

Maysville/Mason County Solar Energy Systems Ordinance Draft

Overview of Mason County Comprehensive Plan as it Pertains to Considerations for Zoning of Purposed Large Scale Solar Siting

LOCATION Mason County is located in the northeastern part of the state on the Ohio River. It is strategically located in that it is situated within an hour's drive of three metropolitan areas – Cincinnati/Northern Kentucky, Lexington, and Ashland/Huntington – shown in Figure 2. In addition, it contains Maysville, the largest city serving a seven-county area, which is largely rural and agricultural in its characteristics. Location played an important part in its early settlement and hence its rich, historical heritage. Location is one of the most valuable assets Mason County has to offer.

Two geologic systems underlie most of the County; the Ordovician System, and the Silurian System. The Ordovician System is the more extensive of the two and consists of interbedded limestone, shale, and siltstone of the Preachersville Member of Drakes Formation, and the Bull Fork, Grant Lake, Fairview, Kope, and Clays Ferry Formations. The Silurian System underlies the eastern part of the County, and consists of dolomite and dolomitic limestone interbedded with clay shales of the Crab Orchard and Brassfield Formations.

WATER RESOURCES The Ohio River is obviously the most notable of Mason County's water resources. The County has approximately 20 miles of river front, with potential for commerce and recreation. There are three major watersheds within the County: 1) the North Fork of the Licking River is the largest stream and flows through the central part of the County in a westward direction, 2) the southern portion of the County drains in the main tributary of the Licking River, and 3) the northern area drains directly into the Ohio River.

Wildlife. It is estimated that there are 34 species of mammals, 33 species of reptiles and amphibians, and 110 species of breeding birds in Mason County. Among the wildlife species that are hunted or trapped are the cottontail rabbit, gray squirrel, fox squirrel, white-tailed deer, raccoon, red fox, mink, muskrat, bobwhite quail, mourning dove, woodcock, and several species of waterfowl. According to the US Fish and Wildlife Service, the Indiana bat (*Myotis sodalis*) is considered an endangered species, and the Northern Long-Eared bat (*Myotis septentrionalis*) is considered threatened. In summary, Mason County has a highly diversified natural environment. Its landforms are conducive to a wide range of human activities. Soils support a strong farm economy and under proper conservation and management techniques, lend themselves to development. The climate is generally temperate, but offers clear and distinctive seasonal variations. Vegetative cover is extensive and provides suitable habitat for a substantial wildlife population. Care should be given in future development to insure that natural resources are used wisely so that future generations may continue to benefit from them.

Historical. A buffalo trail (trace) stretched from the Ohio River to salt licks near Blue Licks. This trail developed into a wagon road and eventually a turnpike connecting these settlements with Paris and Lexington. With the invention of the steamboat in the early 1800s, river traffic increased and trade by land to the south declined. May's Lick is another settlement dating back to 1787. Charles Young, who was born into slavery in 1864 in a log cabin built around 1800 on the outskirts of May's Lick, went on to have a noteworthy military career from 1869 until his passing in 1922. The cabin was purchased by the Mason County Fiscal Court, and is currently being rehabilitated.

Agriculture, the number of farms has decreased by 92 (-12.7%); the amount of land in farms has decreased by 1,401 acres (-1.1%); the size of the average farm has grown by 24 acres (13.6%); the average value of land and buildings per acre has increased by \$689 (36.5%); the amount of cropland has increased 4,769 acres (10.4%); and the amount of pasture has declined by 26,606 acres (64.4%).

In addition, despite a decrease in the local farm economy's livestock sector, in 2012 Mason County had 26,229 head of cattle and calves (13,318 beef cows). Furthermore, milk production ranked 21st in Kentucky with total of sales of \$2,612,000 in 2012. Agri-tourism has grown in the County and the River Valley Agritourism Alliance was formed in 2005.

Solid waste is disposed of at the Maysville-Mason County Landfill, which is located in the eastern part of the County. This site is owned by the City and County and operated by the County. It serves as a regional landfill, receiving some 300 tons of waste daily. The facility also has a recycling program (including tires and appliances), composting, and a collection system for methane gas.

LAND USE AND THE ENVIRONMENT Goal Statement: To ensure that there is an adequate supply of land available to meet residential, commercial, industrial, agricultural, and public needs, managed in such a way as to protect the total environment. Objectives: 1. Establish, follow, and rewrite when needed, a comprehensive land use management program that will meet the specific development needs of the City of Maysville and the unincorporated areas of Mason County. 2. Continue to encourage redevelopment/revitalization of the tobacco warehouse areas of the City for other uses. 3. Make revisions to the existing subdivision regulations and zoning ordinance to account for any changes in K.R.S. 100, and to meet the needs of changing conditions and concerns in the local area. 4. Continue to strengthen the County's efforts in solid waste management. 5. Strengthen efforts to make citizens aware of the need to reduce littering and to dispose of solid waste in a responsible manner. 6. Reduce the problems of water pollution by requiring developed areas outside the City to tie onto the city sewer system where possible. 7. Reduce drainage and soil erosion problems through the enforcement of development requirements and regulations. 8. Ensure that all environmental concerns are properly addressed in applications for land use changes and development plans, and that the preservation of existing green space is addressed. 9. Promote the creation of a watershed management plan utilizing National Resource and Conservation Services.

ENVIRONMENTAL QUALITY Several environmental quality issues were raised in the Community Assessment: 1) inadequate sewage disposal, 2) solid waste disposal, including problems of litter and illegal dumping, 3) nuisances, 4) protection of green space and open areas, and 5) watershed management, including problems of flooding and soil erosion. 6. Continue to strengthen the County's efforts in solid waste management. 5. Strengthen efforts to make citizens aware of the need to reduce littering and to dispose of solid waste in a responsible manner. 6. Reduce the problems of water pollution by requiring developed areas outside the City to tie onto the city sewer system where possible. 7. Reduce drainage and soil erosion problems through the enforcement of development requirements and regulations. 8. Ensure that all environmental concerns are properly addressed in applications for land use changes and development plans, and that the preservation of existing green space is addressed. 9. Promote the creation of a watershed management plan utilizing National Resource and Conservation Services.

WATERSHED MANAGEMENT The Maysville/Mason County Zoning Ordinance provides for a Flood Prone Overlay District, which is designed to protect certain areas that have been designated as being subject to periodic flooding. One of the major problems related to local flooding is the cumulative effect of developed areas coming in upstream without proper considerations being given to the impact downstream. The Planning Commission should create incentives for subdivisions and developers, which

utilize best management practices for water conservation and environmental protection, such as using permeable instead of impermeable surfaces

RURAL AND AGRICULTURAL AREAS: Goal Statement: To ensure that the rural farmland areas of Mason County are adequately provided for in the Comprehensive Plan. Objectives: 57 1. Retain the appointed agricultural task force in the development of new farm strategies that will help to offset the losses sustained by the decline in tobacco farming. 2. Continue to support rural entrepreneurial development programs to assist local farmers in the start-up of new agricultural enterprises. 3. Continue to support and market the farmer's market to serve the needs of the local and regional population. 4. Develop a program to encourage the revitalization of selected rural towns and other communities. 5. Establish a program for maintaining green space and scenic values through- out the County. 6. Develop programs to support the retention of productive farmland.

In addition, greenspace or sensitive environmental and cultural sites can be protected through the use of required landscape buffers. Landscape provisions can be added to the zoning ordinance or subdivision regulations to require the retention or addition of plants in conjunction with development proposals.

FUNDAMENTALS OF LAND USE PLANNING There are some fundamental planning principles to consider in determining the future distribution of land uses. From the perspective of governmental administration/costs, it makes sense to encourage growth to be more compact. As the degree of sprawl increases, costs of services and infrastructure increase. Random development in Mason County also has a negative effect on farming. Often, high quality farmland is surrounded by residential development, which is not compatible with farm operations. Growth and development in the County have been addressed by changes in the zoning ordinance and subdivision regulations. These changes allow for orderly growth and take into consideration the preservation of open space and farmland. Growth and development should take place in locations that are best suited for change, based on site characteristics and the surrounding area. The most intensive land use changes should occur in and around the City of Maysville, where the required level of public services and infrastructure are most likely to be found. There should be opportunities for somewhat less intensive development in both intervening areas and corridors that are in close proximity to the City. Out beyond this urbanizing area, development should be limited to smaller clusters of residential land uses with supporting convenient type businesses that have adequate access to major highways and roads, water, sewer, and other services.

RURAL AND AGRICULTURAL AREAS Most of Mason County would lie within the Rural and Agricultural Areas, with land use regulations geared toward accommodating existing and potential agricultural uses, resource activities, recreation, and low-density residential uses. One of the primary functions of the Rural and Agricultural Areas would be the retention and bolstering of the farm economy, as well as the preservation of rural values, which include aesthetic concerns.

414 Solar Energy Systems (SES)

414.01 PURPOSE

The purpose of this ordinance is to facilitate the siting, development, construction, installation, and decommissioning of solar energy systems (SESs) in **Mason County** in a predictable manner that promote public health, safety, morals, and the general welfare of Maysville and Mason County, Kentucky; to facilitate orderly and harmonious development and preserve the visual or historical and

county which need special protection. This ordinance encourages the appropriate siting of SESs character of the area; and to regulate the density of population and the intensity of land use in order to provide for adequate light and air. In addition, these land use regulations are designed to provide for vehicle parking and loading spaces, as well as to facilitate police and fire protection, prevent the overcrowding of land, blight, danger, and congestion in the circulation of people and commodities, and prevent the loss of life, health, or property from fire, flood, or other dangers. These regulations are used also to protect airports, highways, and other transportation facilities, public grounds and facilities, historic districts, prime agricultural land and other natural resources, and other specific areas of the city to bolster local economic development and job creation, diversify the state's energy portfolio, strengthen energy and grid security, and reduce other environmental impacts. The appropriate siting of SESs considers, avoids to the extent possible, and mitigates any adverse impacts to wildlife, productive and nationally important agricultural lands, forests, endangered species habitat, and historic, natural, and other sensitive lands. The appropriate siting of SESs also establishes standards and requirements to assure that the use and enjoyment of lands and residents located adjacent to and in the proximity of SESs are fully protected and made whole.

The implementation of these regulations is closely related to the attainment of goals and objectives contained in the 2016 Comprehensive Plan for Maysville/Mason County, Kentucky. The section of the plan dealing with the use and management of land and development should serve as a primary reference in administering these regulations

A. The purposes of this Section are to:

1. Preserve and protect the aesthetic quality, natural beauty, and character of the land and the natural resources.
2. Preserve, enhance, and protect the character and quality of life of the community.
3. Encourage the harmonious interaction of residential, commercial, industrial, public and semi-public, and agricultural land uses.
4. Promote and protect the safety of the public against fire, flood, or other hazards.
5. Promote and protect the safety and convenience of motorists and pedestrians.
6. Encourage the best possible use of the land while avoiding the undesirable effects of overcrowding, congestion, and mixture of incompatible uses.
7. Assure that any development of industrial scale solar energy projects within Maysville and Mason County, Kentucky, is safe and effective; and
8. Balances benefits of renewable energy production with protection of agriculture, existing residential use and existing built environment.

B. Provide a framework for development for solar energy resources which balances the benefits of renewable energy production with protection of agriculture, existing residential use and existing built environment.

C. Develop policies and programs to protect and retain land that is considered valuable or that has soils of prime or of statewide importance. Selected options may include the creation of Agricultural Districts and the establishment of Conservation Easements.

414.02 INTENT

It is the intent of these Solar Energy Systems Regulations to provide a regulatory framework for the siting, construction and operation of industrial and non-industrial scale Solar Energy Systems, hereafter referred to as SES, within Maysville and Mason County consistent with the Comprehensive Plan for such jurisdiction and consistent with Section 100 (Mission Statement) and Section 202 (Purpose).

414.03 APPLICABILITY

The provisions of this Section are applicable to those districts which permit industrial scale SES within Mason County, Kentucky, and governs the siting of industrial scale SES and related substations, maintenance facilities and other accessory facilities, as defined, that are ancillary to industrial scale SES. Any reference to applicant, owner, operator or successor is intended to refer to an entity that is a responsible party in terms of being continually required to abide by the provisions of this Chapter and similarly is bound by any agreement entered into with the City of Maysville and/or Mason County.

414.04 PROHIBITION

No entity or applicant shall construct, operate, or locate an industrial scale SES within the City of Maysville or Mason County, Kentucky, without first having applied for and obtained a permit under this Section 414 and having fully complied with the provisions hereof.

414.05 CONFLICT WITH OTHER REGULATIONS

Nothing in this Chapter is intended to preempt other applicable state and federal laws or regulations, including compliance with all Federal Aviation Administration rules and regulations. Nor are they intended to interfere with, abrogate, or annul any other ordinance, rule, or regulation, statute or other provisions of law. In the event that any provision of these regulations imposes restrictions different from any other ordinance, rule, regulation, statute, or provision of law, the provisions that are more restrictive or that imposes higher standards shall govern.

414.06 DEFINITIONS

Agricultural District means a district created under the Commonwealth of Kentucky's agricultural district program and administered by the Mason County Conservation District pursuant to KRS 262.850 in which Intermediate Scale SES and Large Scale SES are prohibited **and upholds the land zoning usage as defined in the Mason County Comprehensive plan.**

Agricultural Solar Energy System (Ag SES) means a SES that is a used to provide the energy needs of a farm consisting of at least five contiguous acres conducting an agricultural land use described in KRS 100.111. SES that qualify as merchant electric generating facilities as defined in and regulated by KRS 278.704 are not considered Ag SES.

Nuisance Noise - Measured in Decibels at the property line of the adjoining property line.

During Construction the Decibels level shall only exceed the 80 dba between 7am – 3pm measured at the adjoining property line. Between the hours of 6pm until 7am the decibel level should not exceed 30 dba.

Any adjoin neighbor who primarily works schedule between the hours of 7pm to 7am who for their safety need to be able to sleep during the day, then the decibel level shall not exceed 45 decibels on the days they are required to work.

During Operation the Decibels level shall never exceed the 30 dba at any time of the day.

Exempt Solar Energy System (Exempt SES) means a SES that is a facility of a municipally owned electric system or public utility regulated by the Kentucky Public Service Commission or Federal Energy Regulatory Commission, which is exempt from planning and zoning requirements under KRS 100.324.

Footprint of the SES is calculated by drawing a perimeter around the outermost SES panels and any equipment necessary for the equipment to function, such as transformers and inverters. The footprint shall include the perimeter fencing and visual buffers or screening, does not include the transmission lines or portions thereof that are required to connect the SES to a utility or customer outside the SES perimeter.

Fences –

1. **Fence Perimeter of Merchant Electric Solar Energy Systems also known as Intermediate and/or Large Scale Solar Energy Systems.**
 - a. **Must meet OSHA requirements from a construction requirement.**
 - b. **Fence along main navigational routes shall be rigid enough to prevent a standard car traveling at up to 15 mph over the designated speed limit from being able to come in contact with the solar panels.**
 - c. **Wildlife friendly to protect nature.**

Industrial Scale SES – What does this mean? Energy that is not for sale. TBD.

Planning Commission means the Mason County Joint Planning Commission, the local land use planning body for the City of Maysville and Mason County, Kentucky.

Siting Board Regulated SES means a SES that constitutes a “merchant electric siting facility” under KRS 278.700(2), the construction and siting of which is subject to review and approval of the Kentucky State Board on Electric Generation and Transmission Siting. A merchant electric siting facility is an electricity generating facility or facilities that, together with all associated structures and facilities are capable of operating at an aggregate capacity of ten megawatts (10 MW) or more and sell the electricity produced in the wholesale market, at rates and charges not regulated by the Kentucky Public Service Commission.

Solar array means an individual row or section of solar panels that are tied together to collect energy from the sun.

Solar Energy System (SES) means a device, including its components and subsystems that collects solar energy for electricity generation, consumption, or transmission, or for thermal applications. SESs are in turn divided into three types depending on how the system is incorporated into the existing land use:

Integrated Solar Energy System means an SES where the solar materials are incorporated into the building materials, such that the building and solar system are reasonably indistinguishable, or where the solar materials are used in place of traditional building components, such that the SES is structurally an integral part of the house, building, or other structure. An Integrated SES may be incorporated into, among other things, a building façade, skylight, shingles, canopy, light, or parking meter.

Rooftop Solar Energy System means an SES that is structurally mounted to the roof of a house, building, or other structure and does not qualify as an Integrated SES.

Ground Mounted Solar Energy System means an SES that is structurally mounted to the ground and does not qualify as an Integrated SES. Ground Mounted SESs are subcategorized as follows:

- **Small Scale Ground Mounted Energy System (Small Scale SES)** which is a Ground Mounted SES with a Footprint of less than 2,500 square feet
- **Intermediate Scale Ground Mounted Energy System (Intermediate Scale SES)** which is a Ground Mounted SES with a Footprint of between 2,501 square feet and ten (10) acres. Intermediate Scale SES are considered industrial scale SES in this ordinance.
- **Large Scale Ground Mounted Solar Energy System (Large Scale SES)** means a Ground Mounted SES with a Footprint of more than ten (10) acres. Large Scale SES are considered industrial scale SES in this ordinance.

• **"Merchant electric generating facility"** means, except for a qualifying facility as defined in subsection (7) of this section, an electricity generating facility or facilities that, together with all associated structures and facilities:

- (a) Are capable of operating at an aggregate capacity of ten megawatts (10MW) or more; and
- (b) Sell the electricity they produce in the wholesale market, at rates and charges not regulated by the Public Service Commission;

Prime Farmland means a map unit identified by the Natural Resources Conservation Service of the United States Department of Agriculture as having the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses

Farmland of Statewide Importance means a map unit identified by the Natural Resources Conservation Service as including soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods.

SES Structure is anything constructed or made for use with SES, and which requires a permanent location in or on the ground or attachment to something having a permanent location in or on the ground.

Property Lines – Trees that are on the line need to be handle any KRS statues. TBD.

Visual Buffers – TBD.

Wildlife Friendly Fences: TBD.

414.07 DISTRICT REGULATIONS AND/OR DESIGN STANDARDS & REGULATIONS.:

A. Location. SES are permitted only in districts as specified in Code of Ordinances Section 406, Land Use Classification and Designation.

B. Height. – **This should be in the Design Standards section which needs to be.**

1. Industrial scale SES or Operational Support Metrological Towers for Industrial scale SES are subject to those height limitations promulgated by Federal Aviation Administration.
2. **Ground Mounted Solar Energy System Small Scale** which is a Ground Mounted SES with a Footprint of less than 2,500 square feet will be below 1 story or 14 feet whichever is most practical.
3. **Intermediate Scale Ground Mounted Energy System (Intermediate Scale SES)** Intermediate Scale which is a Ground Mounted SES with a Footprint of between 2,501 square feet and ten (10) acres. Intermediate Scale SES are considered industrial scale SES in this ordinance, Height will be tabled for further discussion.
4. **Large Scale Ground Mounted Solar Energy System (Large Scale SES)** means a Ground Mounted SES with a Footprint of more than ten (10) acres. Large Scale SES are considered industrial scale SES in this ordinance, will be below 1 story or 14 feet which is most practical and shall not be allowed on A-1 and/or A-2 zoned districts.
5. **MAXIMUM HEIGHT.** The maximum height for a solar panel shall be fourteen (14) feet. The maximum height of a Power Switchyard shall not exceed the minimum height needed to tie into electric transmission lines. The height of all other buildings and accessory structures shall comply with the maximum building height requirements of the applicable zoning district in which the large solar energy facility is located. The height of required lightning rods attached to the Power Switchyard or Solar Facility related equipment shall not be subject to the foregoing height limitations. The height of lightning rods shall be limited to that height necessary to protect the Power Switchyard and Solar Facility equipment from lightning.
6. Intermediated & Large Scale Ground Mounted utility-scale solar energy facilities shall not be constructed on agricultural zoned land. Intermediated & Large Scale Ground Mounted utility-scale solar energy facilities may be constructed on land zoned as commercial and industrial, requiring a conditional use permit.

C. Drilling. - All drilling for placement of equipment, facilities, and water and/or mineral extraction shall be included in project plans and approved at time of application and filing with siting board and may not me deviate from initial plan without notarized authorization from property owner, county and state regulatory bodies.

D. Fire - Shall include an independent, third-party study and findings of the local capacity of Volunteer Fire Departments, Public Safety and Emergency Management responses to deal with the unique challenges and scope of Large scale Solar projects pertaining to fires, damages and environmental clean-up due to electrical accidents acts of God (including lightning, wind, hail, flooding, terrorism or vandalism).

414.08 SETBACK REQUIREMENTS

A. Setbacks must be at a minimum comply with the Kentucky State statute KRS 278.04 which defines the merchant electric generating facilities setbacks, aka both Intermediate & Large Scale Ground Mounted Solar Energy Systems. . These setbacks are 1,000 feet from property boundary of any adjoining property owner, and 2,000 feet from any residential neighborhood, school, hospital, or nursing home facility. All other SES system setbacks can be found in the table below.

<i>Distance from a ...</i>	<i>Integrated Solar Energy System</i>	<i>Rooftop Solar Energy System</i>	<i>Small Scale Ground Mounted Energy System (Small Scale SES)</i>	<i>Intermediate Scale Ground Mounted Energy System (Intermediate Scale SES)</i>	<i>Large Scale Ground Mounted Solar Energy System (Large Scale SES)</i>
Property line, measured from the center of the SES tower to the property line	TBD	TBD	TBD	TBD	As per described by the Kentucky State Statute 278.704.
Residential dwellings, regularly occupied industrial or institutional buildings, public or semi-public institutions such as schools and churches and historical landmarks measured from the nearest edge of an SES structure to the nearest corner of the structure.	TBD	TBD	TBD	As per described by the Kentucky State Statute 278.704.	As per described by the Kentucky State Statute 278.704.
Public road right-of-way, measured from the nearest edge of an SES structure to the edge of the right-of-way	TBD	TBD	TBD	As per described by the Kentucky State Statute 278.704.	As per described by the Kentucky State Statute 278.704.
Road Corridor's such as "Scenic Hwy 68", Hwy 62, 324 & Route 11, to protect the historical nature, cultural & tourism industries of the bluegrass region.	TBD	TBD	TBD	As per described by the Kentucky State Statute 278.704.	As per described by the Kentucky State Statute 278.704.
Other rights-of-way, such as railroads and public utility easements, measured from the nearest edge of an SES structure to the edge of the right-of-way and	TBD	TBD	TBD	As per described by the Kentucky State Statute 278.704.	As per described by the Kentucky State Statute 278.704.
Public conservation lands, measured from the nearest edge of an SES structure to the nearest point of the public conservation land in question	TBD	TBD	TBD	As per described by the Kentucky State Statute 278.704.	As per described by the Kentucky State Statute 278.704.
Community or Rural Residential Districts measured from the nearest edge of an SES structure to the Rural District line	TBD	TBD	TBD	As per described by the Kentucky State Statute 278.704.	As per described by the Kentucky State Statute 278.704.
Incorporated limits of a municipality and County boundary, as measured from the nearest edge of an SES structure to the corporate limits or County boundary.	TBD	TBD	TBD	As per described by the Kentucky State Statute 278.704.	As per described by the Kentucky State Statute 278.704.
Wetlands / Flood Plain Zones, as defined by the U.S. Army Corps of Engineers, measured from the nearest edge of an SES structure to the nearest point of the Wetland in question.	TBD	TBD	TBD	As per described by the Kentucky State Statute 278.704.	As per described by the Kentucky State Statute 278.704.
Above-ground electric transmission or distribution line, measured from the nearest horizontal extension	TBD	TBD	TBD	As per described by the Kentucky State Statute 278.704.	As per described by the Kentucky State Statute 278.704.
Cell towers, radio and television towers	TBD	TBD	TBD	As per described by the Kentucky State Statute 278.704.	As per described by the Kentucky State Statute 278.704.

¹This setback shall not apply to residential dwellings on lots with SES or those of participating landowners.

²The setback shall be measured from future public rights-of-way width if a planned public road improvement or expansion is known at the time of application.

B. Industrial Scale SES Ancillary Structure Setback

1. **Small Scale** SES primary structures and ancillary structures, such as substations and maintenance and operation facilities, are considered principal structures and subject to principal structure setbacks unless otherwise specified herein or if specifically identified as an accessory structure in Code of Ordinances Section 408.2.

2. For all poles carrying overhead wiring connecting industrial scale SES to a substation for connection to a utility's electric transmission line, there are no setback requirements from property lines as long as the poles are located within a recorded easement for such purpose.

414.09 SAFETY DESIGN AND INSTALLATION STANDARDS

A. Equipment Type

1. All solar panels shall be constructed of commercially available equipment.

B. Industry Standards and Other Regulations

1. All SES shall conform to applicable industry standards, as well as all local, state and federal regulations. An applicant shall submit certificate(s) of design compliance that solar panel manufacturers have obtained from Underwriters Laboratories, DNV-GL, or an equivalent third party.

2. **The Solar panels must be manufactured in the United States of America.**

C. Electrical components

1. Standards. All electrical components of all SES shall conform to applicable local, state and national codes, and any relevant national and international standards.

2. Collection Cables. All electrical collection cables between each solar array and ancillary structures shall be located underground wherever possible.

3. Transmission lines/Distribution lines. All transmission and/or distribution lines that are buried should be at a depth consistent with or greater than local utility and telecommunication underground lines standards.

D. Reflective surfaces.

1. All surfaces shall be matte or non-reflective. Solar panels shall be as non-reflective as possible and conform to any Federal Aviation Administration requirements for SES near airports.
2. Gloss Values of Solar Panels shall not exceed a gloss value of ...
3. Developers & Land owners shall provide a certificate verifying the gloss values of the surface of the panels that will be used in the solar array.

E. SES Warnings and Notices. The following notices shall be clearly visible on industrial scale SES facilities:

1. "No Trespassing" signs shall be attached to any perimeter fence.
2. "Danger" signs shall be posted at the height of five (5) feet on SES accessory structures.
3. A sign shall be posted on SES structures showing an emergency telephone number.
4. The manual electrical and/or shutdown disconnect switch(es) shall be clearly labeled.
5. Sign or signs shall be posted on the pad-mounted transformer and the substation(s) warning of high voltage.
6. Private roads providing access to Industrial scale SES shall have posted an Emergency-911 address private road sign.

G. Materials Handling, Storage and Disposal

1. Solid wastes. All solid wastes whether generated from supplies, equipment, parts, packaging, operation or maintenance of the SES, including old parts and equipment related to the construction, operation and/or maintenance of the SES shall be removed from the site promptly and disposed of in accordance with all federal, state, and local laws.
2. Hazardous Materials. All hazardous materials or waste related to the construction, operation and/or maintenance of any SES shall be handled, stored, transported and disposed of in accordance with all applicable local, state and federal laws.

H. Excavation of land – is prohibited in order to protect Mason County primary natural resource, if not only but is most precious.

1. Both Intermediate & Large Scale SES are a final conversion of Agricultural land to Non-Agricultural land therefore shall not be built on A-1 & A-2.

- I. **Battery Storage** – Extremely hazardous & needs a lot of thought and attention.
 - a. **Lithium Battery Storage Devices / Apparatus TBD**
 - i. **What is the emergency action plan.**
 - b. **Other Battery Storage Devices / Apparatus. TBD.**
 - i. **What is the emergency action plan.**

J. Lighting. All lighting, including lighting intensity and frequency of strobe, shall adhere to but not exceed requirements established by Federal Aviation Administration (FAA) and this ordinance and must incorporate an FAA-approved Aircraft Detection System (ADS) lighting control, activating lighting only when aircraft are in the vicinity of turbine, to minimize potential for nuisance.

414.09 OTHER APPLICABLE STANDARDS

A. Sewer and Water

All facilities or structures that are part of the industrial scale SES project shall comply with the existing septic and well regulations as required by the Mason County, Kentucky Health Department and/or the State of Kentucky Department of Public Health.

B. Noise and Vibration

1. No Intermediate and/or Large Scale SES or ancillary structure shall be located so as to create a decibel level greater than 30 dBA at the property line of the adjoining property line.
 2. The application shall include a pre-construction sound study that establishes the ambient sound conditions in the proposed project area and surrounding the project area with a perimeter of one mile. The sound study shall be performed by a certified independent acoustical engineer. The sound study must provide a description of the testing, sampling and process methodology used in determining the ambient measurement per ASTM E1686 Standard Guide for Applying Environmental Noise Measurement Methods, ASTM E1574 Standard Test Method for Measurement of Sound in Residential Spaces, and/or any other ASTM Standards Test Method for Measurements of Sound (TBD)...The firm with which the engineer is associated shall be a member of the National Council of Acoustical Consultants (NCAC) with a specialty in environmental noise, and the independent acoustical engineer shall be a Member, Board Certified of the Institute of Noise Control Engineering of the USA. The engineer selected shall be a non-affiliated credited independent with the Intermediate and/or Large Scale Solar Energy System developing/constructing firm also known as the project owner. Require use of Best Available Technology to ensure the lowest practical noise emissions. Facility applicants should be required to show their equipment is Best Available Technology and that facility designs shall not impact people with unwanted sound and shall not create high annoyance. Given the many readily available and time-proven noise control options for transformers and inverters, there should be no objection to applying these criteria and safety margins to protect people from unwanted sound.
 3. All drilling for placement of equipment, facilities, and water and/or mineral extraction shall be included in project plans and approved at time of application and filing with siting board and may not deviate from initial plan without notarized authorization from property owner, county and state regulatory bodies.
3. Within three months after the date when the project is fully operational the operator shall conduct a two phased post-construction sound study conducted by an independent accredited sound engineer chosen by the Planning Commission and paid for by the applicant/owner. Post-construction sound level measurements shall be taken both with all solar arrays running and with all solar arrays

off. The post-construction measurements shall be reported to the Planning Commission and made available for public review.

4. If sound measurements from the post-construction analysis show levels above what is permitted by the ordinance, the operator/owner shall take all necessary steps to remediate the problem, up to & including shutting down the offending Industrial SES system. .

C. Utility Interconnection

The SES, if interconnected to a utility system, shall meet the requirements for interconnection and operate as prescribed by the applicable regulations and/or tariffs of the electrical utility or any other regulatory body with jurisdiction, as amended from time to time.

D. Signage

All signs pertaining to an industrial scale SES project must comply with Section 411, Sign Regulations, unless otherwise specified as follows:

1. No sign shall exceed sixteen (16) square feet in surface area except development signs.
2. No sign shall exceed eight (8) feet in height.
3. The manufacturers or owner's company name and/or logo may be placed upon the compartment containing the electrical equipment in accordance with customary practice.
4. An identification sign relating to the SES Project development shall be located on each side of the total SES Project area. There shall be no less than four (4) and no more than six (6) signs. Development signs must be sized and placed in compliance with Section 320.411 and must include seven (7) day per week contact information to reach a responsible representative of the operator with authority to resolve problems associated with development of a SES Project.
5. No other advertising signs or logos shall be placed or painted on any structure or facility with the exception of an identifying sign at the operation and maintenance facility.

E. Feeder lines

Feeder lines (lines at distribution levels) installed as part of any SES shall not be considered an essential service. To wit, all communications and feeder lines installed as part of any SES shall be buried underground wherever possible.

F. Other appurtenances

No appurtenances other than those associated with the SES construction, operations, maintenance, decommissioning/removal, and permit requirements shall be connected to any SES structure except with express, written permission by the Board of Adjustment.

G. Wetlands / Flood Plain Zones – Excluded.

H – Assurances that any Solar Panels, Invertors, & Substations and or other ancillary structures

I. Property Value Impacts & Guaranteed -- An unbiased, third-party evaluation of adjacent property (including properties with in a one (1) mile radius and proof of intention to make whole incurred loss of property values of adjacent property owners. Developer shall offer a property value guarantee acceptable to the Township that will make solar array neighbors whole financially in the event that proximity to utility scale solar development is harmful to residential property values. This shall be made available to all property owners within 1 mile of the project boundary

J. Proof of Agriculture Impact Mitigation strategies executed with the USDA.

k. Solid Wastes.

a. All solid wastes whether generated from supplies, equipment, parts, packaging, operation or maintenance of the SES, including old parts and equipment related to the construction, operation and/or maintenance of the SES shall be removed from the site promptly and disposed of in accordance with all federal, state, and local laws.

b. Hazardous Materials. All hazardous materials or waste related to the construction, operation and/or maintenance of any SES shall be handled, stored, transported. Developer shall furnish an assurance in a form acceptable to the Township that guarantees that 100% of the PV panels and attendant electrical apparatus, wiring, metal support structures, etc., shall not enter the waste stream.

414.10 OPERATION AND MAINTENANCE

A. Physical Modifications

In general, any physical modification to any SES that alters major electrical components shall require re-certification. Like-kind replacements shall not require re-certification. Therefore, prior to making any physical modification, the owner or operator shall confer with the Planning and Zoning Administrator/Building Inspector for the City of Maysville to determine whether the physical modification requires re-certification.

B. Communications Interference

Prior to construction, a communications study to determine whether the proposed industrial SES such as both Intermediate and/or Large Scale SES will have any adverse impacts on any public or public serving utility microwave transmissions shall be completed. If necessary, the applicant or successor shall mitigate interference with electromagnetic communications, such as radio, telephone, microwaves, or television signals caused by any SES. In addition, the applicant or successor shall comply with the following:

1. Post-Construction. If, after construction of the SES, the owner or operator receives a written complaint that can be substantiated through an independent review related to interference with the broadcast of residential television, telecommunication, communication or microwave transmissions that existed prior to construction of the SES, the owner or operator shall take reasonable steps to mitigate said interference. Interference with private telecommunications systems such as GPS shall be between the company and the complainant.

2. Failure to Remedy a Complaint. If an agreement to remedy a known interference is not reached within 10 business days (10) days, appropriate action will be taken. If further negotiations and/or mitigation measures to reduce or eliminate the interference do not remedy the problem it may result in requiring the SES to become inactive. This Section does not apply to interference with private telecommunications systems. See Complaint Procedure in subsection D below.
3. Any interference which inhibits any local business from being able to function due from an Intermediate and/or Large Scale SES, the Operator/Owner of such SES shall be financially responsible to provide compensation for 100% of all losses according to The FASAB Handbook of Accounting Standards and Other Pronouncements, as Amended (Current Handbook).

C. Declaration of Public Nuisance

Any utility scale SES declared to be a hazard to public safety (unsafe) by the City of Maysville and/or Mason County Fiscal Court depending on the jurisdiction by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, damage or abandonment is hereby declared to be a public nuisance and shall be abated by repair, rehabilitation, demolition or removal in accordance with the approved Decommissioning Plan.

D. Complaint Procedure

1. Complaint Resolution

- a. The Industrial Solar Energy Facility applicant shall submit a detailed, written complaint resolution process developed by the Industrial Solar Energy Facility applicant to resolve complaints from the County or the property owners or residents concerning the construction or operation of the Industrial Solar Energy Facility.
 - b. The County shall appoint a 3-member complaint resolution committee to oversee and participate in all complaint resolution discussions or meetings between the County property owner or resident and the Industrial Solar Energy Facility owner.
 - c. The complaint resolution committee shall consist of (1) County Commissioner, (1) Planning Commission member, and (1) qualified elector chosen by the Joint Planning Commission from the community.
 - d. The County shall be kept apprised of all complaints and shall receive a report outlining the issues, the progress, and the resolution of each such complaint.
2. All complaints regarding Intermediate and/or Large scale SES operation shall be logged by the Operator/Owner. At minimum the log shall describe the name and address of the complainant, contact information of the complainant, when the complaint is received, a detailed description of the nature of the complaint, action

taken to resolve the complaint and the date the complaint is resolved. If any complaint is considered by the Operator/Owner to not be the responsibility of the Operator/Owner a reason shall be provided to the complainant and so noted on the log. The log must be sent to the Planning and Zoning Administrator and the Operator/Owner at a frequency no less than every 2 weeks. Upon receipt of a formal complaint regarding noise, the SES Operator/Owner shall be responsible for conducting a specific focused sound study to ascertain facts associated with a specific study to address the concern of the complainant and shall be financially responsible for the study. The acoustical engineering firm that conducts the complaint generated sound study must be different than that of the firm that conducted the pre- and post-construction studies and must also be similarly accredited.

3. If after 30 business days there is no resolution of a registered complaint the complainant may provide notice to the Planning and Zoning Administrator accompanied by a fee of \$150.00 that they intend to enter into binding arbitration of the unresolved complaint. Failure by the Operator/Owner to perform an action specified by the arbitrator will be considered a violation of the zoning ordinance and subject to the applicable enforcement penalties and remedies. Upon receipt of a request for arbitration the Planning and Zoning Administrator will arrange for a time and place to meet with the arbitrator. Upon approval of a SES project the Operator/Owner shall continually fund a non-reverting fund (for arbitration only), which will contain no less than \$5,000 dollars at any time, for the life of the SES project. Notification of the balance of the fund to the Operator shall be the responsibility of the Planning and Zoning Administrator, in a manner he or she sees fit. If upon notification that the fund is deficient, the Operator/Owner shall have sixty (60) days to bring the fund back to the prescribed minimum amount. If the payment is not satisfied within the sixty (60) days, the SES project will be deemed in violation of the permit. The arbitrator shall be a member of the Kentucky Bar Association, be on the Roster of Court-Approved Mediators in the State of Kentucky and not be a citizen of Mason County, Kentucky. The Planning and Zoning Administrator may appear and present evidence.

414.11 DECOMMISSIONING PLAN

- A. Prior to filing an application for a permit under this Ordinance, the appropriate Executive authority with jurisdiction and the applicant or successor shall formulate a decommissioning plan outlining the responsibility for and anticipated means and cost of removing a utility scale SES at the end of their serviceable life or upon becoming a discontinued or abandoned use in order to ensure that the SES is properly decommissioned.
- B. Content of Decommissioning Plan
 - a. The applicant shall provide a detailed decommissioning plan that provides procedures and requirements for removal of all parts of the solar energy generation facility and its various structures at the end of the useful life of the facility. The plan shall include the anticipated life of the facility, the estimated overall cost of decommissioning the facility in current dollars, the methodology for determining such estimate, and the manner in which the project will be decommissioned

- b. Describe the decommissioning and final land reclamation plan to be followed after the anticipated useful life, or abandonment, or termination of the large solar energy facility, including evidence of proposed commitments with property owners to ensure proper final reclamation of the *Industrial Solar Facility* with seasonal grasses or to an agricultural ready condition, repairs to roads for damage caused by the *Industrial Solar Facility*, if any, and within twelve (12) months from the notice of abandonment issued by the Township to complete decommissioning and land reclamation. All roads, above grade and subsurface improvements must be removed at the end of project.
- C. Assurance. Written assurance that the SES will be properly decommissioned upon the expiration of the project life or in the event that the SES Project is abandoned.
- D. Cost Estimates. The applicant or successor shall provide a contractor cost estimate for demolition and removal of the SES. The cost estimates shall be made by a competent party: such as a professional engineer, a contractor capable of decommissioning or a person with suitable expertise or experience with decommissioning industrial scale SES.
 1. The decommissioning plan, cost estimates, and all updates of those plans and estimates shall be sealed by a professional engineer.
 2. The owner(s) and/or operator of an *Industrial Solar Facility* shall post a security bond or escrow or irrevocable letter of credit in a form acceptable to the County equal to one-hundred twenty five (125) percent of the total estimated decommissioning, code enforcement and reclamation costs.
 3. The cost of decommissioning shall be reviewed between the operator and the County every two (2) years to ensure adequate funds are allocated for decommissioning; the security bond or escrow or irrevocable letter of credit, defined herein, shall be appropriately adjusted to reflect the current decommissioning estimate. This security bond, escrow, or irrevocable letter of credit shall be issued by a 3rd party and paid by the operator.
 4. The security bond, escrow, or irrevocable letter of credit shall be posted and maintained with a company licensed to do business in the State of Kentucky or a Federal- or State-chartered lending institution acceptable to the County.
 5. Any bonding company or lending institution shall provide the County with 90 days' notice of the expiration of the security bond or escrow or irrevocable letter of credit. Lapse of a valid security bond or escrow or letter of irrevocable credit is grounds for the actions defined below
- E. Financial Assurance. Prior to commencement of construction the applicant or its successor, as defined, will provide to the Executive of the appropriate jurisdiction a financial assurance for the cost of decommissioning SES facilities and related improvements to be constructed under the permit. The financial assurance shall be in the form of a performance bond, surety bond and a letter of credit or other security instrument mutually acceptable to the Executive and the Applicant or Applicant's Successor.
 1. In the event of sale or transfer of ownership and/or operation of the *Industrial Solar Facility*, the security bond, escrow, or irrevocable letter of credit shall be maintained throughout the entirety of the process and the new owner shall be required to provide a new security bond, escrow, or irrevocable letter of credit.
 2. If at any time during the operation of the *Industrial Solar Facility* or prior to, during, or after the sale or transfer of ownership and/or operation of the *Industrial*

Solar Facility the security bond or escrow or irrevocable letter of credit is not maintained, the County may take any action permitted by law, revoke the conditional use permit, order a cessation of operations, and order removal of the structure and reclamation of the site.

F. Abandonment by the Applicant or Successor. Written assurance that in the event of abandonment by the applicant or successor, the applicant or successor will provide an affidavit to the Executive of the appropriate jurisdiction representing that all easements and/or property leases for SES facilities shall contain terms that provide financial assurances, including access to the salvage value of the equipment, for the property owners to ensure that SES facilities are properly decommissioned within one (1) year of expiration or earlier of termination of the SES Project.

G Discontinuation and Abandonment. All industrial scale SES shall be considered a discontinued use after one (1) year without energy production, unless a plan is developed and submitted to the Planning and Zoning Administrator outlining the steps and schedule for returning the SES to service. The Planning Commission may, at its discretion after one year of discontinued production, initiate an action to recommend to the Executive authority that it act to exercise the financial assurance to effect a decommissioning.

H . Removal. An applicant or successor's obligations shall include removal of all physical material pertaining to the project improvements to no less than a depth of four (4) feet below ground level within three hundred sixty-five (365) days of the discontinuation or abandonment of the SES or SES Project, and restoration of the project area to as near as practicable to a condition similar to its previous use immediately before construction of such improvements. Below ground level is understood to be from the existing grade. Covering with fill material does not constitute removal. Removal obligations shall be completed by the applicant or successor or by the City at the former's expense.

I. Written notices. Prior to implementation of procedures to effect the financial guarantee the appropriate Executive authority shall provide notice to the owner/operator according to the terms of the required Decommissioning Agreement. The owner of the project must provide notice to the appropriate Executive authority of its intention to change ownership, abandon, decommission or suspend operations of a utility scale SES project.

J. Costs incurred by the City or County. If the City or County removes a SES structure and appurtenant facilities, it may sell the salvage to defray the costs of removal. By acceptance of a building permit, the applicant or operator grants a license to the appropriate Executive authority to enter the property to remove SES structures and appurtenant facilities pursuant to the terms of an approved decommissioning plan.

K. Decommissioning Continuation Plan - A decommissioning plan prepared by a registered professional engineer, and updated every five (2 to 3) years, containing the following:

1. The anticipated life of the project and defined conditions upon which decommissioning will be initiated;

2. The estimated decommissioning cost, including removal of the SES and related foundations, pads, underground collector lines and roads, and the salvage value of any equipment in current dollars and the calculations supporting the decommissioning estimate. The estimated salvage value of the material using current, publicly available material indices and/or firm quotes from a decommissioning or recycling company experienced in the decommissioning of SES, shall be provided, and the Board of Adjustment or other authority having jurisdiction shall consider the salvage value identified in i.2 in computing the amount, if any, of financial assurance required under subsection i5.

3. The manner in which the project will be decommissioned, including provision and a timetable for the removal of all structures and foundations, and for the revegetation and restoration of the property to its original condition or a condition compatible with the zoning of the parcel(s);

4. The party responsible for decommissioning;

5. A performance bond and letter of credit or other financial assurance payable to [applicable governmental unit], sufficient to cover the net costs identified in i.2 and to assure that decommissioning of the site can be achieved by a third party in the event that a permittee defaults in that obligation;

6. A copy of any lease containing specific agreements regarding decommissioning with the landowner; and

7. **LIABILITY INSURANCE** The owner or operator of any industrial scale WECS shall maintain a current general liability policy covering bodily injury and property damage and shall be required to name the City of Maysville as an additional insured with dollar amount limits not less than \$2,000,000 per occurrence, \$5,000,000 in the aggregate, and a deductible which is reasonably industrial available and which is mutually suitable to the applicant or successor and the City

8. In no case shall the surety bond be less than \$85,000 per megawatt (rounded up to nearest megawatt).

414.12 LIABILITY INSURANCE

The owner or operator of any **industrial Intermediate and/or Large Scale SES** shall maintain a current general liability policy covering bodily injury and property damage and shall be required to name the City of Maysville or Mason County as an additional insured with dollar amount limits not less than **\$2,000,000** per occurrence, **\$5,000,000** in the aggregate, and a deductible which is reasonably available and which is mutually suitable to the applicant or successor and the City or County. **Need to look at other solar ordinances to incorporate best practices. This should have a table based on size and scale on a per MW basis and/or acreage. More to come on future drafts.**

414.13 APPLICATION PROCEDURES

A. Permits and variances for industrial scale SES shall be applied for and reviewed under the procedures established by this Ordinance and shall include the following information:

1. Contact information of project applicant including the name(s), address(es), and phone number(s) of the applicant(s), as well as a description of the applicant's business structure and overall role in the proposed project.

2. Contact information of current project owner the name(s), address(es), and phone number(s) of the owner(s), as well as a description of the owner's business structure and overall role in the proposed project, and including documentation of land ownership or legal control of the property on which the SES is proposed to be located. The Planning and Zoning Administrator shall be informed of any changes in ownership.

3. Contact information of project operator. The name(s), address(es) and phone number(s) of the operator(s) if other than the owner. If the owner assigns a different operator at any time, they are obligated to notify the Planning and Zoning Administrator.

4. Legal description-The legal description, address, and general location of the project.

5. A General SES Project Description, including to the extent possible, information on solar panels to be used, including:

a. Number of solar panels/arrays;

b. Manufacturer of solar panels with brochure depiction;

c. Name plate generating capacity;

d. Solar panel/array heights;

h. The means of interconnecting with the electrical grid;

i. If the applicant has a purchase power agreement (PPA) name the entity; and

j. All related accessory structures.

k. Solar Panels – Safety Data Sheet; Marketing & Performance Data Sheet.

L. Invertor – Safety Data Sheet; Marketing & Performance Data Sheet.

J. Substation - Safety Data Sheet; Marketing & Performance Data Sheet.

6. Site Layout Plan. A site layout plan, drawn at an appropriate scale, showing distances pertaining to all applicable setback requirements. The site layout plan must be certified by a registered land surveyor, and depict:

- a. Property lines, including identification of adjoining properties, with a notation indicating participating and non-participating landowners;
 - b. SES access roads;
 - c. Substations(s), and operational support meteorological tower(s) location;
 - d. Operation and maintenance building location (building to be permitted separately);
 - e. Electrical cabling;
 - f. Ancillary equipment;
 - g. Occupied structures within one quarter one mile of all proposed SES project areas
 - i. Distances from SES arrays to each setback requirement;
 - j. Location of all existing and planned public roads which abut, or traverse the proposed site;
 - k. The location of all above-ground utility lines within a distance of one mile of any proposed SES structure;
 - l. The location of any historic or heritage sites as within the SES Project Area;
 - m. The location of any wetlands based upon a delineation plan prepared in accordance with the applicable U.S. Army Corps of Engineers requirements and guidelines; and
 - n. A topographical map of the project area and a one-mile perimeter with contours of not more than five (5) foot intervals.
7. Sound Study. A sound study that identifies all known occupied structures within ##### of every proposed SES project area, including a description of the potential sonic impacts of any SES arrays or structures and on adjacent properties as per standards indicated in Section 414.09 C.
8. Communications Study. A communications study required by Section 414.10 B.;
9. Light Reflection Study. A light reflection modeling study that identifies all known occupied structures and the effect of any SES array on those structures as per Section 414.08(M).

10. Engineering Certification. For all SES, the manufacturer's engineer or another qualified registered professional engineer shall certify, as part of the building permit application that the foundations and designs of SES structures are within accepted professional standards, given local soil and climate conditions. An engineering analysis of SES structures showing compliance with the applicable regulations and certified by a licensed professional engineer shall also be submitted. The analysis shall be accompanied by standard drawings of all SES structures. The engineering certification may be completed following submission of an improvement location permit application on condition of being required no later than thirty (30) days prior to initiation of construction.

11. Utility Notification. Evidence that the pertinent electric utility company has granted approval for interconnection.

12. Statement of Federal Aviation Administration compliance. A statement of compliance with all applicable Federal Aviation rules and regulations, including any necessary approvals for installations within proximity to an airport.

13. Statement of Kentucky Airport Zoning Commission compliance. A statement of compliance with all applicable Kentucky Airport Zoning Commission rules and regulations and any necessary approvals for installations within proximity to an airport.

14. Compliance with Fish and Wildlife Requirements. Proof of correspondence and cooperation with wildlife agencies for the purposes of preventing harm to endangered or protected wildlife species and migratory birds and in compliance with the Endangered Species Act and the Migratory Bird Treaty Act. Applicants shall provide documentation that they are in communication and cooperation with the U.S. Fish and Wildlife Service and the Kentucky Department of Natural Resources.

15. Compliance with National Electrical Code. A line drawing of the electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the National Electrical Code. This information is typically supplied by the manufacturer.

16. Good neighbor Notice. An affidavit of service along with supporting documentation that indicates notification was given to all property owners (as per current records of the Mason County, PVA) in and within ##### of the proposed footprint of the SES project no less than 30 days prior to the date of official approval sought by or on behalf of the applicant involving any City or County agency or body. The Notice shall contain at minimum:

a. A map showing the general layout of the project.

b. An opportunity to meet with the petitioner or contact information whereby questions may be asked by the public.

c. A list of steps that will required to accomplish the project.

17. Any other item reasonably requested by the Building Inspector.

Prior to the issuance of any building permit, the following shall be required and materials submitted and reviewed by the Building Inspector, who shall certify that the submissions are in compliance with all applicable regulations:

A. Federal Aviation Administration permits application and approval, if applicable.

B. Decommissioning plan as described in Section 414.11.

C. Economic Development Agreement, Drainage, and Road Use and Maintenance Agreements required before issuance of an improvement location permit.

1. An Economic Development Agreement approved by the appropriate Executive authority shall be developed. The Executive authority may include other stakeholders in the negotiations at its discretion. The Economic Development Agreement is sometimes referred to as a PILOT Agreement.

2. A Road Use and Services Maintenance Agreement approved by the appropriate Executive authority that addresses, at minimum, the following:

a. A compilation of routes that will be used for construction and maintenance purposes, approved by the Director of Public Works;

b. A documented baseline survey to determine existing road conditions prior to construction. The survey shall include photographs, or video, or a combination thereof, and a written agreement to document the condition of the public facility;

c. A surety bond or similar instrument approved by the County Attorney, in an amount sufficient to ensure that future repairs to public roads are completed to the satisfaction of the unit of local government. The cost of bonding is to be paid by the applicant. This requirement may be addressed in conjunction with the Economic Development Agreement;

d. A plan to address transportation routes and conditions during construction. If the route includes a public road, it shall be approved by the appropriate highway official(s) and school transportation departments;

e. A plan to avoid damage and to address repair to damaged roads;

f. A requirement that newly constructed SES access roads will not impede the flow of water;
and

g. Provisions to address crop, field tile, waterway and other infrastructure damage.

D. An Erosion Control/Storm Water Plan compliant with any storm water quality management plan adopted by the State or local applicable jurisdiction.

E. A Utility Plan drawn to the same scale as the site layout plan illustrating the location of all underground utility lines associated with the total SES Project. This may be incorporated into the site plan.

F. A Dust Control Plan detailing reasonable measures to be employed to control dust during construction of an industrial scale SES Project. This may be incorporated into the Road Use and Services Maintenance Agreement.

G. A copy of the cultural resources review conducted in conjunction with the state department of historic resources for the permit by rule process shall be submitted by the applicant prior to the issuance of a building permit. This report shall be in addition to the report required in subsection (j)(1) and shall further identify historical, architectural, archeological, or other cultural resources on or near the proposed facility.

H. A report on the potential impacts on wildlife and wildlife habitats at the site and within a two-mile radius of the proposed facility using information provided by the state department of game and inland fisheries or a report prepared by a qualified third-party.

I. A report on potential impacts on pollinators and pollinator habitats at the site, including but not necessarily limited to the submission of a completed solar site pollinator habitat assessment form as required by the zoning administrator.

J. A glint and glare study that demonstrates either that the panels will be sited, designed, and installed to eliminate glint and glare effects on roadway users, nearby residences, commercial areas, and other sensitive viewing locations, or that the applicant will use all reasonably available mitigation techniques to reduce glint and glare to the lowest achievable levels. The study will assess and quantify potential glint and glare effects and address the potential health, safety, and visual impacts associated with glint and glare. Any such assessment must be conducted by qualified individuals using appropriate and commonly accepted software and procedures.

K. A report of impact on adjacent property values prepared by a qualified third party, such as a licensed real estate appraiser.

L. An economic impact analysis prepared by a qualified third-party that reports any expected change in the value of the subject property, expected employment during the construction of the facility, any expected impact on the county's tax revenues, the estimated costs to the county associated with the facility in the form of additional services, and information on any other economic benefits or burdens from the facility that may be requested by the zoning administrator.

414.15 POST-CONSTRUCTION REQUIREMENTS

A. Post-construction, the applicant or successor shall comply with the following provisions:

1. Road Repairs. Any road damage caused by the construction of project equipment, the installation of the same, or the removal of the same, shall be repaired as per the Road Use and Services Maintenance Agreement.

2. As-Built Plans Requirement. Whereupon completion of all development, the exact measurements of the location of utilities and structures erected during the development are necessary for public record and shall therefore be recorded. The applicant or successor shall submit a copy of the final construction plans (as-built plans), as amended, to the Building Inspector with the exact measurements shown thereon. The Building Inspector, after being satisfied that the measurements are substantially the same as indicated on the originally approved final plan(s), shall approve, date and sign said Construction Plans for the project, which the applicant or successor shall then record.

3. Post Construction Sound Study. Within twelve months after the date when the project is fully operational the operator shall conduct a two phased post-construction sound study conducted by

an independent accredited sound engineer chosen by the Planning Commission and paid for by the applicant/owner. Post-construction sound level measurements shall be taken both with all SES systems running and with all SES systems off. The post-construction measurements shall be reported to the Planning Commission and made available for public review.

4. Change in Ownership. It is the responsibility of the owner or operator listed in the application to inform the Planning and Zoning Administrator of all changes in ownership and operation during the life of the project, including the sale or transfer of ownership or change in operator.

Maysville / Mason County Solar Energy Systems Solar Land Use Districts Reference Table.

<i>Lane Use Zone</i>	<i>Integrated Solar Energy System</i>	<i>Rooftop Solar Energy System</i>	<i>Small Scale Ground Mounted Energy System (Small Scale SES)</i>	<i>Intermediate Scale Ground Mounted Energy System (Intermediate Scale SES)</i>	<i>Large Scale Ground Mounted Solar Energy System (Large Scale SES)</i>
R-1A	TBD	TBD	TBD	X	X
R-1B	TBD	TBD	TBD	X	X
R-1C	TBD	TBD	TBD	X	X
R-1D	TBD	TBD	TBD	X	X
R-2	TBD	TBD	TBD	X	X
R-3	TBD	TBD	TBD	X	X
MH	TBD	TBD	TBD	X	X
R-4A	TBD	TBD	TBD	X	X
R-4B	TBD	TBD	TBD	X	X
TH-1	TBD	TBD	TBD	X	X
P-1	TBD	TBD	TBD	X	X
B-1	TBD	TBD	TBD	X	X
B-2	TBD	TBD	TBD	X	X
B-3	TBD	TBD	TBD	X	X
D-1	TBD	TBD	TBD	X	X
I-1A	P	P	P	P	P
I-1B	P	P	P	P	P
I-2A	P	P	P	P	P
I-2B	P	P	P	P	P
I-3	TBD	TBD	TBD	X	X
A-1	TBD	TBD	TBD	X	X
A-2	TBD	TBD	TBD	X	X
RR-1	TBD	TBD	TBD	X	X
RR-2	TBD	TBD	TBD	X	X
C	TBD	TBD	TBD	X	X
HOD	TBD	TBD	TBD	X	X
COD	TBD	TBD	TBD	X	X
FP	TBD	TBD	TBD	X	X
PCD	TBD	TBD	TBD	X	X
PUD	TBD	TBD	TBD	X	X
CD	TBD	TBD	TBD	X	X

Permitted (P) These are uses that are deemed to be the most appropriate uses, and are allowed in a district subject to the restrictions applicable to that district.

Conditional (C) These are uses that are allowed in a district but which would impair the integrity and character of the district in which it is located, or in adjoining districts, unless restrictions on location, size, extent, and character of performance are imposed in addition to those imposed within this ordinance.

Accessory (A) These uses are subordinate or incidental to the principal use and are located on the same lot with the principal use.

Notes/Comments

- This proposed SES ordinance was created using our Wind Energy Conversion Systems (“WECS”) ordinance, along with some model ordinances and my original SES ordinance draft. This is a rough first draft, and I do mean *rough*. There is likely some language I overlooked that needed to be changed in the conversion from the WECS ordinance. Also, there is some unconnected/unused language and definitions, because I haven’t yet finished mixing in language from the original draft ordinance that I think is useful. Furthermore, the formatting needs work, but I’m not worried too much about that; the content is what matters. I figure there will be discussion on this before a workable ordinance will be proposed for a public hearing, so there is time to fix everything and add everything we think is important.
- The SES ordinance will create the corresponding entry into the Industrial/Manufacturing land use charts:

The above chart is taken from the original SES draft ordinance I created. Part of the work for this proposal will be deciding 1) what types of SES are possible in which zoning classifications, and 2) if they will be permitted or conditional uses. I have mixed feelings about designating SES as conditional uses; we can discuss that when we discuss this ordinance draft at the meeting. I have not edited this table since 2020.

- I'm in the process of coming up with an adequate screening/buffering section for the draft. I think our visit to the Hillcrest site will inform that work, and I don't think that the normal screening regulations in the zoning ordinance will be adequate. I do have some questions based on some other examples of SES ordinances I have seen: ○

- Should there be a distance after which no screening is required? For example, if any SES structures are X or more feet from a dwelling or a street, for example, will no screening be required?
- Should existing foliage and trees be used to satisfy screening requirements, assuming they meet the standards of the screening/buffering? (I think they certainly should).
- Do you have any suggestions or ideas of what you think would be adequate for screening SES, possibly based on observations of the Hillcrest site? Would you like to make screening/buffering requirements prescriptive, partially prescriptive with guidelines for

some discretion by developers, or would you like it to be completely up to the developer how they screen/buffer, as long as they come up with a screening/buffering plan that screens/buffers SES to be approved when they apply for a permit?

- Setbacks are the main vehicle for control of SES locally, so how they are defined and considered are very important. I maintained the same chart for setbacks in the WECS ordinance, but since SES differ in operation and composition compared to WECS – very low height compared to wind turbines, very little movement, no significant dangers during normal operation and situations – I’m uncertain that the setbacks need to be defined as they were in the WECS ordinance. If you have any additional setbacks you’d like to see, if you want to change the definitions, or if you think that some of the setback chart listings should be removed, please let me know.

- I’ve tagged many of the mentions of the FAA and proximity to airports, because I don’t think SES will need such regulations, since no large/tall turbines or towers should be involved.

- I have also tagged some language about experimental equipment. I’m not a fan of having SES use