



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

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1.0 INTRODUCTION

1.1 Project Overview

TPE Development, LLC d/b/a TurningPoint Energy (TPE), through its affiliated entity TPE IL KN309, LLC (the “Applicant”) proposes the development of a 5-megawatt AC community solar photovoltaic system on a parcel of land west of South Lorang Road and north of Seavey Road in Kaneville Township, Kane County, Illinois (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 38 acres of the 89.36-acre host parcel (10-25-400-006). The Project intends to participate in the Illinois Adjustable Block Community Solar Program and will power the equivalent of approximately 1100-1150¹ homes. Community Solar allows residents of Illinois to purchase 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 in the Farming (F) zoning district. Kane County’s Zoning Code allows for the construction and operation of commercial solar energy facilities by special use permit in the F District. All setbacks prescribed in the Kane County Solar ordinance (“Ordinance”) will be complied with to ensure a sufficient buffer is maintained between the trackers and neighboring property lines and rights-of-way.

The Project is anticipated to employ an agrivoltaics approach to both power production and vegetation management. The approval of these two variances would allow for pollinator plantings to grow to 36 inches and properly establish. The inclusion of an agrivoltaic component to the solar farm and vegetation management plan requires including IL native grasses and pollinators tolerable to grazing animals, which necessitate the two variances requested. The rotational grazing of sheep can provide an agricultural benefit to sheep farmers and be an effective vegetation management strategy for pollinator plantings in regards to fertilization. The agrivoltaics approach is part of the Applicant’s vegetation management plan and landscape plan submitted with this application.

If approved, the Project would bring significant and consistent benefits to Kane County and the community surrounding the Project. The Project would create approximately 50-75 jobs during the projected 12 to 18-month construction period and would generate property tax revenue in amounts estimated at more than \$675,000 over 25 years and \$1,020,000 over 40 years. Property tax revenue in Year 1 of Project Operations is expected to be 11 times the property’s currently tax revenue generation for the local taxing jurisdictions. Unlike nearly all other forms of development (residential, commercial, or industrial), the local community would 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 Calculation based on data provided by the U.S. Energy Information Administration (EIA):
https://www.eia.gov/electricity/sales_revenue_price/pdf/table5_a.pdf
<https://www.eia.gov/electricity/>

1.2 About TurningPoint 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. Its 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, New Mexico, Texas, and Rhode Island. TPE's development and investment portfolio now includes over 169MW of 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 members of the communities where our projects are developed. Upon successful permitting and utility interconnection, TPE donates to local charities and/or non-profits that support those in need.

2.0 SITE LOCATION & EXISTING CONDITIONS

TPE, in coordination with its engineering consultant, Kimley-Horn and Associates Inc (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 in the following subsections.

2.1 Existing Conditions

The proposed Project will occupy approximately 40 acres of the 89.36 acres of agricultural land on one parcel east of Kaneville. The host parcel is located west of South Lorang Road and north of Seavey Road in Kaneville Township, Kane County, Illinois. A site plan showing the Project's footprint is included in **Appendix B**. There appears to be four potential wetlands on the property: along the western boundary, the second is along the northern boundary, and the last two are near the center of the property. There is a ridge that has water flowing southeast and southwest where water eventually discharges to the treeline along the southern boundary of the host parcel. Per the Natural Resources Conservation Services, the onsite soils consist primarily of type B, B/D, C, and C/D, silt loam.

2.2 Natural Resources and Consultations with State and Federal Authorities

2.2.1 Natural Resource Inventory ("NRI")

Kimley-Horn submitted the Natural Resource Inventory (NRI) packet on February 21, 2024, to the Kane-DuPage Soil and Water Conservation District ("KDSWCD"). The NRI report was finalized on February 26, 2024. A copy of the report is included as **Appendix C**. The report notes a LESA score of 58 out of 100, putting it in the "Low Protection effort warranted" category.

2.2.2 Wetlands and Floodplain

A Level 1 Wetland Delineation has been completed and found [four potential wetlands] within the Project area. The Project is anticipated to avoid these areas. A Level 2 field wetland delineation will be

completed prior to construction. Per [SPECIFIC TO Kane County] Ordinance Section 164.067, wetland, waters and buffer standard, development activities that create an impact within a wetland, waters of the United States, isolated waters of the County, or their associated buffers, regardless of the U.S. Army Corps of Engineers jurisdiction, must submit a site development permit application to the County Land Use Department. During the pre-building permit phase, the Project will apply for a Site Development Permit to account for any development activities that may occur within the required wetland buffer, if necessary. Please see **Appendix D** for additional information.

Per FEMA FIRM Map Panel 17089C0305J (effective date 07/17/2012), the majority of the development is in Zone X, which is considered an area of minimal flood hazard. [ANY ADDITIONAL DETAILS]. 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 (4) federally listed species should be considered in an effects analysis for the Project, including the federally threatened northern long-eared bat (*Myotis septentrionalis*), the experimental population of Whooping Crane (*Grus americana*), the federally threatened eastern prairie fringed orchid (*Platanthera leucophaea*), and the federal candidate monarch butterfly (*Danaus plexippus*). Four of the species do not have a preferred habitat identified within the site. Due to the highly disturbed nature of the existing use (agricultural field), minimal preferred habitat was identified, thus no adverse impacts are anticipated to the listed species.

Prior to construction, consultation with the USFWS will occur to confirm a “No Effect” determination.

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

The Applicant consulted 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 February 2024. 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, 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. On February 21, 2024, the Applicant submitted a SHPO project review form for agency review. A response letter has not yet been received. The SHPO project review form has been included as part of this package as **Appendix H**. Once their findings become available, these will be provided to the County.

2.2.6 Illinois Department of Agriculture (IDOA)

The Illinois Counties Code (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 a signed AIMA agreement and application to the Department of Agriculture on February 5, 2024 which is included as part of **Appendix I**.

2.3 Community Outreach & Benefits

TPE likes to proactively engage 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 community solar site as well as meet with local officials.

Community solar projects such as TPE IL KN309, LLC enable residents to receive savings on their electricity bills 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 that imposes a standardized, state assessment of a fair cash value for solar energy projects covering both the improvements and the land. As a result, once fully constructed this Project will pay property taxes of more than \$675,000 over 25 years split among the County, Kaneville Township, and applicable, fire, and other taxing authorities, with the bulk (74.5%) of the tax revenue going to Kaneland CUSD 302.

The Project would create approximately 50-75 jobs during the approximately 12 to 18-months prior to the start of Project operations. A regional operations and maintenance firm will service the facility over its working lifecycle.

Unlike nearly all other forms of development (residential, commercial, or industrial), the community would 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 Tiles

The Applicant has retained Tom Huddleston with Huddleston McBride Professional Land Drainage Services (Drain Tile Consultant) to consult on drain tile issues. Huddleston 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. Huddleston will work closely with the Applicant to remove and replace any drain tiles within the solar array footprint while ensuring proper drainage and maintaining the existing and subsurface drainage.

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 attached to single axis trackers structures 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.

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

The inverters 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 approximately 38 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. Further, 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. The array was designed to meet all required setbacks from neighboring properties in compliance with the Ordinance and incorporate vegetative screening that will grow in over time for the benefit of nearby residences, as outlined in **Section 3.8**.

A warning sign will be provided at the facility entrance and along the perimeter fence including the facility’s 911 address and a 24-hour emergency contact number. No outdoor storage is planned for the Project at this time. In the event outdoor storage is needed, the Project would 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 20-ft wide 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 Noise

The Project will operate in accordance with the applicable noise standards of the Illinois Pollution Control Board. Solar panels themselves do not produce any noise. The only components in the array that generate noise are the inverters and transformer. The final inverter pad design will ensure that any noise emitting components will be directed away from neighboring parcels. The inverters are rated at 65 dBA at 1 meter as indicated in the manufacturer's specification sheet in **Appendix J**. Sound waves diminish with distance, in accordance with mathematical principles of sound level drop. The location of the inverter demonstrates that the project will be in compliance with Illinois Pollution Control Board standards. The inverter will be located over 1,000 feet from the nearest occupied non-participating residence. Final inverter 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 8,052 metric tons of carbon annually, = comparable to:

- Carbon sequestered by 9,602 acres of forest
- 906,037 gallons of gasoline consumed each year
- 1,792 passenger vehicles removed from our streets

A commitment to wildlife-sensitive construction and operation practices will allow for increased local biodiversity. TPE proposes to use pollinator-friendly ground cover underneath the Project and native plantings around the perimeter. These include clover and grass species that promote the establishment and long-term health of bee populations by providing 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 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, polyphenol 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 L** for the full report.

3.6 Fire Safety

The solar panels and racking, which comprise most 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. From a study by 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 back sheets (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 L** 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 (F.A.A.) standards and is used globally for glare analysis. It is based on the Solar Glare Hazard Analysis Tool licensed from Sandia National Laboratories.

As input to the software, three (3) Route Receptors were created along roadways in vicinity of the site. Height was assessed at 5' above ground to emulate passengers in cars. Further, seventeen (17) 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 would 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. Therefore, the results would 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. Existing vegetation was modeled.

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 project specific location, sun position throughout the year, and 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. As stated before, one of the models assumed zero vegetation that may screen the Project, so this must be considered when interpreting the study results. It is important to note that existing vegetation and future vegetation growth will further screen the view of the project from nearby properties.

Please see **Appendix M** 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 solar panels will be located more than 50 feet from the nearest edge of the public right-of-way and more than 50 feet from adjacent properties. As indicated by the Zoning Site Plan (**Appendix B**), the panels are anticipated to be set back more than 475 feet from the centerline of South Lorang Road. The Zoning Site Plan also shows that the panels are also anticipated to be located more than 538 feet from the outside wall of any dwelling unit or occupied community building. 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 55/1-*et seq.*). 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 FAA Filing

The Project filed using the Notice Criteria Tool with the FAA and the results indicated the project did not exceed the Notice Criteria. As a result, no additional filings are required with the FAA Please see **Appendix N** for a copy of the online submissions and results.

3.10 Safety and Security

The solar arrays will be enclosed by a 8-foot-high security 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 to provide the required 24-hour access. The gravel drives have been designed to allow emergency vehicle access, including fire trucks. Emergency responders will be provided with the key/code for the Knox-Boxes.

3.11 Interconnection

The proposed Project will interconnect to an existing 12kV ComEd feeder on the distribution system. The utility will install approximately 150' of 12kV 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 queue is included as **Appendix O**.

3.12 Operation and Maintenance

The Operation and Maintenance Plan including a comprehensive vegetative management plan for the Project is included as **Appendix P**, with allowances for sheep grazing as a means of vegetative management. 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 and rotational grazing schedule will be followed, 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. This balance is enabled by the approval of the variance requests.

Vegetation underneath and between the solar panels will 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, grazing, and weed management schedules will be adjusted as needed to allow for flexibility based on based on the establishment of the seed mix, rainfall and vegetation growth. Any 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 and/or Data Acquisition System (DAS) system. Qualified and insured technicians will be dispatched to address any system failures.

3.13 Deconstruction and Decommissioning Plan

The Deconstruction and Decommissioning Plan section of the Application has been included as **Appendix Q**. The AIMA (**Appendix I**) 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 Kane County along with the required Financial Assurance to cover the estimated costs of Deconstruction of the Facility as per the AIMA. 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.

3.14 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.

3.15 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-DuPage Cook 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 REVIEW CRITERIA

4.1 Special Use Required Findings of Facts (25-4-8-2, A-F, Kane County Zoning Code)

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

*The Project will fully comply with all setbacks as specified in the Kane Zoning Code. In addition, the Project will fully comply with all performance standards required for commercial solar energy facilities set forth in the Kane Zoning Code and conditions included in the special use permit, as well as IL Pollution Control Board noise limits. Moreover, as indicated by the property value impact study, **Appendix R**, 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 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 commercial solar facilities are generally harmonious with surrounding uses. Dust control and E&S measures will be put in place during construction to alleviate potential issues that may arise with construction, operation, and maintenance. A glare study was performed and showed no glare to nearby routes and residences.

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

- *West: Zoned (F) Farming*
- *North: Zoned (SU) Special Use and (FP) Forest Preserve*
- *East: Zoned (SU) Special Use*
- *South: Zoned (F) Farming*

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

The property is zoned as a farming district and has typically been used for crop farming. The existing zoning classification allows for siting of hydraulic power plants and other public utilities in the Farming District, and small structure or tower mounted wind turbines are permitted in any zoning district. Since public utilities are allowed in the Farming District, a solar farm (public utility for the generation of electricity) is also permitted. In addition, a solar farm is a complementary use to agricultural uses in that it is only temporary and allows the soil to rest and re-charge before returning the land to the planting of row crops.

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

The area to the west and south of the proposed project site is agricultural; to the north of the property is agricultural and special use; and to the east is special use. Due to the surrounding agricultural lands, forest preserves, and existing special use it seems unlikely that this land will be used for residential or business purposes.

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

Section 2.9 of the Kane County 2040 Land Use Plan, Sustainability and Energy, encourages a brave path forward for Kane County "to be a leader and role model in the area of energy conservation, energy efficiency, reduction of greenhouse gas emissions and use of renewable resources within Kane County and the region" (Objective2). The Project will generate clean, renewable energy for hundreds of Kane County homes in a manner that respects the surrounding environment and greatly reduces greenhouse gas emissions, as further detailed in the Project

narrative. Additionally, both during and after construction, the Project will generate jobs and increase tax revenue, contributing directly to Objective 5 by promoting economic development and workforce opportunities to build the infrastructure of Kane County's renewable energy future. While the Project won't be contributing to agricultural production during its operations, upon the end of its useful life, it will be available for a return to agricultural land, and the land will have been allowed to rest and re-charge during the Project's operational life. 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. The Project also helps meet the goals of resource conservation since it is using the sun to produce electricity and not using any water or sewer for Project operation.

- f) Explain how 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 L** 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 always 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 would 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 Project will fully comply with all setbacks as specified in the Kane County Zoning Code. In addition, the Project will fully comply with all performance standards required for commercial solar energy facilities set forth in the Kane County Zoning Code and conditions included in the special use permit, as well as IL Pollution Control Board noise limits. Moreover, as indicated by the property value impact study, **Appendix R**, 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 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 commercial solar facilities are generally harmonious with surrounding uses. Dust control and E&S measures will be put in place during construction to alleviate potential issues that may arise with construction, operation, and maintenance. A glare study (**Appendix M**) was performed and showed no glare to nearby routes and residences.

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

The Project will have little to no impact to neighboring properties or the future development of the community and it will therefore not interfere with any activities on neighboring properties. The Project does not generate any odor, or emit any air pollution and, in fact, provides a net environmental benefit. There will be no tree clearing. In converting the property from a farm field to a commercial solar energy facility, pesticides will not be utilized, and spot herbicide application will only be performed where mandated by state and Kane 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 conduct maintenance, maximum monthly. The Project should 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 is located along the eastern edge of the site. 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 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 L**. The Project will be designed to account for all existing features, environmental features, the Kane County Ordinance, and the Kane-Dupage County 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 upkeep and maintenance to the Project components are anticipated to occur only a few times a year, 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 F zoning district and SU zoning district as well as the Ordinance. The Project will also comply with all other County requirements, and State and Federal requirements as well.

The Project will comply with the amended Ordinance of the County Board for Kane County, IL (dated 05/09/2023), amended Sections 25-5-4-9 Solar Farms and 25-4-8 Special Use Permits, and 155-18.20 Definitions of the Kane County Zoning Ordinance, as well as applicable Kane County regulations for a Commercial Solar Energy Facility, with the exception of the variance requests, which will enable the establishment of Illinois native pollinator plantings and improved soil drainage. The Project will comply with all other applicable County, State, and Federal requirements as well.