening for roof-mounted solar energy systems. Screening requirements may increase installation costs and decrease system efficiency. Solar PV performance depends on optimal siting of the system and clear access to solar radiation. Screening requirements could negatively impact system performance if the screening results in shading. Screening requirements could also hide the location of important system components that are necessary to shut off a system in case of a fire or other type of emergency.	

Limits to System Visibility	
The code includes standards to limit system visibility (e.g. not visible from public rights of way).	
Code Language	Section:
"the facility shall comply with requirements for designated scenic or historic viewsheds."	
Reviewer Comments	
It is not a best practice to: • prohibit solar energy systems from being visible from public rights-of-way, neighboring or adjacent properties, or public view or • suggest the placement of solar panels should be done to minimize their visibility.	

In fact, it could severely limit where solar energy systems are installed. Solar PV performance depends on panel location with the best performance occurring when panels are located on a southerly exposure. Less than optimal siting for solar panels can decrease the amount of sunlight a system receives and thereby negatively impact performance.

Aesthetic Standards	
The code includes aesthetic standards for solar PV systems.	
Code Language	Section:
"the facility shall comply with requirements for designated scenic or historic viewsheds."	
Reviewer Comments	

It is not a best practice to:

- require systems to blend into the architecture of the structure or
- be consistent with the color of roofing materials or architecture or
- be constructed of dull or dark colors.

Aesthetic requirements can increase installation costs but would most likely prohibit a solar energy system from being installed since key system components like solar panels cannot be altered or painted to blend into the architecture or color scheme of a building. Aesthetic requirements could also hide the location of important system components that are necessary to shut off a system in case of a fire or other type of emergency.

Glare, Glint, and/or Noise Standards	
The code does NOT include glare, glint, and/or noise standards for solar PV systems.	
Code Language	Section:
None	
Reviewer Comments	

It is not a best practice to:

- require a glare study prior to the installation of a solar energy system or
- suggest the placement of solar panels should be done to minimize glare or
- require an acoustic study or
- have maximum level of noise the system can produce.

Solar PV panels are designed to absorb incoming solar radiation and limit the amount of reflected light. Solar panels are designed with anti-reflective glass. The glare from a solar panel is similar to that of smooth water. A glare study is recommended if solar panels will be sited close to an airport but otherwise the analysis is usually unnecessary, adding time and cost to a project.

Roof-mounted solar energy systems produce very minimal noise. An acoustic study will increase installation costs.

Roof Space Coverage Limit	
The code does NOT limit solar PV system coverage to a percentage/part of the available roof space.	
Code Language	Section:
None	
Reviewer Comments	

It is not a best practice to limit the coverage of a roof-mounted solar energy system. All buildings should have the opportunity to install a roof-mounted solar energy system to the maximum extent possible, so long as the roof is structurally capable of holding the load and applicable emergency access requirements are maintained. Maximizing a solar PV systems roof coverage is important goal as buildings transition to electric appliances and systems and incorporate electric vehicle charging equipment.

Prohibition on Flat or Low Sloped Roofs	
The code does NOT prohibit solar PV systems on flat or low sloped roofs.	
Code Language	Section:
None	
Reviewer Comments	
It is not a best practice to prohibit solar energy systems on flat or low slopped roofs. All buildings should have the opportunity to install a roof-mounted solar energy system regardless of roof slope, so long as the roof is structurally capable of holding the load. Many buildings with flat roofs like warehouses, data centers, distribution centers, and big box retail stores are excellent candidates for roof-mounted solar energy systems.	

Limits on Electricity Production	
The code does NOT include limits on how much electricity a solar PV system can produce.	
Code Language	Section:
None	
Reviewer Comments	
It is not a best practice to include limits on the amount of electricity a solar energy system can produce. Regulations and policies like this are normally set by a state entity (Public Utility Commission/Public Service Commission) and/or local electric utility and are not appropriate for zoning codes.	

Limits on Electricity Consumption	
The code does NOT include limits on where a solar PV system's energy is consumed.	
Code Language	Section:
None	
Reviewer Comments	
It is not a best practice to include limits on where a solar energy system's electricity can be consumed. Regulations and policies like this are normally set by a state entity (Public Utility Commission/Public Service Commission) and/or local electric utility and are not appropriate for zoning codes.	

Discretionary Review Process	
The code does NOT identify a discretionary review process for accessory use solar PV.	
Code Language	Section:
None	
Reviewer Comments	
It is not a best practice to have a discretionary review process for accessory use solar PV. This has the potential to be an onerous and/or subjective process for roof-mounted solar energy systems and could increase a project's timeline and costs. Roof-mounted systems should be an allowed or by-right use and only need to go through the building permit process to ensure compliance with applicable building and electrical codes.	

Additional Notes

The Brentwood (Prince George's County) Zoning Code incorporates Solar Energy Systems, (Small-Scale and Large Scale) roof-mounted solar (solar panel) and is identify as a by-right or allowed accessory use. The code is lacking guidance on ground-mounted accessory use solar and above are several recommendations for improvement. The code is also missing several important definitions as described above.

Next Steps

1. This zoning review can be presented to the Planning & Zoning Commission or relevant zoning body to achieve credit PZ-2.
2. Based on the zoning review and the dialogue from the Planning Commission meeting, staff can draft proposed language for changes to the zoning code to achieve credit PZ-3.
3. SolSmart staff are available to help present the zoning review and/or provide guidance and feedback on draft language.

Recommended Reading

Please see Best Practice Guidance for Solar and Zoning - Accessory Use for template language that can be used to develop organized, transparent, and consistent accessory use solar energy regulations for zoning codes.

I, [full name] as [title] of [community], [state] have received the zoning review and read its findings.

Signature: _____ Date: **September, 2023**

Please note that this review is not an endorsement or recommendation for changing and/or updating the zoning code. This is an informational review only.

If the local government has clarifying comments, please provide them in a memo to the SolSmart team.