

**MEETING OF THE PLANNING COMMISSION OF
JOHNSON COUNTY, KANSAS, HELD TUESDAY, DECEMBER 14, 2021**

A regular meeting of the Planning Commission of Johnson County, Kansas (hereinafter "Planning Commission"), was held on Tuesday, December 14, 2021, with the following members being present and participating, to wit:

Michael Levin	James Neese, Chairperson Pro Tem
Lindsay Grise	Mark Huggins
George Lund	Dave Johns
Randall Downing	Kelley Rast
Roger Mason	

WHEREUPON, there came before the Planning Commission for consideration the matter of recommending certain amendments to the Johnson County Code, Part III, Zoning and Subdivision Regulations, of Johnson County, Kansas (hereinafter "Zoning Regulations") and certain amendments to the Johnson County Rural Comprehensive Plan (hereinafter "Rural Comprehensive Plan"), as adopted by the Board of County Commissioners of Johnson County, Kansas (hereinafter "BOCC"); and

WHEREUPON, the Planning Commission, being fully advised in the matter and after thorough discussion and careful deliberation, upon a motion duly made, seconded and carried, adopted the following Resolution, to wit:

A RESOLUTION RECOMMENDING CERTAIN AMENDMENTS TO: 1) THE JOHNSON COUNTY CODE, PART III, ZONING AND SUBDIVISION REGULATIONS OF JOHNSON COUNTY, KANSAS; AND 2) THE JOHNSON COUNTY RURAL COMPREHENSIVE PLAN; RELATING TO THE PROVISION OF SOLAR FACILITIES

Resolution No. PC 21-1

PART I: ZONING REGULATIONS

WHEREAS, the Planning Commission was created and operates under the provisions of K.S.A. 19-2956 *et. seq.* and any amendments thereto; and

WHEREAS, K.S.A. 19-2960 and 19-2961 provides that the Planning Commission, with the approval of the BOCC, may provide for the adoption of Zoning Regulations for the county; and

WHEREAS, pursuant to the authority and under the requirements of K.S.A. 19-2956, *et seq.*, the BOCC adopted Zoning Regulations on March 17, 1994 by the adoption of Resolution No. 019-94; and

WHEREAS, K.S.A. 19-2960 and 19-2961 provide that after adoption of the Zoning Regulations, the Zoning Regulations may from time to time be supplemented, changed or generally revised by amendment; and

WHEREAS, pursuant to the authority of K.S.A. 19-2960 and 19-2961 the BOCC adopted amendments to the Zoning Regulations on February 8, 1996, by adoption of Resolution No. 014-96; and July 25, 1996, by adoption of Resolution No. 078-96; and June 19, 1997, by adoption of Resolution No. 060-97; and June 26, 1997, by adoption of Resolution No. 048-97; and July 24, 1997, by adoption of Resolution No. 082-97; and March 12, 1998, by adoption of Resolution Nos. 028-98 and 029-98; and August 20, 1998, by adoption of Resolution No. 085-98; and April 12, 1999, by adoption of Resolution No. 023-99; and March 16, 2000, by adoption of Resolution No. 020-00; and November 16, 2000, by adoption of Resolution No. 072-00; and February 7, 2002, by adoption of Resolution No. 008-02; and March 28, 2002, by adoption of Resolution No. 021-02; and July 31, 2003, by adoption of Resolution No. 057-03; and September 25, 2003, by adoption of Resolution No. 072-03; and April 21, 2005, by adoption of Resolution No. 036-05; and June 23, 2005, by adoption of Resolution No. 052-05; and June 29,

2006, by adoption of Resolution No. 052-06; and January 25, 2007, by adoption of Resolution No. 007-07; and October 11, 2007, by adoption of Resolution No. 077-07; and February 14, 2008, by adoption of Resolution No. 009-08; and August 28, 2008, by adoption of Resolution No. 065-08; and December 11, 2008, by adoption of Resolution No. 092-08; and June 25, 2009, by adoption of Resolution No. 045-09; and October 8, 2009, by adoption of Resolution No. 076-09; and November 12, 2009, by adoption of Resolution No. 084-09; and January 6, 2011, by adoption of Resolution No. 002-11; and May 19, 2011, by adoption of Resolution No. 022-11; and February 9, 2012, by adoption of Resolution No. 004-12 ; and March 7, 2013, by adoption of Resolution No. 009-13; and September 12, 2013, by adoption of Resolution No. 049-13; and May 1, 2014, by adoption of Resolution No. 022-14; and April 14, 2016, by adoption of Resolution No. 029-16; and November 16, 2017, by adoption of Resolution No. 071-17, and October 25, 2018, by adoption of Resolution No. 088-18; and

WHEREAS, on May 19, 2011, the BOCC approved Resolution No. 024-11, which adopted the Johnson County Code and incorporated, among other things therein, the Zoning Regulations, and any amendments thereto.

PART II: RURAL COMPREHENSIVE PLAN

WHEREAS, the Planning Commission was created and operates under the provisions of K.S.A. 19-2956 et seq., and any amendments thereto; and

WHEREAS, K.S.A. 19-2958 provides that the Planning Commission, with the approval of the BOCC, may make or cause to be made a Comprehensive Plan for coordinated development of the county; and

WHEREAS, pursuant to the authority and under the requirements of K.S.A. 19-2956, et seq., the BOCC adopted its Comprehensive Plan, which document is now known as The Rural Comprehensive Plan, A Plan for the Unincorporated Area of Johnson County, Kansas

(hereinafter “Rural Comprehensive Plan”, “Comprehensive Plan” or “Plan”), on June 26, 1986, by adoption of Resolution No. 71-86, and which Plan has subsequently been amended, changed or revised on August 22, 1991, by Resolution No. 081-91; and on March 17, 1994, by adoption of Resolution No. 020-94; and on February 8, 1996, by adoption of Resolution No. 013-96; and on July 23, 1998, by adoption of Resolution No. 078-98 and Resolution No. 079-98; and on July 29, 1999, by adoption of Resolution No. 068-99; and on June 15, 2000, by adoption of Resolution No. 052-00; and on June 3, 2004, by adoption of Resolution No. 048-04; and on December 16, 2004, by adoption of Resolution No. 111-04; and on January 25, 2007, by adoption of Resolution No. 006-07; and on October 11, 2007, by adoption of Resolution No. 078-07; and on November 19, 2009, by adoption of Resolution No. 071-09; and on January 21, 2010, by adoption of Resolution No. 009-10; and on December 12, 2013, by adoption of Resolution No. 068-13; and on April 2, 2015, by adoption of Resolution No. 013-15; and on August 20, 2015, by adoption of Resolution No. 038-15; and on August 1, 2019, by adoption of Resolution No. 033-19; and

WHEREAS, in accordance with K.S.A. 19-2958, following adoption of the Comprehensive Plan, the Planning Commission (i) is required to annually review the Plan for the purpose of determining if any portion of the Plan has become obsolete, and shall make a report to the BOCC regarding the same on or before June 1 of each year; and (ii) may at any time after adoption of the Plan or part thereof, review or reconsider such Plan or part thereof so adopted and may propose, by resolution, any amendments, extensions or additions to the same.

PART III: REVIEW AND RECONSIDERATION

WHEREAS, the Planning Commission has recently again reviewed and reconsidered the Zoning Regulations and the Rural Comprehensive Plan, and after much discussion held a

public hearing to consider certain proposed amendments, updates and revisions to the Zoning Regulations and the Rural Comprehensive Plan; and

WHEREAS, the Planning Commission held a public hearing on November 16, 2021, to consider proposed amendments to the Zoning Regulations and the Comprehensive Plan; and

WHEREAS, after receiving public comment at the public hearing, the public hearing was closed on November 16, 2021, but consideration and discussion of the proposed amendments were continued to a public meeting held on December 14, 2021; and

WHEREAS, a public meeting was held by the Planning Commission on December 14, 2021, to consider the advisability of adopting certain proposed amendments, updates and revisions to the Zoning Regulations and the Comprehensive Plan; and

WHEREAS, following the public hearing, the Planning Commission deemed it advisable, and in the best interest of the public health, safety and welfare to adopt the same and forwarded its recommendation to the BOCC; and

WHEREAS, having held a public hearing and having reviewed the record and submitted evidence, comments and testimony, the Planning Commission on December 14, 2021, deemed it advisable to recommend to the BOCC the adoption of the proposed amendments to the Zoning Regulations as more fully described in “Exhibit A” attached hereto, and amendments to the Rural Comprehensive Plan as more fully described in “Exhibit B” attached hereto;

IT IS, THEREFORE, HEREBY RESOLVED by the Planning Commission of Johnson County, Kansas, that:

1. RECOMMENDED AMENDMENTS AND ADDITIONS TO THE RURAL COMPREHENSIVE PLAN AND THE ZONING REGULATIONS. The Planning Commission hereby recommends that the BOCC officially amend the Johnson County Rural

Comprehensive Plan and the Johnson County Code, Part III, Zoning and Subdivision Regulations of Johnson County, Kansas, as set forth in Exhibit A and Exhibit B, attached hereto.

2. SUBMITTAL OF AMENDMENTS. A certified copy of the recommended amendments, updates and revisions to the Zoning Regulations and the Rural Comprehensive Plan shall be officially submitted to the BOCC for its consideration of final approval.

3. REFORMATTING. The Planning Commission also recommends that following the official adoption of the amendments, updates and revisions to the Zoning Regulations and the Rural Comprehensive Plan, that said amendments, updates and revisions should be reformatted, as may be necessary, and thereafter published in binder form.

ADOPTED THIS 14TH DAY OF DECEMBER, 2021.

**PLANNING COMMISSION
OF JOHNSON COUNTY, KANSAS**

James Neese
Chairperson Pro Tem

PREPARED AND REVIEWED BY:

Jay C. Leipzig, AICP
Director, Planning, Housing & Community Development

APPROVED AS TO FORM:

Richard J. Lind
Assistant County Counselor

Resolution No. PC 21-1

CERTIFICATION

I, James Neese, Chairperson Pro Tem of the Planning Commission of Johnson County, Kansas (‘Planning Commission’) do hereby certify on this 14th day of December, 2021, that the attached copy of the proposed changes and/or additions to the Zoning Regulations (Exhibit A) and the Comprehensive Plan (Exhibit B), which are recommended by the Planning Commission for approval and adoption by the Board of County Commissioners of Johnson County, Kansas, as amendments, additions, deletions, updates, and revisions to the Zoning Regulations and the Rural Comprehensive Plan, are true and accurate copies of said documents.

James Neese
Chairperson Pro Tem

**JOHNSON COUNTY PLANNING
COMMISSION RESOLUTION NO. PC 21-1**

Exhibit A

**Zoning Regulation Amendments
regarding
Solar Facilities**

ZONING REGULATIONS

ARTICLE 2: DEFINITIONS

A. Article 2, the introductory title of Section 2 and Section 3 of the Zoning and Subdivision Regulations of Johnson County, Kansas, shall be, and hereby are amended to include the following terms and definitions, plus the addition of a new Section 2(F), which amendments and additions shall read as follows:

Section 2. SPECIAL INDEXES FOR TERMS RELATED TO AIRPORTS, FLOOD PLAINS, SIGNS, SUBDIVISIONS, ~~AND~~ COMMUNICATION TOWERS, AND SOLAR FACILITIES:

F. Index of defined terms which may be of particular interest for Solar Facilities:

1. Battery Energy Storage Facilities
2. Battery Energy Storage System (BESS)
3. Battery Management System (BMS)
4. Photovoltaics or PV
5. Photovoltaics, Integrated or PV, Integrated
6. Rated Capacity
7. Solar Facility
8. Solar Facility Area
9. Solar Facility Decommissioning and Reclamation Plan
10. Solar Facility Project Area or "Project Area"
11. Solar Facility, Medium-Scale
12. Solar Facility, Small-Scale
13. Solar Facility, Utility-Scale
14. Solar Photovoltaics Panel Coverage
15. Tree, Mature Deciduous
16. Tree, Mature Evergreen
17. Trees, Stand of Mature

Section 3. DEFINITIONS OF BASIC TERMS:

“Battery Energy Storage Facilities”

One or more battery cells for storing electrical energy in a Battery Energy Storage System (“BESS”) with a Battery Management System (“BMS”).

“Battery Energy Storage System (BESS)”

A physical container providing secondary containment to battery cells that is equipped with cooling, ventilation, fire suppression, and a Battery Management System.

“Battery Management System (BMS)”

An electronic regulator that manages a Battery Energy Storage System by monitoring individual battery module voltages and temperatures, container temperature and humidity, off-gassing of combustible gas, fire, ground fault and DC surge, and door access and capable of shutting down the system before operating outside safe parameters.

“Photovoltaics” or “PV”

Materials and devices, including photovoltaic panels, that absorb sunlight and convert it directly into electricity. The terms “Photovoltaics” and “PV” shall be considered to be interchangeable.

“Photovoltaics, Integrated” or “PV, Integrated”

Photovoltaics incorporated into building materials, such as shingles. The terms “Integrated Photovoltaics” and “Integrated PV” shall be considered to be interchangeable.

“Rated Capacity”

The maximum capacity of a Solar Facility based on the sum of each photovoltaic system’s nameplate capacity reported as Watts Direct Current (W_{DC}) or Watts Alternating Current (W_{AC}).

“Solar Facility”

An area of land used for converting sunlight into electricity including the necessary equipment for generating electricity, which shall include Photovoltaics, and may also include charge regulators; inverters; associated fencing, landscaping, parking lots, and PV support structures (which may include buildings); and, where permitted by these regulations, electrical substations and Battery Energy Storage Facilities.

“Solar Facility Area”

The total area of land (calculated in acres) encompassed by a Solar Facility. For Small-Scale Solar Facilities, the Solar Facility Area shall be the total area encompassed by Photovoltaics and associated battery cells and equipment cabinets. For Medium-Scale and Utility-Scale Solar Facilities, the Solar Facility Area shall be the Project Area.

“Solar Facility Decommissioning and Reclamation Plan”

A plan to disconnect, remove, and properly dispose of equipment, facilities, or devices of a Solar Facility and reclaim the site.

“Solar Facility Project Area” or “Project Area”

For Utility-Scale Solar Facilities and Medium-Scale Solar Facilities, the sum total of the area designated within the associated conditional use permit (CUP) application as a participating part of the CUP.

“Solar Facility, Medium-Scale”

A Solar Facility with a Solar Facility Area of between one to ten acres.

A facility of this size is typically equivalent to a rated capacity of 250 kW to less than one megawatt (MW) alternating current. Such facilities are primarily used to reduce onsite consumption of utility power for commercial and industrial applications, but may also be used to provide electricity to a utility provider.

“Solar Facility, Small-Scale”

A Solar Facility located on a Solar Facility Area of less than one acre.

A facility of this size is typically equivalent to a rated capacity of ten kilowatts (kW) to less than 250 kW alternating current. Such facilities are used to reduce onsite consumption of utility power.

“Solar Facility, Utility-Scale”

A Solar Facility located on a Solar Facility Area of more than ten acres.

A facility of this size is typically equivalent to a rated capacity of one megawatt (MW) alternating current or greater. Such facilities are used to provide electricity to a utility provider.

“Solar Photovoltaics Panel Coverage”

The total acres covered by groupings of photovoltaic panels (referred to as “PV pods”) including spaces between panels but excluding driveways, wildlife corridors, required setbacks, wetlands, and the like. The phrase “Solar Photovoltaics Panel Coverage” shall be interchangeable with “Solar PV Panel Coverage”.

“Tree, Mature Deciduous”

A deciduous tree in which: 1) its trunk is over eight (8) inches in diameter when measured two (2) feet above its base or 2) is over 25 ft. in height.

“Tree, Mature Evergreen”

An evergreen tree which is a minimum of five (5) feet in height.

“Trees, Stand of Mature”

An area of one-half (1/2) acre (21,780 sq. ft.) or more containing Mature Trees in an amount adequate to form a continuous canopy or nearly continuous canopy. (The canopy may be determined from resources such as, but not limited to, aerial photography or field surveys.)

B. All of the terms and provisions of Article 2 of the Zoning and Subdivision Regulations of Johnson County, Kansas, shall remain the same, except for the above designated additions and amendments.

ZONING REGULATIONS

ARTICLE 18: ACCESSORY STRUCTURES, BUILDINGS AND USES

A. Article 18, Section 6(F) of the Zoning and Subdivision Regulations of Johnson County, Kansas, shall be, and hereby is amended to read as follows:

Section 6. ACCESSORY BUILDINGS AND STRUCTURES IN GENERAL:

F. ~~Solar Collectors: Solar collectors~~ Small-Scale Solar Facilities: Small-Scale Solar Facilities shall be permitted for the purpose of reducing onsite consumption of utility power, provided that the following performance standards are met:

1. Roof-mounted ~~residential building solar collectors~~ photovoltaic panels located on front or side building roofs visible from the public right-of-way shall not extend above the peak of the roof plane where it is mounted and no portion of any such ~~solar collector~~ photovoltaic panel shall extend more than 24 inches as measured perpendicularly to the roof at the point where it is mounted.
2. Roof-mounted ~~residential building solar collectors~~ photovoltaic panels located on the rear or interior side building roofs shall not extend above the peak of the roof plane where it is mounted and no portion of any such ~~solar collector~~ photovoltaic panel shall extend more than four feet as measured perpendicularly to the roof at the point where it is mounted.
3. Ground-mounted ~~solar collectors~~ photovoltaic panels shall not exceed ~~40~~ 12 feet in total height and shall be located ~~within the rear yard~~ at least 12 feet inside the property lines. For lots with an area of less than 10 acres, photovoltaic panels shall not be located in the front yard.
4. All utility service lines serving a ground-mounted ~~solar system~~ photovoltaic panels shall be located underground.
5. ~~Any system incorporated into a nonresidential building shall be integrated into the basic form and main body of the building. If roof mounted, all collector panels shall fit into the form of the roof; if the building's roof is sloped or if "rack" mounting is used on a flat roof, the mounting must be concealed from view at street level. Exposed rack supports and freestanding collectors apart from the main building shall not be permitted.~~
6. ~~Roof mounted solar energy systems mounted on "accessory or detached buildings" are allowed on detached garages or swimming pool equipment buildings. Detached "greenhouses" are also acceptable. All such energy systems mounted on accessory or detached buildings shall conform to the requirements outlined in paragraphs F(1) and F(2) above. No freestanding panels or panel racks shall be allowed.~~

~~75. If an active solar or photovoltaic solar system is utilized, all All components servicing ~~the collector~~ photovoltaic panels shall be concealed including mechanical piping, electrical conduits, and the like.~~

~~8— All exposed metal, including the framework of active collector panels or exposed mullions and framework of passive systems shall be colored to visually blend into the surroundings.~~

6. Battery energy storage associated with the Small-Scale Solar Facility shall be limited to 50 kW.

B. All of the terms and provisions of Article 18 of the Zoning and Subdivision Regulations of Johnson County, Kansas, shall remain the same, except for the above designated additions and amendments.

ZONING REGULATIONS

ARTICLE 23: CONDITIONAL USE PERMITS

- A. Article 23, Section 4(A)(1) and Section 4(A)(17) of the Zoning and Subdivision Regulations of Johnson County, Kansas, shall be, and hereby are amended to read as follows, plus the addition of new Section 4(L) and new Section 6(B)(14), which shall read as follows:

Section 4. CONDITIONAL USES WHICH MAY BE APPROVED IN CERTAIN ZONING DISTRICTS:

- A. GROUP A: Conditional uses, such as the following, may be approved by the Board in any zoning district other than the Planned Research and Development Park District (PEC-1) and other than in the Planned Adult Entertainment District (PAE) as provided in these regulations:
1. Accessory buildings or structures larger than; or accessory buildings in greater quantities than permitted by Article 18 of these regulations; accessory buildings not clearly consistent with the character of the residential neighborhood; accessory buildings located in the front yard which meet the qualifying conditions set forth in Article 18, Section 6(A)(2)(b) of these regulations, provided that the provisions of Section 6(B)(12) of this Article are satisfied; accessory satellite antennae that would not comply with Article 18, Section 6(E) of these regulations; and accessory ~~solar collectors~~ Small-Scale Solar Facilities that would not comply with Article 18, Section 6(F) of these regulations.

Section 4. CONDITIONAL USES WHICH MAY BE APPROVED IN CERTAIN ZONING DISTRICTS:

- A. GROUP A: Conditional uses, such as the following, may be approved by the Board in any zoning district other than the Planned Research and Development Park District (PEC-1) and other than in the Planned Adult Entertainment District (PAE) as provided in these regulations:
17. Privately owned and not publicly or quasi-publicly owned utility substations, water treatment or distribution facilities, pipeline terminals, telephone switching or transmission stations, power plants, electrical distribution or transformer stations, wastewater treatment plants, and the like. Notwithstanding the above, Medium-Scale Solar Facilities, Utility-Scale Solar Facilities and Battery Energy Storage Facilities are not allowed under this provision, but may be applied for under the provisions of a Group AA conditional use permit.
- Privately owned electric substations may be applied for separately, as an individual use under Group A conditional uses. Publicly or quasi-publicly owned electric substations may be applied for separately, as an individual use, under the provisions of a Special Permit in accordance with Article 33 of these

regulations. Privately, publicly or quasi-publicly owned electric substations may also be applied for in association with a Utility-Scale Solar Facility as part of a Group AA conditional use.

Section 4. CONDITIONAL USES WHICH MAY BE APPROVED IN CERTAIN ZONING DISTRICTS:

L. GROUP AA: In the Rural District (RUR) and the following four Planned Employment Center Districts: the Planned Research, Development, and Office Park District (PEC-2), the Planned Research, Development and Light Industrial Park District (PEC-3); the Planned Industrial Park District (PEC-4); and the Planned Logistics Park District (PEC-LP); the following conditional uses may be approved by the Board subject to the provisions of Section 6(B)(14) of this Article:

1. Medium-Scale Solar Facilities, which may additionally be located in the Planned Retail Business Districts (PRB-1A, PRB-1, PRB-2 and PRB-3); and which may include associated Battery Energy Storage Facilities; and
2. Utility-Scale Solar Facilities, which may include associated Battery Energy Storage Facilities.

Privately owned electric substations may be applied for separately, as an individual use under Group A conditional uses. Publicly or quasi-publicly owned electric substations may be applied for separately, as an individual use, under the provisions of a Special Permit in accordance with Article 33 of these regulations. Privately, publicly or quasi-publicly owned electric substations may also be applied for in association with a Utility-Scale Solar Facility as part of a Group AA conditional use.

Battery Energy Storage Facilities are only allowed if associated with a Medium-Scale Solar Facility or a Utility-Scale Solar Facility as part of a Group AA conditional use.

Section 6. STANDARDS FOR CONDITIONAL USES:

B. Special Development and Performance Standards, plus Special Provisions for certain Conditional Uses:

14. Solar Facilities, excluding Small-Scale Solar Facilities:

Within this subsection, use of the term “US Solar Facility” shall refer to “Utility-Scale Solar Facility”, “MS Solar Facility” shall refer to “Medium-Scale Solar Facility”, and “SS Solar Facility” shall refer to “Small-Scale Solar Facility”, unless otherwise specified.

- a. **Preface:** The purpose of these application requirements and performance standards regarding Solar Facilities is to establish requirements for construction and operation of Medium-Scale and Utility-Scale Solar Facilities (excluding Small-Scale Solar Facilities, which are allowed

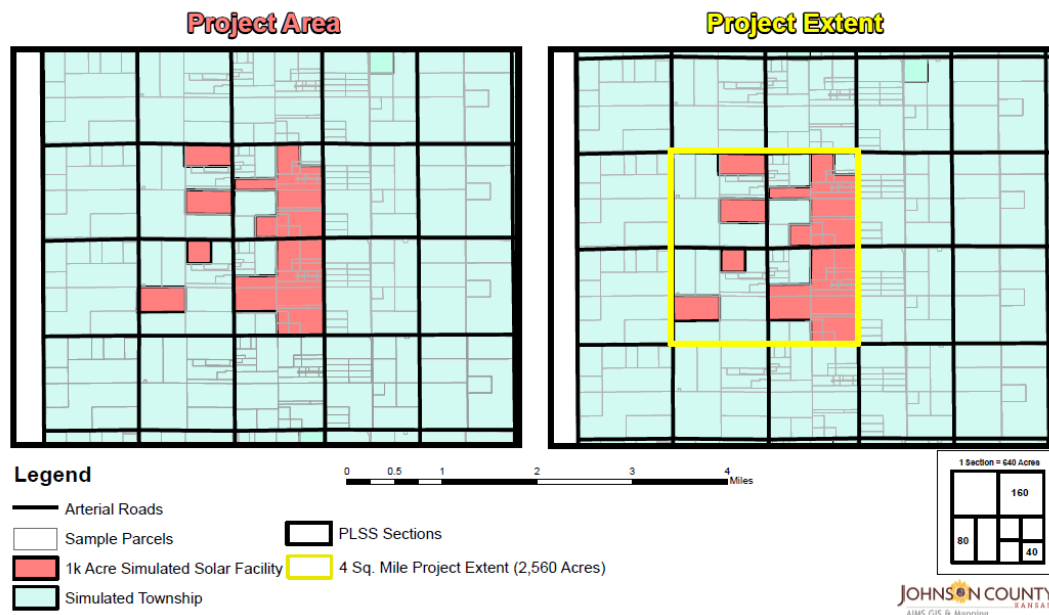
pursuant to Article 18, Section 6(F) of these regulations) and to provide standards for the placement, design, construction, monitoring, modification, and removal of such facilities; address public safety; minimize impacts on scenic, natural, and historic resources; and provide adequate financial assurance for decommissioning; as further discussed in more detail in Chapter 2, Land Use Plan, of the *Johnson County Rural Comprehensive Plan*.

b. Utility-Scale Solar Facility General Provisions:

1. Project Area, Project Boundary, Project Extent, US Solar Facility, PV Pods, and Buffer Zone: The area included in the Development Plan and designated within the conditional use permit (CUP) application as a participating part of the CUP, may include multiple parcels and portions of parcels, which may be leased parcels or leased areas of parcels, and, for purposes of Subsection 6(B)(14) of this Article, the sum total of this area shall be known and referred to as the Project Area and the boundaries around these collected areas shall be known and referred to as the Project Boundary. The function of the Project Area is to accommodate a single US Solar Facility. The Project Area does not include property that is not controlled by nor participating as part of the conditional use permit. Furthermore,
 - a) All parcels and portions of parcels within the Project Area, when taken collectively, may or may not form one solid area (e.g. when separated by streets), and may form a collection of areas. The Project Boundary shall include the boundaries around these collected areas and shall also run along streets abutting the Project Area;
 - b) The area within the Project Area shall be considered a single US Solar Facility. However, any portion of the Project Area shall not be located more than one-half (1/2) mile from the balance of the Project Area, or else such portion greater than one-half (1/2) mile shall be considered a separate US Solar Facility application;
 - c) The equipment within a US Solar Facility shall include photovoltaic (PV) panels, which are often organized into groupings referred to as PV pods, and may also include charge regulators, inverters, substations (which are also referred to as transformers), Battery Energy Storage Facilities and associated uses and structures including but not limited to parking areas and fencing;
 - d) A Buffer Zone within the Project Area shall be established for the purpose of mitigating the effects of the US Solar Facility upon surrounding properties located outside of the Project Area and the

community at large, and, therefore, shall be an area reserved for open space, groundcover, landscaping, and berming, and which shall be located between the Project Boundary or, if applicable, the Official Street Line, whichever is nearest to the structures associated with the US Solar Facility, and the required Project Boundary setback; and

- e) A Project Extent encompassing all of the parcels and lease parcels comprising the Project Area shall be established for the purpose of determining the geographical extent to which the proposed US Solar Facility is distributed. The Project Extent is defined as the area of the smallest rectangle that encompasses the Project Area in its entirety. Examples of a Project Area and a Project Extent are illustrated below.



This illustration is for comparison purposes only to describe the Project Area and Project Extent.

- 2. Neighborhood Meeting: A neighborhood meeting shall be held prior to the public hearing with the applicable zoning board to give the community an opportunity to hear from the applicant and ask questions regarding the proposed project.

- a) The applicant shall provide individual notice, in writing, to: 1) all owners of record of lands located within 1,000 feet of the Project Boundary as indicated on the certified list of such owners provided with the application, 2) all cities within two (2) miles of the Project Boundary, and 3) the Zoning Administrator; of the date, time, and location of the meeting, at least seven but no more than 14 days, in advance of the meeting date.

- b) The date, time, and location of the meeting shall be published at least once in a newspaper of general circulation in the area, by the applicant, at least seven but no more than 14 days, in advance of the meeting date.
 - c) The meeting shall be held within the County at a location open to the public with adequate parking and seating facilities which may accommodate persons with disabilities.
 - d) The meeting shall give members of the public the opportunity to review application materials, ask questions of the applicant, and provide feedback.
 - e) Prior to the public hearing held by the zoning board, the applicant shall provide the Zoning Administrator with a summary of any input received from members of the public at the meeting and proof of published and individual written notice of the meeting.
- c. **Utility-Scale Solar Facility Application Requirements:** Each application for a Conditional Use Permit for a US Solar Facility shall be in accordance with this Article which includes the reports and plans required by Article 15 (Development Plan Procedures) and Article 23 (Conditional Use Permits) of these regulations. Furthermore, in order to provide necessary information related to the unique nature of Solar Facilities, the following additional information shall also be included with the application:
- 1. Solar Facility Report: In addition to the Conditional Use Permit Written Narrative required by Subsection 3(B) of this Article, and the Preliminary Development Plan Analysis Report required by Article 15, Section 3(I) of these regulations, a Solar Facility Report shall be submitted providing a detailed description of the project and containing:
 - a) Supplemental Narrative: A narrative giving a general overview of the US Solar Facility, which includes:
 - i) The applicant, owner and the operator of the proposed US Solar Facility,
 - ii) The current uses and physical characteristics of not only the Project Area but also the surrounding area,

- iii) The intended energy provider to interconnect to the US Solar Facility,
- iv) Approximate Rated Capacity of the US Solar Facility project,
- v) Type and location of interconnection to electrical grid as coordinated and pre-approved with the local energy provider,
- vi) A copy of the interconnection agreement with the local energy provider or a written explanation outlining why an interconnection agreement is not necessary,
- vii) Approximate number of panels and representative types,
- viii) The Project Area and Solar Photovoltaic Panel Coverage expressed in acres,
- ix) An inventory with description of all proposed structures and uses including Battery Energy Storage Facilities, inverters, substations, and all structures over 35 ft. in height, and
- x) An inventory of all Solar Facilities within two (2) miles of the Project Boundary, for, among other reasons, the purpose of determining the US Solar Facility separation requirement of the performance standards.

The purpose of the Preliminary Development Plan Analysis Report required in Article 15 of these regulations is to assist the evaluation of the proposal with due regard to its potential impacts by providing a brief summary of the existing conditions and contemplated improvements relative to the proposal.

The purpose of the Conditional Use Permit Written Narrative of this Article is to provide a description of the operation of the proposed use and to address how the proposed use would satisfy the various applicable performance and development standards, including those of Subsection 6(B)(14) and the General Development and Performance Standards of Subsection 6(A) of this Article.

- b) Concept Plan: In addition to the Development Plan required by Subsection 3(A) of this Article, a Concept Plan of the Project Area

consisting of aerial imagery of the Project Area superimposed with the Project Boundary and Project Extent and the general location and arrangement of screening, buffer zones, fencing, tree preservation, structures, PV pods, driveways and entrances, wildlife corridors, floodplain, electric lines and overhead utility lines, and connections to the electrical grid. The intent of the Concept Plan is to be a visual summary of the project. Elevations of structures shall be included with the Concept Plan.

- c) Visual Impact Analysis: A visual impact analysis demonstrating project siting and, if necessary, proposed mitigation to reduce impacts on the visual character of the surrounding area.
 - i) The applicant shall provide accurate, to scale, photographic simulations showing the relationship of the US Solar Facility to its surroundings. The photographic simulations shall show views of US Solar Facility structures and uses from locations such as adjacent roads, dwellings, residential zoning, and historic and recreational areas in order to assess the visual impact of the US Solar Facility.
 - ii) The total number of simulations and the perspectives from which they are prepared shall be established by the Zoning Administrator after the pre-application meeting and will be chosen with the intent of establishing the visual impacts upon sensitive areas potentially receiving the greatest impacts from such a proposal (e.g. dwellings and historic and recreational areas).

2. Development Plan: In addition to the requirements of Article 15, Sections 3 and 6, the Development Plan shall also include the following:

- a) The Project Area, Project Extent and Solar Photovoltaic Panel Coverage expressed in acres.
- b) The Project Boundary, property lines, setback lines, lease lines, Official Street Line and easements within the Project Area.
- c) Location of driveways, parking and entrances onto streets and accompanying site distance reports for such entrances.

- d) Locations and dimensions of all existing and proposed structures, including PV panels, charge regulators, inverters, substations, Battery Energy Storage Facilities, connections to the grid, fencing, and dwellings and associated structures, including the location of all dwellings within 300 ft. of the Project Boundary.
- e) Elevations of structures depicting the style, size and exterior construction materials in sufficient detail to exhibit the relative compatibility of the proposed development with the character of the neighborhood.
- f) A grading plan indicating existing and proposed contours at no greater than two foot (2 ft.) contours.
- g) A stormwater management plan in accordance with the then applicable County standards/regulations and in conformance with the Public Works Stormwater Management Requirements. The stormwater management plan will include, but not be limited to the following sections:
 - i) Water quantity analyses and requirements;
 - ii) Water quality analyses and requirements;
 - iii) Stream buffer analyses and requirements;
 - iv) Post-Construction Stormwater Quality Treatment Regulation requirements; and
 - v) Johnson County and the Federal Emergency Management Agency floodplain regulations/requirements.

The Johnson County Erosion and Sediment Control Regulations for land disturbing activities are not included in the stormwater management plan and shall be addressed separately at time of application and prior to the start of construction.

- g) A landscaping plan in sufficient detail to demonstrate compliance with Subsections 6(B)(14)(d)(7) and (8), which are the ground cover and vegetation preservation requirements and screening requirements of this Article, and to include:

- i) The specifications of proposed ground cover, including seed mixes; screening materials; and herbicides used;
 - ii) The design and specifications of proposed additional vegetative screening for certain dwellings, in compliance with Subsection 6(B)(14)(8)(b)(v) of this Article;
 - iii) Installation and maintenance practices to include the establishment of ground cover and the application of herbicides;
 - iv) Locations of wildlife corridors and details regarding fencing, if any, that accommodates wildlife movement;
 - v) Locations of remnant grasslands and woodlands (which are areas that have not been previously plowed or graded); and
 - vi) Proposed clearing or grading of natural vegetation including Stands of Mature Trees and remnant grasslands and woodlands, which may be a separate plan.
3. Decommissioning and Reclamation Plan: A plan for decommissioning and reclamation of the site shall be submitted as part of the application. The plan shall be certified by a professional engineer licensed in the state of Kansas who has expertise in the removal of US Solar Facilities (e.g. educational knowledge or practical experience) and prepared in sufficient detail to determine compliance with Subsection 6(B)(14)(d)(22) of this Article, which are the decommissioning and reclamation development and performance standards, and which shall include the following:
- a) Lifespan: The anticipated life of the project;
 - b) Implementation: The manner in which the project will be decommissioned and the site reclaimed to include but not limited to plans for stabilizing the soils; regrading, reseeding, and replanting; and disposal and recycling the US Solar Facility materials, including but not limit to PV panels, inverters and batteries; and
 - c) Estimated Costs of Decommissioning and Reclamation: A detailed cost estimate for decommissioning and reclamation of the US Solar Facility in accordance with the Decommissioning and Reclamation

Plan submitted per this subparagraph shall be prepared and shall accomplish the following:

- i) explicitly detail the cost and manner in which the estimate was determined;
 - ii) establish the full amount of the estimated decommissioning and reclamation cost without regard to the possibility of salvage value; and
 - iii) reflect the costs of decommissioning and restoration of the Project Area in accordance with Subsection 6(B)(14)(d)(22) of this Article, which are decommissioning and reclamation development and performance standards.
4. Traffic Plan: A preliminary traffic plan describing estimated travel routes and trip volumes during the construction and decommissioning processes. Public road improvement, repair and maintenance is further addressed within Subsection 6(B)(14)(d)(18)(b) of this Article.
 5. Construction Management Plan: A construction management plan to include an estimated construction schedule and hours of operation.
 6. Environmental Impact Assessment: An environmental impact assessment in accordance with Subsection 6(A)(6) of this Article, to also include an assessment of viewshed impacts, including impacts on national or state forests and grasslands, national or state parks, County or city parks, wildlife management areas, conservation easements, recreational areas, or any known historic or cultural resources within one (1) mile of the Project Boundary.
 7. Airport Studies: For the purpose of determining impacts on area airports, a glare impact study and/or an airspace study in accordance with, and if required by, Federal Aviation Administration (FAA) requirements.
 8. Application Review Time: Application review for Conditional Use Permits for US Solar Facilities may be increased from the typical time period of 45 days from time of application to the public hearing held by the Zoning Board and published in accordance with Article 4, Section 2(B) of these regulations. Such determination to require an increased time period shall be made by the Zoning Administrator based upon the

size and complexity of the application as determined by factors that include but are not limited to the number of third-party reviews to be coordinated and completed and the Project Area of the US Solar Facility.

9. List of Non-Participating Parcels Surrounded on two (2) or more sides of a US Solar Facility. Applicant shall provide a list and map identifying all non-participating parcels that are surrounded on two or more sides of a US Solar Facility.

d. **Utility-Scale Solar Facility Development and Performance Standards:**

- 1) Permit Term of US Solar Facilities: A conditional use permit for a US Solar Facility may be approved for a period not to exceed twenty (20) years.
- 2) Locational and Dimensional Standards for Solar Facilities: The locational and dimensional standards indicated below for solar facilities are intended to mitigate the adverse effects of such uses on adjoining property owners, the surrounding area, and future development within the County.
 - a) The minimum Project Area of a Utility-Scale Solar Facility shall be more than ten (10) acres in size, and the maximum Project Area shall not exceed 1,000 acres.
 - b) The maximum Project Extent of a US Solar Facility shall be four (4) square miles (which is 2,560 acres).

Waiver: In the event that an applicant desires to deviate from this Project Extent requirement, the application may only be approved if findings are made by the Board of County Commissioners that the proposed use is in keeping with or does not conflict with planned uses for the area, that the distance between non-abutting tracts does not exceed one-half mile in distance, and the deviation from the maximum project extent does not create adverse impacts on adjoining properties. The applicant shall submit written information to the BOCC indicating the circumstances which are believed to necessitate the need for a deviation from the locational requirement.

- c) The percentage of Solar Photovoltaic Panel Coverage in relation to the Project Area shall not exceed 70%.

- d) Such Solar Facilities shall be located greater than two (2) miles from any city limits, with the exception of non-contiguous areas of a city (which are also known as “islands”) that are less than 80 acres in size, from which there shall not be such a requirement.

Waiver: In the event that an applicant desires to deviate from this locational requirement, the application may only be approved if findings are made by the Board of County Commissioners that the proposed use is in keeping with or does not conflict with planned uses for the area (e.g. city staff indicates in writing that the proposal is not anticipated in the future to hinder or prevent the proper growth and development of the city). The applicant shall submit written information to the BOCC indicating the circumstances which are believed to necessitate the need for a deviation from the locational requirement. The applicant shall also submit a copy of the waiver request to cities within two (2) miles of the Project Boundary for review and city comments will be provided to the BOCC as part of consideration for the waiver request.

- e) Such Solar Facilities shall be located greater than one (1) mile from the boundary of the Executive Airport and New Century AirCenter properties.

Waiver: In the event that an applicant desires to deviate from this locational requirement, the application may only be approved if the waiver request is reviewed by the Johnson County Airport Commission (JCAC) and findings are made by the Board of County Commissioners (BOCC) that the proposed use does not adversely impact airport operations. The applicant shall submit written information to the BOCC and JCAC indicating the circumstances which are believed to necessitate the need for a deviation from the locational requirement. However, in no case shall this waiver provision be interpreted to countermand FAA requirements.

- f) Solar facilities shall be located more than two (2) miles from an existing or permitted US Solar Facility Project Boundary that is located within unincorporated Johnson County.

3) Setbacks:

- a) Project Boundary Setbacks: To minimize adverse impacts upon surrounding properties and the community at large, the setback of structures associated with the US Solar Facility from the Project Boundary or, if applicable, the Official Street Line, whichever is nearest to such structures, shall be a minimum of 50 feet, with the

exception that substations and Battery Energy Storage Facilities shall be a minimum of 150 feet. Such structures include fencing and PV panels, but do not include landscaping and berming.

- b) Interior Setbacks: The minimum setback of US Solar Facility structures from property lines that are within the Project Area but that are not coincident with the Project Boundary shall be in accordance with the requirements set forth in the underlying zoning district, with the exception that PV panels and their racking system shall not have a minimum setback requirement. Furthermore, the setbacks of structures associated with the US Solar Facility from the Project Boundary shall have a different requirement, as set forth in Subparagraph (a), above.

- c) Setbacks from Dwellings: To minimize adverse impacts upon nearby surrounding residential uses located outside of the Project Area, the minimum setback of structures and uses associated with the US Solar Facility, including fencing and PV panels, but not including landscaping and berming, shall be not less than 250 feet from all dwellings that are located outside of the Project Area and existing at the time the US Solar Facility was approved by the Board of County Commissioners.

- d) Additional Setbacks from Non-Participating Parcels Surrounded on Two (2) or More Sides by a Utility-Scale Solar Facility: If a Project Area abuts a non-participating parcel on two (2) or more sides or more than 50% of the exterior property lines, then the setbacks shall be increased an additional 50 feet along the shared property line according to the minimum setback requirements set forth in Subsections 6(B)(14)(d)(3)(a) and (c). This additional setback shall not apply to setbacks within the Project Area (interior setbacks). Furthermore, additional screening may be required in addition to the minimum requirements set forth in Subsection 6(B)(14)(d)(8) of this Article. For the purpose of this section, "non-participating parcel" shall mean a parcel that is not located within the Project Area.

Waiver: In the event that an applicant desires to deviate from the above setback requirements, the application may only be approved if findings are made by the Board of County Commissioners that a) due to the circumstances surrounding the application, it would be unreasonable to require such a setback, or b) it would be reasonable to allow structures and uses closer to the Project Boundary or the Official Street Line (e.g. it may be reasonable to reduce the required setback for portions of the Project Area abutting Planned Employment Center District Zoning). However, in no case shall a structure be allowed to

encroach upon the Official Street Line. The applicant shall submit written information to the BOCC indicating the circumstances which are believed to necessitate the need for a deviation from the setback requirement.

- 4) Height: The height requirements of structures associated with Solar Facilities shall be as follows:
- a) The maximum height of the lowest edge of the photovoltaic panels shall be 10 feet and the maximum height of the highest edge of the photovoltaic panels shall be 15 feet, as measured from the finished grade; and
 - b) The maximum height of all other structures associated with the US Solar Facility shall be 35 feet as measured from the finished grade at the base of the structure to its highest point, including appurtenances, with the exception of security fencing as indicated in Subparagraph (5), below, and with the exception of electrical power transmission lines, which are exempt from height requirements per Article 17, Section 4(A) of these regulations.

Waiver: In the event that an applicant desires to deviate from the height requirement, the application may only be approved if findings are made by the Board of County Commissioners that a) due to the circumstances surrounding the application, it would be unreasonable to require such a maximum height, or b) it would be reasonable to allow a greater height (e.g., it may be reasonable to allow a greater height in association with particular types of equipment, such as those associated with substations). The applicant shall submit written information to the BOCC indicating the circumstances which are believed to necessitate the need for a deviation from the height requirement.

- 5) Security Fencing: For the purpose of providing security, US Solar Facility equipment and structures may be enclosed by security fencing not more than 12 feet in height. The fencing material may be chain link but shall not include slats.

If utilized, security fencing shall be placed around sections of PV pods and other structures rather than around the Project Boundary in its entirety, in order to provide pathways between the sections for the purpose of allowing the movement of wildlife.

The use of permeable fencing, which is constructed to allow wildlife to pass through the fence, is encouraged. Woven wire fencing with larger holes than a traditional chain link fence is an example of fencing that

accommodates wildlife.

- 6) Wildlife Corridors: Access corridors for wildlife to navigate through the US Solar Facility shall be provided and shown on the Concept Plan and Development Plan submitted to the County. Driveways within the Project Area may be considered a type of wildlife corridor.

- 7) Ground Cover and Vegetation Preservation:
 - a) Ground Cover: For the purpose of preventing erosion and managing runoff, disturbed land, to include land under and around the PV panels and the Buffer Zone, shall be seeded with a revegetation seed mix based on prairie grasses and forbs native to the Midwest United States, which includes pollinator plants where compatible with site conditions (e.g. due to their height, some pollinator plants should not be established underneath PV panels). The intent of such seeding is to establish a short stature prairie with a diversity of grasses and wildflowers that bloom throughout the growing season. Such ground cover shall be continually maintained on the site for the duration of the conditional use permit. A list of seed mixes appropriate for Midwest United States Solar Facilities shall be available at the Johnson County Planning Office.

 - b) Vegetation: US Solar Facilities shall be designed and developed to minimize grading and to protect and preserve Mature Trees, Stands of Mature Trees, treelines, streamways, ponds, and other natural features, and, in particular, remnant grasslands and woodlands (which are areas that have not been previously plowed or graded) to the greatest extent reasonable and practicable.

- 8) Screening: The purpose of screening is to help avoid potential detrimental impacts that may accompany the US Solar Facility use. The required Project Boundary Setbacks and associated Buffer Zone provide a measure of screening by providing increased distance or setbacks from exterior property lines to reduce impacts associated with the US Solar Facility.
 - a) Structures and Areas to be Screened: US Solar Facility structures, including security fencing that is not ornamental, PV panels, equipment cabinets, substations, Battery Energy Storage Facilities, parking areas, and outdoor storage, if allowed, shall be screened when visible from any road, Residential District, Planned Residential District, Planned Rural District, and any dwelling located outside of the Project Area and existing at the time the US Solar Facility was approved by the Board of County Commissioners.

- b) Screening Methods: In addition to the Buffer Zone, the applicant shall use one or a combination of methods listed in this section, or other comparable methods deemed equivalent by the Zoning Administrator, to satisfy the screening requirements. The method or methods proposed by the applicant shall screen ground level views and activity. Such screening shall be located within the Buffer Zone and outside of security fencing and may also be required in other locations to screen specific uses or structures, such as substations and Battery Energy Storage Facilities. Screening shall not encroach upon the Official Street Line. The Board may approve a plan to allow phased screening based on special or unique conditions of the use or site. The screening required by this section shall be shown on the required Landscaping Plan that is a part of the Development Plan.
- i) Existing Screening: Existing vegetation, topography, buildings, open space, or other elements located on the site may be considered as part of the required screening.
- ii) Landscaping: Landscaping intended for screening shall include a combination of evergreen trees that are 5-6 ft. in height at time of planting and deciduous trees, which may include fruit trees, that are 5-6 ft. in height at time of planting. Trees shall be placed on average at 25 ft. or less on center. A list of appropriate plant materials shall be available at the Johnson County Planning Office.
- iii) Berming: Berms shall generally be constructed with a 3:1 side slope to rise ratio, 4-6 ft. above the adjacent grade, with a 3 ft. wide top (the wide top is necessary to have a flat area for plantings). The outside edges of the berm shall be sculpted such that there are vertical and horizontal undulations to give variations in appearance. When completed, the berm should not have a uniform appearance like a dike. All land berms shall be seeded with a revegetation seed mix based on prairie grasses and forbs native to the Midwest United States to include pollinator plants where compatible with site conditions. A list of seed mixes appropriate for Midwest Solar Facilities shall be available at the Johnson County Planning Office.
- iv) Fencing: Fencing intended for screening shall be at least seventy-five (75) percent visually solid as viewed on any line perpendicular to the fence from adjacent property or a public street. Such fencing may be used in combination with other screening methods but shall not be the primary method, which shall mean for the purposes of this subsection that fencing shall

not be used to screen more than thirty (30) percent of the views required to be screened. A typical example is the use of a combination of wood privacy fencing and landscaping to screen structures such as substations. Depending on the location, such as abutting residential zoning, ornamental features may be required on the fence. Fencing material shall not include chain link fencing with slats.

- v) Additional Screening for Certain Dwellings: In addition to the above screening requirements, any dwelling existing at the time the US Solar Facility was approved by the Board of County Commissioners, that is located 300 ft. or less from the Project Boundary, shall receive additional vegetative screening from views of the US Solar Facility structures. Such vegetative screening shall be located within the Buffer Zone in an area extending at least 75 ft. from either side of the dwelling (but shall not be required in any area outside of the Project Area). The vegetative screening shall be one-hundred (100) percent visually solid as viewed on a line from the dwelling and perpendicular to the Project Boundary. The vegetative screening shall achieve a height of at least eight (8) ft. or the height of the security fencing, whichever is greater, within three (3) years of installation.

- vi) Additional Screening for Non-Participating Parcels Surrounded on Two (2) or More Sides by a Utility-Scale Solar Facility: If a Project Area abuts a non-participating parcel on two (2) or more sides or more than 50% of the exterior property lines of the non-participating parcel, then additional screening may be required in addition to the above screening requirements. Furthermore, additional setback requirements are required as set forth in Subsection 6(B)(14)(d)(3)(d) of this Article. For the purpose of this section, "non-participating parcel" shall mean a parcel that is not located within the Project Area.

Waiver: In the event that an applicant desires to deviate from the screening requirements, the application may only be approved if findings are made by the Board of County Commissioners that a) due to the circumstances surrounding the application, it would be unreasonable to require such screening, or b) it would be reasonable to require screening in a manner that differs from the requirement. (Example 1: It may be reasonable to allow a substation located within the interior of a 1,000-acre Project Area that is surrounded by PV panels to be constructed without landscaping at the base. Example 2: It may be reasonable to allow portions of the Project Area abutting Planned Employment Center Districts to receive a reduced amount of screening within the Buffer Area.) The applicant shall submit written information to the BOCC indicating the circumstances which are

believed to necessitate the need for a deviation from the screening requirement.

- 9) Outdoor Storage: Outdoor storage of equipment or materials associated with the US Solar Facility shall not be allowed unless explicitly permitted by the conditional use permit.

- 10) Exterior/Outdoor Lighting: Outdoor lighting associated with the US Solar Facility shall be limited to levels required for safety and security and shall not exceed the equivalent lumens of a 150 watt incandescent light bulb or 3000K LED. Outdoor lighting shall be arranged to direct light away from parcels located outside of the Project Area and from public streets and shall be installed in such a manner as to avoid glare, visible bulbs, or light spillage onto adjacent properties. Direct or reflected glare from floodlights or spotlights shall not be visible from parcels located outside of the Project Area and from public streets. The source of lights shall be hooded or controlled, and all light fixtures shall be a cut-off or shoebox design to prevent glare and light spillage off-site. Building mounted lights shall also be of a shoebox design. All light poles associated with the US Solar Facility shall not exceed a height of 20 feet. All lighting shall be shown on the Development Plan. Additional lighting after approval of the conditional use permit may be cause to require an amendment to the conditional use permit.

- 11) Glare from Sunlight: All structures associated with the US Solar Facility shall be arranged to direct reflected sunlight away from adjacent parcels and public streets and shall be installed in such a manner as to avoid glare onto adjacent parcels and interference with traffic, including but not limited to air traffic. As indicated in Subsection 6(B)(14)(c)(7) of this Article, the Federal Aviation Administration (FAA) may require a glare impact study and/or an airspace study to determine impacts on area airports.

- 12) Noise: The noise level at the Project Boundary shall not exceed 60 dB(A) where abutting the Rural, Planned Rural, Residential or Planned Residential Districts, or where abutting parcels with dwellings existing at the time the US Solar Facility was approved by the Board of County Commissioners.

Waiver: In the event that an applicant desires to deviate from the noise requirement, the application may only be approved if findings are made by the Board of County Commissioners that a) due to the circumstances surrounding the application, it would be unreasonable to require such a maximum noise level, or b) it would be reasonable to allow an increased noise level (e.g., it may be reasonable to allow an

increase in the level of noise allowed adjacent to a vacant parcel used for agricultural purposes). The applicant shall submit written information to the BOCC indicating the circumstances which are believed to necessitate the need for a deviation from the noise requirement.

- 13) Signs: Signs associated with the US Solar Facility shall be designed to comply with Article 20 of the County Zoning and Subdivision Regulations and a sign permit shall be obtained.

- 14) Subdivision and Dimensional Requirements: Because of the potentially large size of Utility-Scale Solar Facilities, which may apply for a Project Area not to exceed 1,000 acres in size, plus the allowance made to assemble multiple parcels for a single US Solar Facility, the subdivision requirements of Articles 25 through 30 of these regulations and the lot area and width, lot frontage, and other lot dimensional requirements of the underlying zoning district, are not requirements of this conditional use permit, unless otherwise expressly specified in Section 6(B)(14) of this Article. However, the aforementioned subdivision and zoning district requirements shall apply to other uses within the Project Area that are not associated with the conditional use permit.

- 15) Coordination with other Uses: Uses other than a US Solar Facility, (e.g. dwellings) are allowed to be located within the Project Area. However, such other uses shall be regulated per the requirements of the underlying zoning district and subdivision regulations. Furthermore, any use allowed by right in the underlying zoning district shall be located on the property such that it shall not alter, interfere or conflict with the US Solar Facility.

- 16) Unified Conditional Use Permit: Although the US Solar Facility allowed by this section may potentially be located upon multiple parcels of land, the underlying conditional use permit comprises and approves only one (1) unified conditional use permit. Therefore, since all parcels are integral and necessary to the continuation of the conditional use permit, the sale, or use of any parcel, or portion thereof that results in a conflict with the associated Development Plan, may cause the conditional use permit to terminate.

- 17) Compliance with County, State and Federal Laws, Regulations and Codes: Construction and operation of the US Solar Facility shall fully comply with all applicable county, state and federal laws, regulations and codes requirements.

- 18) General Installation and Maintenance: The US Solar Facility shall be developed in accordance with the approved Development Plan and shall be continually maintained and kept in good repair, which shall include, but not be limited to, fencing, ground cover, screening, lighting, driveways, entrances, and structures. Furthermore:
- a) Groundcover and Screening Installation and Maintenance: Unless allowed by a phasing plan approved by the Board, all grading, groundcover, berms, fencing, trees and other forms of landscaping shall be installed in accordance with the Development Plan within one (1) year of approval of the Conditional Use Permit. Berms and fencing shall be continuously maintained and repaired or replaced if damaged. Groundcover and landscaping shall be continuously maintained and replaced if dead. Herbicides shall be applied in a manner that does not cause "drift", which occurs when applied pesticides move through the air to abutting properties. Only Environmental Protection Agency (EPA) designated low risk herbicides shall be used for vegetative and weed control. Herbicide applicators must possess a Kansas certified pesticide license. The US Solar Facility operator or owner shall be responsible for noxious weed management in accordance with state laws within the Project Area;
 - b) Public Road Improvement, Repair and Maintenance (including bridges, drainage structures, guard rails and all other roadway related infrastructure): The US Solar Facility operator shall be responsible for mitigation of damages to public roads occurring as a result of activities associated with the conditional use permit. Such damage may occur at any time, but most often occurs during installation and decommissioning of US Solar Facilities. A Public Road Mitigation Plan (Mitigation Plan) may be required as deemed necessary, which includes prior to issuance of building permits, grading permits or demolition permits associated with the conditional use permit, and shall include, but not be limited to, the following:
 - i) Identification of Potential Public Road Usage: The Mitigation Plan shall identify, for approval by the County Engineer, all public roads to be used within unincorporated Johnson County to transport equipment, parts and material for construction, demolition, operation or maintenance of the US Solar Facility, and shall provide estimated daily vehicle counts for such installation, daily operations, or decommissioning as required by the County Engineer. Haul routes for heavy loads shall be specified along with specifications regarding typical and maximum loads;

- ii) Documentation of Road Conditions: The County Engineer shall document the current road conditions of the roads identified for use, which may include the use of a third party, with all associated costs paid for by the US Solar Facility operator. The County Engineer shall document road conditions again within thirty (30) days after construction is complete or as weather permits;
- iii) Road Improvement, Maintenance and Repair: Any road improvement, maintenance or repair necessitated by the installation, operation or decommissioning of the US Solar Facility shall be completed at the US Solar Facility operator's expense. If the County Engineer finds any roads which would be used by the US Solar Facility to be inadequate for the expected quantities or quality (e.g. weight) of traffic, especially with respect to heavy truck traffic, then the US Solar Facility operator may be required to improve and maintain the roads. As part of the Mitigation Plan, the County Engineer may require financial surety as part of a Road Improvement and Maintenance Agreement to address all such costs and requirements and this agreement may be stand-alone or may be included as part of the US Solar Facility Development Agreement required by Subsection 6(B)(14)(d)(25) of this Article; and
- iv) The County Engineer may require more than one Mitigation Plan, for example to document road conditions during installation then again during decommissioning and reclamation.

The Mitigation Plan addresses improvement, repair and maintenance of public roads, including during installation and decommissioning of the US Solar Facility, whereas, the Traffic Plan referenced in Subsection 6(B)(14)(c)(4) of this Article is an application requirement providing general travel routes and trip volumes to assist in the general review of the conditional use permit;

- c) Responsibility for Costs Incurred: The US Solar Facility operator shall be responsible for the cost of developing and maintaining the US Solar Facility; and
- d) The US Solar Facility Development Agreement shall include Installation and Maintenance: The US Solar Facility Development Agreement required by Subsection 6(B)(14)(d)(25) of this Article, shall address installation and maintenance of the US Solar Facility

to provide that the US Solar Facility will be properly developed and maintained.

e) Stormwater Performance Bond: A performance bond or like instrument acceptable to the County shall be submitted for the purpose of addressing any issues from correcting nonfunctioning stormwater controls or long-term maintenance activities. The project owner is responsible for all issues with and long-term maintenance of the stormwater facilities. The bond or like instrument shall be active and maintained for the permitted "project life" as indicated in the CUP application.

19) Annual Compliance Report: In order to promote compliance with the restrictions, conditions, stipulations and limitations of the Conditional Use Permit and its associated Development Plan, the applicant shall submit a yearly report indicating the state of compliance with the approved conditional use permit, including the Development Plan and all approved stipulations. The US Solar Facility Development Agreement required by Subsection 6(B)(14)(d)(25) of this Article, shall address such annual compliance. This compliance report is required in addition to reports associated with the Battery Energy Storage Facility, if any, as required by Subsection 6(B)(14)(d)(20)(d) of this Article.

20) Battery Storage: In addition to the above general provisions, application requirements, and development and performance standards, the following additional requirements shall be met for the approval of a Battery Energy Storage Facility:

a) Locational Criteria: Due to their potentially combustible nature and possible large footprint, the siting of Battery Energy Storage Facilities (BESF) shall endeavor to: 1) locate the BESF in nonresidential areas, 2) avoid locating the BESF in areas used by the public (e.g. parkland), 3) buffer the BESF from the surrounding areas by siting toward the interior of the parcel and through the use of greater parcel sizes and setbacks, 4) take advantage of existing topography, structures and vegetation to provide extra screening, 5) locate and design the BESF so that it mitigates the potential detrimental impacts to the general health, safety and welfare of the community, 6) locate the BESF in areas where the potential adverse impact on the community is minimal, and 7) design and configure the BESF in a way that minimizes adverse impacts such as views, noise, vibration and the like.

b) Configuration: As defined in Article 2, Section 3 of these regulations, the Battery Energy Storage Facility (BESF) shall be

configured so that battery cells shall be placed in a Battery Energy Storage System (“BESS”) with a Battery Management System (“BMS”). The BESS shall provide a secondary layer of physical containment to the batteries and be equipped with cooling, ventilation, and fire suppression systems.

- c) Construction, Maintenance and Operation: Battery Energy Storage Facilities shall be constructed, maintained and operated in accordance with applicable codes and standards including but not limited to the then applicable fire, electrical and building codes adopted by the County; National Fire Protection Association (NFPA) 855, *Standard for the Installation of Stationary Energy Storage Systems*, 2020 Edition and subsequent additions; Underwriters Laboratories (UL) 9540A Ed. 4-2019, *Standard for Test Method for Evaluating Thermal Runway Fire Propagation in Battery Energy Storage Systems* and subsequent editions; and, unless otherwise required by such regulations and codes:
- i) Each individual battery shall have 24/7 automated fire detection and extinguishing technology built in;
 - ii) The BMS shall monitor individual battery module voltages and temperatures, container temperature and humidity, off-gassing of combustible gas, fire, ground fault and DC surge, and door access;
 - iii) The BMS shall be capable of shutting down the system before thermal runaway takes place;
 - iv) Access to all batteries and electrical switchgear shall be from the exterior for normal operation and maintenance. Access to the container interior shall not be permitted while the system is in operation except for safety personnel and first responders; and
 - v) Signage shall include the following information: the type of technology associated with the battery energy storage systems; any special hazards associated; the type of suppression system installed in the area of the battery energy storage system; 24-hour emergency contact information, including reach-back phone number. Additionally, disconnect and other emergency shutoff information shall be clearly displayed on a light reflective surface.

- d) In addition to the annual life and fire safety inspections required annually by the fire code and performed by County staff, the US Solar Facility operator shall conduct semi-annual on-site self-inspections of the battery units and submit a written report to the Zoning Administrator on their condition.
- 21) Substations: In addition to the above general provisions, application requirements, and development and performance standards, the following additional requirements shall be met for the approval of a substation:
- a) Due to the fact that they cannot be completely visually screened, plus their possible large footprint, the siting of substations shall endeavor to: i) locate the substation in nonresidential areas, ii) avoid locating the substation in areas used by the public (e.g. parkland), iii) buffer the substation from the surrounding areas by siting toward the interior of the parcel and through the use of greater parcel sizes and setbacks, iv) take advantage of existing topography, structures and vegetation to provide extra screening, v) locate and design the substation so that it mitigates the potential detrimental impacts to the general health, safety and welfare of the community, vi) locate the substation in areas where the potential adverse impact on the community is minimal, and vii) design and configure the substation in a way that minimizes adverse impacts such as views, noise, vibration, and the like.
- b) Term: Substations included as part of the US Solar Facility shall have the same term as the US Solar Facility. However, substations may have a life expectancy longer than that of the remainder of US Solar Facility, therefore, alternatively, upon decommissioning of the US Solar Facility, the substation owner may apply for a conditional use permit or such other zoning approval to allow the continued use of the substation, which may be applicable and authorized for this use.
- 22) Decommissioning and Reclamation: The following requirements shall be met for decommissioning the US Solar Facility and reclamation of the Project Area:
- a) Guaranteed Funds: The estimated cost of decommissioning and reclamation, prepared as required in Subsection 6(B)(14)(c)(3) of this Article, shall be guaranteed by either, at the request and preference of the County, a letter of credit, or the deposit of funds

in an amount equal to the estimated cost in an escrow account at a federally insured financial institution approved by the County, or other approved surety, unless otherwise provided for in Subparagraph (v), below.

- i) The US Solar Facility operator shall deposit the required amount into the approved escrow account before any building permit is issued to allow construction of the US Solar Facility;
- ii) The below-referenced US Solar Facility Development Agreement, if applicable, shall prohibit the release of the escrow funds without the written consent of the County. The County shall consent to the release of the escrow funds upon compliance with the Decommissioning and Reclamation Plan approved by the Board.
- iii) The amount of funds required to be deposited in the escrow account shall be the full amount of the estimated decommissioning and reclamation cost without regard to the possibility of salvage value;
- iv) The estimated decommissioning and reclamation costs shall be recalculated at an interval no sooner than every year but not later than every five years, following the requirements for the original cost estimate as required in Subsection 6(B)(14)(c)(3) of this Article. If the recalculated estimated cost of decommissioning and reclamation exceeds the original estimated cost of decommissioning and reclamation by two percent (2%), then the owner or operator shall deposit additional funds into the escrow account to meet the new cost estimate. If the recalculated estimated cost of decommissioning and reclamation is less than ninety-eight percent (98%) of the original estimated cost of decommissioning and reclamation, then the County may approve reducing the amount of the escrow account to the recalculated estimate of decommissioning and reclamation cost; and
- v) The County may approve or require alternative methods to secure the availability of funds to pay for the decommissioning and reclamation of a US Solar Facility, such as a letter of credit or other such security approved by the County, at the request and preference of the County.

- b) End of CUP Term: A minimum of one (1) year prior to the end of the Conditional Use Permit term, the US Solar Facility operator shall notify the Zoning Administrator in writing of future plans for the US Solar Facility, which may include decommissioning and reclamation or a request for Conditional Use Permit renewal.

- c) Abandonment of US Solar Facility: Unless otherwise approved by the Zoning Administrator (e.g. to allow time to repair damage from severe weather or to update equipment), Solar Facilities that have not been in active and continuous service for a period of six (6) months shall be decommissioned and reclaimed at the US Solar Facility operator's expense.

- d) Date of Decommissioning and Reclamation: If the US Solar Facility is to be decommissioned and reclaimed, the US Solar Facility operator shall notify the Zoning Administrator in writing of the proposed date of discontinued operations and plans for removal.

- e) Items Removed: Decommissioning shall include removal of anything above or below-ground that was installed, constructed or erected as part of the US Solar Facility to include but not limited to structures, buildings, equipment, cabling and wiring, solar electric systems, electrical components, security barriers, foundations, pilings, and any other associated facilities. For any part of the Solar Facility on leased property, the Decommissioning and Reclamation Plan may propose for approval by the Board of County Commissioners to incorporate agreements with landowners regarding the retainment of driveways, landscaping, berms, fences, gates or repurposed buildings or other structures. However, any use of remaining buildings or other structures must be in conformance with the regulations in effect at that time.

- f) Reseeding: Ground cover and screening established as part of the US Solar Facility Development Plan and other existing vegetation may remain and may become part of the Decommissioning and Reclamation Plan. Land disturbed as part of the decommissioning process shall be reseeded or re-vegetated with crops, native seed mixes (such as those described in Subsection 6(B)(14)(d)(7) of these regulations regarding groundcovers) or other plant species suitable to the area. A list of such appropriate plan materials shall be available at the Johnson County Planning Office. Such planting and associated grading or

other land disturbance shall be completed within one (1) year of removal of US Solar Facility structures and equipment, in accordance with the Decommissioning and Reclamation Plan approved and adopted by the Board.

- g) Disposal and Recycling of Materials: Unless specifically indicated in the approved Decommissioning and Reclamation Plan, all US Solar Facility materials and equipment, including but not limited to PV panels, inverters and batteries, shall be removed from the Project Area. Disposal and recycling of such materials and equipment shall fully comply with all applicable county, state and federal laws, regulations and code requirements, which includes a county-approved demolition permit to a licensed contractor and an approved location for disposal of such materials and equipment.

 - h) Amendment of Plan: Decommissioning and reclamation shall be performed in compliance with the approved and adopted Decommissioning and Reclamation Plan (Plan). However, the Plan may be amended at such time that the applicant is ready to begin such decommissioning and reclamation if amendments are approved by the Board. Said amendment approval shall require a public hearing under the same procedures as required for the Conditional Use Permit.

 - i) The US Solar Facility Development Agreement shall include Decommissioning, Reclamation, and Forfeiture of Surety: The US Solar Facility Development Agreement required by Subsection 6(B)(14)(d)(25) of this Article, shall address, among other things, decommissioning and reclamation of the US Solar Facility and forfeiture of surety.
- 23) Emergency Planning and Preparedness: The US Solar Facility operator shall coordinate with County emergency services staff (e.g. Sheriff's, fire district and emergency management staff) to provide materials, education and/or training to these departments serving the Project Area with emergency services on how to safely respond to on-site emergencies, including emergencies associated with Battery Energy Storage Facilities, if any, and to provide a fire safety plan, a fire evacuation plan, and all other submittals relating to emergency planning and preparedness as required by then applicable fire, electrical and building codes adopted by the County or referenced by these regulations.

- 24) Change of Owner or Operator: The US Solar Facility operator shall give the County ninety (90) days written notice of any change in ownership or operator, with the additional requirement that the new owner shall enter into all required written agreements and provide the required surety.
- 25) US Solar Facility Agreement: A US Solar Facility Agreement between the Project Area landowners, US Solar Facility operator, and the County, shall be required to provide that the US Solar Facility is developed, maintained, decommissioned, and reclaimed in accordance with the requirements of these regulations, the Decommissioning and Reclamation Plan approved and adopted by the Board, and the conditional use permit, and shall address, among other things, items associated with: a) installation and maintenance of the facility, b) monitoring annual compliance, c) installation and operation of Battery Energy Storage Systems, and d) decommissioning the US Solar Facility and reclamation of the Project Area. Furthermore:
- a) Installation and Maintenance: Failure to develop or maintain the US Solar Facility in the manner required may result in loss of surety, which is a separate surety from that required for decommissioning and reclamation, or in revocation of the Conditional Use Permit and decommissioning of the US Solar Facility; and
- b) Decommissioning and Reclamation: The US Solar Facility Development Agreement shall be required to assure that, among other things, the US Solar Facility is decommissioned and reclaimed in accordance with the requirements of these regulations, the Decommissioning and Reclamation Plan approved and adopted by the Board, and the conditional use permit, and that the full cost of decommissioning and reclamation of the US Solar Facility shall be borne by the US Solar Facility operator. The items addressed within the agreement shall include, but are not limited to, posting and collection of surety, review and recalculation of the decommissioning and reclamation costs, the various required deadlines associated with decommissioning and reclamation, and adherence to the Decommissioning and Reclamation Plan. Furthermore, if the operator of the US Solar Facility fails to decommission and reclaim the site in accordance with the requirements of these regulations, the Decommissioning and Reclamations Plan and the conditional use permit, then the County may collect the surety and the County and/or a hired third party may enter the Project Area to decommission and reclaim the sites.

26) Use of Third Parties: The County may obtain reviews, inspections or other work completed by a third party for the purpose of reviewing or monitoring of the US Solar Facility, the costs of which shall be required to be reimbursed by the US Solar Facility operator. Examples of such work include but are not limited to reviews and associated inspections of environmental impact assessments, stormwater quantity and quality plans, decommissioning and reclamation plans, and compliance reports.

e. **Medium-Scale Solar Facility General Provisions:** Due to the significantly smaller scale of an Medium-Scale Solar Facility (e.g. the maximum Project Area of a MS Solar Facility is 10 acres as compared to a maximum Project Area of 1,000 acres for a US Solar Facility), this use is subject to similar standards with some exceptions. Medium-Scale Solar Facility general provisions shall be the same as the Utility-Scale Solar Facility general provisions of Section 6(B)(14)(b) of this Article, with the following exceptions:

- 1) Use: Medium-Scale Solar Facilities shall not include accessory Battery Energy Storage Facilities; and
- 2) Use of the term “Solar Facility” in this section shall refer to “Medium-Scale Solar Facility” unless otherwise specified.

f. **Medium-Scale Solar Facility Application Requirements:** Medium-Scale Solar Facility application requirements shall be the same as the Utility-Scale Solar Facility application requirements of Section 6(B)(14)(c) of this Article, with the following exceptions:

- 1) If the Solar Facility does not connect to a utility company, then those items regarding connection to a utility company are not required;
- 2) Items regarding Battery Energy Storage Facilities are not required;
- 3) The “Visual Impact Analysis,” “Traffic Study,” and “Environmental Impact Assessment” requirements of this section may be waived or modified upon written approval by the Zoning Administrator; and
- 4) Use of the term “Solar Facility” in this section shall refer to “Medium-Scale Solar Facility” unless otherwise specified.

g. **Medium-Scale Solar Facility Development and Performance Standards:** Medium-Scale Solar Facility development and performance standards shall be the same as Utility-Scale Solar Facility development and performance standards of Section 6(B)(14)(d) of this Article, with the following exceptions:

- 1) The minimum Project Area of a Medium-Scale Solar Facility shall be one (1) acre and the maximum area shall be ten (10) acres;

- 2) Such Solar Facilities **may** be located: a) within ~~4.5 miles~~ two (2) miles from any city limits, one mile from the boundary of the Executive Airport Comprehensive Compatibility Plan, and one mile from the boundary of the New Century AirCenter Comprehensive Compatibility Plan, b) within the planning area of adopted city land use plans, and c) within two (2) miles from an existing or permitted Solar Facility;
- 3) Items regarding Battery Energy Storage Facilities are not required; and
- 4) Use of the term “Solar Facility” in this section shall refer to “Medium-Scale Solar Facility” unless otherwise specified.

B. All of the terms and provisions of Article 23 of the Zoning and Subdivision Regulations of Johnson County, Kansas, shall remain the same, except for the above designated additions and amendments.

ZONING REGULATIONS

ARTICLE 33: SPECIAL PERMITS

A. Article 33, Section 4(A)(2) of the Zoning and Subdivision Regulations of Johnson County, Kansas, shall be, and hereby is amended to read as follows:

Section 4. SPECIAL PERMITS MAY BE APPROVED IN CERTAIN ZONING DISTRICTS:

A. Special Permits allowing the uses set forth below may be approved by the Board in any zoning district other than the Planned Entertainment District (PAE). In the event that the uses set forth below are allowed in the applicable underlying zoning district, a Special Permit is not required and the requirements of the zoning district shall be fulfilled. Certain accessory and supplementary uses associated with Public Facilities and Utilities, below, shall require a Conditional Use Permit as set forth in Article 23 of these Regulations.

2. Utilities: Utility facilities that provide the infrastructure services of electricity, gas, water or wastewater services, including ancillary uses and facilities (unless otherwise exempted by state or federal regulations), such as:

- a. Offices, shops, stations, terminals, warehouses and the like, that are either (1) necessary for providing such services or (2) the location from which personnel operate to carry out such services; or
- b. Related activities carried out by pipeline and utility enterprises such as power generation, pumping, transmission, distribution, and the like.

This includes, but is not limited to, the following types of sites or activities: wastewater treatment plant; wastewater pump station; water treatment or distribution facility such as water tower or water pump and/or metering station; electric power plant; electric substation; and natural gas storage, transmission and/or distribution including pigging stations; but with the exception that Medium-Scale and Utility-Scale Solar Facilities and Battery Energy Storage Facilities shall require a Group AA Conditional Use Permit in accordance with Article 23 of these regulations.

Privately owned electric substations may be applied for separately, as an individual use under Group A conditional uses. Publicly or quasi-publicly owned electric substations may be applied for separately, as an individual use, under the provisions of a Special Permit in accordance with Article 33 of these regulations. Privately, publicly or quasi-publicly owned electric substations may also be applied for in association with a Utility-Scale Solar Facility as part of a Group AA conditional use.

B. All of the terms and provisions of Article 33 of the Zoning and Subdivision Regulations of Johnson County, Kansas, shall remain the same, except for the above designated additions and amendments.

**JOHNSON COUNTY PLANNING
COMMISSION RESOLUTION NO. PC 21-1**

Exhibit B

**Rural Comprehensive Plan Amendments
regarding
Solar Facilities**

Comprehensive Plan

PART I – Chapter 2: LAND USE PLAN

A. Part I, Chapter 2, Land Use Plan, Section 3.4, Availability of Public Facilities and Services, *Policies*, of the Johnson County Rural Comprehensive Plan, shall be and hereby is amended to read as follows:

3.4 Availability of Public Facilities and Services

Policies:

1. The *Preserving Our Future* (POF) Report, the County's Capital Improvement Plan (CIP), which identify County goals for needed infrastructure (e.g., roads), and the County's Triggers Policy, which provides a basis for determining when certain major road improvements may be needed, should be used to help coordinate where and what kinds of capital improvements should be made.
2. Development should be located where public infrastructure (e.g., water, sewer, and roads) is already adequate or can be most cost effectively extended.
3. New businesses should be discouraged from locating where there are no public sanitary sewers to serve them.
4. Public improvements should also support social and recreational opportunities (e.g., streamway corridors) for County residents as well as protect and promote the general public's health, safety, and welfare.
5. Utility-Scale Solar Facilities bring with them unique impacts to surrounding areas and can be an appropriate use within the county if associated land use considerations are properly identified and managed. These land use considerations are more thoroughly enumerated in Subsection 9.1, Utility-Scale Solar Facilities.

B. New pages to be inserted after Page 2-38: Part I, Chapter 2, Land Use Plan, new Section 9.0, Special Land Use Considerations, new Section 9.1, Utility-Scale Solar Facilities, and new Section 9.2, Wind Energy (Reserved for Future Use), of the Johnson County Rural Comprehensive Plan, shall be and hereby are proposed to be added, and shall read as follows:

9.0 Special Land Use Considerations

9.1 Utility-Scale Solar Facilities

Preface

The production of energy is vital to a modern society. For many years, the main source of energy came from fossil fuel. In recent years, the United States has attempted to move towards a more sustainable energy model that reduces the carbon footprint. The technology to do so is currently available and in use in certain parts of the country. One such clean energy source is electricity generated by solar energy. Another is wind energy, however, nothing herein regarding solar energy should be interpreted as controlling or an indication if and how wind energy facilities may be allowed to operate in unincorporated Johnson County. That topic is either covered elsewhere herein, or will be covered at a later date. Therefore, the current policy question addressed here is whether Johnson County, Kansas, believes it to be in the best interests of the public health, safety and general welfare to provide areas in the unincorporated regions of the county for the establishment of solar facilities, to promote the present and future energy needs of not only the county, but also the country. In the year 2021, we answer that question in the affirmative, however, because these facilities pose unique challenges to land use planning in the unincorporated areas and adjacent cities, we move in that direction with caution, and with a desire for moderation, lest the unincorporated areas become inundated by this single use. Therefore, set forth below is a summary of our concerns, goals and corresponding policies as the county seeks to contribute to our country's successful transition to increased sustainable clean-energy.

Challenges and Unique Impacts

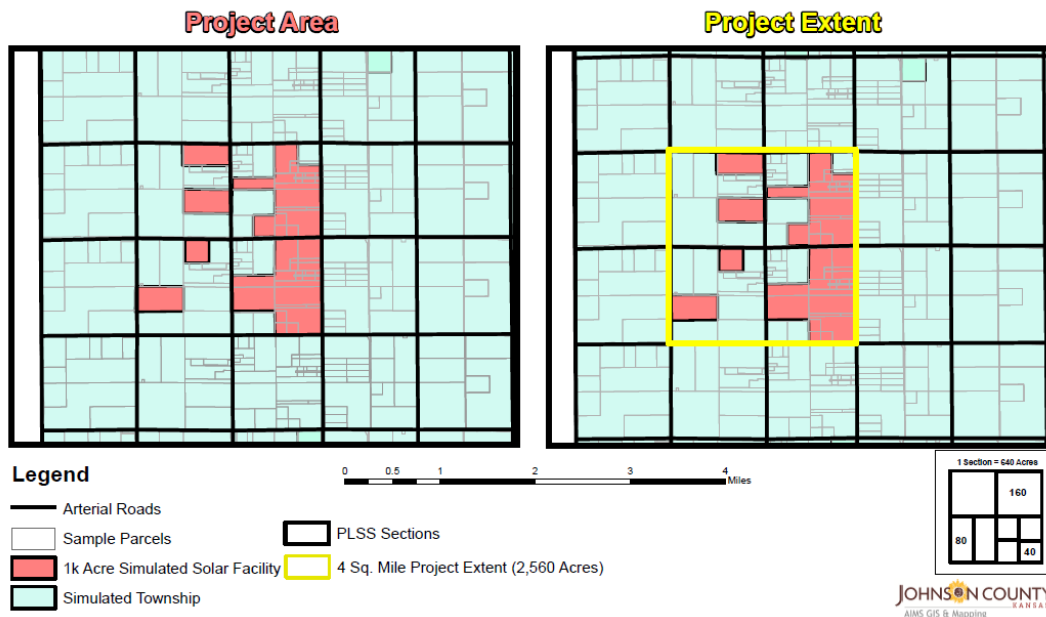
Planning bodies adopt plans and regulations so as to bring unity, consistency and efficiency to the planning efforts of a given jurisdiction. In the case of plans and regulations pertaining to solar facilities, such bodies are faced with unique challenges and impacts caused by solar facilities. For instance, solar facilities may be large scale in nature (hundreds to thousands of acres in size); with intense site coverage (structures typically covering more than 50% of the site); plus long life spans (usually at a minimum of between 20 to 40 years in length, but potentially even longer in duration). Unlike traditional development, the impacts caused by these facilities are not necessarily on existing levels of infrastructure, but rather upon, including but not limited to, the rural character, open space and aesthetics of the unincorporated area; cultural and recreational resources; wildlife, stormwater and other environmental elements; future land use and future city growth; the efficient extension of the other types of infrastructure; potential fiscal burdens to the general public by the unregulated cessation of uses; and potential fire hazards from battery energy storage facilities associated with such uses.

Of particular concern is the potential size of the solar facilities and the magnitude of their effect upon other uses and future development and upon the rural character and aesthetics of an area. These topics therefore merit additional discussion, as set forth below.

Scale and Geographic Distribution

Within the industry, it is typical for solar energy companies to lease land from area landowners in order to obtain the necessary Project Area in which to place their solar facility equipment. While the companies may attempt to have a compressed area with the numerous tracts of land all abutting, this result may be unattainable for a variety of reasons. Recognizing the practicalities of such situations, it is recommended that the county's adopted regulations and restrictions take this into consideration, and an allowance be made for the classification of non-abutting multiple tract scenarios to be considered, and to be processed, as a single conditional use permit application, rather than as multiple-applications. It is further recommended that our regulations consider adopting a requirement that the distance between non-abutting tracts shall not exceed one-half mile in distance. Because this accommodation could possibly result in widely dispersed facilities of tremendous size (resembling a "shotgun" pattern), which could potentially cover significant portions of the unincorporated areas thereby dominating the character of the area and precluding the development of other desirable and needed uses of land for extended periods of time (20 to 40 years or more), it is considered necessary and advisable, and therefore in the best interest of the public health, safety and welfare, that our regulations consider requirements to limit a solar facility's size, geographic dispersement, proximity to cities and permit term.

In order to allow for an adequately sized solar facility, yet restrict their size by reasonable requirements in order to mitigate undesirable consequences and the results of extraordinarily large facilities, a Project Area not exceeding 1,000 acres in size is recommended. Given that these uses will be the primary land use for at least one to two prudent planning periods (i.e. 20 to 40 years), and will preclude other growth and development of the land within the Project Area, it is believed that 1,000 acres is the reasonable and appropriate maximum size. Furthermore, because non-abutting multiple tracts are allowed under a single permit application, it is believed that the Project Extent of the facility should be no larger than 2,560 acres or 4 square miles in size. In addition, a further restriction is deemed necessary and reasonable, that no solar facility be located within two (2) miles of the existing main boundary line of a city, and within two (2) miles of an island city area of 80 acres or more, in order to not hinder or prevent the future growth and development of nearby cities. Furthermore, it is also deemed necessary and reasonable for the conditional use permit term limit not to exceed a reasonable planning period of 20 years to allow for further evaluation of, among other things, the solar facility's impact on surrounding growth and development and the technological advances made in the solar industry. The term Project Area is meant to include that area upon which the solar facility equipment is proposed to be located, and the term Project Extent is meant to include that area outlined by the outer boundary line of the Project Area, including tracts of land which will not have solar facility equipment located thereon. For purposes of example, the attached Diagram 1 depicts a Project Area, while attached Diagram 2 depicts a Project Extent.



This illustration is for comparison purposes only to describe the Project Area and Project Extent.

Upholding Rural Character

The majority of land located within unincorporated Johnson County is zoned RUR, Rural District, which allows agricultural uses and residential uses at a very low density. The RUR zoning district also holds the majority of very large parcels (e.g. with an area of at least 80 acres) existing within unincorporated Johnson County. Thus, it follows that proposed Utility-Scale Solar Facilities will likely be located within the Rural District within agricultural areas. A typical pattern within these agricultural areas consists of fields and pastures surrounded by tree lines (also referred to as “hedgerows”), intermittently dotted with homesites and ponds, and all placed among the branching streamways that flow within the area.

In general, solar facilities located within the Midwest are divided into groupings of photovoltaic panels (referred to as PV pods) that are placed in areas which were formally used as the aforementioned pastures and fields while retaining the existing tree lines, stands of mature trees, and the like and conforming to the existing topography of the area in a manner that requires a minimum of clearing and grading. Development of solar facilities within unincorporated areas of the county should be designed to uphold the rural character of the area in which they are located by following the typical agricultural development pattern, as outlined above, which emphasizes preserving existing vegetation and minimizing grading.

This “midwestern approach” is in contrast to the development of many solar facilities located within the southwestern regions of the country. These areas are often arid with little vegetation and relatively flat terrain. Solar facilities located in the southwest are often not divided into PV pods with surrounding tree lines, but are massed into larger groupings of PV panels that are relatively flat with little screening. Solar facilities located within the county that are developed using large-scale clearing and grading would generally not be in character with county agricultural areas, but would be more in keeping with southwestern development patterns. Furthermore, Policy 5 of Section 3.1, Sense of Community and Rural Character, of this Chapter, indicates that development in predominantly rural areas should be designed with

compatible elements (e.g., larger setbacks, low densities, buffering, landscaping) that blend the development into the surrounding rural character.



An example of a utility-scale solar facility preserving existing mature vegetation and topography.

Goals, Policies, and Action Steps

In order to lead the County toward the goal of a more sustainable energy model, and toward solar energy in particular, this unique use and its accompanying challenges calls for an equal measure of individualized regulation and restriction as part of a proportionate response. In addition to the above recommendations for Project Area, Project Extent, proximity to cities and project term, a non-exhaustive list of policies and corresponding action steps are enumerated, below:

1. Promote the county's rural character and open spaces.
 - a. Adopt performance standards to control impacts affecting rural character and open space, including but not limited to requirements related to setbacks and screening to protect views from roads and abutting properties; ground cover consisting of prairie grasses, forbs and pollinators to protect disturbed areas; wildlife corridors; Project Area limitations to control the overall scale of the solar facility; height, noise and lighting to maintain a rural and not an urban character; and a decommissioning and reclamation plan to ensure that solar facility equipment is properly removed from the Project Area and disturbed areas reseeded.
2. Protect the county's airports.

- a. Coordinate with the county airport compatibility plans.
 - b. Adopt performance standards to control glare from sunlight and limit distance from county airports.
 - c. Require glare impact studies when warranted and airspace studies in accordance with Federal Aviation Administration (FAA) requirements.
3. Coordinate with the county's comprehensive plan policy areas and area plans.
 - a. Guide the location of solar facilities away from the Urban Fringe Policy Area and from residential areas designated in area plans.
4. Protect existing and proposed parks, streamway trails, and other natural, recreational, or cultural amenities.
 - a. Encourage solar facility locations away from existing and future parks, streamway trails, and other natural, recreational amenities.
 - b. Require a visual impact analysis and additional setbacks and screening when warranted.
 - c. Adopt noise and lighting standards.
5. Protect environmentally sensitive areas.
 - a. Prohibit encroachment upon environmentally sensitive areas.
 - b. Require, among other things, an environmental impact assessment; wildlife corridors through the solar facility; additional setbacks when warranted; stormwater management plans that address stormwater quantity and quality; and conformance with Johnson County Erosion and Sediment Control Regulations.
 - c. Encourage the use of permeable fencing to allow certain wildlife to continue to pass through the solar facility.
 - d. Adopt standards regarding herbicide use, noise and lighting.
 - e. US Solar Facilities shall be designed and developed to minimize grading and to protect and preserve Mature Trees, Stands of Mature Trees, treelines, streamways, ponds, and other natural features, and, in particular, remnant grasslands and woodlands (which are areas that have not been previously plowed or graded) to the greatest extent reasonable and practicable.
6. Provide for efficient development of other infrastructure and services.
 - a. Coordinate with the plans of area providers of infrastructure and services.

7. Protect existing and future residential areas and uses.
 - a. Encourage facility locations away from existing and future residential uses.
 - b. Adopt buffer zones, setbacks and other restrictions to mitigate any potential detrimental impacts.
 - c. Adopt screening, noise, lighting and height restrictions and requirements.
 - d. Require a visual impact analysis.
8. Provide for future city growth and development.
 - a. Adopt permit term limits that do not exceed a prudent planning period.
 - b. Protect land areas for future development in general, and in particular, within two (2) miles of the city fringe development areas.
 - c. Coordinate with cities on their land use plans, street plans and other infrastructure plans.
 - d. Adopt performance standards to control impacts affecting future city growth and development.
9. Maintain the highest levels of fiscal responsibility to minimize the potential burdens on taxpayers.
 - a. Require the applicants to provide surety for decommissioning such uses.
10. Protect the unincorporated area from being inundated by this single use.
 - a. Adopt size and geographic extent restrictions and distance limitations, plus site coverage limits.
 - b. Restrict site coverage to promote and protect stormwater concerns.
11. Protect nearby uses from potential fire hazards.
 - a. Adopt requirements to regulate battery energy storage facilities associated with this use, including requirements to coordinate with local emergency services and requirements to be constructed, maintained and operated in conformance with county, state and federal codes and standards.

9.2 Wind Energy (Reserved for Future Use)

- C. All of the terms and provisions of Part I, Chapter 2, Land Use Plan, of the Johnson County Rural Comprehensive Plan shall remain the same, except for the above designated amendments and additions.

Comprehensive Plan

PART II – Chapter 8: RESOURCE AND SERVICE INVENTORY

- A. Part II, Chapter 8, Resource and Service Inventory, Section 6.2, Electric, of the Johnson County Rural Comprehensive Plan, shall be and hereby is amended to read as follows:

6.2 Electric

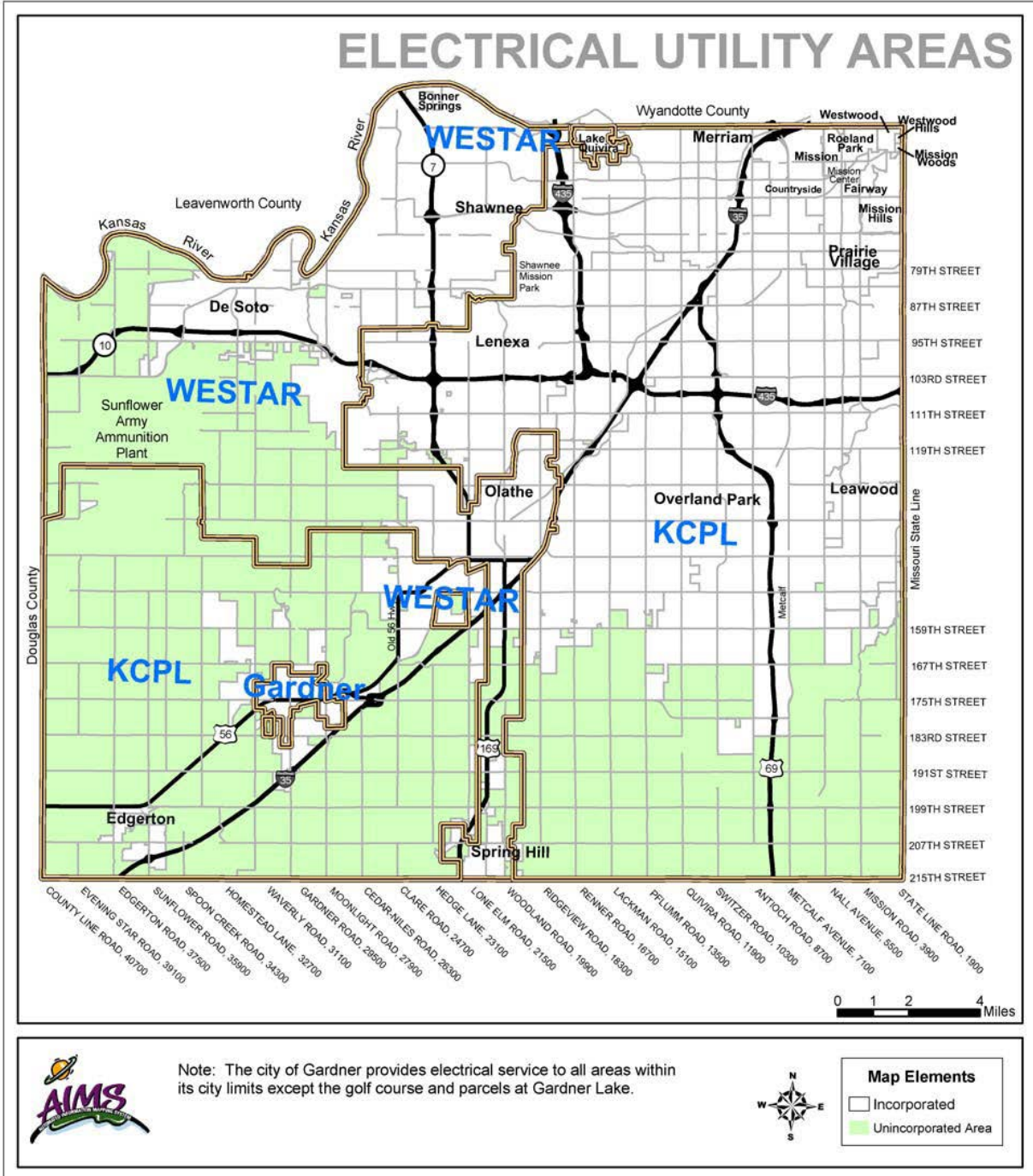
~~Kansas City Power and Light (KCPL) and Westar [formerly Kansas Power and Light (KPL)] deliver~~ Evergy (Kansas Metro and Kansas Central divisions) delivers electrical service to the unincorporated areas of Johnson County. Map 18, Electrical Utility Areas, on the following page shows the general boundaries these utility providers.

As the renewable energy industry becomes more prevalent, development of new electric utility facilities to generate, transmit, and distribute energy in the unincorporated area will be considered on a case-by-case basis in coordination with electrical service providers.

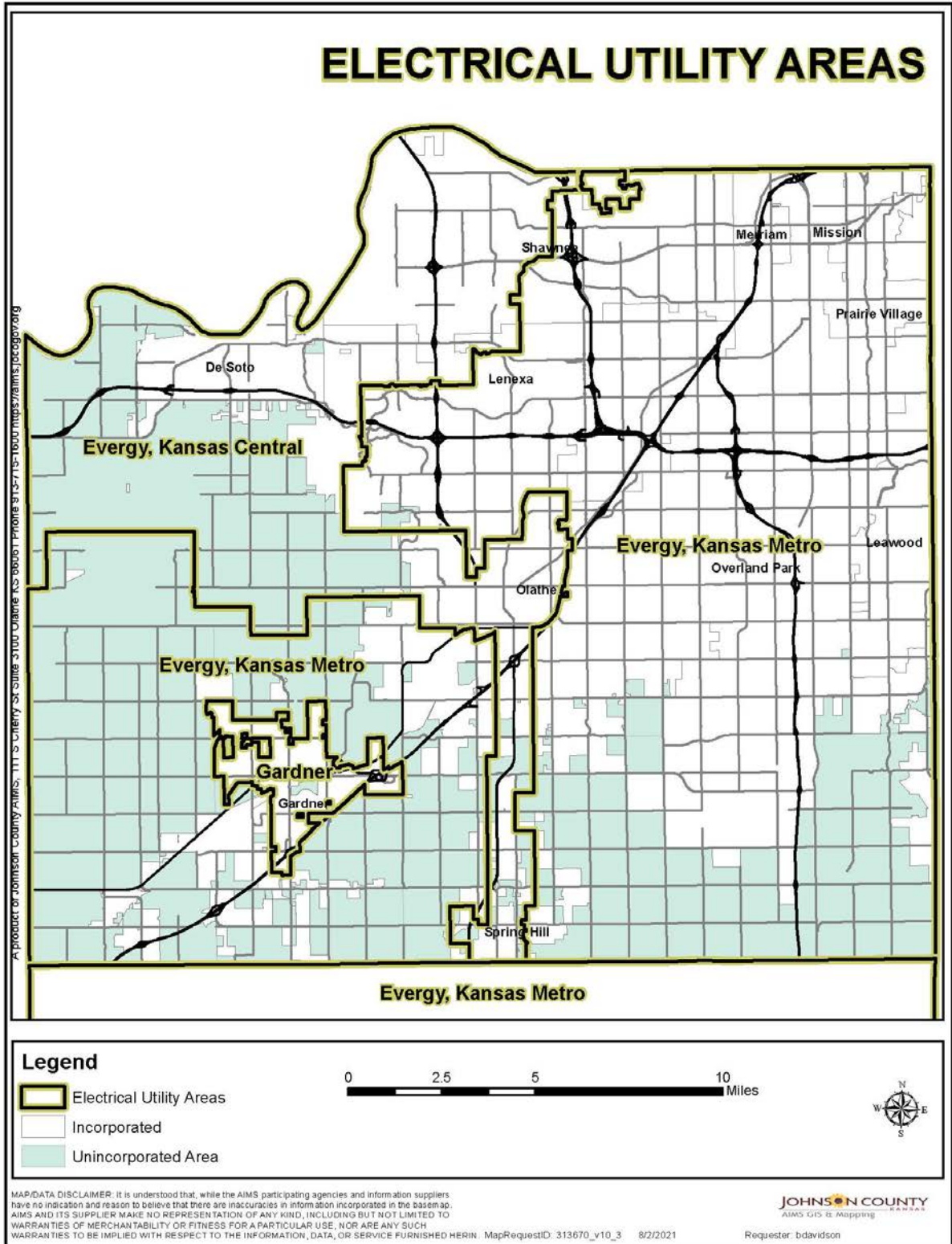
- B. Part II, Chapter 8, Resource and Service Inventory, Map 18, Electrical Utility Areas, of the Johnson County Rural Comprehensive Plan, shall be and hereby is amended to read as follows:

MAP 18: ELECTRICAL UTILITY AREAS

*****The map designated below shall be replaced by the map immediately following.*****



The map designated below is the new updated map.



C. All of the terms and provisions of Part II, Chapter 8, Resource and Service Inventory, of the Johnson County Rural Comprehensive Plan shall remain the same, except for the above designated amendments.