



CITY OF WASHINGTON, ILLINOIS

Committee of the Whole Agenda Communication

Meeting Date: May 8, 2023

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Agenda Item: Possible Ground-Mount Solar Array Amendment Discussion Follow-Up

Explanation: The City's solar energy regulations were first adopted in April 2018 and were twice amended in 2019. Chapter 154.727 specifically prohibits ground-mount solar energy systems. A ground-mount solar energy system is defined in City Code as "a solar energy system that is directly installed onto the ground and is not attached or affixed to an existing structure." A solar energy contractor spoke at the April 3 City Council meeting expressing interest in a code amendment that would allow for the placement of ground mount arrays.

Most of the City's solar energy regulations are based on the State model ordinance and generally mirror numerous similar ordinances in Illinois. Each of the nearby jurisdictions that regulate solar energy allow for ground-mount arrays, though Eureka only permits them in non-residential areas. A summary of the primary regulations within those entities is attached. The original Washington draft ordinance contained the allowance of ground-mount arrays but the desire of the Council at that time was to prohibit them and they were subsequently prohibited in the adopted version of the ordinance. Discussion was held at the April 10 Committee of the Whole meeting to determine if there is interest in a future code amendment to allow for ground-mount arrays.

Staff recommends the following regulations:

- Only allow for placement in the rear yards (not in the front yard). Placement in the side yards could be considered with a sufficient setback;
- Allowing ground-mount arrays as a permitted use in any zoning district as an accessory structure;
- A principal structure must be on the lot prior to the placement of a ground-mount array;
- The height in rear yards cannot exceed 10' above grade when oriented at maximum tilt;
- The height in side yards cannot exceed 30" in height above grade should they be permitted in side yards;
- Ground-mount arrays should be setback from the rear (and side, if allowed) property line a minimum of 5' or the applicable setbacks for the zoning district in which the array is located, whichever is greater, not be located within any known dedicated easement, and be at least 10' from any other structure. Consideration could be given to a greater setback from property lines, though a much larger setback would make it difficult for most residential lots to accommodate a ground-mount array; and
- Ground-mount systems cannot exceed half the building footprint of the principal structure and would be exempt from impervious surface calculations if the soil under the collector is not compacted and maintained in vegetation. Foundations, gravel, or compacted soils are considered impervious.

The discussion at the April COW meeting focused on three possible additional regulations:

- **The allowance for ground-mount arrays to be less than an established minimum setback from a principal structure if the adjacent property owner offers written consent to the application.** Peoria Heights requires a 50' minimum setback from adjacent residential principal structures unless the owner of the adjacent property approves of the application submittal. Staff and the City Attorney recommend against such a regulation, as the City would

need to verify the current adjacent property owner and ensure that the individual is the rightful owner to offer consent on the matter. Instead, staff feels that an established setback that applies to all properties is the best approach. A variance could be requested should the side yard be the most suitable, which would require notification of all adjacent property owners.

- **A possible minimum lot size.** El Paso, Germantown Hills, and Mackinaw are the only area municipalities with such a regulation and each has a one-acre minimum requirement. A broader statewide search did not find other municipal examples. Staff analyzed the single-family and duplex residential lot sizes in Washington to help determine what a possible standard could be should there be a desire to establish a minimum lot size to accommodate ground-mount arrays. The average lot size of properties zoned R-1 or R-1A is 0.49 acres. Slightly more than 50% of those properties are 0.25 acres or less, with 36.6% of them ranging from 0.26-0.5 acres in size and 5.8% between 0.51-0.75 acres. Given that about 93% of the residential properties are 0.75 acres or less, staff would not advocate for a minimum lot size of more than 0.75 acres, as it would exclude nearly every residential property. A minimum lot size of 0.5 acres would allow about half of the residential properties to potentially accommodate ground mount arrays, provided they could be placed within the setbacks. Most non-residential properties are larger than one acre and would not figure to be impacted as much by such a regulation.
- **A potential requirement that roof-mounts be the only acceptable type of an individual solar array unless other extenuating circumstances (i.e. non-south-facing roofs, interference from adjacent buildings or trees, etc.) impact the viability of a roof-mount system.** Staff recommends against such a regulation due to the potential subjectivity in determining the true collection means from a potential roof-mount system.

Fiscal Impact: The allowance of ground-mount arrays would likely allow additional properties the ability to contain solar energy systems, particularly those that do not have strong south-facing roofs or those that have other nearby structures or vegetation that interfere with roof sun angles.

Action Requested: Assuming general interest in allowing for ground-mount solar arrays, staff requests feedback on these questions to include in a draft ordinance:

1. What is the appropriate rear yard setback?
2. Should ground-mount arrays be allowed in the side yard? If so, what is the appropriate side yard setback?
3. What is the appropriate maximum height?
4. Should there be a minimum lot size requirement?

Should general consensus be reached on these regulations, staff and the City Attorney will draft an ordinance and will schedule a public hearing for an upcoming Planning and Zoning Commission meeting prior to the eventual scheduling of a first reading ordinance.

Area City/County Ground-Mount Solar Regulations

City/County	Regulations		
	Height	Setbacks	Other
Bloomington	4' in residential districts; 15' in other districts	Same as accessory structures	
East Peoria	20' (side/rear); 30" (front - w/SU)	Same as accessory structures	Only allowed on lots w/principal structure
El Paso	10' at maximum tilt in any zoning district	30' (side/rear)	Lot size must be at least one acre
			Cannot exceed half the building footprint of the principal structure
Eureka	10'	30' (side/rear)	Only allowed on lots w/principal structure
			Cannot exceed half the building footprint of the principal structure
			Only allowed in non-residential areas
Germantown Hills	10' at maximum tilt in any zoning district	30' (side/rear)	Lot size must be at least one acre
			Cannot exceed half the building footprint of the principal structure
Mackinaw	10' at maximum tilt in any zoning district	30' (side/rear)	Lot size must be at least one acre
			Cannot exceed half the building footprint of the principal structure
Morton	Cannot exceed the maximum allowable height for an accessory structure in the underlying zoning district	Same as accessory structures	Reflection angles shall be oriented such that they do not project glare onto adjacent properties
Normal	4' in residential districts; 15' in other districts	Same as accessory structures	Can only be located in rear yards within residential districts
	Cannot exceed the maximum allowable height for an accessory structure when oriented at maximum tilt		
Pekin		Same as accessory structures	Only allowed on lots w/principal structure
			Reflection angles shall be oriented such that they do not project glare onto adjacent properties
Peoria	14'	10' from principal structure, 6' from other accessory structures	
	Cannot exceed the maximum allowable height for an accessory structure in the underlying zoning district		
Peoria County		Same as accessory structures	
Peoria Heights	8' at maximum tile	Same as accessory structures, no less than 5'	Cannot be located within 50' of any principal structure unless the adjacent owner joins the application
Tazewell County	20' at maximum tilt	Same as accessory structures (side/rear)	Reflection angles shall be oriented such that they do not project glare onto adjacent properties
Woodford County	18' at maximum tilt	10' (side/rear)	