



Proposed 5 Megawatt AC Ground-Mount Community Solar Facility
Kane County, IL

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c/o TurningPoint Energy, LLC
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September 22, 2023

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1.0 INTRODUCTION

1.1 Project Overview

TurningPoint Energy, LLC d/b/a TPE Development through its affiliated entity TPE IL KN188, LLC (the “Applicant”) proposes the development of a 5-megawatt (MW) AC solar photovoltaic system on a single parcel of land at the intersection of Harter Rd and Esker Dr in Kane County, IL (the “Project”). The Project will consist of a single axis tracking ground-mounted solar array, associated electrical equipment, an access driveway and fence covering approximately 20.42 acres of the 29.6-acre parcel (ID 14-05-300-026). The Project intends to participate in the Illinois Adjustable Block Community Solar Program and will power the equivalent of approximately 1150 Illinois homes. Community Solar allows residents of Illinois to purchase bill credits for locally generated clean electricity at a discount to current electric rates without having to install panels on their roof.

The Project’s host parcel is located in the Special Use (SU) and Light Industry (B-3) zoning districts. Kane County’s Zoning Code allows for the construction and operation of commercial solar energy facilities by special use permit in the SU District. All setbacks prescribed in the Kane County ordinance (“Ordinance”) will be complied to ensure a sufficient buffer is maintained between the trackers and neighboring property lines and rights-of-way.

If approved, the Project will bring significant and consistent benefits to Kane County and the community surrounding the Project. The Project will create approximately 50-75 jobs during the approximately 4 to 8 -month development period, generating property tax revenue that is estimated to be more than \$760,000 over 30 years and [\$1,000,000] over 40 years. Property tax revenue in Year 1 of Project Operations is expected to be over 3.5 times what the property currently generates now in tax revenue to the local taxing jurisdictions. Unlike nearly all other forms of development (residential, commercial, or industrial), the community will benefit from the significant economic benefits mentioned above without stressing community infrastructure – no new children in schools, no use of water and sewer systems, extremely limited use of roads, and little to no need for police or fire departments.

1.2 About Turning Point Energy

Formed in 2014, TPE is a privately held, independent company transforming our energy future by creating freedom to choose a smarter, cleaner, more flexible way forward through community solar. As a privately held and independent company, TPE customizes projects to the unique needs of each client. Our team has financed and/or built over 2 Gigawatts (GW) of the solar projects operating in the U.S. today. Since 2017, TPE has focused these services on the expanding community solar market in states including Illinois, Maine, Maryland, Delaware, Pennsylvania, Texas, and Rhode Island. TPE’s development and investment portfolio now includes over 169MW community solar projects in construction or operation, with an additional 840MW in solar projects under development.

TPE is a “triple bottom line” company; we believe that our business should create financial, environmental, and community value in every project we create. Our intent is to be long term community members. Upon successful permitting and utility interconnection, TPE typically makes donations to local charities and non-profits doing good work in each community in which our projects are located.

2.0 SITE LOCATION & EXISTING CONDITIONS

TPE, in coordination with its engineering consultant, Kimley-Horn, has prepared and compiled information from many sources to form the basis of design for the proposed Project. A summary of existing conditions and the design elements that avoid and or minimize impact to the environment and surrounding community is presented below.

2.1 Existing Conditions

The proposed Project is approximately 29.6 acres of agricultural land (host parcel), in Kane County within the boundaries of Sugar Grove Township. To the west of the site is agricultural land and rural residential; to the north is residential; to the east is agricultural and to the south is a school. The Project will avoid an existing wetland in the southwest corner of the host parcel and a well that is located near the center of the parcel. Per the Natural Resources Conservation Services (NRCS), the onsite soils consist of type A/D, B/D, B, and C.

2.2 Natural Resources and Consultations with State and Federal Authorities

2.2.1 Land Use Opinion (“LUO”)

Kimley-Horn submitted the Application for Land Use Opinion Report (LUO) packet on 9/11/2023 to the Kane-DuPage Soil and Water Conservation District (“SWCD”). A copy of the application is included as **Appendix C**.

2.2.2 Wetlands and Floodplain

The Project will be designed to avoid impacts to USACE jurisdictional waters. A Level 1 Wetland Delineation has been completed and no potential wetlands and waterways were identified within the Project Area. Please see **Appendix D** for additional information.

Per FEMA FIRM Map Panel 17089C0315J, the development is in Zone X, which is considered an area of minimal flood hazard. Refer to **Appendix E** for a copy of the FEMA FIRM Map.

2.2.3 U.S. Fish & Wildlife Service (“USFWS”)

The Project will be designed such that no federally listed species will be significantly impacted. Solar projects typically impose only minimal impacts on wildlife species. The Project’s potential to impact federally protected species was evaluated as part of an Environmental Constraint Memorandum, which is included as **Appendix F**. The assessment indicated that four federally listed species should be considered in an effects analysis for the Project, including the federal candidate Monarch Butterfly (*Danaus plexippus*), the federally endangered Northern Long-eared Bat (*Myotis septentrionalis*), the federally experimental Whooping Crane (*Grus americana*), and the federally threatened Eastern Prairie Fringed Orchid (*Platanthera leucophaea*). Prior to construction, a USFWS “No Effect” determination letter will be completed.

2.2.4 Illinois Department of Natural Resources (IDNR) State Ecological Review

The Applicant is in consultation with IDNR for potential impacts to state threatened or endangered species. This consultation is conducted pursuant to IDNR’s Ecological Compliance Assessment Tool (“EcoCAT”). The Applicant submitted an EcoCAT review request to IDNR in June 2023. The review concluded that adverse effects are unlikely and therefore, the consultation was terminated. In other words, pursuant to 17 Ill. Adm. Code Part 1075, the IDNR consultation is terminated. Refer to **Appendix G** for a copy of the IDNR EcoCAT.

2.2.5 Illinois State Historic Preservation Office

Under the Illinois State Agency Historic Resources Protection Act, the State Historic Preservation Office (“SHPO”) division at IDNR is responsible for studying possible Project effects on archaeological and/or architectural (cultural) resources. Agencies requiring SHPO evaluation concurrent with their review include the Illinois Environmental Protection Agency (IEPA), IDNR, and the USACE. According to the Illinois SHPO database, no surveys, archeological sites, or historic buildings are listed on or within 0.5 miles of the site. The Applicant submitted a SHPO project review form for agency review. A response letter was received from SHPO; the project area is determined to be Exempt, and an archaeological survey is not required under state law. A copy of the response letter is included as **Appendix H**.

2.2.6 Illinois Department of Agriculture (IDOA)

The Illinois Counties Code (55 ILCS 5/5-12020(c)) requires the owner of a commercial solar energy facility to enter into an Agricultural Impact Mitigation Agreement (AIMA) with the Illinois Department of Agriculture prior to the date of any required public hearing for the Project’s permits. The intent of the AIMA is to preserve and/or restore the integrity of affected agricultural land during construction and decommissioning activities. TPE submitted an application for an AIMA agreement on 09/19/2023, which is included in **Appendix I** of this application.

2.3 Community Outreach & Benefits

TPE proactively engages the communities in which we work early in the process to determine what questions and concerns potential neighbors might have and give us adequate time to educate and address them prior to the public process.

We typically place calls, send letters and door knock on adjacent properties to our planned solar site as well as meet with local officials.

Community Solar projects such as KN188 enable residents to receive power savings from signing up to participate in a community scale solar project without installing solar on their rooftops.

In 2018, The State of Illinois enacted a statute imposes a standardized, state assessment of Department of Revenue began assessing a fair cash value for solar energy projects designed to cover both the improvements and the land. As a result, once constructed this Project will pay property taxes of more than \$760,000 over 30 years split between the County, Sugar Grove Township, and applicable school, fire and other taxing authorities.

The Project will create approximately 50-75 jobs during the approximate 12 to 18-months prior to the

start of Project operations. A regional operations and maintenance firm will service the facility over its working life cycle.

Unlike nearly all other forms of development (residential, commercial, or industrial), the community will benefit from the significant economic benefits mentioned above without stressing community infrastructure – no new children in schools, no use of water and sewer systems, limited use of roads, and little to no need for police or fire departments.

2.4 Existing Drain Tile Systems

Tom Huddleston with Huddleston McBride Professional Land Drainage Services (Drain Tile Consultant) has been brought on board to consult on drain tile issues. The drain tile consultant will complete an existing drain tile survey prior to construction and work closely with the Applicant to ensure proper drainage and maintain and/or improve the existing surface and subsurface drainage to the extent practicable.

2.5 Conservation Plan

As required by the Kane County Soil & Water Conservation District at the time of Site Development and/or Building Permit application, the Project will submit a Conservation Plan for review. The conservation plan will address conformance with the AIMA, inspection schedule, soils, plantings/vegetations, drainage, and maintenance.

3.0 PERFORMANCE STANDARDS AND SOLAR SITING ORDINANCE REQUIREMENTS

3.1 Project Description & Design Standards

The Project will consist of a ground-mounted solar array. The solar array will consist of solar panels attached to single axis trackers attached to driven steel pier foundations or ground screw foundations, depending on the subsurface composition. An Illinois licensed engineer will certify the foundation and design of the solar racking system is suitable to meet local soil and climate conditions.

The Project will be constructed by a licensed Engineering Procurement and Construction (“EPC”) Contractor. The design and construction process will comply with all National, State and local applicable building, electrical and fire codes, as well as the National Electrical Code (“NEC”). The EPC Contractor shall also possess all professional and trade licenses required by the state and local authorities.

The EPC Contractor will create and maintain a health and safety manual in accordance with OSHA requirements which establishes appropriate rules and procedures concerning workplace safety.

Sound from construction activities will be in accordance with all applicable local and state regulations.

The inverter and transformers will be located on one or more concrete pads or piles. Utility poles at the point of interconnection will be above ground. The project footprint area covers 20.42 acres.

The panels will be surrounded by an 8-foot high fence for safety and security purposes. Entry into the fenced areas will be through gates with Knox Boxes for emergency access.

The Project design and planning has focused on minimizing any potential impacts to the surrounding neighborhood. The Project will produce electricity without requiring any combustion of materials; as a

result, the community solar array will not cause or emit odors, dust, gas, smoke, or fumes. In addition, the Project will have very few moving parts and will generate electricity primarily in a passive manner – collecting the sun’s rays and converting energy associated with the rays into electricity – so the Project will not produce vibrations, none of which will impact surrounding properties. The array was designed to meet all required setbacks from neighboring properties and rights of way in compliance with the Ordinance.

A warning sign shall be provided at the facility entrance and along the perimeter fence including the facilities 911 address and a 24-hour emergency contact number. No outdoor storage is planned for the Project at this time. In the event this were to change the Project will apply for the necessary approvals for the contemplated storage.

The scope of work includes but is not limited to:

- Preservation of existing topsoil onsite
- Construction of gravel access roads
- Construction of project equipment pads
- Construction of a temporary staging area(s)
- Installation of solar panels and associated support equipment and structures
- Installation of buried and overhead collector lines

3.2 Sound

The Project will operate in accordance with the applicable sound limits of the Illinois Pollution Control Board. Solar panels themselves do not produce any sound. The only components in the array that generate sound are the inverters and transformer. The final equipment pad design will ensure that any sound emitting components will be directed away from neighboring parcels. The inverters are rated at 65 dBA at one meter as indicated in the manufacturer’s specification sheet in **Appendix I**. Sound pressure waves and DB levels diminish with distance. Because of that, the location of the inverter and transformer demonstrates that the project will be in compliance with Illinois Pollution Control Board standards since the distance between the inverter and transformer and any neighboring residences will be sufficient to more than achieve compliance. The inverter is preliminarily proposed to be located at least 500 feet away from the nearest residence, and 450 feet from Kaneland Harter Middle School. Final inverter and transformer placement and system configuration will ensure continued compliance with Illinois Pollution Control Board standards.

3.3 Vibration

There will be no vibrations generated by the solar panels or racking during the operating period of the Project. There may be de minimis vibrations produced by the inverter, but any such vibrations will not extend beyond the host parcel’s property lines. The Project’s comprehensive maintenance plan includes routine inspections to assess and correct any malfunctioning equipment.

3.4 Environmental Impact

The Project will not emit any air pollution of any of the kinds identified in the performance standards. It will in fact provide a net environmental carbon benefit. According to the EPA Clean Energy Equivalencies

Calculator the Project will avoid the environmental equivalent of 6,934 metric tons of carbon annually, which is comparable to:

- Carbon sequestered by 8,269 acres of forest
- 780,292 gallons of gasoline consumed each year
- 1,543 passenger vehicles removed from our streets

A commitment to wildlife-sensitive building and management practices during and after construction will allow for increased local biodiversity. TPE proposes to use pollinator friendly ground cover underneath the Project and native plantings around the perimeter. Clover and grass species that promote the establishment and long-term health of bee populations will give bee and small mammal populations a new pollinator friendly habitat. The Project will not use any pesticides for vegetation management.

3.5 Toxic substances

There are no toxic substances in the panels. The Project will incorporate Tier 1 silicon based PV panels, which have been analyzed as follows by North Carolina State University:

Well over 80% (by weight) of the content of a PV panel is the tempered glass front and the aluminum frame, both of which are common building materials. Most of the remaining portion are common plastics, including polyethylene terephthalate in the back sheet, EVA encapsulation of the PV cells, polyphenyl ether in the junction box, and polyethylene insulation on the wire leads. The active, working components of the system are the silicon photovoltaic cells, the small electrical leads connecting them together, and to the wires coming out of the back of the panel. The electricity generating and conducting components makeup less than 5% of the weight of most panels. The PV cell itself is nearly 100% silicon, and silicon is the second most common element in the Earth's crust. The silicon for PV cells is obtained by high-temperature processing of quartz sand (SiO₂) that removes its oxygen molecules. The refined silicon is converted to a PV cell by adding extremely small amounts of boron and phosphorus, both of which are common and of very low toxicity.

Please see **Appendix K** for the full report.

3.6 Fire Safety

The solar panels and racking, which comprise the majority of the Project's equipment, are not flammable. Tempered glass offers protection from heat and the elements, and the panels are designed to absorb heat as solar energy. As concluded by the North Carolina State University:

...Concern over solar fire hazards should be limited because only a small portion of materials in the panels are flammable, and those components cannot self-support a significant fire. Flammable components of PV panels include the thin layers of polymer encapsulates surrounding the PV cells, polymer backsheets (framed panels only), plastic junction boxes on rear of panel, and insulation on wiring. The rest of the panel is composed of non-flammable components, notably including one or two layers of protective glass that make up over three quarters of the panel's weight.

Please see **Appendix K** for the full report.

3.7 Glare and Heat

As explained in the fire and explosive hazards **Section 3.6**, there is no heat generated by the Project.

A glare study was performed by TPE using ForgeSolar software to assess the possible effects of reflectivity created by the Project. ForgeSolar software incorporates GlareGauge, the leading solar glare analysis tool which meets Federal Aviation Administration (“FAA”) standards and is used globally for glare analysis. It is based on the Solar Glare Hazard Analysis Tool licensed from Sandia National Laboratories.

A model of the Project was input into the software along with (3) Route Receptors along roadways in vicinity of the site. Height was assessed at 5’ above ground to emulate passengers in cars. Further, (10) Observation Receptors were modeled at specific dwellings located around the perimeter of the solar array. Heights were modeled at 10’ above ground to emulate residents on the 1st floor or doorsteps of dwellings and evaluate the glare impact.

A direct line of sight between the Project and the designated Route Receptors and Observation Receptors is required to produce any discernible glint/glare, so if there is existing or proposed vegetation between the receptor and the project, any glint/glare will be eliminated.

The model assumes the sun is shining 100% of the time it is above the horizon (during laylight hours). That is, it does not account for cloudy or overcast conditions when the sun is not shining. The results, therefore, will be the maximum expected glint and glare during any single year. Existing topography is taken into account in the simulation. Existing and planned vegetation are not considered in the simulation. The model assumed zero vegetation that may screen the Project, so this must be considered when interpreting the study results.

To reduce glare in the east and west directions during low sun periods, a 5-degree tracker resting angle was implemented during these times, which eliminates the main source of glare for solar projects. This lower angle will position the panels in a near flat position, so they face upwards and do not reflect light from the rising or setting sun towards nearby buildings or cars.

Based on the above inputs/assumptions, no potential for glint or glare was identified in the analysis at any of the Route Receptors or neighboring Observation Receptors. No additional mitigation measures are recommended since no glint or glare is anticipated based on the ForgeSolar GlareGauge results.

Please see **Appendix L** for a more detailed analysis of the Forge Solar results and a copy of the ForgeSolar Assessment.

3.8 Setback Compliance, Landscape & Buffering Plan

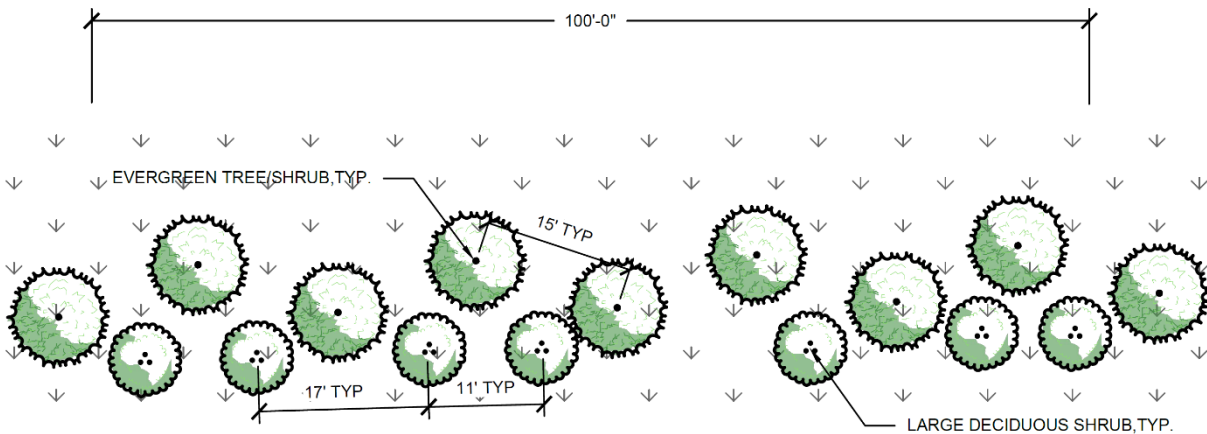
The Project proposes to conform with all applicable County setbacks from neighboring properties and public rights-of-way. The area underneath the solar array and buffer area will be seeded with a native pollinator friendly seed mix and comply with the Illinois Pollinator-Friendly Solar Site Act (525 ILCS 55/). Pollinator seed mixes are intended to provide food and shelter for wildlife and will attract a variety of pollinators and songbirds. The wildflowers and grasses in the mix will provide an attractive display of color from spring to fall and will provide nectar and food for pollinators and their larva. The Project will also

maintain all areas within the leasing area, including those outside the Project footprint and within the buffer areas, in accordance with the Ordinance.

3.9 Fencing, Aesthetics, & Lighting

Fencing: The Project is required by the National Electric Code to have security fencing at least 7 feet in height. Further, Kane County Ordinance 25-5-4-9, Section Q., Paragraph 1. states “A fence of at least eight (8) feet and not more than twenty-five (25) feet in height shall enclose and secure the Commercial Solar Energy Facility.” The facility will install security fencing. The applicant prefers to use welded wire mesh fencing with a grid pattern approximately 4 inches by 4 inches. This type of fence is not as visibly intrusive as chain-link or wooden panel privacy fencing. If, in addition to security, the fence is also intended to provide visual screening, a wooden panel fence is a reasonable alternative.

Aesthetics: The Project proposes planting various Illinois native deciduous and evergreen trees and shrubs in the areas designated as “Vegetative Buffer” in the Zoning Site Plan (**Appendix B**). The Vegetative Buffer is intended to minimize the visibility of the proposed solar energy facility. In the zoning site plan, the buffer is north of the fence on the north-northeast side of the project area. Existing trees will limit visibility for the neighbor to the west and along Harter Road. Additional plantings will be added if needed. The plantings are expected to follow the pattern depicted in the image below.



The proposed plantings in this area may include, but are not limited to the following:

Evergreen Trees/Shrubs

- Juniperus Virginiana, “Eastern Red Cedar”
- Taxus Canadensis, “Canada yew”
- Thuja Occidentalis, “Northern White Cedar”

Large Deciduous Shrub

- Aronia Arbutifolia, “Red Chokeberry”
- Cornus Sericea Cardinal, “Red Osier Dogwood”
- Ilex Verticillata, “Winterberry”
- Lindera Benzoin, “Spicebush”
- Physocarpus Opulifolius, “Common Ninebark”
- Sambucus Canadensis, “American Elderberry”
- Viburnum Dentatum, “Arrowwood Viburnum”
- Viburnum Lentago, “Nannyberry Viburnum”
- Viburnum Prunifolium, “Blackhaw Viburnum”

Lighting: No lighting is planned for the project area. If for any reason, lighting is required, any such lighting will be shielded and downcast such the light does not spill onto adjacent parcels.

3.10 F.A.A. Filing

The Project filed using the Notice Criteria Tool with the Federal Aviation Administration (F.A.A.) and the results indicated the project did not exceed the Notice Criteria. As a result, no additional filings are required with the F.A.A. Please see **Appendix M** for a copy of the filing.

3.11 Safety and Security

The solar arrays will be enclosed by an 8-foot high fence and locked gates, as required by the Ordinance and the National Electrical Code (NEC). Emergency access to the fenced areas will be through Knox-Boxes in order to provide the required 24-hour access. The Gravel have been designed to allow emergency vehicle access, including fire trucks.

3.12 Interconnection

The proposed Project will interconnect to an existing 12.5 kV ComEd feeder on the distribution system, that is directly adjacent to the Project. The utility will install approximately 150' of 12.5kV line extension along with multiple poles for metering and pole-top equipment. A copy of the redacted System Impact Study demonstrating that the Project filed required interconnection service applications with ComED and is in the interconnection que is included as **Appendix N**.

3.13 Operation and Maintenance

The Operation and Maintenance Plan including a comprehensive vegetative management plan for the Project is included as **Appendix O**. Preventive maintenance will be conducted on a schedule based on manufacturer's recommendations and industry best practices and standards of care. Regular maintenance will include vegetation control, fence inspection and physical inspection of all system components. A mowing schedule shall be established based on the plant species in the seed mix that is properly timed to balance avoiding the disturbance of wildlife and native pollinator-friendly vegetation with the need to avoid the establishment of weeds. Vegetation underneath and between the solar panels should be well maintained in the defined lease area to keep vegetation below the low edge of the solar panels at maximum tilt angle. Management should comply with any local ordinances or conditions of approval. Mowing and weed whacking schedules will be adjusted from time to time to allow for flexibility based on rainfall and vegetation growth. Chemical control shall be used in accordance with Illinois noxious weed regulations. The Project will be monitored continuously for system failures via a Supervisory Control and Data Acquisition (SCADA) system. Qualified and insured technicians will be dispatched to address any system failures, including inverter, transformer, or tracker motor malfunctions.

3.14 Decommissioning Plan

The Decommissioning Plan for the Project is included as **Appendix P**. The AIMA references that "During the County permit process, or if none, then prior to the commencement of construction, the Facility Owner shall file with the County a Deconstruction Plan." The Deconstruction Plan will meet all the standards specified in the AIMA. The Deconstruction Plan will be provided to Will County along with the required Financial Assurance to cover the estimated costs of Deconstruction of the Facility. Decommissioning and Deconstruction will include removal of all structures (including equipment, fencing and roads) and foundations and restoration of soil and vegetation. At the end of the operational life of

the Project, the Project will be safely dismantled using conventional construction equipment. The Project consists of numerous materials that can be resold or recycled for significant scrap value, including steel, aluminum, glass, copper, and plastics. The solar panels are not considered hazardous waste. The panels used in the Project will contain silicon, glass, and aluminum, which have value for recycling. Often, current market salvage values of a Project exceed estimated decommissioning and site restoration expenses.

The site will be restored and reclaimed to approximately the pre-construction condition in conformance with the site lease agreement and the Agricultural Impact Mitigation Agreement (AIMA). It is assumed that the site will be returned to agricultural use after decommissioning, and appropriate measures will be implemented to achieve said use.

3.15 Avoidance and Mitigation of Damages to Public Infrastructure

Roads: Roadways improved in preparation for and during the construction of the commercial solar energy facility will be repaired and restored as required by Kane County's solar ordinance at the reasonable cost of the Project if the roadways have degraded or were damaged as a result of construction-related activities.

Drainage Systems: A drain tile survey will be completed as required by the AIMA. The Project will ensure no permanent adverse impact to existing mutual drains and drainage patterns. Within the footprints of the solar array, the Project will endeavor to maintain or improve drainage over that which currently exists on site by rerouting drainage networks within the project footprint around footprints where necessary and by repairing or replacing damaged drain tiles.

3.16 Pre-Construction Meeting

Prior to submission of the building permit application, a pre-construction meeting will be held. Kane County Staff, elected officials, Kane County farm bureau staff, Kane County Soil & Water Conservation District, and other interested parties as determined by Land Use staff and/or the facility owner will be invited. The seed mix selections for both temporary and long-term mixes will be determined at the time of the pre-construction meeting.

4.0 SPECIAL USE CRITERIA

4.1 Special Use Required Findings of Facts (121.37, Zoning Code)

- a) How does the proposed use relate to the existing uses of property within the general area of the property in question?

The property is located in a rural portion of Kane County in which most of the properties are used for planting row crops in the Farming District. Although there are residential homes scattered throughout the area, the majority of properties in the area are used for agriculture purposes. A solar farm is a complementary use to the agriculture properties – it is a temporary, not a permanent use, and because the soil hosting the solar farm will be planted in native species, the soil will have a chance to recharge and revitalize during the solar farm’s operations, after which it can be returned to agricultural uses. The solar farm will be a good, quiet neighbor, and will not produce any detrimental effects upon nearby properties.

- b) What are the zoning classifications of properties in the general area of the property in question?

North: Residential Improved Lots

West: Farmland

South: Business Park District (School)

East: Farmland, Commercial, Homesite/Dwelling

- c) How does the suitability of the property in question relate to the uses permitted under the existing zoning classification?

The existing zoning classification states that hydraulic power plants and other public utilities for the use of the public are permitted in the Farming District, and small structures or tower mounted wind turbines are permitted in any zoning district. Solar farms are a similar use to public utility and other similar uses since solar farms generate electricity and provide it to the local electric grid for use by the public.

- d) What is the trend of development, if any, in the general area of the property in question?

Properties in the general area near the host parcel contain a variety of uses. Most of the development (single family homes and a school) have been built within the last 15 years. Further development of single family homes and subdivisions are expected in the surrounding area. Specifically, there is a proposed planned community that is to be built north and east of the site, at the intersection of I-88 and Sugar Grove Parkway (IL 47). The solar farm will not impede any current proposed developments in the area.

- e) How does the projected use of the property relate to the Kane County 2040 Land Use Plan?

The project site is planned to be a mix of agricultural, planned open space, and resource management. While the project will not be contributing to agricultural land while in operation, upon the end of its useful life it will return to agricultural land. The project will be a relatively open space, though it is closed off to the public with a security fence. The panels are raised off the

ground and the lack of enclosed or permanent structures leaves the majority of the site open. The ground will be planted with native, pollinator-friendly vegetation that aids the ecosystem and will therefore contribute to the network of green infrastructure mentioned in the 2040 Land Use Plan. The project also helps meet the goals of resource conservation since it will use the land to produce electricity in a more land- and water-conscious manner compared to other methods of generating electricity and will enhance and preserve land devoted to agriculture during its operations.

- f) That 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.

*The Project will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare to the community. Numerous studies have shown that solar arrays and their components do not have a negative environmental impact. Please refer to **Appendix K** for a copy of these studies. Also, please refer to IDNR's response to the Project's EcoCat submission. The Project will comply with all local, state, and federal regulations and will be operated in a safe manner at all times. In addition, the Project will promote the general welfare of Kane County by supplying new jobs, new tax revenue and will be a source of generation of local, sustainable, clean, pollution-free renewable electricity. Also, the community will benefit from the significant economic benefit without stressing community infrastructure.*

- g) That the special use will not be injurious to the use and enjoyment of other property in the immediate vicinity.

The property is located in a portion of Kane County with low population density. The Project will fully comply with all setbacks as specified in the Kane County Zoning Code Section 7.5, will fully comply with all performance standards listed in the Kane County Zoning Code and the special use permit, as well as the sound limits imposed in the Ordinance. The Project will also include a landscape buffer to the portion of the Project adjacent to residences to reduce the visual impact on neighbors who live nearby. Moreover, as indicated by the property value impact study, the existence of the Project will have no impact on neighboring property values, and therefore will not substantially diminish or impair property values within the neighborhood of the Project. The CohnReznick General Impact Study Report indicates that solar facilities located in similar areas, with similar land uses, do not appear to cause any negative impacts to adjacent real estate, based on a review of academic studies, CohnReznick's own paired sales data, and interviews with County Assessors and other Market Participants. The reports detail how solar facilities are generally harmonious with surrounding uses.

- h) That the establishment of the special use will not impede the normal and orderly development and improvement of the surrounding property.

The Project will have little to no impact on neighboring properties or on future activities in the community and it will therefore not interfere with any activities on neighboring properties. The Project does not generate any odors, or emit any air pollution and, in fact, provides a net environmental benefit. There will be no tree clearing. Temporarily converting a portion of the host parcel from row crops to a commercial solar energy facility will largely eliminate the need for application of pesticides, herbicides, fungicides and fertilizers; spot herbicide application will only be performed where mandated by state and County regulations relating to the control of noxious

weeds. Upon construction completion, traffic to the solar facility would be required only a few times a year to inspect the Project's equipment and perform routine maintenance activities. The Project will therefore present no impediments to future development on nearby properties.

- i) That adequate utilities, access roads, drainage, or necessary facilities have been or will be provided.

*The Project will have adequate utility interconnections. The System impact study by ComEd provides assurance that the electrical capacity is available to host the Project and the proposed point of interconnection. The Project does not require, water, or sewer facilities to operate. The Project will also build all roads and entrances necessary to access its facilities. A drain tile survey will be completed prior to construction and foundation design will work around or reroute any identified drain tiles to ensure proper drainage. The Project will also be designed in a manner that will not materially modify existing water drainage patterns around its facilities. Moreover, the replacement of row crops with a pollinator seed mix is actually a net positive for stormwater. Per the Minnesota Rural Water Association, solar installations with native pollinator-friendly ground cover achieve positive impacts similar to soil conservation projects, which reduce soil erosion, reduce soil quality degradation, and improve water quality. This report is included in **Appendix K**. The Project will be designed to account for all existing features, environmental features, the Kane County Zoning Ordinance, and the Kane Natural Resources Inventory findings. Please refer to **Appendix B** for the Zoning Site Plan.*

- j) That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.

The Project will be designed to include all roads and road entrances necessary to provide adequate ingress and egress to its facilities. Construction traffic will include approximately 25 work trucks per day. Considering the low number of work trucks visiting the project site over the construction phase, traffic patterns in the vicinity of the Project will not be impacted. The Project will have minimal traffic upon completion of construction. Landscape maintenance and maintenance to the Project components are anticipated to occur on an as-needed basis, consistent with the Maintenance and Operations Plan. Existing traffic patterns will not be impacted in the post-construction phase.

- k) That the special use will conform to the applicable regulations of the district in which it is located.

The Project will comply with the applicable regulations for the Farming District as well as the Ordinance. The Project will also comply with all other County requirements, and State and Federal requirements as well.