



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

Submitted to Kane County, IL

by

Mario A. Ruffolo (Landowner)

&

Horizon Solar Power, LLC (Developer)

&

KaneSolar01 LLC (Project Owner)

March 29th, 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, Mario A. Ruffolo, please find attached our complete application for a Special Use Permit for a 5.0 megawatt, alternating current (MWac) community solar project, known as "Ruffolo Farm Solar". The project is located on an approximately 33.5 acre site within a 55.5 acre property comprised of three parcels, ID numbers 07-34-300-015, 07-34-300-016, and 07-34-300-017. 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 Special Use codes 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
312-972-5055
andy@horizonpow.com



List of Appendices:

Appendix A – Site Plan (including Landscaping Plan)

Appendix B – Site Survey

Appendix C – Example Equipment Data Sheets

Appendix D – Wetland Delineation

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

Appendix F – Illinois DNR Species Consultation

Project Narrative:

Overall Parcel Detail:

- **PINs:** 07-34-300-015, 07-34-300-016, and 07-34-300-017
- **Owner:** Mario A. Ruffolo, 47W962 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:

The following described land located in Kane County, State of Illinois, containing 38.5 Acres, more or less:

The West Half of the Southwest Quarter of Section 34, Township 40 North, Range 6, East of the Third Principal Meridian, lying Southerly of the right-of-way line of the Chicago and Northwestern Railroad Company, and Northerly of F.A. Route 7 (Illinois Route 38) as established by Warranty Deed recorded on March 2, 1961 as Document No. 942479, all in Virgil Township, Kane County, Illinois, excluding the Western 360 feet and excluding the Easterly 400 feet. (PIN: 07-34-300-015)

The Easterly 400 feet of the West Half of the Southwest Quarter of Section 34, Township 40 North, Range 6, East of the Third Principal Meridian, lying Southerly of the right-of-way line of the Chicago and Northwestern Railroad Company, and Northerly of F.A. Route 7 (Illinois Route 38) and the Easterly 400 feet as established by Warranty Deed recorded on March 2, 1961 as Document No. 942479, all in Virgil Township, Kane County, Illinois. (PIN: 07-34-300-016)

The Western 360 feet of the West Half of the Southwest Quarter of Section 34, Township 40 North, Range 6, East of the Third Principal Meridian, lying Southerly of the right-of-way line of the Chicago and Northwestern Railroad Company, and Northerly of F.A. Route 7 (Illinois Route 38), and the Western 360 feet as established by Warranty Deed recorded on March 2, 1961 as Document No. 942479, all in Virgil Township, Kane County, Illinois. (PIN: 07-34-300-017)

EXCEPTING THEREFROM:

Beginning at the intersection of the West line of the Southwest Quarter of Section 34, Township 40 North, Range 6, East of the Third Principal Meridian with the Northerly line of F.A. Route 7 (Illinois Route 38); thence Northerly along said West line, 1370.00 feet; thence Easterly at right angle to said West line, 425.00 feet; thence Southerly, parallel with said West line, 1010.00 feet; thence Easterly at right angle to the last described course, 440.00 feet; thence Southerly at an angle of 92° 30' 00" measured counterclockwise from the last described course, 343.21 feet to said Northerly line; thence Westerly at an angle of 88° 36' 51" measured counterclockwise from the last described course, 880.14 feet to the point of beginning.

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 as well as SU. The landowner's own house is the nearest residence to the site, on the southwest side of the array. The site is ideal for a solar project because it is relatively flat, well-exposed to sunlight, and is naturally screened on multiple sides.

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 National Grid 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 south side of the parcel 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.

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.

Some minor, isolated mapped wetlands exist on the property, as delineated by Davey Resource Group. The delineation report is attached as **Appendix D**. Driven posts are the only infrastructure planned in those areas.

Some floodplains exist on the property, per the established Base Flood Elevation of 861.5' as specified by the County and as shown on the Site Plan. The project is currently proposing that some infrastructure (driven steel posts for solar panels and fences) be installed within the floodplain; however, if possible with larger wattage panels and after detailed engineering, the project may be able to avoid impacts to the floodplain. The site plan and proposed impact in this application should be considered a "worst-case" scenario. During detailed engineering, should the project still have impacts to the floodplain, we will abide by all the local, state, and federal rules involving floodplain impact and remediation.

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**.

Interconnection Status:

The project has applied for interconnection with ComEd. ComEd has completed all of their studies, and the project and ComEd have entered into an interconnection agreement.

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. The key step that is out of the project's control is the application and acceptance of the project to the Illinois Adjustable Block Program, a.k.a., Illinois Shines. The project will be submitted at every opportunity. Once the project is selected, the project will move through the final

development steps prior to construction, 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 We expect that construction will commence within six (6) to eight (8) months of the Illinois ABP approval. Once operational, the life of the community solar gardens is expected to be at least 25 years, and may be extended at that time, depending on a variety of factors.

Kane County Findings of Fact – Map Amendment and/or Special Use:

1. *How does your proposed use relate to the existing uses of property within the general area of the property in question?*

The project is compatible with the surrounding neighborhood. The project is made up of low-lying structures, similar to barns or greenhouses, surrounded by a fence, plus electrical equipment very similar to the existing power lines surrounding the site.

2. *What are the zoning classifications of properties in the general area of the property in question?*

F and SU.

3. *How does the suitability of the property in question relate to the uses permitted under the existing zoning classification?*

The property is suitable for a range of agricultural uses, including community solar.

4. *What is the trend of development, if any, in the general area of the property in question?*

There is very little development in this area, none of which would constitute a trend. This area has been and continues to be predominantly agricultural.

5. *How does the projected use of the property, relate to the Kane County 2040 Land Use Plan?*

The projected use of the property fits the 2040 plan very well. The Objectives of the Sustainability and Energy section (2.9) include "... promoting... innovative ideas and technologies... to be a leader and role model in... use of renewable resources within Kane County." A community solar project fits those objectives perfectly.

6. *Explain how the establishment, maintenance or operation of the special use will not be detrimental to or endanger public health, safety, morals, comfort or general welfare.*

Solar projects are inherently very safe and unobtrusive, without any noxious fumes, dust, nor other impacts to neighboring properties. A solar project is no more hazardous than a greenhouse or barn. Once operational, the project will sit passively in the field. The project will

be a positive contribution to the public convenience and welfare. It will help reduce the occurrence of pollutants, will add to a diverse energy mix in the state and region, and will help with local electrical system reliability.

7. *Explain how the special use will not be injurious to the use, enjoyment and value of other property in the immediate vicinity.*

Solar projects fit very well into the adjacent uses. Multiple peer-reviewed, relevant studies have shown that solar projects do not have any negative impact on surrounding property values.

8. *Explain how the special use will not impede the normal, orderly development and improvement of the surrounding property.*

This project will have no impact to the normal, orderly development and improvements of the surrounding properties. The project will have no offsite impacts and will be only marginally visible from any neighbors.

9. *Will adequate utility, access roads, drainage and other necessary facilities be provided? Please explain:*

Yes, this project would not be built without approval from ComEd and the associated grid improvements that are required. Only one small access road is required, from IL Route 38 as shown on the plans. The project will have minimal to zero impact on drainage, and will comply with all County, State, and Federal drainage and runoff rules, including the development of a Stormwater Pollution Prevention Plan during final engineering, prior to construction. No other facilities are required.

10. *Will adequate measures be provided for ingress and egress so designed to minimize the traffic and congestion? Please explain:*

Solar projects create very little traffic. Once operational, the site is expected to receive three to eight maintenance visits per year. Only passenger vehicle access is typically needed for maintenance.

11. *Will the special use conform to the regulations of the district in which it is located? Please explain:*

Yes, the project will conform to the regulations of the Farming district.



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 Delineation

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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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