SOLAR SURFACE AREA REQUIREMENTS IN RESIDENTIAL DISTRICTS: RECOMMENDATIONS

Carroll County Environmental Advisory Council

Briefing to Carroll County Commissioners

May 12, 2016

BACKGROUND

- Requested review in October 2015
- Added to EAC work plan in January 2016
- Focus on solar surface area requirements only in residential districts (surface area of panels themselves)
  - Increase surface area maximum
  - Consider aesthetics

PROCESS

- Reviewed other Maryland counties + jurisdictions outside Maryland
- Talked to other counties in Maryland
- Considered different bases for determining maximum size

Focus was on appropriate increase in allowable size without significant aesthetic impacts

MAXIMUM SURFACE AREA OF ROOF-MOUNTED SOLAR PANELS

	Current Requirement	Proposed Change
Maximum Surface Area of Solar Panels: Roof-Mounted	The physical size of the system shall be limited to the size of the roof, when roof mounted.	The physical size of the system shall be limited to the size of the roof, or roofs of structures, situated on the subject property, when roof mounted. *[Note: This includes accessory structures.]*

MAXIMUM SURFACE AREA OF GROUND-MOUNTED SOLAR PANELS

	Current Requirement	Proposed Change
Maximum Surface Area of Solar Panels: Ground-Mounted	The physical size of the system shall… no larger than 120 square feet when ground mounted.	Ground-mounted systems shall be no larger than the square footage of the solar panel surface area allowed based on the size of the lot as shown below.

MAXIMUM SURFACE AREA OF GROUND-MOUNTED SOLAR PANELS

	Current Requirement	Proposed Change
Maximum Surface Area of Solar Panels: Ground-Mounted	Lot Size	Solar Panel Surface Area Maximum Square Footage for Ground-Mounted Systems
	Less than or equal to ½ acre	120 square feet
	More than ½ acre to 1 acre	240 square feet
	More than 1 acre to 3 acres	480 square feet
	More than 3 acres	½ the size of the roof, or roofs of structures, situated on the subject property

MAXIMUM SURFACE AREA OF SOLAR WALL-MOUNTED PANELS

	Current Requirement	Proposed Change
Maximum Surface Area of Solar Panels: Wall-Mounted	Not mentioned.	Wall-mounted systems are not permitted.

MAXIMUM SURFACE AREA OF SOLAR PANELS: AGGREGATE

	Current Requirement	Proposed Change
Maximum Surface Area of Solar Panels: Aggregate	Not mentioned.	In the event that a combination of roof-mounted and ground-mounted systems is utilized, the total area cannot exceed the aggregate square footage of the roof areas on the property on which the system is installed on lots that are 3 acres or less in size. On lots more than 3 acres, the total area cannot exceed 1½ times the aggregate square footage of the roof areas on the property on which the system is installed.

SOLAR ACCESS

	Current Requirement	Proposed Change
Solar Access	Not mentioned.	A property owner who has installed or intends to install a solar energy conversion facility shall be responsible for negotiating with adjacent property owners for any necessary solar easement and shall record the easement with the Clerk of the Court. A property owner who fails to secure an easement for the receipt of solar energy acts at their own peril.

GLARE

	Current Requirement	Proposed Change
Glare	Glare must be mitigated away from an adjoining property or adjacent road when it creates a nuisance or hazard.	Glare must be mitigated away from an adjoining property or adjacent road ~~when it creates a nuisance or hazard~~, which shall be certified by the solar installer prior to installation.

MISCELLANEOUS

- Setbacks: No **portion of** such facility shall be located within a front yard in any district.
- Variance: No variance or waiver to the size **or setback** requirements of the ground-mounted system is allowed.
  - *Current (side & rear yard setback) = 5 feet*
- Height: No change recommended.
  - *Current =*
    - *Roof-mounted: <=10 feet from highest portion of principal structure & total height from ground <=max height for district*
    - *Ground-mounted: <=10 feet above grade*

NEXT STEPS

- Secure approval from Board to proceed
- Present proposed Code amendment to Planning Commission
- Request approval from Board to proceed to public hearing