

***MINUTES OF THE
MIAMI COUNTY BOARD OF COUNTY COMMISSIONERS
AND PLANNING COMMISSION
JOINT SOLAR WORKSHOP
September 20, 2022***

***MIAMI COUNTY ADMINISTRATION BUILDING
COMMISSION CHAMBERS
201 SOUTH PEARL STREET
PAOLA, KANSAS 66071***

ATTENDANCE

CHAIR:	John Menefee
VICE-CHAIR:	Phil Elliott
PLANNING COMMISSION	Kelli Broers, Joshua Brown, Randy Kitchen, Bret Manchester, Mark Oehlert, Topher Philgreen, and Mark Ross
ABSENT MEMBERS:	none
EX-OFFICIO MEMBERS:	None present
PLANNING DIRECTOR:	Teresa Reeves
ASST. PLANNING DIRECTOR:	Katie Jardieu
PLANNER:	Not present
PC SECRETARY:	Casey d'Augereau
COUNTY COUNSELOR:	Shelley Woodard
COUNTY ADMINISTRATOR:	Not Present
ECONOMIC DEVELOPMENT:	Not Present
COUNTY COMMISSION:	George Pretz, Tyler Vaughan (came in late at 6:40 p.m.)
COUNTY CLERK:	Not Present
PRESS:	Not Present

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MIAMI COUNTY PLANNING COMMISSION AND COUNTY COMMISSION
JOINT SOLAR WORKSHOP

Randy Kitchen gave a handout to the Commissioners and staff prior to the meeting starting.

CALL TO ORDER

Chairman John Menefee called the meeting to order at 6:30 p.m.

PLEDGE OF ALLEGIANCE

ROLL CALL

Roll Call was taken, with nine (9) Planning Commission members, and two (2) County Commission members present, constituting a quorum.

ADOPTION OF THE AGENDA

Ross moved to adopt the Agenda as presented. Elliott seconded, and the motion passed unanimously, (9-0), via a show of hands.

CONSENT AGENDA

- Minutes: Approval of the August 30, 2022, Solar Farms Workshop Planning Commission/County Commission Minutes

Philgreen moved to adopt the Consent Agenda as presented. Broers seconded, and the motion passed unanimously (7-2), Oehlert and Ross abstained due to being absent August 30, 2022, Workshop.

REGULAR AGENDA

New Business:

Review and discussion on Potential Solar Regulations

Katie Jardieu stated tonight's discussion will be the second workshop to discuss Mid to Large Scale Solar in Miami County. It is a public meeting but not intended for public comments, there will be a meeting at a later date for public comments. The State of Kansas has less than one percent (1%) of their electricity coming from solar and the price decline over the last ten (10) years has made it more enticing to people. Most energy came from coal, natural gas, and increasingly crude oil until the 1990's, because of the decline in materials there has been a general uptake for renewable energy and solar. With new legislation and due to recent storms capacity was an underlining issue. Solar and battery storage have added another layer of potential capacity so that when larger storms hit, or their temperatures are too high or too low there is capacity to continue servicing homes so there is not as many potential brownouts or blackouts. Johnson Corner is the largest solar farm in the State of Kansas, located in southwest Kansas consisting of 75,000 solar panels across 144 acres. Construction began in 2018 and started operating in April of 2020. It produces around 27.5MWdc (dc, direct current) providing an enough electricity for a little over 5,000 homes. Kitchen asked how many houses does it provide power for and for what period? Jardieu stated 5,165 houses per year.

Jardieu stated she was asked where the major transmission lines are in Miami County. Showing a map (located on page 12 of 45 in the packet online) Jardieu indicated that the transmission lines are showed on the map with red lines. The light green areas indicate the growth areas for Miami County.

Jardieu stated she was asked what is Prime Farmland. The Federal definition: *Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses.* It was mentioned that prime farmland is ideal for solar farms because of the already cultivated soil but it

also needs to be maintained for agricultural. Federal separates Prime Farmland into four (4) categories: 1) Prime Farmland, 2) Unique Farmland 3) Additional Farmland of state-wide importance and 4) Additional Farmland of local importance. The State of Kansas definition is *A combination of land cover/use categories, Urban and built-up areas, and Rural Transportation Land*. State of Kansas divides it into two (2) categories using the 2-3203 act: Agricultural activity (*The growing or raising of horticultural and agricultural crops, hay, poultry and livestock, and livestock, poultry, and dairy products for commercial purposes.*) and Farmland (*Land devoted primarily to an agricultural activity.*). One of the things Douglas County requires if they are using Prime Farmland, they limit the grading of Prime Farmland to no more than five (5) percent, there is a waiver option. Nearly all of Miami County is Farmland of Statewide Importance or Prime Farmland.

Jardieu stated some of the Planning Commissioners wanted to see some examples of the different types of uses. Jardieu stated there are traditional utility-scale configurations such as: Crop Production, Animal Husbandry, and Ecosystem Services as well as Alternative configurations such as: Reinforced Regular Mount, Vertical Mount, Crops grown in between and underneath panels, Tracker Stilt Mount, Elevated and reinforced panels, and Greenhouse Solar. The only example for Ecosystem Services within Kansas is located in Andover, KS, there is very little information on this one as they are not part of a research study.

Jardieu stated there are concerns with Environmental Impacts (Glare) FAA regulates airspace on approach and at the airport only. Final approach is measured as two (2) miles from 50 feet above the landing threshold using a standard three (3) degree glide path. An individual glare analysis should be iterative and look at specular, diffuse glare, and include a geometric analysis for determining days and times when an impact is predicted. Kansas Department of Wildlife, and Parks (KDWP) has noted cases where the glare can simulate calm water and can cause some issues with insects (laying eggs on the panel and then they don't hatch) and waterfowl landing on the panels and then not being able to take off and becoming stranded. Photovoltaic panels should contain a dense nonpolarizing (e.g., white) grid partitioning the solar-active areas of the panels to reduce or eliminate polarized light pollution. Jardieu also recommends they be coated with an anti-reflective coating which may further reduce the effects of polarized light pollution on wildlife. Panel frames should be designed or painted (e.g., white) to further reduce polarized light reflectance. Jardieu stated a couple of issues to consider are the eggs of insects being burnt up because the solar panels getting too hot for the insects and their eggs. As well as waterfowls landing on the panels and not being able to take off as there are some waterfowls that can only take off when in water such as pelicans. The panels can have a texture or non-glare coating applied to them, but there is little research on these. If a solar farm is near an airport the FAA requests, but not mandate, that a glare analysis be completed, the FAA gives guidelines in performing the glare analysis.

Justin Eimers, County Appraiser, stated he has been researching what it would cost to build a solar farm. According to the Solar Energy Industries Association (SEIA), Solar Market Insight Report third quarter of 2022, fixed-tilt utility scale solar systems cost \$0.92 per watt, second quarter of 2022 installed, Eimers stated he came up with a cost of \$920, 000. According to the Pottawatomie Kansas Planning Department a 1 MW facility built in 2022 cost \$1,200,000 or \$1.20 per watt to construct. According to the City of South Hutchinson Kansas a 1.273-megawatt facility was built in 2017 for \$801,965 or \$0.63 per watt. There will be a 10-year tax-exemption on equipment. The majority of these are doing land leases, leases are between \$1,000 to \$1,500 per acre per year.

Kitchen asked what happens to the appraised value of the land. Eimers stated the land will need to be converted into commercial use, which means it will be appraised at 100% market value and assessed at 25% commercial. Topher asked if the abatement is Federal only? Eimers stated it is property tax abatement, therefore it would affect the county not just federal. Eimers stated per the current statute it would be tax free for ten (10) years.

Kitchen asked about the figure of \$920,000 to build a solar farm, isn't 1,000 kilowatts in a watt. Eimers stated a million watts in a megawatt. Elliott stated according to the handout in the packet based on the \$0.92 per watt and the example Jardieu gave it would be around \$25.3 million.

Eimers stated if the utility company, such as Evergy, owns the property and doesn't lease it, the taxes are handled by the State of Kansas, they regulate all utilities and the property they own. Kitchen stated regardless of who you are, and the property owner puts in a solar farm the property owner would still receive a tax abatement? Eimers stated it is State law that they receive the tax abatement (K.S.A. 79-201). Eimers stated there are requirements that must be met, if the requirements are met then he is obligated to sign off on the tax abatement. Kitchen questioned what size solar farm receives the tax abatement. Eimers stated they could have three (3) panels and be eligible for the tax abatement, not that it would be worth the time or filing fee. Elliott asked for clarification on land and evaluation giving the following example: Property owner received tax abatement on the equipment for ten (10) years, the land immediately becomes commercial, and the valuation a little more than double of a home property tax; what economic impact does taking that agriculture property out of production have on the county? Eimers stated Miami County is only so big, you start taking hundreds maybe thousands of acres out of productions you have less production, and the demand increases it means prices will go up.

Menefee asked what if a solar farm is contracted on the same lot of land the farmer continues to graze his sheep. Eimers stated he will refer to the County Counselor, Shelley Woodard, but Eimers would guess we would still have agricultural on the property. Woodard stated if there is livestock still on the property it will still be considered agricultural use.

Eimers stated as far as the impact a solar farm would have on neighborhoods, people prefer seeing land over solar panels. The screening of shrubs and trees will help take away the visual of the solar farm. Eimers stated to his knowledge a person won't be able to smell it, and probably won't be able to hear it, therefore, he believes a negative impact will be very minimal (again stating this is his opinion).

Ross stated it is suggested not to put a solar farm on land with more than a 15% grade, land with a 15% grade isn't worth anything so why not use it for a solar farm? Granted it would be a little harder to install the solar farm there, but you're not using agricultural ground. Woodard stated when solar panels get into a high grade we have to look at shading issues. Solar panels have to have good access to sun in order to properly work, the greater the grade the less sun the panels are exposed to.

Philgreen asked about how a brownfield is evaluated and if someone were to put a solar farm on the brownfield, how would that be evaluated? Eimers stated it depends on the current use of it, some of those are either commercial or other assess currently. The brownfields really don't have a good use, if a solar farm is placed on a brownfield, Eimers doesn't see much change. Philgreen asked if it is valued as agriculture does that change with the solar farm. Woodard stated if it is a brownfield and not currently being used for agriculture, then it can't be assessed as agriculture. Philgreen stated is it safe to say by adding a solar farm to a current brownfield it would increase the value of the property? Eimers stated the way the valuations are done adding a solar farm to a brownfield would have very little impact on the assessed value of the brownfield.

Broers stated property values is a "hot topic." Broers would like some data to support whatever conclusion we reach. Broers would like for the staff to find places in Kansas with solar farms where screening was put in and compare the property value before and after the solar farm. Eimers stated there is a study out "Rhode Island Study by University of Rhode Island," he doesn't believe they looked at screening versus not-screening, but they looked at properties with houses next to solar farms and there was very little impact, approximately 1.7% to 2%. He came across other studies, but they showed no difference in property values. Philgreen asked if Eimers knows what the comparison for a wind farm would be. Eimers stated he doesn't have that information but to him wind farms are a lot different because you can see them for miles, a lot of the solar you won't see unless you are adjacent to a solar farm. Broers asked if he has the studies he is referring to she would like a copy sent to the Commissioners.

Ross questioned if he has 100 acres in the floodplain and the max flood height is three (3) feet, if he puts in a solar farm getting the panels above the max floodplain height would he be allowed to have a solar farm on his property? Jardieu stated he would need to build up one foot over the max floodplain height per State of Kansas regulations, for many that is cost prohibited. It would require a development permit, and involves the State of Kansas if developing in the floodplains.

Kitchen asked Jardieu if there is grant money for building solar farms? Jardieu stated she doesn't believe it is grant money but knows there is money available. Jardieu stated she would look into it. Kitchen stated he would like to know who qualifies for the money as well.

Pretz stated he knows what 80 acres of agriculture is worth, but what would the county receive in property taxes for 80 acres of solar panels. Woodard stated in this sitting the amount of money the county may or may not receive in property taxes is not an appropriate consideration for zoning and regulations. Woodard stated we do know the market value of the land in Miami County, but this is not something to consider for making the zoning and regulations per State Statute. Elliott stated the reason zoning exist is for health, safety, and welfare, how can I make a good judgement on the welfare of the county without understanding the economic impact to the county and the residents? Woodard stated she will look further to see if it is one of the things in litigation, but it is not listed as one of the things to consider in making the decision. Philgreen stated health, safety and welfare for the county is what we are all about, what happens if a thousand of our best acreage that farmers pay \$200 per acre to lease is now being taken by these large solar farms for a \$1,000 per acre? Philgreen stated this means that our best farmland is now under solar panels, where is it our role to consider that question. Woodard stated the Planning Commission can consider that question, which would fit into some of the things you are to be taking into consideration.

Kitchen stated using the farm example from earlier of 144 acres he came up with 6,272,640 square feet. Kitchen spoke with a Miami County resident with solar (installed 2021) questioning if he noticed a difference. He stated last month his bill was only nine dollars plus change, with 600 square foot of panels that he paid over \$30,000 for. Kitchen questioned how the 144 acres of solar panels can provide electricity to 5,165 homes per year when the home solar panel of 600 square feet can do so much better? Ross stated he received an estimate for solar panels at his place. The cost was \$53,000 and it would only take away 60% of his current utility bill, which would be a 30-year payback. Eimers stated when comparing homeowners' solar systems to utility companies' solar farms the cost is almost double or triple on a home system. Eimers stated he believes it is because when a homeowner buys it is not in bulk so there are more upfront cost involved. Jardieu stated during her research she found that the solar panels only have about a 20% efficiency rate. They tend to lose a lot of the energy with 20% captured and converted to be used. Jardieu stated at one time there was a tax credit of 26% given to homeowners for installing solar, the tax credit is now 30% till the year 2032. Manchester stated he was visiting someone with solar, their bill was around \$500 per month, now their utility bill is around \$50 per month. Manchester stated they paid \$89,000 and the pay off is twelve years. There is no battery backup on this. A normal person can't afford the solar panels, not sure what the battery backup would cost.

Kitchen asked who will the grant money go to, the property owner or the company leasing the property and owns the solar farm. Kitchen stated he is guessing it will go to the solar farm company or developer in which case they are making money off all of us in this room and then we have to buy the electricity off of them. Vaughan stated all of this is first line conversations (land values, grants, green money, efficiency), we need to challenge ourselves and the county with the commitments past the ten years, the State is making us commit to the ten-year abatement. Vaughan stated we are making the regulations, because we have the ability to develop regulations as to how this is going to look. What we want to stay away from is what Philgreen said, you come into a brownfield, the landowner gets the benefit of the lease but what happens when the ten years is up? Where's the commitment there and beyond? Vaughan believes where to be creative is what to do after ten years, he is really interested in that part of the conversation. Menefee stated he is of similar mind thought. At the last meeting it was discovered the solar farms have a 30-year lifespan. Menefee asked Eimers how is the equipment appraised for years 11

through 30. Woodard stated something we might not have talked about and is worth knowing and understanding as far as the exemptions go, there are similar exemptions for most of the fossil fuels and electric generating facilities in Kansas as well, this just mimics pretty much the same exemptions. This is pretty standard across the industries; this is not unique to renewables in the State of Kansas. Elliott stated the commitment of the ten years is just part of the long-term plan for these companies. Elliott stated he believes we need to really define the decommissioning process no matter if it is ten years or thirty years. Elliott is concerned that technology changes so much and the value isn't there, he doesn't want the solar farms to just walk away leaving the property owners with the decommissioning and clean up. Vaughan stated his biggest concern is the utility not interested in the purchase as it goes through the trial period of it. Vaughan stated we need to protect ourselves and we are in the position to define it and put in our stipulations.

Menefee asked Eimers what does it look like on the equipment years 11 on, are they taxed at market value? Eimers stated the way the equipment is valued is that he would look at what they actually spent then depreciate it over seven years and bottom it out at 20%. Menefee asked if they would be taxing at the 20% then? Eimers stated yes.

Menefee asked when the solar farm is gone from the property what happens to the value and zoning of the property? Eimers stated it comes down to use. If it is used for agricultural it will be taxed agricultural, if it is empty and vacant it would be taxed as vacant.

Dave Delp, Code Services Director, passed out a handout to the Planning and County Commissioners, he started by reading Miami County Code 9-105 (Permits): *(a) REQUIRED. Any owner or authorized agent who intends to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure, or to erect, install, enlarge, alter, repair, remove, convert, or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the code official and obtain the required permit. (b) WORK EXEMPT FROM PERMIT. Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. (e) PUBLIC SERVICE AGENCIES. A permit shall not be required for the installation, alteration or repair of generation, transmission, distribution or metering or other related equipment that is under the ownership and control of public service agencies by established right.* Delp stated until the Building Department receives a Building Application for a building permit, they (Building Department) don't know who that is, a private entity and they will be selling the energy to a business for a profit or a service provider agency by established rights. So, depending on if they are a private entity or a service provider, such as Evergy, they may or may not be building permits required. As far as being exempt from a permit that would not include a manned facility where you have an office and restroom or some kind of facility where there are people working in it. There is only an exemption for degeneration equipment itself. Delp stated Code Services will require specific things from the contractors:

- Contractor must possess a minimum of a Class B Contractors License. A Class A Contractor's License may be required depending on the number of building stories.
- All Contractors and subcontractors must be licensed in Miami County.
- Kansas Licensed Design Professional required on construction documents.
- List of required inspections will be provided.
- List of required inspections that will require 3rd party special inspections by Kansas Licensed Design Professional will be provided.
- Large scale projects where the customer requests inspection staff full-time on hand will be required to 3rd party special inspect some aspects of the project. Summary reports will be submitted to Code Services Department.

Delp stated we won't have the manpower for the 6, 8, or 9 months it takes to build a solar farm. Delp continued with Code Footprint. It is a form provided by Code Services to the design specialists, the form has the information that Code Services requires from the design specialists to provide on their documents.

This ensures they have the seals and stamps they need along with the correct information being submitted. Delp stated he assumes some of the solar farms may or may not be manned, assuming unmanned. Until Code Services receives an application they don't know how to react or who will require a permit, based on who the entity is.

Philgreen stated he would like to know what companies or private entity is exempt? Delp stated per our standards only a service provided, such as Evergy, it has to be a service provider with established rights.

Ross stated if he understands this correctly, if KCP&L has 500 acres within Miami County then they would not require a building permit? Delp stated commercial construction pertains to buildings, the Building Department does not permit for anything other than buildings. Philgreen asked what about the battery storage buildings? Philgreen stated he would think these buildings would need to be a part of this. Delp stated it depends on who owns the solar farm if a building permit would be required for the battery storage or not.

Kitchen requested the definition for private versus public companies. Woodard stated most of the public ones are regulated by Kansas Corporation Commission (KCC), some of the private wholesalers that fall out of the public utility definition aren't regulated by the KCC. Woodard is imagining those are the entities Delp was talking about as private. Woodard stated this isn't about shareholders and stocks versus how they are regulated by the State of Kansas. Ross stated if he were to develop a company named Mark Ross, LLC and was to start up a solar farm with the intent of selling the power back to KCP&L then he would have to get all permits for this solar farm. Woodard stated that is correct, we cannot override the KCC regulations, but they do have their own regulations and requirements in place that the public utilities would have to follow. Kitchen questioned KCC is only involved after the public utility company purchases the power? Woodard stated it depends on the farm, if Evergy owns the property and farm then it is considered a public utility and it will be regulated by KCC.

Philgreen asked if Evergy wants to purchase a thousand acres in Miami County does Miami County have any jurisdiction over that. Woodard stated she will need to look into that and get back with him. Oehlert questioned if Miami County has the right to refuse solar farms from coming into the county. Woodard stated she will need to do some research on this, but even if Miami County can refuse a solar farm from coming into Miami County there is still the possibility of being sued, with today's times people like to find a reason to sue over everything. Kitchen stated Linn County put it to a vote for wind farms, and it was voted against having wind farms in Linn County. Woodard stated there has been litigation when some permits were denied in some counties, so far the counties have been successful.

Oehlert asked who will be writing the regulations. Jardieu stated the Planning & Zoning Department with review by legal counsel. Oehlert stated then we won't have an outside specialty source that specializes in solar or other renewable energy write the regulations. Jardieu stated no. Woodard stated we have the benefit of other counties that have already written their regulations and hired outside folks, and some of the information brought to the meeting by Planning & Zoning (such as from Johnson County, Douglas County, and Franklin County) had outside help developing their regulations. Kitchen asked what about putting something like this to vote over the whole county? Kitchen stated the Planning Commission doesn't know if the county wants this or not, if the Planning Commission knows what the citizens of Miami County want then it will help with their decision. Woodard stated she will look into it. Oehlert stated they are working with a specific timeline to follow; do you think we will be able to stick to our timeline? Woodard stated she hopes to have her reports to the Planning Commission by the end of next week or possibly two weeks. Broers stated in the October meeting they are to be discussing draft recommendations and changes to the proposed regulations. Broers stated that is only weeks from now, she is concerned they will not have draft regulations that are suitable for the Planning Commission's review in two weeks. Vaughan stated he encourages the Planning Commission to figure out what direction they want to go with this and present that to the County Commission. The longer they take setting the regulations the more likely someone else will make the decision for them. Pretz stated we have Johnson County regulations, Douglas County regulations, Franklin County regulations and they are all

boarder counties. Would you want to go with one of them or parts of some or all of them? Or do you want to go with something all new? Broers stated we are only one-third of the way of today's agenda, we haven't discussed Environmental Impacts or Decommissioning Process to give Staff ideas of what to pull from those regulations and then for Staff to write up the regulations and give back to us for review. Woodard stated she believes Planning & Zoning will need to start working on drafting potential stuff for the Planning Commission to review as well as legal drafting of what your options may or may not be. Oehlert stated he agrees with County Commissioner Vaughan that the Planning Commission needs to work on it and work on it as fast as they can, if we get to the end and we find we're not there then we have firm ground to stand on to say this is where we are at and maybe we need another 90 days, or something to that affect.

Kitchen asked who has applied to build a solar farm and how soon are they wanting to complete construction? Woodard stated some of the information is protected under the Kansas Open Records Act (KORA) businesses in preliminary stages, their identity is protected. Philgreen asked if they can tell the Planning Commission if there is a group(s) that is waiting for the regulations to be completed? Delp stated Code Services has had no request at this time. Reeves stated Planning & Zoning has received 2 or 3 inquiries at this time. Oehlert asked if we know the size of solar farms that are waiting on the regulations to come into Miami County? Reeves stated fairly large. Oehlert asked to define fairly large, more than 100 acres, less than 500 acres? Reeves stated she is unable to give acreage as people will be able to start narrowing down the location.

Manchester stated there is land for sale on 175th St in Johnson County near the old strip club. Manchester believes that would be an ideal place to have a solar farm, but says it is selling to someone for a subdivision. Manchester stated this is cheap land and would be ideal for solar farms. Menefee stated we need to plan for the future regardless of it being 10 acres or 1,000 acres, more importantly for tonight we need to at least get through the decommissioning of a solar farm. Broers stated don't forget environmental impact. Menefee asked that Jardieu get them started on environmental impact.

Jardieu stated she has worked with large scale utility companies, in a past life, to some degree they do have to get zoning approval and go through a public hearing process, though her experience was with natural gas pipelines. Should the public hearing not go their way there is eminent domain they can try and apply for, but it takes many years to go through that entire process. It is in their best interest, for speed, to have property rezoned to follow the local regulations. Manchester asked about the Miami County citizens getting to vote on this, no normal citizen can afford to install a solar farm. Kitchen asked if it were a normal power plant would we be voting on it, or would we just be making regulations on it.

Environmental Impacts:

Jardieu stated that she has spoken with Wildlife and Parks, similar to our situation, this is all new to them and coming at them very quickly. They are working on regulations but right now, they only have recommendations. Wildlife and Parks recommend the solar farm sites stay at least one mile away from permanent or semi-permanent water features to minimize risk to aquatic life. They also ask, because there are gaps in the data in the Midwest and in Kansas, they would appreciate help in collecting data. If a solar farm is in place they would appreciate any survey/data information that can be provided. Wildlife and Parks suggest incorporating principles of low impact development, like permeable pavement and concrete, swells, fire retention, and rain gardens as well as encouraging the use of short and medium stature grass for stabilization of the soil. Wildlife & Parks offered to supply Miami County with a list of Kansas Habitat and monitor restoration to make sure things go back to the way they were prior to the solar farm. With cell towers it is part of the conditional use that they are monitored for noxious weeds and non-native weeds. The panels are commonly constructed of glass, silicon, aluminum, and or copper wiring. Thinner panels can contain heavy metals; however, leaching is not typical. There are parts, the hazardous metals, which would need to be disposed of and not at a landfill. We would suggest using a thicker panel and not allowing the thinner panels to be used.

Elliott asked Jardieu to repeat the portion about the one mile distance from any water feature. Elliott asked for the definition of permanent and semi-permanent water features. Jardieu stated she would get clarification and get back with him. Elliott used the map in the packet and requested the map be given to the GIS Department and have them identify one mile away from all water features. Jardieu agreed to do it. The Planning Commissioners agreed that will narrow down a lot of available land for a solar farm.

Jardieu continued with Environmental Impacts stating that she believes Johnson County and Douglas County has a thorough look to their regulations. They only approve low risk EPA approved herbicides and the people that apply them have to be licensed with the State of Kansas and depending on which county they are also responsible for noxious weed management. Johnson County has an entire list of ground cover seed mixes that are available and what has to be planted in and around the site. Douglas County goes on to protect mature trees, trails, and similar items. Douglas County goes into detail on water sampling, they have ground water testing regularly in their regulations. If someone puts in a solar panel within one-quarter mile of the site the operator has to offer to provide soil sampling to the property owner(s) that have a well within that quarter mile.

Oehlert asked if there is annual testing required to confirm if there are any leaks in the panels? Jardieu stated she was informed if a panel breaks it would be minimal leaching since the panel is mostly glass, but she was not able to find any data on leaching herself. Philgreen stated this brings him back to the question he originally asked, if a person has 100 acres of solar panels and a tornado comes along destroying the solar panels and tossing bits and pieces over a ten-mile radius, what happens to that soil? Jardieu stated she doesn't have any data to go off of, but both Douglas County and Johnson County have regulations regarding emergency management plan for clean-up. Oehlert asked if the panels are manufactured to withstand high winds? Jardieu stated she will need to look into that. Vaughan stated they should regulate the quality of the panels, thicker panels not thin. Vaughan believes if they use the higher-end panels there would be less leaching. Philgreen stated when he hears the word leach he thinks of liquid, and there is no liquid in the panels. Philgreen is thinking of particles, in the decommissioning process, construction process, or in the destroying process, such as a tornado. Oehlert included vandalism. Philgreen stated if a person has a tank of gas leak into the soil, that person has to clean it up. If these hazardous metals are spread throughout our good farmlands, what happens? Elliot stated from the leaching standpoint, the water system will carry the leaching throughout the water system, and the everyday rain could be causing leaching. Jardieu stated the emergency management plan for some kind of catastrophe would still be separate from a decommissioning plan. Also, an emergency management plan would address more than the site of the solar farm, decommissioning would be site specific. Philgreen stated the cost of the emergency should be at the solar farm owner's expense and not at the landowner's expense. Broers stated she believes there will be difficulty proving the condition of the soil prior to the solar farm versus after the solar farm is installed, regarding the tornado theory, the short answer is there's a new brown field for more solar panels.

Broers stated she would like to talk about batteries. Jardieu stated in her opinion battery storage facilities will need a workshop all on their own, and Jardieu doesn't have any of that material with her for today's workshop. Philgreen asked how a solar farm can exist without storage? Elliott asked how many solar farms have a battery storage facility? Philgreen stated in his research things are changing and that's why Panasonic is coming to the area. Woodard stated batteries are just coming online, but the one they are looking at doing on the Douglas County/Johnson County line is contemplating having battery storage and is usually located in the center of the farm, there are several reasons such as safety. Woodard stated it is pretty brand new and there isn't a lot of data out there yet. Broers stated she wants to encourage the Planning Commission to follow a developing use case. Yellow Stone just had a battery storage leak where they had to shut down part of the park because of the fumes. Broers stated she isn't sure of the time involved for the cleanup, and it might be worth looking into their facility: see what caused the leak, and how long it took to remediate the site to make it safe again. Elliott asked if it would be feasible to move forward at this time with a general statement that at this time battery storage facilities is not an option?

Elliott stated once the base line is established then come back to the battery storage facilities. Elliott stated he agrees with Jardieu, batteries is its own beast. Philgreen agrees stating batteries do leach.

Decommissioning Considerations

Jardieu stated one of the biggest things for decommissioning is the cost involved. Both Johnson & Douglas counties have it in their regulations that the solar farms have to estimate the cost, put it in either a bond, surety bond, or escrow account, and it is held for the life of the Conditional Use Permit (CUP). They both take into account inflation, so every one to five years the cost needs to be adjusted accordingly. Johnson County addresses abandonment based on if it is inactive for six months then the decommissioning and reclamation must start. If the company is not around then the county has the bond/escrow account to start decommissioning the solar farm. Douglas County defined it by yearly productivity reports, the solar farms were required to provide to Douglas County. Both counties addressed the removal of anything above and below the ground which would include concrete footings and conduit, Douglas County went further to say remove anything 35 inches or less below ground. Johnson County required the soil to be reseeded and revegetated, Douglas County included soil sampling for comparison to the soil sample tested prior to the solar farm. Both Johnson & Douglas Counties stated that they must comply with County, State, and Federal regulations in disposing of the materials as well as using a licensed contractor.

Jardieu asked that if anyone speaks with a citizen wanting to know more about the solar farms, please have them call or email the Planning Department (planning@miamicountyks.org or (913)294-953). Kitchen asked when will public hearings take place, before or after the draft for the solar farm regulations? Jardieu stated the public hearing will take place after the draft so that they will be able to react to what has been drafted. Jardieu stated the public hearings are currently scheduled for November, she believes in December with the holidays too many people wont be able to attend that would like to attend. Kitchen stated then we need a draft completed within 30 days. Jardieu stated yes. Kitchen asked what if no one on the Planning Commission wants to make regulations for solar farms? Oehlert stated his understanding is that we come up with solar farm regulations or we face litigation. Woodard stated she is going to look into this and will get back with the Planning Commission on what she finds out. Broers stated she thinks its important to go through the exercise, we don't care who it is, who's interested, we have public hearings, and we draft what we think is best for the county based on the set of considerations we are supposed to consider and the chips fall where they may and if we make good case law we make good case law, right? Kitchen stated concerning the Conditional Use Permit (CUP), this will be a CUP for an entity that does not own the land? Reeves stated that is how it goes sometimes. Kitchen stated he is not aware of a CUP given to someone other than the landowner. Reeves stated it has been done, and gave a few examples of it happening. Reeves stated that our current regulations, public utilities requires a CUP, solar farms is considered a public utility. However, we don't have any performance standards for the solar farms. Right now, there is a moratorium preventing the applications, but we need the regulations for when the moratorium is no longer in play and the applications come in.

Menefee stated the prudent decision is to draft regulations then we have control over the narrative, and we have control over what those regulations say, and we can be as restrictive as we desired to be within the limits of the law. Whereas, if we choose not to do anything then we give the narrative and the power to whoever would choose to bring litigation against us. Kitchen stated you hear about everything costing so much, from a utility standpoint, because the government is putting so many regulations on it, which is why costs go up, while we are sitting here thinking about putting regulations on them that might cause the cost of the panels to go up, then the Miami County citizens will be paying for the additional costs in the long run. Menefee stated maybe if we have such a high standard set maybe they will choose not to build in Miami County. Philgreen stated if we don't want anymore than 30% of Miami County's farmlands to be covered in solar farms, is there a mechanism we can regulate through percentage? Or once the regulations are set any farmer that is willing to give his land for solar panels can? Woodard stated she will need to look into this. Philgreen stated that is another way to regulate the solar farms, by limiting the amount of Miami County farmlands to solar farms. Kitchen asked how many square miles are in Miami

County? Menefee stated 560. Kitchen asked that be multiplied by 640, which is 358,400. Kitchen stated 10% of that is still 3,000 acres.

Menefee questioned didn't we establish at our last meeting that there are no technical brownfields in Miami County? Jardieu stated she is needing to look into the definition of a brownfield. It is possible a rock quarry or an oil field might be considered a brownfield. Philgreen stated he considers a brownfield being land that is no good for growing wheat, it is too rocky, too slanted, or is being used for something else. Jardieu stated a brownfield is defined as land that has had some kind of contamination. Oehlert stated according to the Johnson County regulations a brownfield is defined as a former industrial or commercial site containing environmental pollution such as hazardous waste or industrial byproducts.

Elliott stated Johnson County and or Douglas County regulations are a reasonable baseline, we've talked about establishing buffers, wildlife corridors, and water setbacks; we need to pick out items from the Johnson County regulations that already meet those requirements, so we don't have to recreate the wheel. We need to:

- Clarify the definition on the storm recovery making it more clearly defined
- Evaluate the environmental impact of the panel not using the cheapest/thinnest panels
- Decommissioning needs to have an oversight portion, they would need to hire a person/company/county to oversee the decommissioning. Not that a company would try to bury something and call it good, but a company might try to bury something and call it good.
- Clearly define how big a project extent will be
- Elliott suggests if there is a way to prioritize and or require a dual use plan, specifically say if building a solar farm, it can't just be a solar farm, it must include crops, or livestock.

Elliott stated these are things he would like to see, is there regulations on the dual use solar farms? Jardieu stated yes, there are a lot in the Massachusetts and one of the Carolinas.

Menefee stated it is important to return the land back to its natural beauty if a solar farm is decommissioned. This includes removing concrete footings. Manchester stated the decommissioning of a solar farm might never happen, they only need to leave one employee on staff at the solar farm and it will never be decommissioned. Manchester stated it will be cheaper for the company to pay one to two individuals to stay on sight for years, then it would be to decommission the solar farm. Menefee stated that is why we will define in the regulations what abandonment is, we require money in an escrow then we have the control to decide if it is ready for decommission or not. Woodard stated if you look at Douglas and Johnson Counties' regulations one of their criteria is productivity. They are looking for that kind of scenario where the solar farm is no longer producing power. Vaughan stated he owns an oil company via gas station, and he is tested every year by KDHE (Kansas Department of Health and Environmental) for ground water and everything. Vaughan stated we can make it a yearly requirement for testing of the soil.

Oehlert stated he would like recommendations on Surety Bond amounts. Jardieu stated she believes it depends on the scale of the project. Oehlert asked that she put a scale together.

Ross stated he looked over the Johnson and Douglas County regulations, to him the Douglas County regulations are too vague on abandonment. Menefee stated these are just bullet points, the actual regulation goes into more detail. Menefee stated maybe Johnson and Douglas County regulations could be combined. Kitchen questioned how to monitor this. Jardieu stated it would be off the reports that are provided. Woodard stated the State of Kansas has laws against making false statements on documents and in some cases it is a felony, we can look into whether that applies to this situation. Elliott asked if we should put a threshold on that to show part of their application process should advise the anticipated wattage production. If non-productive is less than 10% of the original or something like that, just so we have a clear number we are actually using to reference the yearly report? Jardieu stated one of the items in Johnson County's regulations is that they have the right to obtain reviews, inspections, and other work

using a third party of the County's choosing. Kitchen questioned at who's expense. Jardieu stated the county would pick the third party and the solar farm would pay the bill.

Philgreen stated he would like to find a way to encourage solar farms to utilize land that can't be used for anything else. Broers stated the problem with that is Miami County is mostly prime farmland.

Broers stated at this point we are putting together skeleton ideas so when we come back together we have something to discuss, but wants it clear this is not necessarily the direction we are headed, we are throwing out ideas at this time. Broers stated when we look at what we can and can not prohibit; is there an ability to prohibit commercial farms that are owned by entities that are not Kansas Public Utilities? Woodard stated she believes the Planning Commission will mainly run into interstate commerce clause issues. That is a pretty complex and extensive process, such as a company out of Virginia files a complaint that they are being discriminated against, yet they are planning on building the exact same solar farm the Kansas company is building. Woodard stated this would be a very expensive litigation and she suggests we stay away from this. Broers stated she would like to clarify her question; she wasn't stating based on their locations she was saying based on the regulatory body and their status as a public utility. Kitchen questioned the difference between going from State to State and going from County to County? Woodard stated county cannot impede the State of Kansas regulations, but it is a case by case. We need to make sure we aren't treating outside entities differently than we treat Miami County entities. Menefee stated he has been reading about solar panels going up on parking lots, schools, and things to that nature, he began thinking about Miami County's cities. Do we know if Paola, Osawatomie, Louisburg, and Spring Hill are they drafting any sort of solar panel regulations from that standpoint, anything large scale like Miami County is? Pretz stated the plan is for about 60 acres of solar panels on Osawatomie Rd north of the State Hospital. Jardieu stated she doesn't know about the other cities.

Elliott stated the buffer component is defined but how do we address elevation in buffers? Specifically, the angles, there is a significant difference between one to the next otherwise there wouldn't be all the floodplains in Miami County. How do we provide buffers with adequate screening when there might be a fifty foot elevation between some of the solar panels and a neighboring home? Jardieu stated she will look into this. Reeves stated Green Country Soils had to get an exception or waiver, there is no way to screen their facility. Elliott stated that is a perfect example of what he is concerned about. Menefee stated we need to make sure to define the height and how much of it has to be screened if a person is driving by on the road.

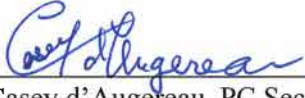
Kitchen stated if he were the owner of or leased one of the solar farms, he would want a 15 foot tall fence and no way in or out except the gate, he wouldn't want any wildlife to get in there. Elliott stated that is one of the challenges, we don't want to disrupt and have a negative impact to the wildlife. Kitchen stated wildlife can cause a lot of damage. Woodard stated the wildlife panel fences around the parts of the solar farm to protect the panels and leave open corridors that aren't fenced for wildlife to go through. Kitchen stated that can't be done with a dual use. Elliott used the example of fencing three separate areas within the 15 foot fence and the corridors would be the path for the wildlife, while the sections fenced would be the solar panels and crops or livestock. Kitchen stated that won't allow for a large amount of livestock. Menefee stated sheep are little, it'll allow for a lot of sheep. Kitchen stated he would just as soon have the 15 foot fence around everything, preventing people from coming into the area and still have his livestock. Elliott stated you would still have the fencing to prevent people from coming in, but it will be wildlife fencing allowing the wildlife to come through the fencing. Jardieu asked about coming up with something in writing to see how it looks in writing. Kitchen stated 160 acres isn't that big, they can't be much bigger than that because of the county roads. There are very few places in the county with more than 640 acres, maybe one or two. Broers asked what do we want to see in the draft regarding the size allowable for the solar farms? Jardieu suggested making a map and removing places that can't be considered to be used for solar farms, such as floodplains, county roads, buffer around the county roads, and growth areas around the cities. Menefee stated he believes that would be helpful.

GENERAL DISCUSSION

There was no General Discussion.

Elliott moved to adjourn the meeting, Kitchen seconded, and the meeting was adjourned with a vote of 9 – 1 (Kitchen voted no), via show of hands, at 8:45 p.m.

Approved this 7th day of November, 2022.



Casey d'Augereau, PC Secretary

Minutes written by Casey d'Augereau.



John Menefee, Chair / Phil Elliott, Vice-Chair