

Johnson County, Iowa
Summary Only - Solar

For full ordinance text, please find pdf below or visit county website.

Date Passed/Amended: **Unified Development Ordinance Effective date January 15, 2020**
 Amendments: December 22, 2020
 August 24, 2021 (2 ordinances)
 May 19, 2022

Summary Written: January 2, 2023

Agricultural Use Table:

Eligible Zoning: Utility Scale Solar Energy Systems (USSES) are allowed as a Primary Use in the Renewable Energy District. USSES with a total use area of twenty (20) acres or less are also allowed as a Conditional Use in the Agricultural District. Onsite Battery Energy Storage Systems proposed in conjunction with a USSES also require a separate Conditional Use Permit.

Prohibition Language:

Required Information/Permits Required:

- a) Application requirements:
 - a. A site plan showing preliminary array details and location, fencing details and location, landscaping plan (if applicable), signage, location of underground and above ground transmission facilities, project development timeline, and any other pertinent information as required by the approving authority.

Request for Variance:

- a) A Conditional Use Permit must be granted by the Board of Adjustment for USSES in the Agricultural District.

Site and Structure Requirements:

- a) Compliance with all local, state, and federal regulations:
 - a. Utility scale solar energy systems shall comply with all applicable airport zoning ordinances.
 - b. The application shall comply with the County’s Environmental Standards.
 - c. The application shall comply with all applicable federal, state, and local regulations.

- b) Concentrating Solar Power Facilities:

- c) Fencing/Security:
 - a. The solar energy system shall be fenced with a minimum seven foot (7') tall security fence.
 - b. Perimeter fencing for the site shall not include barbed wire nor chain-link and shall use wire woven or other wildlife-friendly fencing. At the discretion of the approving authority, critical electrical and communication equipment may be fenced with chain-link fence topped with barbed wire when such measures are deemed necessary to ensure public safety and provide additional security for the equipment.
 - c. Warning/no trespassing signs shall be posted within sight of all points of fence line or no greater than fifty feet (50') apart.
- d) Glare minimization/Shadow Flicker:
 - a. All solar panels shall be constructed in a manner that minimizes the reflection or glare onto neighboring properties, does not interfere with traffic, and does not create a safety hazard.
- e) Height:
 - a. The lowest edge of array panels shall be at least eighteen inches (18") above the ground.
- f) Lighting:
- g) Minimum Lot Size:
- h) Noise:
- i) Outside storage:
- j) Setbacks and Lot Coverage:
 - a. All structures shall adhere to the primary structure setbacks for the district where the system is located:

Zoning District	Front Yard Setback	Rear Yard Setback	Side Yard Setback
Renewable Energy	50*	50*	50*
Agricultural	40	30	10

* Where abutting properties are used in conjunction with an approved utility scale solar energy system, the setback on shared side and rear lot lines may be reduced to zero feet (0').

- b. At the discretion of the approving authority, additional setbacks may be required as a condition of approval.

- k) Screening:
 - a. A landscaping buffer may be required to be installed and maintained during the life of the array operation. Determination of screening requirements will be made by the approving authority as part of the review and approval process and will be based on adjacent or nearby surrounding land uses and topography.
 - b. The landscaping buffer plan shall be in accordance with the following standards:
 - a) The plan shall preferably use trees, shrubs, grasses and forbs that are native to Iowa, or where appropriate may include naturalized and non-invasive species, or a combination thereof.
 - b) Where landscape screening is required adjoining a public or private road, plants shall be planted at a rate that provides no less than sixty-six percent (66%) screening at a height equal to the height of any security fencing.
 - c) Where landscape screening is required as a buffer to nearby properties or uses, plants shall be planted at a rate that provides no less than one hundred percent (100%) screening at a height equal to the height of any security fencing.
 - d) The planting area shall extend no further than fifty feet (50') beyond the outside of the use area, which includes the security fence, required parking areas, required stormwater infrastructure, or other structures or infrastructure required or proposed with the development.

l) Signage:

m) Site Access/Emergency Response:

- a. The Operations and Maintenance Plan shall describe the fire safety and response measures.
- b. Signage at all locked entrances or in a prominent place on the fencing should provide the following information:
 - i. Name(s) and phone number(s) of the electrical utility;
 - ii. Name(s) and phone number(s) of the site operator(s); and
 - iii. The facility's 911 address and GPS coordinates.
- c. The site operator will coordinate with the local fire department and Emergency Management Agency (EMA) to offer or provide for training on an annual basis for five (5) years following completion of construction. Thereafter, the site operator shall offer or provide training if requested by the local EMA on a basis not to exceed once annually.

n) Utility Connections:

- a. Power and communication lines shall be placed underground to the extent feasible and as permitted by the serving utility.

o) Waste:

Operation and Maintenance Plan:

- a) Monitoring and Maintenance:
 - a. The applicant shall submit a plan for the safe operation and maintenance of the solar energy system.

- b) Soil and Erosion and Sediment Control:
 - a. An Agricultural Impact Mitigation Plan shall be submitted detailing best management practices to be used during construction to address, at a minimum, invasive species prevention, erosion and sediment control, and debris removal.
 - b. Full stormwater management planning in accordance with section 8.3.6 of the Unified Development Ordinance shall be provided for all impervious surfaces, including internal access roads. At the discretion of the approving authority, stormwater management planning may also be required for some or all pervious surfaces.
 - c. The applicant, owner, or site operator shall provide as-built plans for all required stormwater management infrastructure within thirty (30) days of completion of on-site infrastructure or the start of energy generation from the site, whichever occurs first. As-built plans shall be certified by a Professional Engineer licensed in the State of Iowa.

Decommissioning and Site Reclamation:

- a) The applicant must include a decommissioning plan that describes the following:
 - a. The anticipated life of the utility scale solar installation;
 - b. The anticipated manner in which the project will be decommissioned, including plans to recycle components;
 - c. The anticipated site restoration actions;
 - d. The estimated decommissioning costs in current dollars;
 - e. Decommissioning funds shall be an amount equal to the total costs for decommissioning the site, plus a ten percent (10%) contingency.
 - f. Decommissioning funds shall be maintained in the form of cash, certificate of deposit, performance bond, escrow account, surety bond, letter of credit, or other form of financial assurance as agreed to by the approving authority.
 - g. Financial surety shall be maintained for the life of the project and proof of recertification of the financial surety instrument must be submitted to the County annually.
 - h. Every ten (10) years, the facility owner or operator shall retain an independent Licensed Engineer to re-estimate the total cost of decommissioning and attest that the value of the financial surety instrument is appropriate. The fund balance shall be adjusted to match the re-estimated decommissioning cost.

- b) The applicant shall provide the basis for estimates of net costs for decommissioning the site (decommissioning costs less salvage value). The cost

basis shall include a mechanism for calculating adjusted costs over the life of the project.

- c) Restoration or reclamation activities shall include, but not be limited to, the following:
 - a. Restoration of the pre-construction surface grade and soil profile after removal of structures, equipment, graveled areas and access roads.
 - b. Re-vegetation of restored soil areas with crops, native seed mixes and plant species suitable to the area, consistent with the County's weed control plan.
 - c. For any part of the project on leased property, the plan may incorporate agreements with the landowner regarding leaving access roads, fences, gates or repurposed buildings in place or regarding restoration of agricultural crops or forest resource land.
- d) Following a continuous one-year period in which no electricity is generated, or if substantial action on construction or repairs to the project is discontinued for a period of one (1) year, the permit holder will have one (1) year to complete decommissioning of the utility scale solar installation.