



BORREGO SOLAR

November 28, 2018

Ms. Keri Nusbaum
Zoning Officer
Piatt County
101 West Washington Street
Monticello, IL 61856

Re: Special Use Permit Request
329 Frontier Piatt, LLC, c/o Borrego Solar Systems, Inc.
Proposed Ground-Mounted Solar Farm
De Land, IL

Ms. Nusbaum,

329 Frontier Piatt, LLC, c/o Borrego Solar Systems, Inc. (BSSI), respectfully submits the attached application for a special use permit (SUP) to allow for development of a 4 MW AC Community Solar Farm facility on an approximately 36-acre portion of existing farmland located north of County Road 2200 North and west of County Road 2300 East in De Land. The property is approximately 188.28 acres in size and is zoned A-1 (Agriculture). The site is currently being used for agricultural purposes and the residual parcel acreage will be maintained by the property owner and may continue to be farmed if the property owner chooses to do so. 329 Frontier Piatt, LLC is requesting a Special Use Permit to allow for the Solar Farm Use. Enclosed and below please find our project narrative description, application fee and supporting documents as required for the Special Use Permit request.

It is 329 Frontier Piatt, LLC's full intention of executing a drainage agreement with the DeWitt Special Drainage District. Our drainage plan, also submitted, shows that we will upgrade the entire portion of the district drainage line which is located on the underlying parcel (PIN# 04-07-19-005-008). This upgrade will improve the flow in this area and remove any concerns with respect to the proposed 4 MW solar array. It is our goal to have an executed agreement by the ZBA hearing with the drainage district. 329 Frontier Piatt, LLC recommends a condition be placed upon the special use that prior to building permit issuance this agreement be fully executed.

Note the following regarding documents included with this application per the Piatt County Zoning Ordinance, Article X, Section I.

1 North State Street, Suite 1500
Chicago, IL 60602
Main: 888-898-6273
Fax: 888-843-6778

- Item 9: The Illinois Department of Agriculture's standard Solar Agricultural Impact Mitigation Agreement as required by 505 ILCS 147/10 et. seq. provides "Execution of this AIMA shall be made a condition of any Conditional/Special Use Permit. Not less than 30 days prior to the commencement of Construction, a copy of this AIMA shall be provided by the Facility Owner to each Landowner that is party to an Underlying Agreement. In addition, this AIMA shall be incorporated into each Underlying Agreement." The intent of the law is to require execution of an AIMA after and if a special use permit is granted. The intent is also to require an executed AIMA prior to construction which will occur by a condition that requires an executed AIMA with the building permit application.
- Item 11. Interconnection documentation for each of the 2 MW systems is included and demonstrates that the systems are in the queue. Both 2 MW systems have fully executed interconnection agreements by 329 Frontier Piatt, LLC and Ameren Corporation.
- Item 13. A decommissioning plan and cost estimate for decommissioning is included. The County required security financing will be provided as part of the building permit phase.
- Item 14. 329 Frontier Piatt, LLC (c/o BSSI) will comply with the Indemnification and Liability requirements as defined in the Ordinance.

Project Narrative:

Existing Conditions

The parcel requested for the Special Use is currently used as agricultural farm land. There are no structures or buildings on site, and the property is not in a floodplain. The project area is relatively flat to gently rolling. The site lies within the DeWitt Special Drainage District, with both local and District drain tile and mains located within the proposed solar array. An extensive drain tile survey was conducted to identify existing tile, including the mains under the jurisdiction of the Drainage District.

A wetland delineation report was prepared by ENCAP, Inc. which determined there are no wetlands on the parcel area. The report has been provided as part of this submission. In addition, the Army Corp of Engineers has issued a "no permit required" letter with respect to the site and proposed project.

Per the EcoCAT Formal Consult review regarding threatened and endangered species, IDNR concluded that adverse effects on identified protected resources are unlikely. A letter from IDNR indicating consult termination is provided in the submittal package.

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The Existing Conditions Plan (C-1.0) in the Site Use Plan set illustrates the existing conditions on the property.

Proposed Conditions

The proposed community solar farm will be located on the northeast portion of the overall parcel. The project will consist of 2, 2 MW ground-mounted tracker panel systems (a total of 4 MW) comprising an overall system size of approximately 4,966.920 kW DC. There are no buildings and no permanent on-site employees associated with this project. The closest residence to the facility is approximately 1,840 ft directly west of the array. The second closest residence is approximately 2,020 ft southeast on the south side of 2200 N road. As indicated in the table below, **these residences are more than 15 times further away than the ordinance allows.**

System components will include solar panel arrays with trackers, racking via ground screws or driven piles, small equipment pads, string inverters/transformers/switch gear, riser poles, cabling, perimeter chain link fencing, and a gravel drive for site access and maintenance. The system will be fully secured with perimeter fencing and NEC safety signage will be provided as required. Proposed setbacks will meet and/or exceed County requirements. The proposed solar farm development will have a footprint of approximately 36 acres.

Only 500 square feet of concrete will be installed as part of the facility as equipment pads for the transformers and DAS equipment. This represents just 0.002% of the total project area. Overhead electrical lines will interconnect to the existing Ameren distribution lines from riser poles located next to the access road.

Drainage flow through the property will be maintained, both at the surface and below grade via drain tiles. As stated previously, the Dewitt Special Drainage District main line, which is in poor condition, will be replaced in its entirety from 2300 East (Sunnyland) Rd all the way to a new connection point along the east side of N 375 East Road. The main will be re-routed outside of the array field to provide the District access should it be required. This improvement is well in excess of the minimum requirement to maintain the main through the affected area of the facility itself. Local drains within the array will also be replaced and tied into the new main. Surface flow will be accommodated by improvements to the existing swale. The perimeter fence will be modified to allow flow to pass under it, thus eliminating the potential for debris to be captured by the fence.

To address any potential concerns related to soil erosion and drainage we have included a stormwater narrative which outlines our proposed assumptions and design approach. The stormwater analysis memo demonstrates that implementation of the project as proposed will have the net effect of decreasing CN and stormwater runoff.

Post-construction, the site area will be seeded with low mow seed mix.

Decommissioning of the project upon completion of the lease term has been contemplated by the lease agreement. Additionally, we have included with our submission a decommissioning plan and a decommissioning estimate that includes information regarding salvage value.

The transformers emit low levels of noise, and only during daylight. Noise dissipates to below background levels within 100 ft of the source, and the nearest neighbour is approximately 20 times that distance from the source.

The solar modules produce little to no glare. As confirmation, glare simulations were run at several locations and elevations around the perimeter of the property. The ForgeSolar glare simulation software is also used by the FAA to evaluate the potential for impacts near airports where safety is critical. Results of the simulations indicated no potential for glare from an observation point at any of the nearby residences.

With respect to the system itself, please note the following details:

- PV solar panel arrays are a maximum of approximately 8 ft. in height and work in conjunction with trackers, racking and string inverters. The maximum height only occurs early in the morning and late afternoon when the modules are at their maximum angle.
- Racking system will be installed via posts or augured screws.
- Concrete pad-mounted transformers/switch gear are located central to the systems.
- The Data Acquisition System (DAS) provides for remote 24/7 monitoring.
- Equipment poles and riser poles with overhead power lines will interconnect with the Ameren system on 2200 North Road.
- Underground trenching/cablings runs from the transformers to the riser poles.
- Perimeter security fencing is 7 ft. in height as required per National Electric Code (NEC). The fenced area of each proposed 4 MW AC project is approximately 27 acres and will include gated main entries and several 4-ft gates for personnel access. Knox boxes for

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emergency personnel will be provided.

- One motion-sensor security light will be provided at each of the transformer areas and will comply with requirements of the County Lighting Ordinance.
- The location of proposed array field meets or exceeds County setback requirements:

<u>Road</u>	<u>Required Front Yard</u>	<u>Proposed Front Yard</u>
Co. Rd 2200 North	100 ft.	1,649 ft.
N. 375 East	100 ft.	411 ft.
N. 2300 East	100 ft.	2,220 ft.

<u>Property Line</u>	<u>Required Side Yard</u>	<u>Proposed Side Yard</u>
North	50 ft.	54 ft.
South	50 ft.	126 ft.

Per the County Zoning Ordinance, Article IV, Section A. 2. d., we ask that County staff and the Zoning Board of Appeals consider the following:

1. The establishment, maintenance or operation of the special use will not be detrimental to or endanger the public health, safety, morals, comfort or general welfare.

- This development as proposed will not impede the development of adjacent properties for uses already permitted in the adjacent A-1 Zoning Districts.
- The site is in an area with very low population density and is not anticipated to affect the public's comfort or welfare.
- The project area will be secured with a 7-foot fence to provide safety and prevent unintended access.
- At a minimum, benefits to the public from community solar include enhanced grid stability, increased tax base, lower energy costs, and an opportunity to contribute to reduced greenhouse gas emissions.
- County residents and the local region will benefit from this proposed solar farm development through receipt of increased tax revenues, local job opportunities, enhanced power grid stability, and the opportunity to reduce money on their electric bills should they choose to subscribe to the community solar program. In a broader sense, installation of renewable solar energy in the form of a community solar farm will reduce the amount of energy dependence on fossil fuels, which in turn reduces greenhouse gases.

2. The special use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted nor substantially diminish and impair property values within the neighborhood.

- The proposed community solar farm is a quiet neighbor and a low-impact use which once built, has no on-site employees and will not add to neighborhood traffic.
- Property value studies in several states have shown no decrease in adjacent property values due to solar use implementation - please see the enclosed studies:
- CohnRezick, a respected real estate appraisal firm, prepared a property value impact study specific to this site. They concluded that there is no measurable difference in property values for properties adjacent to solar farms as compared to similar properties not influenced by solar farms.

3. The establishment of the special use will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district.

- Once constructed, the solar farm will fit well within the surrounding low-density agricultural uses, and the property will not be visited more than 3-4 times during the year for maintenance visits.
- The proposed location of the solar field is a significant distance from any existing residential uses.

4. Adequate utilities, access roads, drainage, and/or other necessary facilities will be provided.

- The proposed solar development does not require access to traditional utilities such as natural gas, water or sanitary sewer.
- The proposed solar farm will not require additional public expense for fire protection, rescue or relief. Solar farm development does not present an increased or inherent risk from fire. Solar panels and components are not inherently flammable, nor do they present an increased risk from fire or other.

5. Adequate measures will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.

- During the initial construction timeframe of approximately four to six months, there will be a mix of trucks ranging from semis for panel and racking delivery, flatbed trucks for fencing, dump trucks for driveway gravel and various delivery type trucks, averaging 2-3 per day. For similar projects of this scale, approximately 40 personal vehicles may be on

site at one time. These vehicles will arrive each day in the morning and leave in the afternoon. The total number of vehicles on site will fluctuate depending on the phase of the project.

- Once construction is complete, there will be little to no traffic to/from the site other than for occasional maintenance visits 3 to 4 times per year.

6. The establishment, maintenance and operation of the special use will be in conformance with the preamble to the regulations of the district in which the special use is proposed to be located.

- Once construction of the solar farm is complete, there will be no employees and no traffic on site.
- No more than 3-4 vehicles are anticipated per year for maintenance purposes.
- This development would not only conform but would benefit the site. It should be expected that soil quality will be enhanced, and soil erosion reduced in the area of the proposed community solar farm facility. The site would also benefit from the reduced application of fertilizers and pesticides.

7. The special use shall in all other respects conform to the applicable regulations of the district in which it is located and the Board shall find that there is a public necessity for the special use.

- It is our opinion that the solar farm project as proposed meets or exceeds the applicable regulations of the A-1 Zoning District and in addition, meets the requirements of the County's Solar Farm ordinance.
 - The project as proposed meets/exceeds the setback requirements of the A-1 zoning district and the draft Solar Ordinance.
 - Proposed motion-sensor lighting (one fixture, centrally located) will comply with Article XI of the Piatt County Zoning Ordinance.
 - The proposed project will comply with local, state and federal regulatory standards and the National Electric Code as amended.
 - The parcel on which the solar farm is proposed is greater than 10 acres.
 - An erosion control plan and stormwater narrative have been provided.
 - All areas occupied by the facility that are not utilized for access to operate and maintain the solar farm will be planted and maintained with a low-mow turf for soil stabilization.
 - Noise levels measured at the property line will not exceed fifty (50) decibels and quickly dissipate to background levels.

- If the facility ceases to produce electricity on a continuous basis for 12 months, and the facility owner does not request an extension, the equipment will be removed, and the site will be restored to original conditions.
- Perimeter fencing having a maximum height of 7 feet is proposed around the boundary of the solar farm. Knox boxes and keys will be provided at locked entrances for emergency personnel access.
- Appropriate NEC safety signage will be provided at the entrance to the facility and along the perimeter of the project. The sign at the entrance will include the facilities 911 address and a 24-hour emergency contact number.
- The fence will be maintained, and weed/grass control plan adhered to.

Further, per the County Zoning Ordinance, Article IV, Section A. 2. e. Special Use Permits:

A. The proposed use of the real estate will not have a deleterious effect on the soil, such that the land could not later be restored to agricultural use;

- The proposed solar farm development is a temporary use which can be easily removed. Topsoil remains on site.
- All structures and foundations will be removed, including the gravel access road, fencing, all equipment and electrical trenches.
- Where minor grading has occurred, the land will be re-graded to match existing and soil and vegetation will be restored.
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B. The proposed use will have a minimal negative impact on the use of surrounding lands;

- As stated above, the proposed location of the solar field is a significant distance from any existing residential uses and will not have any adverse effects to the surrounding lands.
- The surrounding low-density agricultural uses will not be affected by the solar field and can continue to operate without being impacted or affected by any changes because of this development.
- Surrounding property owners may witness maintenance of the solar field only 3-4 times during the year for maintenance visits.
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C. The granting of the proposed use will not encourage the spread of uses other than proposed and will not encourage mixed uses in the same general area.

- We do not anticipate that the development of a community solar farm facility would encourage mixed uses in the near vicinity of the site.

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It is our opinion that the public benefits of the proposed Special Use to allow for this Community Solar Farm development as outlined herewith far outweigh any potential or perceived adverse impacts. It is our hope that the Zoning Board of Appeals and the County Board will find in favor of this Special Use.

We look forward to the review of our submittal and the presentation of our project at the Zoning Board of Appeals hearing on December 20th. In the interim, please contact me with any questions regarding our application submission or if any additional information is required. I can be reached at 630-644-2052 or via email at ksmith@borregosolar.com

Regards,



Kip J. Smith, PE
Civil Engineer

Exhibit A

July 26, 2018

To: Keri Nusbaum Zoning Officer Piatt County 101 W. Washington Monticello, IL 61856 T. 217.762.3111	Project 2240 N 375 East Road, Piatt County, IL Project # 20180851.0 From Joseph Levie Re Parcel Legal Description Copies file
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PARCEL LEGAL DESCRIPTION: (NEQ) E. 2200 North Road & N. 300 East Road, De Land, IL

THE WEST 1/2 OF THE SOUTHWEST 1/4, EXCEPT A PART OF GOVERNMENT LOT 2 OF THE SOUTHWEST 1/4 OF SECTION 7, TOWNSHIP 19 NORTH, RANGE 5 EAST OF THE THIRD PRINCIPAL MERIDIAN, SITUATED IN PIATT COUNTY, ILLINOIS, AND BEING MORE PARTICULARLY DESCRIBED AS: COMMENCING AT THE NORTHWEST CORNER OF GOVERNMENT LOT 2 OF THE SOUTHWEST 1/4 OF SAID SECTION 7, SAID POINT BEING AN IRON PIN OVER A STONE FOUND PER PLAT OF SURVEY RECORDED IN PLAT BOOK 4 PAGE 55 IN THE RECORDS OF THE PIATT COUNTY RECORDER'S OFFICE; THENCE SOUTH 00 DEGREES 06 MINUTES 31 SECONDS WEST 635.14 FEET ALONG THE WEST LINE OF SAID GOVERNMENT LOT 2 TO THE POINT OF BEGINNING, SAID POINT BEING AN IRON PIN WITH CAP NUMBER 3367; THENCE SOUTH 88 DEGREES 03 MINUTES 12 SECONDS EAST 289.65 FEET TO AN IRON PIN WITH CAP NUMBER 3367; THENCE SOUTH 04 DEGREES 22 MINUTES 48 SECONDS EAST 84.24 FEET TO AN IRON PIN WITH CAP NUMBER 3367; THENCE NORTH 88 DEGREES 08 MINUTES 25 SECONDS EAST 67.40 FEET TO AN IRON PIN WITH CAP NUMBER 3367; THENCE SOUTH 00 DEGREES 09 MINUTES 29 SECONDS EAST 124.92 FEET TO AN IRON PIN WITH CAP NUMBER 3367; THENCE SOUTH 88 DEGREES 00 MINUTES 01 SECONDS WEST 101.55 FEET TO AN IRON PIN WITH CAP NUMBER 3367; THENCE SOUTH 01 DEGREES 02 MINUTES 00 SECONDS EAST 128.37 FEET TO AN IRON PIN WITH CAP NUMBER 3367; THENCE NORTH 89 DEGREES 56 MINUTES 44 SECONDS WEST 265.11 FEET TO A POINT ON THE WEST LINE OF SAID GOVERNMENT LOT 2, SAID POINT BEING AN IRON

PIN WITH CAP NUMBER 3367; THENCE NORTH 00 DEGREES 06 MINUTES 31 SECONDS EAST 348.20 FEET, TO THE POINT OF BEGINNING;

AND

THE NORTH 1/2 OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4, EXCEPT WHAT THE ILLINOIS CENTRAL RAILROAD TAKES THE NORTH SIDE; AND THE NORTH 1/2 OF THE SOUTH 1/2 OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4; AND THE NORTH 1/2 OF THE NORTHWEST 1/4 OF THE SOUTHEAST* 1/4, EXCEPTING WHAT THE ILLINOIS CENTRAL RAILROAD COMPANY TAKES OF THE NORTH SIDE; AND THE NORTH 1/2 OF THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 7 TOWNSHIP 19 NORTH, RANGE 5 EAST OF THE THIRD PRINCIPAL MERIDIAN, PIATT COUNTY, ILLINOIS;

AND

BEGINNING AT THE SOUTH 1/4 CORNER OF SECTION 7, TOWNSHIP 19 NORTH, RANGE 5 EAST OF THE THIRD PRINCIPAL MERIDIAN, PIATT COUNTY, ILLINOIS, RUNNING THENCE NORTH 90 DEGREES 00 MINUTES 00 SECONDS WEST FOR 1,324.20 FEET; THENCE NORTH 0 DEGREES 10 MINUTES 12 SECONDS WEST FOR 1,651.56 FEET; THENCE SOUTH 89 DEGREES 58 MINUTES 21 SECONDS EAST FOR 2,647.30 FEET; THENCE SOUTH 0 DEGREES 12 MINUTES 30 SECONDS EAST FOR 121.40 FEET; THENCE SOUTH 89 DEGREES 49 MINUTES 51 SECONDS WEST FOR 1,336.95 FEET; THENCE SOUTH 0 DEGREES 41 MINUTES 15 SECONDS EAST FOR 1,525.05 FEET TO THE POINT OF BEGINNING, MORE PARTICULARLY DESCRIBED AS TRACT "A", AS PER PLAT OF SURVEY DATED NOVEMBER 4, 1999 BY WILLIAM C. FAULKNER, ILLINOIS LAND SURVEYOR #1940, AND RECORDED IN THE OFFICE OF THE PIATT RECORDER OF DEEDS ON DECEMBER 6, 1999, IN PLAT BOOK 12 AT PAGE 292 AS DOCUMENT NUMBER 295834, SITUATED IN THE COUNTY OF PIATT, STATE OF ILLINOIS.

*TYPOGRAPHICAL ERROR CORRECTED BY SURVEYOR