



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

Submitted to Kane County, IL

by

John B. and Michelle A. Hatch (Landowner)

&

Horizon Solar Power, LLC (Developer)

&

KaneSolar03 LLC (Project Owner)

September 6th, 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)

To Kane County,

On behalf of the landowner, John and Michelle Hatch, please find attached our complete application for a Special Use Permit for a 2.5 megawatt, alternating current (MWac) community solar project, known as "Hatch Farm Solar". The project is located on an approximately 20-acre site within a 78.3 acre property, made up of parcel IDs 10-04-200-009, 10-04-200-010, and 10-04-100-011 (the project is located on portions of the first two). 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 in a cursive style.

Andy Melka
Director, Development
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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:

- **PINs:** 10-04-200-009, 10-04-200-010
- **Owner:** John and Michelle Hatch, 48W607 IL Route 38, Maple Park IL 60151
- **Site Access** will be via a new driveway entrance from IL Route 38.
- **Legal Description of the Project Area:**

Beginning at the Northeast Corner of the West Half of the Northeast Quarter of Section 4, Township 39 North, Range 6 East of the Third Principal Meridian, in the Township of Kaneville, Kane County, Illinois, thence Southerly, along the East Line of said West half, 1638.00 feet; thence Westerly, at an angle of 91° 53' 04" measured counterclockwise from said East Line, 425.00 feet; thence Southwesterly, at an angle of 156°24'27" measured clockwise from the last described course, 150.00 feet; thence Westerly, at an angle of 156°24'27" measured clockwise from the last described course, 61.00 feet; thence Northerly, at an angle of 88°06'56" measured counterclockwise from the last described course, 1070.00 feet; thence Easterly, at an angle of 92°10'09" measured counterclockwise from the last described course, 246.00 feet; thence Northerly at an angle of 92°10'09" measured clockwise from the last described course, 624.98 feet to the North Line of the Northeast Quarter of said Section 4; thence Easterly, at an angle of 92°10'09" measured counterclockwise from the last described course and along said North Line, 375.00 feet to the point of beginning. Containing 19.98 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 two sides 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 west side and northwest corner of the project, as shown in the landscaping plan as part of Appendix A, in order to provide visual screening from the home to the northeast and from vehicles driving east past the site on IL Route 38.

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.



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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