

## **Section 6.15 Solar Energy Conversion Systems**

### **A. Intent.**

This regulation promotes the accommodation of on-site solar energy conversion systems within Burt County's zoning jurisdiction, with the intent to reduce energy consumption, regulate necessary equipment, and promote adequate access to sunlight. This regulation also addresses utility-scale solar energy conversion systems, or "solar facilities", intended for the sale of electricity to utilities, industries, and/or businesses. Solar energy conversion systems, excluding solar facilities, shall be permitted in all zoning districts as a permitted use.

### **B. Personal Scale Solar Energy Conversion System Requirements.**

- 1) A solar energy conversion system shall provide power, solely, for the principal use and/or accessory use of the property on which the solar energy system is located.
- 2) The installation and construction of a roof-mounted solar energy system shall be subject to the following development and design standards:
  - a. A roof or building mounted solar energy conversion system may be mounted on a principal or accessory building.
  - b. Any height limitations of the zoning district within shall not be applicable to solar collectors provided that such structures are erected only to such height as is reasonably necessary to accomplish the purpose for which they are intended to serve, and that such structures do not obstruct solar access to neighboring properties.
  - c. Placement of solar collectors on flat roofs shall be allowed, provided that panels do not extend horizontally past the roofline.
- 3) The installation and construction of solar energy conversion system shall be subject to the following development and design standards:
  - a. The height of the solar collector and any mounts shall not exceed fifteen (15) feet when oriented at maximum tilt.
  - b. The surface area of a ground- or pole-mounted system, regardless of the mounted angle, shall be calculated as part of the overall lot coverage.
  - c. The minimum solar energy conversion system setback distance from the property lines shall be equivalent to the building setback or accessory building setback requirement of the underlying zoning district.
  - d. All power transmission lines from a ground-mounted solar energy system to any building or other structure shall be located in proper accordance with local building/electrical code.
  - e. The collector surface and mounting devices for roof-mounted solar systems shall

not extend beyond the exterior perimeter of the building on which the system is mounted or built.

- f. For all roof-mounted systems other than a flat roof, the elevation must show the tilt of the solar collector and the slope of the finished roof surface on which it is mounted.
  - g. For flat roof applications, a drawing shall be submitted showing the distance to the roof edge and any parapets on the building.
- 4) All electrical equipment associated with the operation of solar energy conversion systems shall comply with the setbacks specified for accessory structures in the underlying zoning districts.
  - 5) Solar panel placement should be prioritized to minimize or negate any glare onto nearby properties or roadways, without unduly impacting the functionality or efficiency of the solar energy conversion system.
  - 6) A solar energy conversion system shall not be constructed until a building/zoning permit has been approved and issued.
  - 7) Electric solar energy system components must have a UL listing and must be designed with anti-reflective coating(s).

#### C. Solar Facilities (Solar Farm)

- 1) The height of the solar collector and any mounts within an established solar farm shall not exceed twenty (25) feet when oriented at maximum tilt.
- 2) Solar Farm Applicant Requirements
  - a. A site plan denoting the dimensions of the parcel, proposed solar farm location (arrangement of panels), distance from the proposed area to all property lines and location of the driveway(s). No portion of the system area may encroach into the required setbacks.
  - b. Horizontal and vertical (elevation) to-scale drawings with dimensions. The drawings must show the location of the system on the property and its relationship to adjacent roads or highways.
  - c. If applicable, the applicant must apply and receive from the Nebraska Department of Transportation (NDOT) authorization for a private driveway or access easement from a State or Federal highway, or submit documentation from NDOT that the existing site access is acceptable for the required use prior to final project approval.
  - d. Nameplate Capacity Tax will be addressed in the Conditional Use Permit to ensure its collection throughout the life of the project.
- 3) Installation and Design

- a. Electric solar energy system components must have a UL listing and must be designed with anti-reflective coating(s).
- b. All solar farms shall meet all requirements of the Nebraska State Fire Marshal and Electrical Division.
- c. Plan applications for solar energy systems shall be accompanied by horizontal and vertical (elevation) to-scale drawings with dimensions. The drawings must show the location of the system on the building for a roof-mounted system or on the property for a ground-mounted system, including the property lines.
- d. Setbacks for Solar Panels must be 83' from the property line or 200' from the exterior wall of a non-participating residence, whichever is greater. The non-participating would be able to sign a waiver to reduce the setbacks.

D. Safety and Inspections

- 1) The design of the solar energy conversion system shall be in conformance with the Nebraska State Fire Marshal and Electrical Division requirements for inspection and licensing. A building permit reviewed by the Burt County staff/Planning Commission shall be obtained for a solar energy system.
- 2) The solar energy system shall comply with all applicable regulations of Burt County, so as to ensure the structural integrity of such solar energy system.
- 3) Any connection to the public utility grid must be approved by the local public utility.
- 4) If solar storage batteries are included as part of the solar collector system, they must be installed according to all requirements set forth in the National Electric Code and State Fire Code when in operation. When no longer in operation, the County and any other applicable laws and regulations relating to hazardous waste disposal shall apply.
- 5) Unless otherwise specified, the property owner of record will be presumed to be the responsible party for owning and maintaining the solar energy system.

E. Retention of Expert

- 1) The County Board of Supervisors may hire an engineer and/or expert to oversee all aspects of the project including, but not limited to, conditional use permit application, roads, application requirements, electrical, and any other process that occurs during preconstruction, construction, decommissioning, and reclamation. The applicant shall reimburse Burt County for the actual costs of such engineer and/or expert used during any of the phases of planning, development, decommissioning, and reclamation.
- 2) The total amount of the costs to be reimbursed to Burt County for engineer or expert services may vary with the scope and complexity of the project, the

completeness of the application, and other information as may be needed to complete the necessary review and analysis.

- 3) Burt County Engineer, County Attorney, and the Planning and Zoning Administrator shall have the discretion to determine when an application is deemed complete and sufficient administrative review has been conducted before scheduling of a public hearing before the Planning Commission.
- 4) Said cost shall be reimbursed within 30 days of billing.

F. Decommissioning Plan.

- 1) A Decommissioning Plan for installed facilities and infrastructure must be submitted to the Planning Commission at the time of permit application.
  - a. A Decommissioning Plan must include:
    - i. The manner in which the facility will be decommissioned; and
    - ii. A decommissioning schedule;
    - iii. A detailed estimate of the cost of decommissioning a solar generation facility by a professional engineer licensed in the state of Nebraska that shall at minimum include:
      - i. Dismantling and removal of all transformers, overhead cables, and debris of the solar generation facility;
      - ii. Removal of underground cables to a depth of forty-eight (48) inches;
      - iii. Removal of foundations, buildings, and ancillary equipment to a minimum depth of one hundred twenty (120) inches below grade;
      - iv. Site restoration and reclamation to the approximate original topography that existed prior to the construction of the facility with grading, topsoil, re-spread over the disturbed areas at a depth similar to that in existence prior to the disturbance, and reseeding that achieves the same utility of native vegetation of the surrounding areas to prevent adverse hydrological effects, unless the Board of Supervisors approves a signed request by the applicable landowner, identifying the surface features the land owner prefers to remain in place and a valid reason the landowner prefers those features to remain;
      - v. Repairs and construction from damage to public roads, culverts, and natural drainage ways resulting directly from the decommissioning of a solar generation facility;

- vi. All access roads shall be removed, cleared, and graded, unless a property owner agreement indicates otherwise or the County, through official action of the Board of Supervisors, agree to keep the road;
  - vii. The current salvageable value of the facility, as determined by an independent evaluator;
  - viii. All expenses related to the decommissioning shall be the responsibility of the solar generation facility owner, including any expenses related to releasing any easements.
- iv. Copy of as-built plans including structural and electrical drawings of all facilities and all disturbances associated with the solar generation facility. The as-built plans must be certified by a professional engineer licensed in the state of Nebraska that the information included on depicted as-built plans is complete and accurate.
  - v. The Board of Supervisors may reject a decommissioning plan if:
    - aa. It finds that the plan does not provide for decommissioning as defined in Rule; and
    - bb. The plan does not adequately describe the cost of decommissioning.

G. Decommissioning Bond.

A decommissioning performance surety bond is required for all approved conditional use permits granted for the installation of Commercial Solar Farms/Facilities. The surety bond must be transferable upon sale of the facilities to any new owner and may not be refunded to any owner/operator of said bond until decommissioning has been satisfactorily completed or transfer to Burt County, Nebraska.

H. Determination of Bond Amount.

- 1) The Board of Supervisors shall require submission of a bond by the owner in the amount of the estimated cost to the Board of Supervisors if it had to perform the decommissioning and reclamation work required of an owner. This amount is based on the estimated cost to the Board of Supervisors to ensure compliance with this Section.
- 2) The bond amount shall be based on:
  - a. The estimated costs submitted by the owner in accordance with this rule and costs estimated by using current machinery production handbooks and publications or other document costs acceptable to the Board of Supervisors.
  - b. Estimated costs to the Board of Supervisors that may arise from applicable public contracting requirements or the need to bring personnel and

equipment to the facility after its abandonment by the owner to perform the decommissioning and reclamation work.

- c. Estimated costs to the Board of Supervisors that may arise from management, operation, and maintenance of the site upon temporary or permanent operator insolvency or abandonment, until full bond liquidation can be affected;
  - d. Unless the provisions of the bond provide otherwise, the line items in the bond calculations are estimates only and are not limits on spending of any part of the bond to complete any particular task subsequent to forfeiture of the bond or settlement in the context of bond forfeiture proceedings; and
  - e. Such other cost information as may be required by or available to the Board of Supervisors.
- 3) In determining the amount of a bond required in accordance with the rule, the Board of Supervisors shall consider:
- a. The character and nature of the site where the solar generation facility is located; and
  - b. The current market salvage value of the solar generation facility.

I. Bond Deadline.

- 1) Except as provided in 3. and 4. below, and in accordance with the rule, the owner shall submit to the Board of Supervisors a bond payable to Burt County, Nebraska in a form acceptable by the Board of Supervisors and in a sum determined by the Board of Supervisors, conditioned on the faithful decommissioning of the solar generation facility.
- 2) Except as provided in 3. and 4. below:
- 3) If a solar generation facility commenced commercial operation on or before January 1<sup>st</sup>, 2019.
- 4) If a solar generation facility is repurposed, as determined by the Board of Supervisors in consultation with the owner, any existing bond must be maintained, or a new bond acquired and submitted.

J. Penalties for Failure to Submit Bond.

- 1) If an owner does not submit an acceptable bond to the Board of Supervisors within the timeframe required by this rule, the Board of Supervisors may assess an administrative penalty of not more than fifteen hundred dollars (\$1,500), and an additional administrative penalty of not more than fifteen hundred dollars (\$1,500) for each day the bond is late.
- 2) An owner may appeal the Board of Supervisors penalty assessment to the board within

twenty (20) days after receipt of written notice of the penalty.

K. Adjustment of Bond Amount.

- 1) Once every five (5) years, an owner may request a reduction of the required bond amount upon submission of evidence to the Board of Supervisors proving that decommissioning work, reclamation, or other circumstances will reduce the maximum estimated cost to the Board of Supervisors to complete decommissioning and therefore warrant a reduction of the bond amount.
- 2) The Board of Supervisors shall review each decommissioning plan and bond amount every five (5) years. The performance bond must be increased, as required by the Board of Supervisors, if the cost to decommission a solar generation facility increases. The Board of Supervisors shall notify the owner of any proposed bond increase and provide the owner an opportunity for an informal conference on the proposal. The owner shall increase the bond within ninety (90) days of receiving the Board of Supervisor's revised bond amount.

L. Surety Bonds.

- 1) Surety bonds are subject to the following requirements:
  - a. The Board of Supervisors may not accept a surety bond in excess of ten percent (10%) of the surety company's capital surplus account as shown on a balance sheet certified by a certified public accountant.
  - b. The Board of Supervisors may not accept surety bonds from a surety company for any owner in excess of three (3) times the surety's maximum single obligation as provided in A. above.
  - c. The Board of Supervisors may not accept a surety bond from a surety company for any owner unless that surety is registered with the state auditor and is listed in the United States Department of the Treasury Circular 570 as revised.
  - d. A power of attorney must be attached to the surety bond.
  - e. The surety bond must provide a requirement and a mechanism for the surety company to give prompt notice to the Board of Supervisors and the owner of:
    - i. Any action alleging bankruptcy or insolvency of the surety or violation that would result in suspension or revocation of the license of the surety;
    - ii. Cancellation by the owner; and
    - iii. Cancellation or pending cancellation by the surety.
  - f. Upon a determination by the Board of Supervisors that a surety is unable to comply with the terms of the bond, the owner of a solar generation facility shall be deemed to be without bond coverage. The owner shall replace the bond coverage within ninety (90) days of notice from the Board of

Supervisors.

- g. Whenever operations are abandoned concurrent with the cancellation of the bond, the Board of Supervisors shall forfeit the bond and decommission the site.

M. Effect of Forfeiture.

- a. The written determination to forfeit all or part of the bond, including the reasons for forfeiture and the amount to be forfeited, is a final decision by the Board of Supervisors.
- b. The Board of Supervisors may forfeit any or all bonds deposited for an entire solar generation facility. Liability under any bond, including separate bond increments or indemnity agreements applicable to a single owner must extend to the owner's entire solar generation facility.
- c. In the event the estimated amount forfeited is insufficient to pay for the full cost of decommissioning and reclamation, the owner shall be liable for the remaining costs. The Board of Supervisors may complete or authorize completion of decommissioning of the bonded area and may recover from the owner all costs of decommissioning in excess of the amount forfeited.

N. Appeals.

If the owner of a solar energy system is found to be in violation of the provisions of Section 6.15, Solar Energy Conversion Systems, appeals should be made in accordance with the established procedures of the Burt County Zoning Regulations.