

## MEMORANDUM

Date: September 28, 2021  
To: Chris Iliff, Chair, Johnson County Planning Commission  
Jay C. Leipzig, AICP, Director, Johnson County Planning  
From: City of Edgerton – Planning Commission and Governing Body  
Beth Linn, City Administrator  
Katy Crow, Development Services Director  
Re: Utility Scale Solar Facilities – Comprehensive Plan and Zoning Regulations Updates

The City of Edgerton recognizes the importance of alternative energy sources and the role they play in reducing detrimental impacts to the environment. Solar energy, when located in the appropriate geographic area, can be a positive renewable energy source. Due to the intensity, scope, and life span of a Utility Scale Solar Facility (USSF), it is critically important and in the best interest of all parties, that the zoning regulations for projects of this magnitude be developed in the most responsible manner possible.

In order to fully understand the size and scale of USSFs, Edgerton Mayor Donald Roberts, City Administrator Beth Linn, and Development Services Director Katy Crow, traveled to Arizona on August 23, 2021 to visit the NextEra Wilmot Energy Site outside of Tucson. We met with Will Gossett, Acting Site Manager for Next Era Energy's Arizona Cluster, who provided a tour of the facility. On September 23, 2021 a presentation was made by the Johnson County Planning Staff to a joint Work Session of the Edgerton Governing Body and the Edgerton Planning Commission.

We respectfully submit the following feedback, questions, and recommendations related to the proposed amendments to the Johnson County Comprehensive Plan and Zoning Regulations related to USSFs.

### **Proposed Development Standards**

#### **1. Term: up to 20 Years**

A life span of 20 to 40 years is noted in the proposed Comprehensive Plan update, however admittedly there is a "*potentially even longer*" duration for the facility to exist. Because the photovoltaic (PV) panels themselves are individually replaceable, the ability to continually restore these components allows a solar facility to operate in perpetuity. The demand for electricity is most likely not going to decrease and energy generation facilities are rarely decommissioned. It is very likely that once installed, a solar facility will be there forever. Per Mr. Gossett, they have not had a solar facility site go through the decommissioning process. It would certainly appear that this type of facility will exist beyond our lifetimes.

One of the recommendations under *Goals, Policies and Action Steps* in the Comprehensive Plan update is to “*adopt permit term limits that do not exceed a prudent planning period.*” The proposed code amendment would limit a conditional use permit to 20 years with the ability to renew the permit at the end of the term. The proposed development standards do not outline the specifics of the renewal process or if there would be a limit to the number of permit renewals allowed at a particular site.

Questions to consider:

- What is the definition of ‘prudent planning period’ and how is that impacted by a conditional use permit term of 20 years? Are ‘prudent planning periods’ impacted by use permit renewability?
- While the surety bond requirement for the decommissioning or reclamation plan is reviewed at least every 5 years, what about the decommissioning plan itself?

Recommendation: We would recommend that the term of the conditional use permit be considerably less. In Edgerton, we issue conditional use permits for cargo container storage facilities and we certainly recognize the significant investment made when these types of operations are installed. When the Edgerton Unified Development Code was written, we were very thoughtful in our determination of a ten-year limit on these types of higher intensity uses. Given that USSFs are new to Johnson County, we would ask that you consider lowering the use permit term so that the site operations may be evaluated sooner rather than later. A shorter permit duration would afford County staff the opportunity to monitor the USSF installation, and it would result in the quicker resolution of any concerns which may arise during those initial operational years.

**2. Maximum Project Area: 2,000 acres**  
**Maximum Project Extent: 4 square miles (2,560 acres)**

The massive size (several thousand acres across county lines) which would be allowed under the proposed guidelines is concerning in a county which has a growing suburban footprint. It is our understanding that 2,560 acres is actually on the small side of what is typically requested for USSFs. Per documents provided by Johnson County Planning staff, one 2,000 acre USSF equates to approximately 14% of the remainder of the McCamish Township. That is a significant number for just *one* installation.

Several cities in Johnson County, including Edgerton have boundaries which could potentially continue to expand through the annexation process. The Kansas City metropolitan area continues to be an attractive place for families to live and as such, development continues along the outer fringe of the developed area of Johnson County. We were told by a Mr. Gossett, that USSFs do not need to be located within a certain distance of the power grid. In fact, the Wilmot facility in Tucson has a brand new substation that was built specifically for that facility’s use.

Under the proposed regulations, non-abutting multiple tract scenarios would be allowed, with a distance between non-abutting tracts limited to one-half mile in

distance. This contributes exponentially to the expansive nature of these facilities. Without a requirement to be on contiguous parcels of land, they could in fact extend for up to 4 miles.

Questions to consider:

- Has the County considered creating a special 'Utility Scale Solar Facility Zone' which is subject to a set list of requirements and would also limit the sprawl associated with allowing multiple non-abutting tracts?

Recommendation: We would recommend a significantly smaller project area and project extent. In the 2021 Revaluation Report prepared by the Johnson County Appraisers Office, Johnson County has absorbed an average of 2500 acres per year every year since 2015. The maximum project area and project extent size as proposed could stunt naturally occurring growth within Johnson County. Additionally, we recommend a requirement that any USSF operations be on abutting and contiguous parcels of land. The parcels left between the non-abutting tracts will represent a development challenge for both property owners and the jurisdictions in which those parcels lie. This would further complicate any annexation process should a property owner want to incorporate into a city as those isolated parcels could potentially represent island annexations. A less densely populated area with a lower growth and expansion rate than the fringe area of Johnson County, would be a more logical location for these types of facilities.

**3. Maximum Percentage of PV Panel Coverage/Project Area: 70%**

The maximum percentage of PV panel coverage in the project area has been changed several times during the review of the Proposed Development Standards. It has increased from an initial recommendation of 60% to 65% to the 70% coverage that is proposed today.

Recommendation: We find it concerning that the intensity of the land use continues to increase. Each increase in the site coverage allowance represents a direct increase to the amount of impervious surface (PV panels) and use intensity in the project area. It is important to understand what necessitates the 10% increase over what was initially proposed and how it will impact the stormwater runoff.

**4. Distance from Cities: greater than 1 mile**

Under the proposed update to the *Goals, Policies, and Action Steps* of the Comprehensive Plan, one of the action steps is to "*provide for future city growth and development*" through "*protect(ing) land areas for future development in general, and in particular, within 1 mile of the city fringe development areas.*" The proposed Zoning Regulation Amendments indicate that "*Such Solar Facilities shall be located greater than one (1) mile from any city limits...*" However, there is an ability for the USSF operator to obtain a waiver to deviate from the locational requirement. The notification process for when a waiver is requested is not outlined as part of the performance standards update and it is unclear as to who would be notified should a waiver request be submitted.

While all owners of record within 1,000 feet of the Project Boundary would be notified of a *'Neighborhood Meeting'* prior to a public hearing, it is unclear if any municipalities in the area would be provided notification.

Recommendation: The City of Edgerton is adamantly opposed to the use of 1-mile as the allowed distance from city boundaries for the installation of USSFs. Edgerton utilizes 3 miles, the distance dictated by K.S.A 12-715b, as the city's future planning area. We would strongly recommend this same 3-mile distance be used as the boundary in these instances. A 1-mile separation is not a great enough distance and it in fact inhibits city growth and expansion. In addition we are adamantly opposed to the allowance of a waiver for the distance from city boundaries. There should not be a mechanism for a USSF operator to deviate from the required standards given the size, scope, and duration of these installations. Additionally, it should be mandatory in the regulations that any cities within a 3-mile radius of the boundary be notified of any Neighborhood Meetings which would occur related to these project installations.

## **5. Distance from another Solar Facility**

In the draft Zoning Regulation Amendments it is recommended that there be a distance of 2-miles between USSFs. With this requirement, these installations could in effect, bifurcate the developing fringe area of Johnson County, and as noted previously, create infill development challenges for both property owners and the governing jurisdictions.

Recommendation: The City of Edgerton recommends that the distance between USSF installations be increased so that there is adequate space for development to occur in an appropriate manner on infill parcels. At an increased distance infill parcels would be larger and would be able to accommodate any setbacks needed for the development which might occur on them.

## **6. Setbacks for Utility Scale Solar Facility Structures**

One of the action steps noted under *Goals, Policies, and Action Steps* of the Comprehensive Plan update is to *"protect existing and future residential uses."* This is to be achieved through the use of buffer zones and setbacks. The current recommendation for Project Boundary Setbacks is 50' for structures (including PV panels and fencing), and 150' for battery storage facilities. However, the Zoning Regulation Amendments recommend that within the Project Area, PV panels and their racking system shall not have a minimum setback requirement.

Recommendation: The 50' setback requirement is not enough for such an intensive use. It is just 15' more than the setback Edgerton requires for a single family home in a residential subdivision. The lack of a minimum setback requirement for PV panels and their racking systems in the Project Area means that there is no room for screening materials (berming, landscaping or fencing). This presents a problem when those areas of the Project Area are adjacent to any non-contiguous areas which may not be part of

the Project Area. In order to adequately protect existing and future residential uses, setback requirements should be increased and no waiver from the stated setback requirement should be allowed.

## **7. Environmental Impacts/Stormwater**

During the visit to the Wilmot Energy Site, it was noted that at project installation the ground below the solar panels is scraped bare, with all vegetation removed. The environmental conditions in Arizona are much different than Kansas in that we experience a far greater average annual rainfall (their 9" vs. our 40"). Significant rainfall can be both a blessing and a curse in that large downpours bring erosional conditions while gentler rains provide the necessary moisture to sustain plant growth. The zoning amendment contains a requirement for a Stormwater Management Plan and for groundcover to be installed to help with erosion control. The recommended groundcover is a seed mix based on prairie grasses and forbs. The recommendation in the Zoning Regulation Amendments states that the "*ground cover shall be continually maintained on the site*" and during the submittal of a landscape plan, the "*application of herbicides*" is to be outlined.

Recommendation: While there is a requirement to plant ground cover to prevent erosion and manage runoff, the Stormwater Management Plan should take into consideration that the land under the panels may initially be void of vegetation for a significant period of time due to weather conditions and the presence of solar panels which can themselves make the establishment of vegetation challenging. Additionally, "*continually maintained*" should be defined in that a maximum growth height should be specified. The fire risk associated with the required ground cover should be assessed as Kansas has also been known to experience drought at times and a controlled burn is obviously not an option. The application of herbicides should be thoroughly vetted as they can be detrimental to both the stormwater runoff and to agricultural areas belonging to adjacent landowners.

## **8. Screening**

Recognizing the importance of development being a good neighbor to the adjacent landowners, screening will be a critical component when allowing the development of these USSFs.

Recommendation: It is important for these high intensity, large-scale uses to be adequately screened from any adjacent uses, including the public right of way. The required submittal of a 'Concept Plan' and a 'Visual Impact Analysis' is an excellent first step to ensuring that adjacent uses remain protected.

The proposed Zoning Regulation Amendment indicates that a waiver is available for screening requirements. Like the distance from city limits waiver, there are no details outlined in the zoning amendment regarding the waiver process and who would be

notified of waiver requests. The city of Edgerton opposes allowing waivers for screening requirements and would encourage the Zoning Amendments to not allow waivers of any kind related to reducing the required screening for these projects.

## **9. Required Infrastructure**

At 2,560 acres, these facilities represent a significant development. While a substantial amount of vertical construction may not be occurring at these sites, the installation of these facilities is a major construction project and the intensity of traffic to the site will be similar to the construction of a large structure or development project. The proposed amendment does require the submission of a traffic plan at the time of development application however, it is only required to describe travel routes and trip volumes.

The recommended update to the Comprehensive Plan lists an action step to "*coordinate with the street and land use plans of cities in the fringe areas.*" As a city in the fringe area of Johnson County, Edgerton would be interested in knowing more about how those coordination efforts would be lead and what that coordination might entail.

While the batteries themselves have self-contained fire suppression systems, the other components in a facility (inverters and PV panels) do not and fires can still occur onsite.

### Questions to consider:

- What will be the requirement to upgrade the infrastructure (adjacent roadways, access points, fire lines/hydrants, stormwater infrastructure, etc.) adjacent to these installations?
- Will dedicated right of way be provided along existing adjacent roadways to allow for any future widening of roadway infrastructure?
- How will utility easements for non-electric utilities be granted across or through USSF sites?

Recommendation: We recommend the County require this project to complete any and all steps a "more traditional" development project would have to complete, including but not limited to, traffic impact study, evaluation of existing infrastructure (streets, stormwater, utilities, etc), stormwater study, etc.

Additionally, the County should evaluate the physical impact to the adjacent infrastructure during the construction phase of the project and impact to travelling public surrounding the project, not just by those involved in the construction process. Prior to the approval of any conditional use permit application, a Development Agreement should be in place with the USSF operator to ensure that there is a requirement for them to upgrade infrastructure that will undergo a significant amount of wear and tear while the facility is being built.

At Logistics Park Kansas City, Fire District #1 of Johnson County has required 360-degree access around the warehouses and the installation of fire lines and hydrants. We

anticipate that this same type of requirement would be required with the provision of access roads around the perimeter of these large USSF installations and a water source to fight any onsite fires outside of the self-contained battery unit suppression systems.

Until an actual application for a USSF is received, it is unknown as to what kind of connection to the power grid would be necessary for that particular operation. In Edgerton, our Municipal Code requires that all utility lines be placed underground. We would expect to see that same kind of requirement for these kinds of projects with any extension of power lines to any substations, newly built or in existence, having to be buried underground.

**Final Comments/Questions:**

As you consider the regulations before you related to USSFs, please keep in mind action step 9 under the *Goals, Policies and Action Steps* of the Comprehensive Plan update – “Maintain the highest levels of fiscal responsibility to minimize the potential burdens on taxpayers.”

Darren Coffey with the Berkley Group stated at the Johnson County Planning Commission meeting on January 26, 2021, “...these types of uses are an industrial scale land use that occupy significant acreage, but do not necessarily generate the same benefits as other competing uses, in terms of jobs and tax revenue.” It is currently unknown how the property tax contribution from these parcels’ changes with their development as a USSF.

Recently Johnson County partnered with United Community Services (UCS) and many other cities and agencies to complete the Johnson County Community Housing Study that provides an in-dept analysis of the current and future needs for affordable, workforce and other housing options to bridge gaps in housing demand and supply. That study states that the Johnson County region experienced steady growth since 1990, starting with a population of 357,048 and growing by 64% to a 2018 estimated population of 585,502. The study projects Johnson County total population in 2030 at 697,104.

Additionally, the study illustrates the vacant tracks of land within Johnson County that have residential designations on city future land use maps. Most of the available land is located on the west and south sides of the county, much of which is in the area shown available for USSFs. Allowing long-term placement of USSFs seems in conflict with Johnson County’s goals to promote economic development within the cities and provide a variety of housing options for its current and future citizens.

While there may be an opportunity during the construction phase to employ a large number of construction workers, the 3200-acre Wilmot Energy Site in Tucson, Arizona employs just 2 people. The proposed installation size and permit duration for these types of installations would have a significant, long-term growth impact on the areas

where they would be located. Prior to any USSF installation receiving final approval, a cost-benefit analysis should be performed.

In closing we ask these final questions:

- What is the actual value proposition that a USSF presents to the residents of Johnson County?
- Would the former Sunflower Army Ammunition Plant be a more appropriate place for this type of facility (i.e. USSF)?
- Are solar facilities the highest and best use for thousands of acres of land?