

**STATE OF NORTH CAROLINA**

**BEFORE THE BOARD OF ADJUSTMENT  
FOR CHATHAM COUNTY**

**COUNTY OF CHATHAM**

**CONDITIONAL USE PERMIT FOR )  
GROUND-MOUNTED SOLAR )  
ELECTRICITY SYSTEM )**

**IN RE: Flatwood Farm, LLC  
Chatham County Parcel No.: 5751  
Location: Corinth Road, Moncure, NC**

**STATEMENT OF JUSTIFICATION IN SUPPORT OF  
CONDITIONAL USE PERMIT APPLICATION**

NOW COMES THE APPLICANT, by and through counsel of record, and respectfully requests approval of its Application for a Conditional Use Permit to operate a Ground-Mounted Solar Electricity System located on Corinth Road, Moncure, Chatham County North Carolina (“Solar Farm”). In support of this Application, the Applicant provides the following information.

**I. Introduction**

Flatwood Farm, LLC proposes to construct a Solar Farm located on 46.80 acres of a parent tract of 123.85 acres owned by Gerald Williams and Hilda and Robert Ritchie. The proposed site is zoned Residential 1 (“R-1”). Adjacent properties are a mix of agricultural, industrial, and residential uses, including a poultry farm, a coal ash facility, and a RV park.

A Solar Farm is permitted in the R-1 district with a Conditional Use Permit approved by the Board of Commissioners for Chatham County. Section 17.6.C of the Chatham County Zoning Ordinance (“Zoning Ordinance”) provides the requirements for development of a Solar Farm Greater Than Two (2) Acres, and Section 17 contains the standards for issuance of a Conditional Use Permit. The Conditional Use Permit Application, including a site plan, supporting documentation, and this brief, is complete and complies with all requirements of the Zoning Ordinance. Prior to submitting the Conditional Use Permit Application, the site plan and photographs of the site and area were reviewed by the Appearance Commission on April 18, 2018.

The Solar Farm will contain rows of Photovoltaic (PV) cells mounted on posts that are set in the ground individually in order to minimize the amount of grading of the site. These rows of PV cells are referred to as “solar arrays”. The solar arrays will be fixed in place facing south in order to receive the maximum amount of solar energy. The power generated from the Solar Farm will be connected to the power grid for use by consumers.

Solar energy is a public necessity. Demand for electricity has increased in recent years, and our society is dependent upon conventional sources of power such as coal, natural gas, and

nuclear energy. Solar energy is a clean, inexpensive, and unlimited resource that has little environmental impact.

The proposed Solar Farm is an extremely low-impact use. The Solar Farm will be completely dark at night; it will produce no emissions of any kind; it will not generate audible noise off-site; it will not produce dust; it will not utilize water resources that could deplete aquifers or groundwater; and it will be shielded from sight by natural vegetation on the property and landscaping. Additionally, the proposed Solar Farm will not consume County resources. As an unmanned facility, the Solar Farm will not add students to schools or school buses, it will require virtually no protection from law enforcement, and it will not generate trash for disposal or recycling.

## **II. Statement in Support of Application**

This Conditional Use Permit Application for a Solar Farm meets all requirements for a Solar Farm Greater Than Two (2) Acres contained in Section 17.6.C of the Zoning Ordinance. The Applicant has provided a site plan meeting all requirements of the Zoning Ordinance.

This Conditional Use Permit Application also meets all general standards for approval as provided in Section 17 of the Zoning Ordinance. The following criteria for issuance of a Conditional Use Permit have been met.

1. The use requested is among those listed as an eligible conditional use in the district in which the subject property is to be located.

The proposed Solar Farm is permitted in the R-1 district with a Conditional Use Permit.

Also, the site plan complies with the setback requirements (as there will be a 100-foot setback from the front property line and 50-foot setback from the side and rear property lines), the height limitation, the and the buffer and landscaping requirement. Where necessary, the natural buffer will be supplemented with either a Type "A" or Type "B" buffer.

2. The requested conditional use permit is either essential or desirable for the public convenience or welfare.

The proposed Solar Farm is both essential as a public necessity and desirable for the public convenience and welfare. Demand for electricity has increased in recent years, and our society is dependent upon conventional sources of power such as coal, natural gas, and nuclear energy. Solar energy is a clean, inexpensive, and unlimited resource that has little environmental impact.

3. The use will not impair the integrity or character of the surrounding or adjoining districts, and will not be detrimental to the health, safety, or welfare of the community.

The proposed Solar Farm will not injure the value of adjoining or abutting property. The adjoining and abutting properties are a mix of agricultural, industrial, and residential uses, and the Solar Farm is consistent with the uses in the area. The property to the east of the proposed Solar Farm is developed as an industrial farm, the property to the north consists of a quarry for

coal ash disposal, and the property to the west is a wooded parcel. The nearest RV home is 250 feet from the closest solar panel, and the average distance to the adjoining residence is 814 feet. Also, a parcel separates the proposed Solar Farm from the RV Park.

The passive nature of the proposed Solar will fit in, and blend with, the rural agricultural, industrial, and residential uses in the area. As discussed previously, solar farms generate minimal traffic, and they do not create odor, noise, dust, adverse environmental factors, or light. The proposed Solar Farm will therefore make a good neighbor to the only nearby residential use (the RV park).

The development of a solar farm enables property owners to maintain ownership of large tracts of land that might otherwise have to be sold for development of a large residential use or industrial use (although development of the parcel for a residential use is not likely due to the industrial uses in the area). Allowing the property to be developed as a solar farm will maintain the rural character of the area, while at the same time providing a sustainable benefit to the community.

Sworn expert testimony will be provided at the hearing to demonstrate that the proposed Solar Farm will not impair the integrity or character of the surrounding or adjoining districts and will be in harmony with the area.

The Solar Farm is desirable for the public convenience and welfare. Access to the site will be from a public road (Corinth Road). The Solar Farm will be designed and constructed in compliance with all applicable building and electrical codes set forth by the State of North Carolina and the County. All solar system components will have a UL listing and anti-reflective coating to prevent glare toward any inhabited buildings and the street right-of-way. The Solar Farm will be secured with a 6-foot tall chain link fence with three strands of barbed wire across the top and a locked entrance gate that is accessible to emergency service providers.

As an extremely low-impact use, the Solar Farm will in no way endanger the public health or safety due to traffic, odor, noise, environmental considerations, light, or any other factor.

- Traffic. The Solar Farm will generate little traffic—only one to two vehicle trips per month after construction. The Solar Farm will not be staffed on a daily basis, and employees will visit the property only periodically to check and maintain the equipment, mow the grass, and make any necessary repairs. The Institute of Transportation Engineers provides that one single family home, on average, generates 9.5 vehicle trips per day. On the other hand, this Solar Farm will generate fewer trips per month.
- Odor. The Solar Farm will not produce odor.
- Noise. The Solar Farm will produce no discernible noise. While the inverters will generate a sound that might be described as a soft hum, that sound is inaudible from the facility boundary.
- Environmental considerations. Solar farms do not produce toxic or hazardous waste or contain hazardous materials or substances. Also, the North Carolina

Department of Environmental Quality (“NCDEQ”) does not consider the panels to be impervious surfaces that impede groundwater absorption or of cause runoff.

- Light. The Solar Farm will be completely dark at night.
- Other factors. The Solar Farm will not produce any emissions of any kind, it will not generate dust, it will not utilize water resources that could deplete aquifers or groundwater, and it will be shielded from sight by natural vegetation on the property and landscaping. The Solar Farm will not prevent or impede neighbors from fully using their homes or farms.

The proposed Solar Farm will require no utilities as it will not be staffed. As a type of utility, the Solar Farm will not add students to schools or school buses, it will require virtually no protection from law enforcement, and it will not generate trash for disposal or recycling.

Prior to construction of the Solar Farm, a sediment and erosion control plan will be submitted to and approved by NCDEQ. Great care will be taken to minimize grading and retain pre-development drainage patterns by individually setting poles to support the solar modules in the ground. The area beneath the solar panels will be planted with grass to stabilize the site. During construction, erosion control measures will be maintained in accordance with applicable State and County regulations. The site will comply with State of North Carolina and County stormwater regulations.

The proposed Solar Farm will be located on a large—46.80 tract—in an area with a mix of agricultural, industrial, and residential uses, including a poultry farm, a coal ash facility, and a RV park.

4. The requested permit will be consistent with the objectives of the Land Use Plan.

The proposed Solar Farm is consistent with and in conformity with many of the goals, objectives, and policies of the Land Use Plan.

The proposed solar farm will further the County’s goal vision of preserving the rural character of the County. As noted in the Comprehensive Report on page 18 of the Land Use Plan, preserving the rural nature of the County has been identified as the most important goal in the County’s planning process. The Vision for the County in Chapter 3 of the Land Use Plan envisions a future where a network of agricultural fields, pasture, timberlands, rural homesteads, and natural areas still dominate the County. The development of a solar farm enables property owners to maintain ownership of large tracts of land that might otherwise be subdivided or sold for development for a use other than an agricultural use.

The proposed solar farm is consistent with and furthers a number of goals and objectives of the Land Use Plan, including:

- The solar farm will preserve the rural nature and lifestyle of the County by preserving a farm in the western part of the County. Please see Objective 1 on page 41 of the Land Use Plan.
- The solar farm will preserve, protect, and enable agriculture and forestry by maintaining the number and diversity of farms in the County, avoiding conflicts

between agriculture and residential development over water availability (as the solar farm will not utilize the County's water resources). Please see Objective 2 on page 41 of the Land Use Plan.

- The solar farm will diversify the County's tax base and create economic opportunities, as it will increase non-residential share of the tax base. Please see Objective 4 on page 41 of the Land Use Plan. As noted in Chapter Two of the Land Use Plan (The Big Picture: Issues and Opportunities), small farms, which would include the proposed solar farm, are significant contributors to the County's economy. The solar farm will conserve natural resources by minimizing further landscape fragmentation and minimizing light pollution. The development of a solar farm enables property owners to maintain ownership of large tracts of land that might otherwise be subdivided or sold for development for a use other than an agricultural use.
- Please see Objective 5 on page 41 of the Land Use Plan.
- The solar farm will help the County become more resilient by mitigating, responding, and adapting to emerging threats. The clean, renewable energy that the solar farm will produce will help the County become/remain a carbon neutral County. Please see Objective 8 on page 43 of the Land Use Plan.
- The solar farm will foster a healthy community by producing clean, renewable energy. Please see Objective 10 on page 43 of the Land Use Plan.
- The proposed solar farm will further the County's objective of preserving open space. As noted on page 35 of the Land Use Plan, open space is part of the County's brand, and farms and forests that line rural roads contribute to the lifestyle that residents value.

5. Adequate utilities, access roads, storm drainage, recreation, open space, and other necessary facilities have been or are being provided consistent with the County's plans, policies, and regulations.

The proposed Solar Farm will require no utilities as it will not be staffed. As a type of utility, the Solar Farm will not add students to schools or school buses, it will require virtually no protection from law enforcement, and it will not generate trash for disposal or recycling.

Prior to construction of the Solar Farm, a sediment and erosion control plan will be submitted to and approved by NCDEQ. Great care will be taken to minimize grading and retain pre-development drainage patterns by individually setting poles to support the solar modules in the ground. The area beneath the solar panels will be planted with grass to stabilize the site. During construction, erosion control measures will be maintained in accordance with applicable State and County regulations. The site will comply with State of North Carolina and County stormwater regulations.

## **II. Conclusion.**

The Applicant respectfully requests issuance of the Conditional Use Permit to construct a Solar Farm at the proposed site in accordance with the site plan as submitted and approved.