

ORDINANCE NO. 2864

AN ORDINANCE TO GRANT A CONDITIONAL USE OF LAND IN AN AR-1 AGRICULTURAL RESIDENTIAL DISTRICT, A GR GENERAL RESIDENTIAL DISTRICT, AND A MR MEDIUM DENSITY RESIDENTIAL DISTRICT FOR A 75 MEGAWATT SOLAR FARM TO BE LOCATED ON A CERTAIN PARCEL OF LAND LYING AND BEING IN CEDAR CREEK HUNDRED, SUSSEX COUNTY, CONTAINING 350.96 ACRES, MORE OR LESS

WHEREAS, on the 6th of July 2021, a conditional use application, denominated Conditional Use No. 2298 was filed on behalf of Freeman Solar, LLC; and

WHEREAS, on the 26th day of May 2022, a public hearing was held, after notice, before the Planning and Zoning Commission of Sussex County and said Planning and Zoning Commission recommended that Conditional Use No. 2298 be approved; and

WHEREAS, on the 14th day of June 2022, a public hearing was held, after notice, before the County Council of Sussex County and the County Council of Sussex County determined, based on the findings of facts, that said conditional use is in accordance with the Comprehensive Development Plan and promotes the health, safety, morals, convenience, order, prosperity and welfare of the present and future inhabitants of Sussex County, and that the conditional use is for the general convenience and welfare of the inhabitants of Sussex County.

NOW, THEREFORE, THE COUNTY OF SUSSEX HEREBY ORDAINS:

Section 1. That Chapter 115, Article 115, Subsection 115-79, Code of Sussex County, be amended by adding the designation of Conditional Use No. 2298 as it applies to the property hereinafter described.

Section 2. The subject property is described as follows:

ALL that certain tract, piece or parcel of land, lying and being situate in Cedar Creek Hundred, Sussex County, Delaware, and lying on the east and west side of Calhoun Road (S.C.R. 621) and South Shawnee Road (Route 36), approximately 1,267 feet south of Shawnee Road (Route 36), said property shown on a plat prepared by Pennoni Associates, Inc. and entitled "Conditional Use Site Plan" and being more particularly described in the attached legal description, dated June 30, 2021, prepared by Pennoni Associates, Inc., said parcels containing 350.96 acres, more or less.

This Ordinance shall take effect immediately upon its adoption by majority vote of all members of the County Council of Sussex County, Delaware.

This Ordinance was adopted subject to the following conditions:

- a. No storage facilities shall be constructed on the site.**
- b. Lighting on the facility shall only consist of perimeter lighting needed for security purposes. All lighting shall be downward screened so that it does not shine on neighboring properties or roadways.**
- c. One unlighted sign, not to exceed 32 square feet in size, shall be permitted.**
- d. The site shall be secured by fencing with a gate with a “Knox Box” or similar device to accommodate emergency access by the local fire company or other emergency responders. The fence line shall be shown in the Final Site Plan.**
- e. Any transformers or similar equipment other than the proposed substation adjacent to Delaware Power’s substation shall be centrally located on the site away from any nearby residential uses.**
- f. All of the grounds, including the area outside of the fence, shall be maintained so that they do not become overgrown.**
- g. Stormwater management and erosion and sedimentation control facilities shall be constructed in accordance with all applicable State and County requirements. These facilities shall be operated in a manner that is consistent with Best Management Practices.**
- h. The Final Site Plan shall include the approval of the Sussex Conservation District for the design and location of all stormwater management areas and erosion and sedimentation control facilities.**
- i. The site’s boundaries that are immediately adjacent to existing, non-family residential uses will have a buffer planted and maintained in such a manner as to screen the view of the solar farm from the residential properties while allowing the solar arrays to function properly. These areas were shown on the Preliminary Site Plan presented during the public hearing, and this buffer and the landscaping within it shall be shown on the Final Site Plan.**
- j. There are wetlands located on the property which have been delineated. The solar field shall stay a minimum of twenty-five feet (25’) from the delineated wetlands.**
- k. The Final Site Plan shall be subject to the review and approval of the Sussex County Planning and Zoning Commission.**

I DO HEREBY CERTIFY THAT THE FOREGOING IS A TRUE AND CORRECT COPY OF ORDINANCE NO. 2864 ADOPTED BY THE SUSSEX COUNTY COUNCIL ON THE 14TH DAY OF JUNE 2022.

**Tracy N. Torbert
Clerk of the Council**

The Council found that the Conditional Use was appropriate legal action based on the following Findings of Fact:

- A. This is the application of Freeman Solar, LLC for the Conditional Use of Land in an AR-1 Agricultural Residential District, a GR General Residential District, and a MR Medium Density Residential District for a 75 megawatt solar farm to be located on a certain parcel of land lying and being in Cedar Creek Hundred, Sussex County, containing 350.96 acres, more or less (property lying on the east and west side of Calhoun Road [S.C.R. 621] and South Shawnee Road [Route 36] approximately 1,267 feet south of Shawnee Road [Route 36]) (911 Address: N/A) (Tax Parcels: 130-3.00-246.00-247.00 & 247.02, 130-6.00-75.00, 76.00, 92.00, 94.00, 95.00, 96.00 & 97.00).**
- B. Based on testimony before the Planning and Zoning Commission and the public hearing before the Sussex County Council, Council found that David Hutt, Esquire, with Morris James LLP, was present on behalf of the Application, together with Mr. Mark Davidson with Pennoni, Mr. John Soininen with Freeman Solar, LLC, Ms.**

Donna Calhoun and Mr. Donnie Calhoun; that Freeman Solar, LLC is a subsidiary of Brookfield Renewable US; that a safe, reliable and renewal production of electricity is a primary function of local, state and national government; that in 2021, Governor Carney signed Senate Bill 33 to raise Delaware's Renewable Portfolio Standard to 40% by 2035; that the Bill states by 2035 at least 40% of Delaware's electricity must come from renewable sources; that solar energy is a renewable source of energy; that addition to the governmental programs and mandates, commercial business are also making similar significant pledges to shareholders and consumers, in the desire to modify their environmental footprint; that in 2021 Google committed to run all operations on carbon-free energy by 2030; that in order for Governmental agencies, commercial businesses and private individuals to accomplish those renewable source goals, applications much like the subject Application, are necessary under the Zoning Code to allow for those goals to be achieved; that over the past several years the Commission has seen several similar Applications for local utility level solar fields; that these past solar applications have ranged in size from 40 acres to 90 acres; and that the current Application is for a transmission level facility on 350 acres.

- C. Council found that the Application consists of 10 tax parcels, which are located on both sides of Calhoun Rd.; that Calhoun Rd. parallels Rt. 113; that Ms. Donna Calhoun is one of the property owners of the 10-acres; that she lives along Rt. 113; that other members of the family reside within the proposed solar field itself; that Mr. Donnie Calhoun lives on the northern end of the proposed solar field; that the property has been farmed by the Calhoun Family for multiple generations; that the property is presently being farmed, as the total acreage is being used for agricultural use; that according to the Sussex County Zoning Map, there are six different zoning classifications within the area, being MR (Medium-Density Residential), C-1 (General Commercial), B-1 (Neighborhood Business), GR (General Residential), AR-1 (Agricultural Residential) and HI-1 (Heavy Industrial); that according to the Future Land Use Map, the majority of the property is shown in the Developing Area, which is listed as a growth area for Sussex County; that the Future Land Use Map also shows Low Density Area and Industrial Area, as well as the municipal boundaries of the City of Milford; that, according to the City of Milford's Zoning map, the property is in the vicinity to their C-3 (Highway Commercial District) and R-3 (Garden, Apartment and Townhouse District); that the City of Milford's Future Land Use Map shows in the dark green color areas that are proposed to be annexed into the municipal limits of the City of Milford; that much of the area is agriculturally used; that there are a number of residential uses in the area as well; that the subject property backs up to the Fitzgerald's Salvage Yard; that when traveling north from that site, there are residential homes, some of which belong to members of the Calhoun Family; that there is an electrical substation located on an adjacent property, being within the municipal boundaries of the City of Milford; that there is also a Delaware Solid Waste Authority Transfer Station in that area; that further north on Rt. 113 is the location and current construction of the Cypress Hall townhomes and apartments; that the Milford Grain Company is also adjacent to the property; and that the northern part of the property is located along Shawnee Rd.
- D. Council also found that according to the State Strategies Map, the 10 properties are located within Investment Level 2 and Level 3; that all the properties are located within Flood Zone X according to the FEMA Map, reflecting the properties to not be within a flood plain; that there are wetlands located on the property; that the wetlands are located to the north-western portion, middle portion along Rt. 113 and between the subject property and the Fitzgerald's Salvage Yard property; that all of the wetland areas have been delineated; that submitted within the project materials, is reference to the proposed 25-ft. setback from the panels from the wetland areas; that one of the positive features of a solar farm, is they do not tax the infrastructure of the County, or any other governmental entities; that the project does not require water or sewer services; that, other than when construction occurs, the site is rarely visited, other than for routine maintenance; that any water needs would be satisfied by the agricultural wells located on the site; that solar farms do not tax the traffic systems or road networks; that DelDOT described the traffic impact as diminutive, which stands for less than 50 vehicle trips per day; and that on most days, the number of vehicle trips to and from the site will be zero.
- E. Council found that the site will require very little grading; that the contractor will come in and install the solar arrays on the site as it currently is; that the gravel roadways, to access the each inverter station, may require some slight grading; that the gravel roadways are required by Sussex County Code; that the project is proposed to be a 75-megawatt facility; that the facility will produce 150,000 megawatt hours of energy per year; that the project will be comprised of 166,500 solar panels; that the

solar panels are installed to withstand hurricane force winds; that the arrays would be aligned in a way to track the sunlight throughout the day; that the Applicant proposes that 25 inverters be located on the site; that the inverters collect the solar energy; that there is a proposed substation located on the site, which will be adjacent to the substation located within the City of Milford; and that the life of the solar project is a little greater than 20 years.

- F. Council also found that Freeman Solar, LLC has a long term lease in place with the Calhoun Family; that Freeman Solar, LLC is a subsidiary of Brookfield Renewable US; that Brookfield Renewable of the United States is the oldest and larger owner/operators of renewable energy producers within the United States; that Brookfield Renewables has projects which include hydroelectric projects, wind farms and solar farms; that as the operator of the site, they are responsible for all operations, insurance and similar issues; that they would also be responsible to decommission the site when the solar panels reach the end of their usefulness; that the decommission process consists of them coming to the property to remove the panels, infrastructure and wiring; and that the farmland would then be handed back to the Calhoun Family to continue to use for agricultural purposes.
- G. Council found that with respect to solar farms, the three general concerns are the impact on adjacent property values, sound issues generated by equipment and the visual appearance of the solar panels; that Freeman Solar, LLC commissioned a study from a nationwide firm regarding the impact of solar farms within various locations; that there is also a site specific supplemental report which references the potential impact of the solar farm located along Calhoun Rd.; that the conclusion of the 185 page report is that there is no consistent negative impact that has occurred to adjacent property, which could be attributed to the adjacent solar farm; that sunlight, nor the solar panel collecting the sunlight generate any sound; that there are invertors and transformers located on the site as part of the process which do generate noise; that an active sound study was performed on the site by an engineering group; that the noise level, located directly next to the invertors themselves is 60 decibels; that 60 decibels can be compared to a normal conversational tone or a typical residential air compressor; that slightly further away from the invertors, the decibels drop to 45 decibels; that 45 decibels can be compared to a normal home appliance; that the project has been designed to ensure no residential uses located where there is more than 45.8 decibels; that the equipment operates during the daytime; that the noise from the inverters will only exist during the daylight hours; that there is no local sound ordinance within Sussex County; that DelDOT and DNREC do have noise ordinances as it is generated by industries and business; when looking at their noise ordinance, it separates the day into two time periods; that daytime is referenced as 7:00 a.m. to 10:00 p.m.; that nighttime is referenced as 10:00 p.m. to 7:00 a.m.; that DelDOT's ordinance is in reference to residential uses that are adjacent to highways; that DNREC's ordinance is in reference to businesses adjacent to residential uses; that the Ordinance states 65 decibels cannot be exceeded at the residential use; that the proposed use of a solar field will easily comply with the Ordinance, as the solar field will generate 20 decibels lower than the Ordinance standard; that the nighttime standard for the Ordinance states noise must be lower than 55 decibels; and that the solar field, even during the day, will remain 10 decibels lower than the nighttime standard.
- H. Council also found that generally a major concern for adjacent neighbors is the visual impact of the solar field; that, pursuant to the National Electric Code, the entire proposed area would be surrounded by a seven foot tall fence; that Freeman Solar, LLC proposes to screen in all locations adjacent to residential properties; that the screening will be made with a cross-section of vegetative plantings; that the vegetative plantings are approved by DelDOT to be located close to roadways; that the plantings are not tall-growing plants, as it would interfere with the access to sunlight; that the tallest planting is about 15-ft. in height; that 15-ft. is the maximum height of an installed solar panel; that he did show photo examples of what the plants would look like upon installation along Calhoun Rd., as well as, what the planting would look like after five years of growth; that within the proposed Conditions of Approval, they made an attempt to track the conditions placed for previous solar farm applications and one of the proposed conditions does contain the landscaping requirements, as it was a major concern to the adjacent neighbors.
- I. Council found that the Applicant sent out a meeting invitation to nearby properties, to help inform them about the proposed project; that the meeting was held the week before the public hearing; that what was proposed in the project booklet was slightly different than what was being proposed at the public hearing; that the Applicant did go beyond Sussex County's 200-ft. radius around the properties; that the Applicant

invited a greater number of residents along the Calhoun Rd. corridor; that the Applicant has added landscape buffering to adjacent neighbors to the north of the site and neighbors located along Rt. 113; that they may offer a straight line of buffering behind Ms. Calhoun's house, rather than having the break in the buffering shown in the project booklet; that the Applicant is adding 2,600 linear feet of buffer to the project; and that the visual impact of the solar field was the primary topic discussed that the meeting held by the Applicant.

- J. Council found that the Application is for a Conditional Use; that Conditional Uses are uses of a public or semi-public character, which are essential and desirable to the general convenience and welfare of Sussex County; that the proposed utility of renewable energy source is of public character; that the local, State, National and individual businesses are seeking these types of renewable energy sources, which makes the proposed project desirable and essential, when considering the mandates from the various governmental agencies; that within Chapter 7 of the Comprehensive Plan, it references utilities; that within Goal 7.3 it encourages the use of renewable energy options, such as solar farms; that this is also the reason why the State Planning Office responded, stating the facility will bring more renewable energy to Sussex County, having minimal land use and environmental impacts; that the proposed solar field accomplishes all of those things; that the proposed solar field is a renewable source of energy and complies with all governmental land use requirements; that the proposed solar field will have one of the most minimal impacts there can be on an area locally or regionally; that while the project benefits the environment, it has a very low impact on the environment; that when the project is finished, all of the infrastructure is recycled; and that the property is then turned back into agricultural production.
- K. Council found that solar technology has been around since the 1950s; that solar technology is becoming more popular as it has become more cost effective; that in the 1950s the only people who could afford solar technology was NASA; that now solar technology is a very economically viable form of electrical generation; that the technology is simple; that sunlight is an energy wave; that the photons hit the polysilicon crystal cell, which creates an electric current; that the direct current is placed through an inverter, which converts the current to an alternating current; that the alternating current can then be used for the typical household uses; that the proposed use is essentially the same idea, just at a much higher level; that the project is proposed to be 75 megawatts; that the 75 megawatt facility will be broken down into 25 circuits; that each solar array will generate electricity in direct current; that the direct current would go through an inverter; that the inverter is about five feet wide, nine feet long and eight feet high; that the inverter will convert the direct current into alternating current; that the alternating current will go into a step-up transformer; that the step-up transformer will take the alternating current of approximately 680 volts to about 34,500 volts; that the step-up transformer will then go through the collector system and then into the project substation; that the project substation is a larger transformer; that the project substation will convert the 34,500 volts up to the transmission voltage to interconnect to the existing system at 115,000 volts; that off of the equipment is wired together by the Supervisory Control and Data Acquisition System (SCADA System); that the SCADA System is the brains behind the solar panel system; that the SCADA System is wired into a remote operation system, which Brookfield Renewables U.S. controls; that everything is connected to a grid; that all of the electricity production and generation can be monitored remotely to ensure the system is operating properly; that the reason they are interested in the subject location is due to the existing infrastructure; that the farm use substation is operated by DPL, which is the reason they are interested; that the subject site would allow them the ability to utilize the existing infrastructure; and that this will allow them to connect, to produce energy and place the energy into the grid for wholesale and then broader consumption.
- L. Council also found that the Applicant has submitted an application in 2020 to the Reginal Transmission Operator, PJM, which provided them a position in the PJM que; that they have proceeded through the interconnection process; that the interconnection processes is a multistep and multiyear process; that the project typically goes through three levels of studies being the Feasibility Study, a System Impact Study and a Facilities Study; that the Facilities Study is where the upgrades are designed to allow for interconnection; that if everything goes well, an Interconnection Agreement is received, which allows permission to place electricity into the wholesale system under very controlled circumstances; that they have been working through that process for a couple years; that they received the results of the System Impact Study in September 2021; that they then moved into the Facilities Study process; that they did sign an agreement to advance the Facilities Study; that

they were informed they would receive feedback from the Facilities Study by May 2023; that subsequently, they have learned there are some issues and constraints within PJM; that PJM currently has a backlog, of 2,000 projects, across the network; that PJM is currently working through a queue reform process; that Freeman Solar, LLC is working in parallel paths; that the subject Application is slightly different than projects proposed in the past and currently developed; that they are not proposing to connect at a distribution system voltage; that they are proposing to connect at transmission voltage; that as a result of that proposal, the project would be regulated by the Federal Energy Regulatory Commission (FERC); that the FERC authorities then delegate down to PJM, who is the Regional Transmission Operator and they are working with PJM, but there are delays in the system, which has made the timing a bit unknown.

M. Based on the record and recommendation of the Planning and Zoning Commission and the Planning and Zoning Commission's Findings (1 through 8) and Conditions (9a. - k.), as amended, Council found that:

- 1. The proposed facility is a public utility use under the Sussex County Zoning Code, and it meets the purposes of a Conditional Use because it has a public or semi-public character that is essential and desirable for the general convenience and welfare of Sussex County residents.**
- 2. The Property is currently GR, MR, and AR-1. The surrounding properties in Sussex County contain these same three zoning classifications as well as HI (Heavy Industrial District). The adjacent properties within the municipal limits of the City of Milford are within the City's C3 (Highway Commercial District) and R-3 (Garden Apartment and Townhouse District). The adjacent properties are used for agricultural purposes, residential purposes, utilities (substation), refuse/recycling (DWSA Milford Transfer Station and Fitzgerald's Salvage & Recycling), and other agricultural commercial uses (Milford Grain Company). These zonings and uses are consistent with the proposed solar farm.**
- 3. The proposed facility promotes Goal 7.3 of the Sussex County Comprehensive Plan which encourages the use of renewable energy options such as solar farms.**
- 4. With the conditions imposed in this recommendation, the proposed use will not have any adverse impact on the neighboring or adjacent properties.**
- 5. The proposed solar generation facility will not result in any noticeable increase in traffic on adjacent and neighboring roadways. There are no regular employees at the site, only periodic visits for inspections, maintenance, or repair of the solar panels. As a result, DelDOT has determined that the traffic impact of this use will be "diminutive".**
- 6. No significant noise, dust, or odor will be generated by the facility.**
- 7. There will be a buffer to screen the view of the solar farm from the nearby residential properties while allowing the solar arrays to function properly.**
- 8. The proposed use provides a renewable energy source that is a benefit to the residents and businesses of Sussex County.**
- 9. Based on the record and recommendation of the Planning and Zoning Commission and the record created before the Sussex County Council, the Conditional Use is approved subject to eleven (11) conditions (a. through k.), as amended, which will serve to minimize any potential impacts on the surrounding area and adjoining properties.**