State of Illinois
County of Kendall

Zoning Petition
#18-13

**ORDINANCE NUMBER 2018-22**

**TEXT AMENDMENT TO SECTIONS 3.02, 4.18, 7.01.D, 8.02.C 8.03.H.1, 8.09.B, 9.02.C, 9.03.C, 9.04.C, 9.05.C, 9.06.F, 9.07.C, AND 10.03.B OF THE KENDALL COUNTY ZONING ORDINANCE BY AMENDING KENDALL COUNTY'S SOLAR PANEL ZONING REGULATIONS**

*WHEREAS,* Section 13.07 of the Kendall County Zoning Ordinance permits the Kendall County Board to approve text amendments and provides the procedure through which text amendments are granted; and

*WHEREAS,* Section 13.08 of the Kendall County Zoning Ordinance contains the procedures for approving special use permits, major and minor amendments to special use permits, and revocations of special use permits, but does not contain specific procedures for the renewal of special use permits;

*WHEREAS,* on March 12, 2018, the Kendall Count Planning, Building and Zoning Committee, hereinafter be referred to as "Petitioner", submitted a text amendment to the Kendall County Zoning Ordinance amending Kendall County's Solar Panel Zoning Regulations; and

*WHEREAS,* following due and proper notice by publication in the Kendall County Record on July 12, 2018, the Kendall County Zoning Board of Appeals conducted a public hearing on July 30, 2018, at 7:00 p.m., in the County Office Building at 111 W. Fox Street in Yorkville, at which the Petitioner and the Petitioner's representative presented evidence, testimony, and exhibits in support of the requested text amendment and zero members of the public asked questions or testified in favor or testified in opposition to the request; and

*WHEREAS,* based on the evidence, testimony, and exhibits, the Kendall County Zoning Board of Appeals has recommended approval of the text amendment on July 30, 2018; and

*WHEREAS,* the Kendall County Planning, Building and Zoning Committee of the Kendall County Board has reviewed the testimony presented at the aforementioned public hearing, and has forwarded to the Kendall County Board a recommendation of approval of the requested text amendment; and

*WHEREAS,* the Kendall County Board has considered the recommendations of the Planning, Building and Zoning Committee and the Kendall County Zoning Board of Appeals, and has determined that said petition is in conformance with the provisions and intent of the Kendall County Zoning Ordinance; and

*NOW, THEREFORE, BE IT ORDAINED, BY THE COUNTY BOARD OF KENDALL COUNTY, ILLINOIS,* that the Kendall County Zoning Ordinance be amended as follows:

I. Recitals: The recitals set forth above are incorporated as if fully set forth herein.

II. Amended Text: Section 3.02 is amended by adding the following terms and definitions:

"ACTIVE SOLAR ENERGY SYSTEM. A solar energy system whose primary purpose is to harvest energy by transforming solar energy into another form of energy or transferring heat from a collector to another medium using mechanical, electrical, or chemical means.

BUILDING-INTEGRATED SOLAR ENERGY SYSTEMS. An active solar energy system that is an integral part of a principal or accessory building, rather than a separate mechanical device, replacing or

substituting for an architectural or structural component of the building. Building-integrated systems include but are not limited to photovoltaic or hot water solar energy systems that are contained within roofing materials, windows, skylights, and awnings.

GRID-INTERIE SOLAR ENERGY SYSTEM. A photovoltaic solar energy system that is connected to an electric circuit served by an electric utility company.

GROUND MOUNT SOLAR ENERGY SYSTEM. A solar energy system mounted on a rack or pole that rests on or is attached to the ground.

OFF-GRID SOLAR ENERGY SYSTEM. A photovoltaic solar energy system in which the circuits energized by the solar energy system are not electrically connected in any way to electric circuits that are served by an electric utility company.

PASSIVE SOLAR ENERGY SYSTEM. A solar energy system that captures solar light or heat without transforming it to another form of energy or transferring the energy via a heat exchanger.

PHOTOVOLTAIC SYSTEM. An active solar energy system that converts solar energy directly into electricity.

ROOF MOUNT SOLAR ENERGY SYSTEM. A solar energy system that is mounted on a rack that is fastened onto a building roof.

SOLAR ACCESS. Unobstructed access to direct sunlight on a lot or building through the entire year, including access across adjacent parcel air rights, for the purpose of capturing direct sunlight to operate a solar energy system.

SOLAR COLLECTOR. An assembly, structure, and the associated equipment and housing, designed for gathering, concentrating, or absorbing direct and indirect solar energy for which the primary purpose is to convert or transform solar radiant energy into thermal, mechanical, chemical or electrical energy.

SOLAR ENERGY. Radiant energy received from the sun that can be collected in the form of heat or light by a solar collector.

SOLAR ENERGY EASEMENT. An easement that limits the height or location, or both, of permissible development on the burdened land in terms of a structure or vegetation, or both, for the purpose of providing access for the benefited land to wind or sunlight passing over the burdened land.

SOLAR ENERGY SYSTEM (SES). All components required to become a complete assembly or structure that will convert solar energy into electricity for use.

SOLAR ENERGY SYSTEM ADDITION. A private solar energy system which is structurally attached to a building or structure on the zoning lot on which said system is located. Said system shall be considered part of the building and shall comply with all provisions of this ordinance pertaining thereto.

SOLAR ENERGY SYSTEM, PRIVATE. A collection of one (1) or more solar collectors designed for use by the occupant(s) of the zoning lot on which said system is located; excess power generation is limited to net metering or similar technology with regulations set by the local power utility,

community, county, and state. Private solar energy system equipment shall conform to applicable industry standards, and applicants for building permits for private solar energy systems shall submit certificates from equipment manufacturers that the equipment is manufactured in compliance with industry standards.

SOLAR FARM. A commercial facility that converts sunlight into electricity, whether by photovoltaics (PV), concentrating solar thermal devices (CST), or other conversion technology, for the primary purpose of wholesale sales of generated electricity. A solar farm is the principal land use for the parcel on which it is located.

SOLAR GARDEN. A commercial solar-electric (photovoltaic) array, of no more than 20 acres in size, that provides retail electric power (or a financial proxy for retail power) to multiple households or businesses located off-site from the location of the solar energy system.

SOLAR HEAT EXCHANGER. A component of a solar energy device that is used to transfer heat from one substance to another, either liquid or gas.

SOLAR HOT AIR SYSTEM. An active solar energy system (also referred to as Solar Air Heat or Solar Furnace) that includes a solar collector to provide direct supplemental space heating by heating and re-circulating conditioned building air.

SOLAR HOT WATER SYSTEM. A system (also referred to as Solar Thermal) that includes a solar collector and a heat exchanger that heats or preheats water for building heating systems or other hot water needs, including residential domestic hot water and hot water for commercial processes.

SOLAR MOUNTING DEVICES. Racking, frames, or other devices that allow the mounting of a solar collector onto a roof surface or the ground.

SOLAR STORAGE UNIT. A component of a solar energy device that is used to store solar generated electricity or heat for later use."

III. Amended Text: Section 4.18 is hereby deleted in its entirety and replaced with the following:

"A. Roof Mounted for On-Site Energy Consumption. Solar panels located on the roof of an existing structure shall be permitted in all districts. Roof mounted solar energy systems shall not extend beyond the exterior perimeter of the building on which the system is mounted. Roof mounted solar energy systems shall not exceed the maximum allowed height in any zoning district. Roof mounted or building integrated private solar energy systems for residential or business use shall be considered an accessory use in all zoning districts where there is a principal structure and shall meet the regulations of the Kendall County Zoning Ordinance. Roof mounted solar panels used as accessory to agricultural uses and which the energy generated from the solar panels is consumed on-site shall be exempt from building permits. The use of roof mounted solar panels for on-site energy consumption shall comply will all applicable federal, state, and local laws and the rules of the local electrical utility.

B. Freestanding for On-Site Energy Consumption. Solar panels located on the ground or attached to a framework located on the ground shall be classified as accessory structures in all zoning districts provided that the system is no larger than necessary to provide one hundred twenty percent (120%) of the electrical and/or thermal requirements of the structure to which it is accessory as determined by a contractor licensed to install photovoltaic and thermal solar energy systems. Freestanding solar panels

shall be permitted if they comply with the standards listed in the Kendall County Zoning Ordinance. Ground or pole mounted solar energy systems shall not exceed the maximum height, when oriented at maximum tilt, for the zoning district in which it is located. Freestanding solar panels used as accessory to agricultural uses and which the energy generated from the solar panels is consumed on-site shall be exempt from building permits. The use of freestanding solar panels for on-site energy consumption shall comply will all applicable federal, state, and local laws and the rules of the local electrical utility.

C. Solar Gardens. Solar gardens shall be allowed in all zoning districts and shall require a special use permit whether accessory or principal use of the property subject to the following requirements:

1. Unless otherwise noted in the Kendall County Zoning Ordinance, solar gardens must comply with all required standards for structures in the district in which the system is located.

2. Rooftop community systems are permitted in all zoning districts where buildings are permitted.

3. Ground-mount community solar energy gardens must be less than or equal to twenty (20) acres in total size. Ground-mount solar developments covering more than twenty (20) acres shall be considered solar farms.

4. Solar gardens are subject to Kendall County's Stormwater Management Ordinance and NPDES permit requirements.

5. An interconnection agreement must be completed with the electric utility in whose service territory the system is located.

6. Ground-mount systems must comply with all required standards for structures in the district in which the system is located. All solar gardens shall also be in compliance with all applicable local, state and federal regulatory codes, including the National Electric Code, as amended. Also, Health Department requirements for wells and septic systems must be met.

D. Solar Farms. Ground-mount solar energy systems that are the primary use on the lot, designed for providing energy to off-site uses or export to the wholesale market are permitted under the following standards:

1. Unless otherwise noted in the Kendall County Zoning Ordinance, solar farms must comply with all required standards for structures in the district in which the system is located.

2. Solar farms are subject to Kendall County's Stormwater Management Ordinance and NPDES permit requirements.

3. Top soils shall not be removed during development, unless part of a remediation effort. Soils shall be planted to and maintained in perennial vegetation to prevent erosion, manage run off and build soil. A plan must be approved by the Kendall County Soil and Water Conservation District and paid for by the developer. Applicable noxious weed ordinances shall be followed. Due to potential County liability under the Illinois Endangered Species Protection Act (520 ILCS 10/11(b)), it is required that any crops or vegetation planted be in compliance with all federal and state laws protecting endangered species. This will also include

pollinators such as bees. A report showing demonstration of plan compliance shall be submitted annually and paid for by the developer.

4. A qualified engineer shall certify that the foundation and design of the solar panels racking and support is within accepted professional standards, given local soil and climate conditions.

5. All solar farms shall be in compliance with all applicable local, state and federal regulatory codes and the National Electric Code, as amended.

6. Power and communication lines running between banks of solar panels and to nearby electric substations or interconnections with buildings shall be buried underground. Exemptions may be granted by Kendall County in instances where shallow bedrock, water courses, or other elements of the natural landscape interfere with the ability to bury lines or distance makes undergrounding infeasible, at the discretion of the Kendall County Planning, Building and Zoning Department. In addition, the Illinois Department of Agriculture (IDOA) has established standards and policies in the Agricultural Impact Mitigation Agreements (AIMA) regarding the construction or burial of electric transmission lines which should be agreed to and adhered to between the landowner and the developer.

7. A detailed site plan for both existing and proposed conditions must be submitted, showing location of all solar arrays, other structures, property lines, rights-of-way, service roads, floodplains, wetlands and other protected natural resources, topography, farm tile, electric equipment, fencing, and screening materials and all other characteristics requested by Kendall County. The site plan should also show all zoning districts and overlay districts.

E. Setback Requirements. Unless otherwise stated in the Kendall County Zoning Ordinance, the setback requirements for all solar energy systems shall meet the structure minimum setback requirements when the solar energy system is oriented at any and all positions.

No solar energy system shall be located in any front yard of any residentially zoned or used property.

F. Design Standards. Active solar energy systems shall be designed to conform to the County's Land Resource Management Plan and to blend into the architecture of the building or may be required to be screened from the routine view from public rights-of-way other than alleys. Screening may be required to the extent it does not affect the operation of the system. The color of the solar collector is not required to be consistent with other roofing materials.

1. Building integrated photovoltaic solar energy systems shall be allowed regardless of whether the system is visible from the public right-of-way, provided the building component in which the system is integrated meets all required setback, land use or performance standards for the district in which the building is located.

2. Solar energy systems using roof mounting devices or ground-mount solar energy systems shall not be restricted if the system is not visible from the closest edge of any public right-of-way or immediately adjacent to a residential structure.

3. All solar energy systems using a reflector to enhance solar production shall minimize glare from the reflector affecting adjacent or nearby properties. Measures to minimize glare include selective placement of the system, screening on the north side of the solar array, modifying the

orientation of the system, reducing use of the reflector system, or other remedies that limit glare.

4. Damaged field drain tile shall be repaired or rerouted on a timetable approved by the Kendall County Planning, Building and Zoning Department.

G. Coverage. Roof or building mounted solar energy systems, excluding building-integrated systems, shall allow for adequate roof access for fire-fighting purposes to the south-facing or flat roof upon which the panels are mounted. Ground-mount private solar energy systems shall be exempt from impervious surface calculations if the soil under the collector is not compacted and maintained in vegetation. Foundations, gravel, or compacted soils are considered impervious.

H. Plan Approval Required. All solar energy systems shall require administrative plan approval by the Kendall County Building Official via the review of the application for a building permit.

1. Plan applications for solar energy systems shall be accompanied by horizontal and vertical (elevation) drawings. The drawings must show the location of the system on the building or on the property for a ground-mount system including the property lines.

2. For all roof-mounted systems other than a flat roof, the elevation must show the highest finished slope of the solar collector and the slope of the finished roof surface on which it is mounted.

3. For flat roof applications, a drawing shall be submitted showing the distance to the roof edge and any parapets on the building shall identify the height of the building on the street frontage side, the shortest distance of the system from the street frontage edge of the building, and the highest finished height of the solar collector above the finished surface of the roof.

4. Applications that meet the design requirements of the Kendall County Zoning Ordinance and do not require an administrative variance shall be granted administrative approval by the Zoning Administrator and not require Planning, Building and Zoning Committee review. Plan approval does not indicate compliance with Building or Electrical Codes.

I. Approved Solar Components. Electric solar energy system components must have a UL listing approved equivalent and solar hot water systems must have an SRCC rating.

J. Compliance with Building Code. All active solar energy systems shall meet approval of County building officials; solar thermal systems shall comply with HVAC-related requirements of the Illinois State Energy Code. All County adopted building codes will apply and take precedence where applicable.

K. Utility Notification. All grid-intertie solar energy systems shall comply with the interconnection requirements of the electric utility. Off-grid systems are exempt from this requirement.

L. Building Permit Requirements and Fees. All solar energy systems will be required to have a Kendall County Building Permit before any work can be started. A written plan and a plat/drawing for the proposed solar energy system shall be provided with the Building Permit Application. The plat/drawing must show the location of the system on the building or on the property, (for a ground-mount system show arrangement of panels), with all property lines and set back footages indicated.

Fees for processing the applications for building permits shall be submitted to and collected by the Kendall County Planning, Building and Zoning Department as follows:

| | | |
|---|---|---|
| 0- | 10 kilowatts (kW) | $150.00 |
| 11- | 50 kilowatts (kW) | $300.00 |
| 51- | 100 kilowatts (kW) | $600.00 |
| 101- | 500 kilowatts (kW) | $1,200.00 |
| 501- | 1,000 kilowatts (kW) | $2,750.00 |
| 1,001- | 2,000 kilowatts (kW) | $6,000.00 |
| Over 2,000 kilowatts (kW) | | $6,000.00 + $200.00 for each additional 0-100 kilowatts |

Any solar energy system that construction has started before a Building Permit has been applied and paid for will be charged double the permit fee. The above fees do not apply to solar energy systems used to generate energy for on-site consumption of energy for agricultural purposes.

M. Liability Insurance and Indemnification.

1. For Solar Farms and Solar Gardens, commencing with the issuance of building permits, the Applicant, Owner, or Operator shall maintain a current general liability policy covering bodily injury and property damage with limits of at least Three Million Dollars ($3 Million) per occurrence and Five Million Dollars ($5 Million) in the aggregate. Such insurance may be provided pursuant to a plan of self- insurance, by a party with a net worth of Twenty Million Dollars ($20 Million) or more. The County shall be named as an individual insured on the policy to the extent the county is entitled to indemnification.

2. Any SES(s), applicant, owner, or operator, whether individual or commercial, shall defend, indemnify, and hold harmless the County and its officials, employees, and agents (collectively and individually, the "Indemnified Parties") from and against any and all claims, demands, losses, suits, causes of actions, damages, injuries, costs, expenses, and liabilities whatsoever, including reasonable attorney's fees, except to the extent arising in whole or part out of negligence or intentional acts of such Indemnified Parties (such liabilities together known as "liability") arising out of applicant, owner, or operators selection, construction, operation, and removal of the SES(s) and affiliated equipment including, without limitation, liability for property damage or personal injury (including death), whether said liability is premised on contract or on tort (including without limitation strict liability or negligence). This general indemnification shall not be construed as limited or qualifying the County's other indemnification rights available under the law.

N. Decommissioning Plan.

1. Upon the request of the Kendall County Planning, Building and Zoning Department, an owner of a solar energy system must provide documentation, within thirty (30) days, that the solar energy system is still in use. If the solar energy system is not in use, the owner of the system shall have 180 days, after notification from the Kendall County Planning, Building and Zoning Department, to remove the solar energy system from the property.

2. A decommissioning plan shall be required at the time of applying for all solar farms and solar gardens to ensure that the facilities are properly removed after their useful life.

3. Decommission of solar panels must occur in the event they are not in use for ninety (90) consecutive days.

4. The owner or operator will have six (6) months to complete the decommissioning plan after operation of a solar farm or solar garden ceases.

5. The decommissioning plan shall include provisions for removal of all structures and foundations, restoration of soil and vegetation, and a plan ensuring financial resources will be available to fully decommission the site.

6. The Kendall County Board shall require the posting of a bond, letter of credit, or the establishment of an escrow account to ensure the proper decommissioning. The posting of a bond may be required prior to the issuance of a building permit for the facility.

7. In the event that the State of Illinois enacts a law with regards to the decommissioning of a solar farm, the strictest requirements shall prevail.

O. Other Requirements.

1. Upon request from the Kendall County Planning, Building and Zoning Department, the owner or operator of a solar farm or a solar garden must submit, within fourteen (14) calendar days, a current operation and maintenance report to the Department.

2. In all undeveloped areas, the solar energy developer will be required to complete a consultation with both the Illinois Historic Preservation Agency (IHPA) and the Illinois Department of Natural Resources (IDNR) through the Department's online EcoCat Program. The cost of this consultation shall be at the developer's expense. The final certificate from EcoCat shall be provided to the Kendall County Planning, Building and Zoning Department before a permit or special use permit will be issued.

3. No fencing is required; however, if installed on the property the fencing shall have a maximum height of eight (8) feet. The fence shall contain appropriate warning signage that is posted such that is clearly visible on the site.

4. Any lighting for solar farms or solar gardens shall be installed for security and safety purposes only. Except for lighting that is required by the FCC or FAA, all lighting shall be shielded so that no glare extends substantially beyond the boundaries of the facility.

5. Reflection angles for solar collectors shall be oriented such that they do not project glare onto adjacent properties.

6. Electric solar energy system components must have a UL listing and must be designed with anti-reflective coating(s).

7. Solar energy systems must be in compliance with all State of Illinois Plumbing and Energy Codes.

8. For solar energy systems located within five hundred feet (500') of an airport or within approach zones of an airport, the applicant must complete and provide the results of the Solar

Glare Hazard Analysis Tool (SGHAT) for the Airport Traffic Control Tower cab and final approach paths, consistent with the Interim Policy, FAA Review of Solar Energy Projects on Federally Obligated Airports, or most recent version adopted by the FAA."

IV. Amended Text: Section 7.01.D is hereby amended by adding the following to the list of special uses:

"54. Solar Gardens subject to the provisions of Section 4.00 of the Kendall County Zoning Ordinance.

55. Solar Farms subject to the provisions of Section 4.00 of the Kendall County Zoning Ordinance."

V. Amended Text: Section 8.02.C is hereby amended by adding the following to the list of special uses:

"19. Solar Gardens subject to the provisions of Section 4.00 of the Kendall County Zoning Ordinance."

VI. Amended Text: Section 8.03.H.1 is hereby amended by adding the following to the list of special uses:

"p. Solar Gardens subject to the provisions of Section 4.00 of the Kendall County Zoning Ordinance."

VII. Amended Text: Section 8.09.B is hereby amended by adding the following to the list of special uses:

"9. Solar Gardens subject to the provisions of Section 4.00 of the Kendall County Zoning Ordinance."

VIII. Amended Text: Section 9.02.C is hereby amended by adding the following to the list of special uses:

"15. Solar Gardens subject to the provisions of Section 4.00 of the Kendall County Zoning Ordinance."

IX. Amended Text: Section 9.03.C is hereby amended by adding the following to the list of special uses:

"26. Solar Gardens subject to the provisions of Section 4.00 of the Kendall County Zoning Ordinance."

X. Amended Text: Section 9.04.C is hereby amended by adding the following to the list of special uses:

"29. Solar Gardens subject to the provisions of Section 4.00 of the Kendall County Zoning Ordinance."

XI. Amended Text: Section 9.05.C is hereby amended by adding the following to the list of special uses:

"20. Solar Gardens subject to the provisions of Section 4.00 of the Kendall County Zoning Ordinance."

XII. Amended Text: Section 9.06.F is hereby amended by adding the following to the list of special uses:

"Solar Gardens. Solar gardens shall be a special use in the B-5 Business Planned Development District."

XIII. Amended Text: Section 9.07.C is hereby amended by adding the following to the list of special uses:

"19. Solar Gardens subject to the provisions of Section 4.00 of the Kendall County Zoning Ordinance."

XIV. Amended Text: Section 10.03.B is hereby amended by adding the following to the list of special uses:

"5. Solar Gardens subject to the provisions of Section 4.00 of the Kendall County Zoning Ordinance."

XV. The Table of Uses is hereby amended to reflect Solar Gardens as special use in every zoning district and Solar Farms as a special use in the A-1 District.

*IN WITNESS OF*, this ordinance has been enacted by a majority vote of the Kendall County Board and is effective this 20th day of November, 2018.

Attest:

Kendall County Clerk
Debbie Gillette

Kendall County Board Chairman
Scott R. Gryder