



**Application for Special Use Permit  
for  
Alexander Farm Solar**

**Submitted to Kane County, IL**

by

Blair H. Alexander and Richard F. Johnson (Landowner)

&

Horizon Solar Power, LLC (Developer)

&

KaneSolar02 LLC (Project Owner)

September 6<sup>th</sup>, 2023



Kane County  
c/o Keith Berkhout, Zoning Planner  
719 Batavia Avenue - Bldg A, 4th Floor  
Geneva IL 60134

(with an email copy to: [BerkhoutKeith@co.kane.il.us](mailto:BerkhoutKeith@co.kane.il.us))

To Kane County,

On behalf of the landowner, Blair Alexander and Richard Johnson, please find attached our complete application for a Special Use Permit for a 5.0 megawatt, alternating current (MWac) community solar project, known as "Alexander Farm Solar". The project is located on an approximately 38.5-acre parcel, ID 10-03-100-015. This community distributed generation solar project has been developed to meet the directives of the Illinois renewable energy targets.

The solar project is being developed pursuant Kane County's solar energy ordinance and special use regulations, and will meet any and all applicable requirements of the County's land use ordinances, as well as applicable state and federal regulations. All required application material is included here in hard copy format. The complete application package begins with a Project Narrative summary of the proposed project, followed by a series of appendices with more detailed and technical information.

Building permits and any other additional required approvals will be obtained before starting construction, and will include detailed design as well as any other additional material as required by the County.

We appreciate the consideration and look forward to a successful project.

Sincerely,

A handwritten signature in blue ink, appearing to read "Andy Melka", is written over a light blue horizontal line.

Andy Melka  
Director, Development  
312-972-5055  
[andy@horizonpow.com](mailto:andy@horizonpow.com)

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## **List of Appendices:**

Appendix A – Site Plan (including Landscaping Plan)

Appendix B – Site Survey

Appendix C – Example Equipment Data Sheets

Appendix D – Wetland Letter of No-Finding

Appendix E – Kane-DuPage Soil & Water Conservation District Land Use Opinion Report

Appendix F – Illinois DNR Species Consultation

Appendix G – US Fish & Wildlife Service Information for Planning and Consultation Tool Results

Appendix H – Decommissioning Plan and Preliminary Cost Estimate

## Project Narrative:

### Overall Parcel Detail:

- **PIN:** 10-03-100-015
- **Owner:** Blair H. Alexander and Richard F. Johnson, 44 Lake Marian Rd, Carpentersville IL 60110
- **Site Access** will be via a new driveway entrance from IL Route 38.
- **Legal Description of the Property:**

THAT PART OF THE NORTHWEST FRACTIONAL QUARTER OF SECTION 3, TOWNSHIP 39 NORTH, RANGE 6 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID NORTHWEST FRACTIONAL QUARTER; THENCE NORTHERLY ALONG THE EAST LINE OF SAID QUARTER 1334.26 FEET TO THE NORTHEAST CORNER OF GOVERNMENT LOT NO. 1 OF SAID QUARTER; THENCE WESTERLY ALONG THE NORTH LINE OF SAID LOT 1322.83 FEET FOR A POINT OF BEGINNING; THENCE EASTERLY ALONG THE LAST DESCRIBED COURSE 90 FEET; THENCE NORTHERLY ALONG A LINE FORMING AN ANGLE OF 88 DEGREES 08 MINUTES 03 SECONDS WITH THE PROLONGATION OF THE LAST DESCRIBED COURSE (MEASURED COUNTERCLOCKWISE THEREFROM) 1301.81 FEET TO A LINE DRAWN PARALLEL WITH AND 50 FEET SOUTHERLY OF THE CENTER LINE MEASURED AT RIGHT ANGLES THERETO) OF ILLINOIS STATE ROUTE NO. 38; THENCE WESTERLY ALONG SAID PARALLEL LINE FORMING AN ANGLE OF 87 DEGREES 48 MINUTES 12 SECONDS WITH THE LAST DESCRIBED COURSE (MEASURED CLOCKWISE THEREFROM) 761.74 FEET TO THE WEST LINE OF THE EAST THREE-FOURTHS OF SAID NORTHWEST FRACTIONAL QUARTER; THENCE SOUTHERLY ALONG SAID WEST LINE 2637.51 FEET TO THE SOUTH LINE OF SAID QUARTER; THENCE EASTERLY ALONG THE SOUTH LINE OF SAID QUARTER 666. 12 FEET TO THE NORTHWEST CORNER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 3; THENCE NORTHERLY ALONG A LINE FORMING AN ANGLE OF 92 DEGREES 14 MINUTES 0 1 SECONDS WITH THE LAST DESCRIBED COURSE (MEASURED CLOCKWISE THEREFROM) 1338.38 FEET TO THE POINT OF BEGINNING, IN KANEVILLE TOWNSHIP, KANE COUNTY, ILLINOIS.

EXCEPTING THEREFROM:

THAT PART OF THE NORTHWEST FRACTIONAL QUARTER OF SECTION 3, TOWNSHIP 39 NORTH, RANGE 6 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SECTION OF SAID NORTHWEST FRACTIONAL QUARTER; THENCE NORTHERLY ALONG THE EAST LINE OF SAID QUARTER 1334.26 FEET TO THE NORTHEAST CORNER OF GOVERNMENT LOT 1 OF SAID QUARTER; THENCE WESTERLY ALONG THE NORTH LINE OF SAID LOT, 1232.83 FEET; THENCE NORTHERLY ALONG A LINE FORMING AN ANGLE OF 88 DEGREES 08 MINUTES 03 SECONDS MEASURED COUNTERCLOCKWISE FROM SAID NORTH LINE, 1301.81 FEET TO A LINE DRAWN PARALLEL WITH AND 50 FEET SOUTHERLY OF THE CENTER LINE OF ILLINOIS STATE ROUTE 38; THENCE WESTERLY ALONG SAID PARALLEL LINE FORMING AN ANGLE OF 87 DEGREES 48 MINUTES 12 SECONDS MEASURED CLOCKWISE FROM THE LAST DESCRIBED COURSE, 60.04 FEET FOR THE POINT OF BEGINNING; THENCE CONTINUING WESTERLY ALONG SAID PARALLEL LINE 701.66 FEET TO THE WEST LINE OF THE EAST THREE-FORTHS OF SAID NORTHWEST FRACIONAL QUARTER; THENCE SOUTHERLY AT AN ANGLE OF 92 DEGREES 11 MINUTES 07 SECONDS MEASURED CLOCKWISE FROM SAID PARALLEL LINE AND ALONG SAID WEST LINE, 330.00 FEET; THENCE EASTERLY, AT AN ANGLE OF 87 DEGREES 48 MINUTES 53 SECONDS MEASURED CLOCKWISE FROM SAID WEST LINE AND PARALLEL TO SAID CENTERLINE, 701.55 FEET; THENCE NORTHERLY AT AN ANGLE OF 92 DEGREES 12 MINUTES 14 SECONDS MEASURED CLOCKWISE FROM THE LAST DESCRIBED COURSE, 330.00 FEET TO THE POINT OF BEGINNING, ALL IN KANEVILLE TOWNSHIP, KANE COUNTY, ILLINOIS, CONTAINING 5.3 ACRES MORE OR LESS.

### Purpose:

This project is being developed as a community solar project, under the Illinois Shines initiative. Community solar projects allow utility customers to subscribe to a solar project and get bill credits for the amount of electricity their portion of the solar project produces. In addition, this community-sized,



distributed-generation project will add reliability to the local grid and can help neighboring electrical customers by reducing the likelihood of brown-outs or black-outs.

### **Setting:**

The site for the proposed solar project is currently farmland. The parcel is zoned F and is surrounded by other F zoning. The site is ideal for a solar project because it is relatively flat, is well-exposed to sunlight, and is naturally screened from view on the north side by existing vegetation.

### **Site Plan, Major Equipment:**

A preliminary site plan for the proposed community solar project, including civil drawings, is attached hereto as **Appendix A**. A survey for the property is included as **Appendix B**. The solar project will be comprised of three types of major equipment: solar modules (panels), support racking for the panels, and electrical inverters:

Solar photovoltaic (PV) modules (also known as solar panels) are made of thin silicon cells, aluminum conductors and frames, glass surface, and plastic back sheet. The silicon cells convert the rays of the sun into an electric current, which runs through the electrical conductors into the larger system. The glass serves to protect the panels from weather, while the plastic back sheet holds together the cells, conductors, and string wiring.

The racking system supports the modules above the ground. The solar modules will be mounted on horizontal supports, attached to vertical steel posts driven or screwed into the ground at regular intervals. This method minimizes excavation and concrete foundations.

Electrical inverters will be attached to support structures at the end of the rows of the solar array. Inverters convert direct-current (DC) electricity created at each module to alternating-current (AC) grid power. The inverters have cooling fans, which make minimal noise, audible only within a few dozen feet of the inverters themselves. Specific sound ratings are included in the equipment data sheets, discussed below.

Example equipment data sheets for representative major equipment have been attached hereto as **Appendix C**. Final selection of equipment will be done prior to applying for a building permit. Revisions to the site plan to accommodate final equipment selection may be necessary but will remain within the site boundary. Any revisions will maintain similar physical characteristics, will not change the land included in the project, and will fully comply with all setbacks and height restrictions and any other legal requirements.

### **Interconnection and Other Equipment:**

The solar project will have small transformers, which will increase the voltage to the ComEd distribution system voltage. A separate meter and various other electrical equipment will be located near the



transformers. An electrical feeder extension (cables) will extend from the ComEd lines along IL Route 38 into the site, where the solar project will interconnect with the existing distribution system. The interconnection facilities will be made up of poles, control boxes, meters, switches, and other related equipment. Final design and location of the ComEd interconnect facilities will be dictated by ComEd, and will be specified by ComEd prior to application for building permits.

### **Access:**

The project will be accessed via a new gravel driveway along the north side of the parcel from IL Route 38, as shown on the site plan (Appendix A). The project area will be fenced and gated to prevent unauthorized access. Fencing will be chain link, woven-wire fencing (also known as “deer fencing” or “agricultural fencing), or similar. No regular visitation of the site other than the landowner and operations and maintenance team is proposed.

### **Hours of Operation, Employees, Site Traffic, Parking:**

The facility will passively convert sunlight to electricity during daytime hours. No permanent employees will be on site on a regular basis. Operations & Maintenance personnel are anticipated to be at the site every few months to perform scheduled maintenance, vegetation control, and to respond to any unscheduled maintenance or outage issues.

### **Screening, Landscaping, and Ground Cover:**

Given the location of this project, the topography and existing vegetation will provide significant screening of the project from view from the roadway and nearby properties. Additional landscaping, made up of evergreen trees, will be planted on the east side of the project, as shown in the landscaping plan as part of Appendix A, in order to provide visual screening from the homes to the east of the project area.

The land under the panels will be planted with low-growth, native vegetation that will allow water infiltration and reduce run-off rates relative to open farmland. The vegetation mix will be pollinator friendly, and will enhance the biodiversity of the area and provide additional habitat for a number of native fauna, including bees, butterflies and other important pollinating species. Growth of the vegetation will initially be controlled by regular mowing, as needed. Mowing will be needed less often as the native habitat establishes itself. Herbicide and other weed control measures will only be used as necessary to keep the site in well-kempt condition, and to support the establishment of the native pollinator habitat.

### **No Public Services Required:**

Solar projects do not require sewer, septic, city water, waste management, or any additional local services.

### **Water Resources:**

No grading is planned to be performed other than minor grading as necessary to build the access road and equipment pads and to construct the retention basin. Should additional grading be required upon final equipment selection and final engineering, the project will utilize engineered drainage controls and obtain all necessary permits prior to such activity.

Davey Resource Group reviewed the site for the presence of wetlands, and detected no signs. The no-finding report is attached as **Appendix D**.

The Kane-DuPage Soil & Water Conservation District prepared a Land Use Opinion report for the project, which is attached as **Appendix E**.

### **Illinois Department of Natural Resources Consultation:**

The IDNR was consulted through EcoCAT regarding the presence of sensitive species onsite. Their conclusion was "...that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 and 1090 is terminated." The Report and letter from IDNR are attached as **Appendix F**.

### **US Fish & Wildlife Natural Resources Consultation:**

The US Fish & Wildlife Service was consulted through their Information for Planning and Consultation (IPaC) tool. The IPaC tool confirmed that no critical habitats exist. No impact on covered species is expected. The results of the IPaC tool are attached as **Appendix G**.

### **Interconnection Status:**

The project has applied for interconnection with ComEd. ComEd has completed the Feasibility Study for the project, which indicates that the project can be interconnected to their grid as requested. We expect to have an executed Interconnection Agreement by the end of the year.

### **Life of Project – Operations and Maintenance:**

Upon approval of the Special Use Permit, several steps remain prior to the commercial operation of the community solar project, including final design and production modeling, final investment decision, hiring of the project's construction firm, and applying for a local building permit, among many others. Once operational, the life of the community solar gardens is expected to be at least 35 years, and may be extended at that time, depending on a variety of factors.

### **Decommissioning:**

A Decommissioning Plan has been prepared for the project, and is attached as **Appendix H**. The Decommissioning Plan will be updated once the project design is finalized, based on the final site plan, selected equipment, salvage value and engineering. The Applicant will provide an updated cost



estimate along with any required financial security prior to applying for a building permit, as described in more detail in Appendix H.

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## Appendix A – Site Plan and Electrical Diagram

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## Appendix B – Site Survey

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## Appendix C – Example Equipment Technical Data Sheets

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## **Appendix D – Wetland Letter of “No Finding”**

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## **Appendix E – Kane-DuPage Soil & Water Conservation District Land Use Opinion Report**

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## **Appendix F – Illinois DNR Consultation**

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## **Appendix G – US Fish & Wildlife Service Information for Planning and Consultation Tool Results**

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## Appendix H – Decommissioning Plan

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