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To:Planning and Zoning Commission MembersFrom:Kenneth Garrett, Zoning AdministratorDate:June 30, 2025RE:Special Use – Ground Mounted Solar CollectorsHearing Date:July 8, 2025 at 6:00 p.m.

The petitioner is requesting a Special Use Permit to install non-building ground mounted solar collectors on the real property referenced in the below PIN Numbers. The property is Currently Zoned LI (Light Industrial). Non-Building ground mounted solar collectors are permitted in the LI zoning district via through the Special Use Permit Process.

## Adjacent Zoning Districts

North Light Industrial (LI) - Currently the property is being farmed.

- South Single Family Residential 2 R-2 (West Grove Subdivision)
- West General Business (GB) Currently vacant land
- East Single Family Residential (R-1) Currently vacant land

The proposed project is located at PIN Number 03-23-200-014 and is currently being farmed by the owner. The lot is approximately 46 acres where the applicant will be leasing 20+ acres of the land for the proposed use of solar collectors. Lot 03-23-200-017 (Lot is 1.23 acres and the proposal is to use 0.16 acres) is the access road, which will be widened to 24 feet and then 40 feet once on private property. The proposed enhanced driveway access is to continue with gravel. It is recommended by the Village Engineer the area in the Right-of-Way be asphalt per the ordinance, but there is no objection to a gravel drive on the private property side.

The proposed applicant will lease the property from the owner for 35 years with the ability to extend the lease for 2-five year terms.

Residents and business owners within the Village can subscribe to the solar collectors and receive an approximate 10% reduction in their electrical bill. The subscription is offered to residents and business operators before it will be offered to areas outside the Village.

As stated above the use of the property is Zoned Light Industrial. The light industrial zoning code uses allows for the following permitted uses: Personal or Professional Services, Indoor Repair Sales/Service, Vehicle Related Sales and Service, Daycare Facility, Light Manufacturing/industrial, Self Service Storage Facilities (mini warehouses), Public Parks and Open Space, Utilities and Wireless Communication Facility. Section 8-6-11 allows through the Special Use Process, Non-Building mounted solar collectors for export of energy use by an

Inkberry Solar electrical utility. In this case, Solar Collectors.

Solar Collectors must still follow the setbacks as outlined in the Light Industrial District as follows:

Front Setback 30 feet Side Yard 20 feet but not less than a combined 50 feet Rear Yard 30 feet

The proposed project is in compliance with the above setbacks.

Buffer Yards are required whenever a side or rear yard in the R-5, MH, NB, GB, CB, LI or HI District abuts any RE, R-1, R-2 or R-3 District or any residential use within the Village limits or in any neighboring jurisdiction, a buffer yard shall be required. Buffer Yards shall not be required in front yards.

This proposed project is buffered with existing landscaping and will continued to be farmed which, will aid in the screening during the growing season. The buffer yard shall be at a minimum of 10 feet in width but not greater than 50 feet. There are a number of trees behind the West Grove Subdivision. It is recommended to provide additional screening for the neighbors to screen the areas that are not properly screened. The plan calls for evergreen planting 4-6 feet in height.

Note: The applicant is only leasing a portion of the property with the remaining area still being farmed. The solar portion does not abut the residential neighborhood. There is approximately 271 feet to the nearest solar collector. Consideration has been taken to effectively screen the area.

The Solar collectors are approximately, eight feet in length and four feet in height. They are mounted on a pole device that rotates with the sun. There is an electrical invertor for each collector. The collector receives energy from the sun in a DC format and the invertor converts it from DC power to AC power so it can be run into the electrical grid. The total height from grade to the top of the collector is approximately 9 feet.

There is a farm style fence surrounding the entire area of solar collectors. The fence runs on all 4 sides of the proposed development. The rows of collectors are spaced approximately 26 feet apart. There are 156 collectors in total. The proposal is requesting an eight fence. See attached sample of fencing.

It is the intent of the landowner to continue farming the property around the solar collectors. It is my understanding the farming of the property consists of corn and soybeans. The corn and soybean plantings have an alternate switching pattern between plants during different growing seasons. The owner shall determine how often the crops change location. This will continue during the project. The applicant is requesting a two-year approval of the SUP to begin construction. This is in order to be able to apply for State of Illinois Adjustable Block Program in August for renewable energy credits contract. They are required to have in place proper zoning before applying.

The distance from the lot line off of route 76 to the collector/investors is 231 feet and to the Electrical Equipment is 252 feet.

## Inkberry Solar

The solar collector equipment does produce a low level of noise. It is similar to a refrigerator level. It is silent at night. All noise levels must comply with the noise standards of the Illinois Pollution Board.

Application for the Boone County Soil and water Conservation District has not been approved as of the writing of this report.

The Fire District is in the process of the reviewing this project as of the writing of this report they have not made a recommendation.

Security Measures are in place to monitor the site. There is a gate that either will have an electronic pad or is operated with a key for access. This is for maintenance staff only. There will be a knox box for emergency for the Fire District to gain access.

**<u>Recommendation</u>**: Should the Planning Zoning Committee recommend approval of the project, staffs recommends the following conditions be adhered to:

- 1. Approval from the Illinois Department of Transportation be received prior to issuing any Building Permits.
- 2. Approval from the Boone County Soil and Water Conservation District be received prior to issuing any Building Permits.
- 3. Approval from the Fire District be received prior to issuing any Building Permits.
- 4. Additional screening shall be provided as needed adjacent to the West Grove Subdivision.
- 5. The drive access located in the right of way be improved with asphalt.
- 6. The Village Enginners Report and recommendations shall be followed.
- 7. A decommissioning and reclamation plan shall be submitted to and approved by the Village of Poplar Grove prior to commencement of the development.
- 8. A surety bond covering the complete execution of the decommissioning and reclamation plan for when the project ends shall be posted prior to the commencement of the development.

Should you have any questions regarding this report feel free to contact me at your convenience.

Respectfully Submitted,

Kenneth Garrett Zoning Administrator – Village of Poplar Grove