STATE OF MISSOURI)
) ss.
County of Cass)

In the County Commission of Cass County, Missouri, at the ____ Term, 2024, held on the ____ day of _____, amongst others, were the following proceedings:

CASS COUNTY, MISSOURI
ORDINANCE NO. 24-_____

AN ORDINANCE AMENDING COUNTY CODE CHAPTER 400 RELATED TO SOLAR ENERGY SYSTEMS REGULATIONS.

BE IT ORDAINED BY THE COUNTY COMMISSION OF CASS COUNTY, MISSOURI, AS FOLLOWS:

Section 1. That Sections 400.050 and 400.260 of the Code of Ordinances of Cass County, Missouri are amended as contained in Exhibit A, attached hereto and incorporated herein.

Section 2. That Sections 400.392 and 400.393 are hereby added to the Code of Ordinances of Cass County, Missouri to read as contained in Exhibit A, attached hereto and incorporated herein.

Section 3. That this ordinance shall be effective upon its approval.

ADOPTED BY THE CASS COUNTY COMMISSION THIS _____ OF _____, 2024.

_____	_____	_____
Bob Huston Presiding Commissioner	Monty Kisner Associate Commissioner, District 1	Ryan Johnson Associate Commissioner, District 2

ATTEST:

_____
Jeff Fletcher
County Clerk
Dated: _____

Contents

Exhibit A

Section 1. Section 400.050 Definitions is amended by adding the following definitions:

Section 400.050. Definitions.

Photovoltaic (or "PV") Panel

A panel designed to collect sun energy for conversion into electrical energy by using individual photovoltaic cells manufactured together to form a single panel.

Solar Energy System

A device, array of devices, or facility, designed to convert sunlight energy into electricity using photovoltaic cells. A solar energy system may include electricity storage and distribution, and may be building- or ground-mounted.

Solar-Thermal System

An energy system that directly heats water or other liquid using sunlight. The heated liquid is used for such purposes as space heating and cooling, domestic hot water, and the heating of pool water. May be building- or ground-mounted.

Solar Energy System, Building-Mounted (non-residential)

A solar energy or solar-thermal system that is attached to or an integral part of a principal or accessory building, rather than a freestanding facility, with the primary purpose of serving electricity demands on-site.

Solar Energy System, Accessory (SES-A)

A ground-mounted solar energy facility that converts sunlight to electricity for the primary purpose of meeting electricity demands either for on-site or for off-site distribution and that meets the size requirements of § 400.392.B. An accessory solar energy system is an accessory land use for the parcel(s) on which it is located.

Solar Energy System, Large (SES-L)

A ground-mounted solar energy facility that converts sunlight to electricity for the primary purpose of commercial sales and distribution of generated electricity, and that meets the size requirements § 400.392.B. A large solar energy system is the principal land use for the parcel(s) on which it is located.

Section 2. Section 400.260 Appendix A, Partial Chart of Permitted Uses Zoning Designation, of the Code of Ordinances of Cass County, Missouri is amended by adding solar energy facilities to the table as follows, with all other provisions of the Use Table remaining unaffected.

Use Table 400.260 Appendix A

		Zoning Districts												
SIC	Use Description	A	R-R	R-S	R-1	R-2	R-3	M-P	M-U	C-1	C-2	I-1	I-2	I-3
478	Transportation Services, Packaging, Inspection	N	N	N	N	N	N	N	N	N	P	P	P	P
	Communications													
481	Telephone Services	S	N	N	N	N	N	N	P	P	P	P	P	P
482	Telegraph and Other Communication	S	N	N	N	N	N	N	P	S	P	P	P	P
483	Radio and Television Broadcast	S	N	N	N	N	N	N	P	S	P	P	P	P
484	Subscriber TV Services	S	N	N	N	N	N	N	P	P	P	P	P	P
489	Communications Services, Misc.	S	H	H	H	N	N	N	P	P	P	P	P	P
	Electric, Gas, And Sanitary Services													
491	Electric Services and Power Generation, including Wind Generator	S	N	N	N	N	N	N	N	N	N	S	S	S
3511	Wind Energy Conversion Systems	S	N	N	N	N	N	N	N	N	N	N	S	S
4911	Home Wind Energy Conversion Systems	S	S	S	N	N	N	S	S	N	N	N	N	N
492	Gas Production and Distribution	S	N	N	N	N	N	N	N	N	N	S	S	P
493	Combination Utility Services	S	N	N	N	N	N	N	S	N	S	S	S	S
494	Water Supply and Water Towers	S	S	S	S	S	N	S	S	S	P	P	P	P
4952	Sewage Systems Except Septic Tanks	S	S	S	S	S	N	S	S	S	S	P	P	P
4953	Sanitary Landfill	S	N	N	N	N	N	N	N	N	N	N	S	P
??	Solar Energy System, Building Mounted	P	P	P	P	P	P	P	P	P	P	P	P	P
??	Solar Energy System, Accessory	P	P	P	P	P	P	P	P	P	P	P	P	P
??	Solar Energy System, Large*	S	N	N	N	N	N	N	N	N	N	N	S	S
	*Permitted only if located in a Solar Energy Overlay District (SEOD)													

Section 3. Section 400.392 is added to the Code of Ordinances of Cass County, Missouri to read as follows:

Section 400.392 Solar Energy Facilities

A. **Purpose.** This section provides for the safe, effective, and efficient use of solar energy, and establishes common standards and categories of solar energy facilities.

B. **Applicability.** This section applies to any Solar Energy System, Accessory, or Solar Energy System, Large project. There are several types of solar energy systems, which are regulated in this Ordinance as follows:

Table 400.392-1

Type of Solar Energy System	Size	How Regulated
Solar Energy System, Building-Mounted (non-residential)	No threshold except as limited by County Fire and Building Codes	Exempt from this section except for building height as provided in Table 400.392-1.
Solar Energy System, Accessory	3 acres or less	Accessory to a permitted use in any zoning district.
Solar Energy System, Large	More than 3 acres but less than _____ acres	SEOD designation, and subject to standards in this section.

C. **General Standards.**

1. Generally. Building permits are required for all solar energy systems.

2. Location. Photovoltaic (PV) panels may be located in any yard, subject to the setback standards in subsection D below.
3. Safety Shutdown. The applicant shall provide a schematic that shows, in the wiring diagram, where a separate shut off is included for fire safety. The applicant shall provide the schematic to the appropriate fire department or fire protection district.
4. Operations and Maintenance. The owner/operator shall maintain the facility in good condition. Required maintenance includes, but is not limited to, structural repairs and integrity of security measures. The owner/operator shall remove all waste and scrap that is the product of construction, operation, restoration, and maintenance of the project and properly dispose of it on a regular basis.
5. Undergrounding of Service Lines. All utility service lines serving ground-mounted solar energy systems shall be located underground except in the A, I-2, or I-3 zones.
6. Concealing Mechanical Components. All components servicing solar energy arrays shall be concealed including mechanical piping, electrical conduits, and the like.
7. Fencing. Chain-link, barbed, razor, and concertina wires, electrically charged wire, concrete masonry units, scrap metal, or textile fences are not permitted as fencing.
    i. When fencing will enclose the perimeter of the site or facility, wildlife-friendly fencing that allows the passage of small mammals and reptiles and is designed to minimize wildlife injury and death due to entanglement or strangulation shall be used on rural sites having a project footprint greater than three acres.
    ii. Mechanical equipment, and any structure for energy storage system components, shall be enclosed by a seven-foot-high fence, or the height required by the National Electrical Code if it requires more than seven feet, with a self-locking gate to prevent unauthorized access.
8. Buffers. Based on site-specific conditions, including topography, adjacent structures, and roadways, practicable efforts shall be made to minimize visual impacts by preserving natural vegetation and providing dense landscape year-round screening to abutting residential properties and roads, but the screening should minimize shading of photovoltaic solar energy systems.
9. Existing Vegetation. Removal of trees and other existing vegetation shall be limited to what is necessary for the construction, operation and maintenance of the photovoltaic solar energy system, but in no case may such removal exceed the following. For parcels that are 10 acres or less, clear-cutting shall not occur on more than 20% of the lot. For lots that exceed 10 acres, clear-cutting shall not occur on more than 20% of 10 acres on the lot, and clear-cutting shall not occur on more than 10% of the balance of the acreage on the lot.
10. Pollinator Standards. All Solar Energy Systems shall demonstrate that they meet pollinator standards, as determined by the University of Missouri Extension Pollinator Habitat Planning Tool for Solar Sites.
11. Glare. All PV panels must have anti-reflective coating(s). Solar Energy Systems and associated facilities shall be designed and located to minimize reflective glare toward roads or any habitable or occupiable building on adjacent properties.
12. Noise. A noise study shall be conducted to demonstrate that any Solar Energy System does not exceed 10 dBA above the existing ambient noise level measured at the property line. Ancillary equipment or structures that generate noise (such as inverters) shall be placed away from non-participating property lines and residential uses to the maximum extent practicable or be surrounded by a noise barrier.

13. Lighting. All lighting on the site related to the photovoltaic solar energy system shall be full cutoff design and limited to that required for safety and operational purposes. Light associated with a SEOD project may not be distributed off-site.

D. Dimensional Standards.

1. Generally. *Solar Energy Systems, Accessory* and *Large* shall comply with the dimensional standards Table 400.392-2 Solar Energy Facility Dimensional Standards below. These supersede the lot size, height, or setbacks of the applicable zoning district.

Table 400.392-2 Solar Energy Facility Dimensional Standards

Type of Standard	SES-Building-Mounted	SES-A	SES-L
Lots			
Lot Area (min)	none	none	none
Lot Coverage (max) – solar arrays, structures	n/a	50% lot area	65% lot area
Height			
Maximum - feet	Zoning district height + additional 15’	25’ at max. tilt	25’ at max. tilt
Setback (minimum – feet) from any -			
Road right-of-way	n/a	See base district	150’ from centerline
Property line	See base district	50’	150’
Property line, Non-Participating Landowner*	n/a	50’	300’
Residential Use, Non-participating Landowner*	n/a	150’ from residential structure(s)	500’ from residential structure(s)
Substations and Battery Energy Storage Facility (BESF)	n/a	150’	300’

*A Non-Participating Landowner means an owner of real property outside of a Solar Energy Overlay District boundary

2. Setbacks.
    i. Measurement. All setback distances are measured from the edge of the solar array (including the PV panels at full tilt) or, for any structure, physical container, or battery cell. Distances exclude security fencing, screening, or berms. Setbacks are measured in a straight line without regard to intervening roads, natural features, or other structures or obstructions.

ii. Exemptions. Driveways or access points, landscaping, and fencing may occur within the setback.
iii. Multiple Lots. A solar energy project that is comprised of several lots is treated as a single lot for the purposes of applying setback standards. PV panels and their racking system do not have a minimum setback requirement for any property line located interior to the SEO district.

3. Right-of-Way / Easements / Open Space. No ground-mounted solar energy system components or project shall be constructed in any dedicated public easement or right-of-way, or within required open space or buffers, conservation or park lands.

E. **Battery Storage.** The following apply to any Battery Energy Storage Facility ("BESF"):

1. Where Permitted. BESF are only allowed if accessory to a *Solar Energy System, Accessory* or *Solar Energy System, Large*.
2. Locational Criteria. A BESF shall be sited as follows:
   i. Buffer the BESF from the surrounding areas by siting toward the interior of the parcel,
   ii. Take advantage of any existing topography, structures, or vegetation to provide screening,
   iii. Locate and design the BESF so that it mitigates the potential detrimental impacts to the general health, safety, and welfare of the community, and
   iv. Design and configure the BESF in a way that minimized adverse impacts such as views, noise, vibration, and the like.
3. Maximum Capacity. BESF associated with SES-A or SES-L shall not exceed 50 kW.
4. Configuration. The BESF shall be configured so that battery cells are placed in a Battery Energy Storage System ("BESS") with a Battery Management System ("BMS"). The BESS shall provide a secondary layer of physical containment to the batteries and be equipped with cooling, ventilation, and fire suppression systems.
5. Construction, Maintenance, and Operation. A BESF shall be constructed, maintained, and operated in accordance with applicable codes and standards including but not limited to any applicable fire, electrical, and building codes adopted by the County; National Fire Protection Association (NFPA) 855, Standard for Test Method for Evaluating Thermal Runway Fire Propagation in Battery Energy Storage Systems and subsequent editions. Unless otherwise required by those regulations and codes;
   i. Each individual battery shall have built-in 24/7 automated fire detection and extinguishing technology;
   ii. The BMS shall monitor individual battery module voltages and temperatures, container temperature and humidity, off-gassing of combustible gas, fire, ground fault and DC surge, and door access;
   iii. The BMS shall be capable of shutting down the system before thermal runaway takes place;
   iv. Access to all batteries and electrical switchgear shall be from the exterior for normal operation and maintenance. Access to the container interior is not allowed while the system is in operation except for safety personnel and first responders; and
   v. Signs shall indicate the following information: the type of technology associated with the battery energy storage systems; any special hazards associated; the type of suppression system installed in the area of the

battery energy storage system; and 24-hour emergency contact information, including a reach-back phone number. Additionally, disconnect and other emergency shutoff information shall be clearly displayed on a light reflective surface.

6. For Solar Energy System, Large, the owner or operator shall conduct semi-annual on-site self-inspections of the battery units and submit a written report to the Zoning Director on their condition.

F. Abandonment and Removal.

1. A Solar Energy System is considered abandoned when it does not generate electric energy and (if connected to the utility grid) does not deliver that energy to the utility grid for at least 180 days. The owner of an abandoned Solar Energy System shall remove the Solar Energy System structures and materials within 90 days of receipt of notice from the Zoning Director notifying the owner of the abandonment. If those structures and materials are not removed within 90 days, the County may remove them at the owner's expense.
2. Extension. An extension of the 6-month time period may be granted by the County Commission upon request by the project owner/operator.
3. Excavation. All underground equipment and foundation systems of SES-L shall be removed to a depth of at least four feet (4') to allow for the cultivation of crops, restoration of pasture, or installation of underground utilities.
4. The owner of any SES-L project shall provide the County:
    i. Decommissioning Security
    ii. Right of access; and
    iii. Any other measures necessary and sufficient to ensure the removal of the Solar Energy System and affiliated facilities.

Section 4. Section 400.393 is added to the Code of Ordinances of Cass County, Missouri to read as follows:

Section 400.393 Solar Energy Overlay District (SEOD)

A. **Purpose and Intent**. The intent of the Solar Energy Overlay District (SEOD) is to establish an area or areas where *Solar Energy Systems, Large* and associated facilities are allowed as a principal use to facilitate the development and operation of renewable energy production based on sunlight for commercial use. This section:

- Ensures that the development and production of large-scale, commercial solar energy systems in the County assures the health, safety, and general welfare of the public;
- Promotes the safe, effective, and efficient use of large-scale, commercial solar energy systems (SES-L);
- Minimizes the degradation of the visual character of the area;
- Minimizes impact to environmentally sensitive areas, wildlife, and wildlife habitat;
- Encourages the preservation of agricultural uses by developing agrivoltaic farming when solar energy and energy storage systems are sited on land that is well suited for agriculture production.
- Facilitates economic opportunities for local residents and the community;

- Facilitates the supply of renewable energy in a manner that respects the geographic, social, and environmental context of the County.

B. **Qualifying Underlying Zoning Districts**. A SEOD may be requested in the following zones (see Use Table 400.260 Appendix A):
   A. Agricultural
   B. Medium Industrial
   C. Heavy Industrial

C. **Permitted Uses**. The "SEO" district allows the uses permitted only in the SEO district, and uses allowed in a base district are also allowed on property designated "SEO" subject to the Use Table and any applicable regulations of that district (see Use Table 400.260 Appendix A).

D. Procedures for Designating a Solar Energy Overlay District (SEOD). The County may designate an "SEO" district through the rezoning process either on its own initiative or at the request of a property owner and according to *Article IX Amendments to Zoning Order*.

1. Application. Any Petition for Application for designation of a SEOD must be submitted to the Zoning Director. The Petition for Application shall be completed on forms provided by the Zoning Director and shall include information as required by this section (Application Content, Fees, Costs). The Zoning Director or County Commission may require the applicant to provide additional technical studies deemed necessary to fully evaluate the application.
2. Notice. When the Zoning Director and applicant agree that the application is ready for public hearing, the Zoning Director shall give notice in a manner consistent with procedures described in Article IV Section 400.130. The applicant shall pay all costs of public notice prior to any public hearing regarding the proposal.
3. Planning Board Recommendation. The Planning Board shall hold a public hearing. Following the public hearing, the Planning Board shall vote on a recommendation to approve, modify, deny, or table the request.
4. County Commission Action. Upon receipt of a recommendation from the Planning Board and before the adoption of a SEOD, the County Commission shall hold at least one public hearing thereon. The County Commission may approve, deny, or remand the proposal back to the Planning Board for modification.

E. **Application content, Fees, and Costs**:

1. No action on the request will be taken until all the required information has been submitted. Applications for establishing a SEOD shall include the following:
   i. Satisfactory evidence that the applicant is the owner of the property or has written permission of the owner(s) to apply for a rezoning to an SEOD;
   ii. Developer Information:
      1. Name, address, phone number, and e-mail address of the developer and the developer's contact person for the project;
      2. A statement from the developer providing relevant information regarding an overview of the company, the company's financial condition, the company's environmental management history, and the company's qualifications and experience in large-scale solar energy systems development. Specific references regarding other large-scale solar energy system projects are required;
      3. An identification and description of the expected owner and builder of the proposed project and a complete financial statement for such

owner and/or builder including audits or reviews, whichever are applicable, for three (3) years preceding the date of application;

4. The name, address, phone numbers, and e-mail address of the project manager if the project is approved and the name, address, phone numbers, and e-mail address of any potential buyers of the project.

~~iii.~~ A Petition for Application on forms provided by the Zoning Director.

iv. Relevant background information on the project, including rationale and need for the project by the landowner and developer, timeframe and project life, phases of development, likely markets for the electricity produced, and the possibilities for future expansion;

v. A narrative explanation of why the proposed project site was chosen by the applicant over alternative locations for the project in the region and reasons for preferring the proposed site over alternatives considered by the applicant. The region shall be defined as all counties adjoining and including the County;

vi. The applicant's position regarding the consequences of not approving the project;

vii. An overlay district plan, drawn to a scale where all features are legible, including the following:

1. A legal description of the proposed Overlay District prepared by and bearing the seal of a Land Surveyor Licensed to practice in the State of Missouri;
2. An aerial image showing the boundary of the proposed overlay district. Image shall also distinctly display property boundaries of all legal lots within the proposed District and within one thousand feet (1000') of the boundary of the proposed District;
3. The general vicinity of the project location within the County;
4. Scale and north arrow;
5. Location and physical dimensions of existing structures and general location and approximate physical dimensions of proposed structures, including all proposed solar arrays. If an exact number or dimensions of solar arrays is not known at the time of application, the site plan shall identify a maximum number and maximum dimensions that will be expected and a range from minimum number expected to the maximum;
6. Identify potential staging and maintenance areas;
7. Houses within one thousand feet (1000') of the overlay district boundary and the approximate distance of those houses from the district boundary;
8. Any additional houses within one-half (1/2) mile of the district boundary;
9. Location of existing electrical lines and facilities, including transmission lines;
10. Approximate location of proposed electrical lines and facilities, including transmission lines and whether underground or overhead;
11. Existing topography;
12. Approximate proposed areas to be graded;

13. Approximate proposed removal of natural vegetation;
14. Proposed setbacks of all proposed structures from the district boundary;
15. Proposed methods of traffic circulation within the proposed district;
16. Proposed snow storage and maintenance plan;
17. Anticipated ingress and egress locations for each proposed facility location within the proposed district;
18. Location of all public roads within the proposed district and the location and distance to public roads in all directions surrounding the proposed district boundary;
19. Approximate location of any major known underground pipelines or other underground utilities;
20. Approximate location of any major known utility easements;
21. Location of any delineated 100-year floodplains, stream buffers, sinkholes, wetlands, and other environmentally sensitive areas.

viii. A Visual Impact Assessment developed by a Qualified Professional. The study shall provide accurate and site-specific visualizations from key observation points and a detailed description of the methods and supporting information. The assessment shall include, at a minimum, the following:

1. Visual simulations which may include 3D Visualization Models, Photographic Simulations, and Animated Visualizations as determined necessary by the Zoning Director;
2. Viewshed Analysis to determine actual visibility and the characteristics of the views within the project area including different seasons, times of day, and weather conditions;
3. A Glare Study identifying impacts on residential and public areas within one thousand feet (1000') of the district boundary;
4. Inventory of Views to provide the basis for evaluating the extent of visibility. This inventory shall include written description of views, distance from proposed project, duration of view, and characteristics of the view from the following:
    a. All houses located within one thousand feet (1000') of the District boundary;
    b. All houses within the district whose owners did not sign the Petition for Application;
    c. Any applicable historic, cultural, or archeological significant sites;
    d. Any applicable public roads;
    e. Any applicable government-designated scenic byways, government-designated scenic overlooks, public parks, Conservation Areas, or Wildlife Refuges.
5. Photographic Simulations of key viewpoints shall be provided as determined necessary by the Zoning Director;
6. A summary of key findings and proposed mitigation techniques.

ix. An estimated economic Cost/Benefit Analysis (CBA) describing the impact of the project on the local and state economy in the following respects:

1. The amount of property taxes to be generated by the project;

2. The amount of sales taxes to be generated by the project;
3. The amount of other applicable taxes to be generated by the project;
4. Any distinction in the amount of taxes that will be generated and the distribution of the tax revenue if the facility is privately owned or acquired/owned by a public entity or public utility;
5. The construction dollars to be spent locally;
6. The number of construction jobs and estimated construction payroll;
7. The number of permanent jobs and estimated continuing payroll;
8. The benefit of the electricity generated by the project;
9. Any projected costs or benefits to tourism in the County;
10. Other projected economic benefits and costs of the project;
11. Costs associated with the impact on roads or other County infrastructure in the area and a draft Transportation Infrastructure Plan and Mitigation Agreement.

x. An environmental assessment of the potential adverse impacts from the project and any proposed measures to mitigate or lessen the effects of the adverse impacts. The assessment and mitigation plan shall be conducted by a Qualified Professional and include, at a minimum, all of the following:
   1. Documentation that the owner/applicant has followed the Missouri Energy Infrastructure Conservation Siting Work Group Guidelines for Conservation Siting of Energy Infrastructure in Missouri and copies of all resulting studies and recommendations;
   2. Impact on wildlife and wildlife habitat on the site and in the proposed SEOD;
   3. Impact on any endangered or threatened species on the site and proposed SEOD;
   4. Impact on flora on the site;
   5. A report, bearing the seal of a Qualified Professional, detailing expected Adjusted Total Day-Night Sound Exposure (Lnd) at the nearest property line;
   6. Any wastes, either municipal solid waste or hazardous waste, generated by the project at any point in its lifespan;
   7. Electromagnetic fields and communications interference generated by the project;
   8. Risk of fire from the project, including threat of lightning strikes;
   9. Impact of the project on civilian and military aviation in the area;
   10. Impact of the project on soil erosion;
   11. Impact of the project on water quality and water supply in the area;
   12. Impact on historic, cultural, or archaeological resources;
   13. Impact of glare on houses from any SES-L and estimated duration of glare (in hours per year);
   14. A general discussion of any potential changes to the above assessment items that could be anticipated when considering the cumulative impacts of other solar energy systems in the region. The region shall be defined as all counties adjoining Cass County and including Cass County. When considering cumulative impacts, only

solar energy projects that are not publicly known are not required to be considered.

xi. A Geotechnical Report with certification of a registered professional engineer that includes, at a minimum:
    1. Soil engineering and engineering geologic characteristics of the site based on on-site sampling and testing.
    2. Foundation design criteria for all proposed structures.
    3. Slope stability analysis.
    4. Grading criteria for ground preparation, cuts and fills, and soil compaction.
    5. An erosion control plan.

xii. A copy of the written notification to the utility of the proposed interconnection;

xiii. Information, in as much details as possible, on the type, size, maximum and minimum height, orientation, anti-glare specifications, rated power output, performance, safety, fire suppression systems, and noise characteristics of each proposed solar array equipment, storage and conversion facilities, and electrical transmission equipment;

xiv. A photometrics plan indicating the footcandle levels at SEOD boundaries;

xv. A general description of the decommissioning and land reclamation strategy in the event the project is abandoned or upon the end of the useful life of the project. The applicant shall specify the anticipated useful life of the project;

xvi. The anticipated volume and designated route for traffic generated during the construction phase, including routes for oversized and heavy equipment, and the proposed method of providing assurances to the public entities responsible for the road of repairs and on-going maintenance to the roads and bridges needed to support the project;

xvii. The anticipated volume and designated route for traffic generated during the utilization of the facilities, including routes for oversized and heavy equipment needed for maintenance and repairs, and the proposed method of providing assurances to the public entities responsible for the roads of repairs and on-going maintenance to the roads and bridges needed to support the project;

xviii. The anticipated operation and maintenance requirements (including estimated frequency of maintenance activities) for the solar energy system, associated facilities, and internal and outgoing transmission lines connecting to the power grid;

xix. The anticipated location, width and proposed method of acquisition of transmission line easements required, including access requirements to the easements and any associated necessary restrictions on land use, development, and access within those easements;

xx. The anticipated timeline for completing construction of all proposed structures within the proposed SEOD;

xxi. A general description of the plan for securing the site, structures, and facilities from access by unauthorized persons;

xxii. A description of any Federal Aviation Administration requirements applicable to the structures and facilities on the site and proposed methods for meeting those requirements.

F. **Fees.** The applicant shall submit an application fee with the application, as established by the County Commission.

G. **Costs.** The applicant shall be responsible for the costs of all required public notice and the preparation of the application materials, including but not limited to all required surveys and property descriptions.

H. Notice Procedures. According to Article IV Section 400.130.

I. **Dimensional and Performance Standards.** See solar energy facilities (Section 400.392).

J. Decommissioning & Reclamation

1. Security.
    i. Purpose. The purpose of the security requirement is to ensure that adequate funding is available to be used to pay the costs of decommissioning and site reclamation, including removal of solar energy system components and other above-ground project improvements subject to permit in the event of abandonment of individual components or of the entire system.
    ii. Submittal of Security. The project owner of a SES-L facility shall, at its expense, and not later than 30 days before commencement of project construction, obtain and submit Security in favor of the County for approval by the County Commission.
    iii. Form of Security. Such Security shall be in the form of a letter of credit, a cash escrow account, a performance bond, or other form of Security which is acceptable to the County. Any entity providing Security must be authorized to provide that Security in the State of Missouri and must be acceptable to the County Commission. The Security must contain such provisions, terms or conditions as the County deems to be necessary, including, but not limited to, those set out herein, unless specifically waived in writing by the County.
    iv. Amount. The Security shall be in an amount equal to one hundred fifty (150) percent of the estimated decommissioning and reclamation costs and shall provide for an annual adjustment of the amount of the Security based on the annual rate of inflation. Such amount shall be determined by the County Commission based upon estimates from knowledgeable contractors and such other information or factors that the Commission deems to be relevant.
    v. Maintenance of Security. The Security may not be canceled, released, or in any way terminated without prior written approval from County Commission. The Security shall be maintained and continued in force as long as such Solar Energy System or other, associated above-ground improvements exist and until all decommissioning and site reclamation has been completed and paid for.
    vi. Additional Security. When Required. If the County Commission has any reason to believe that the Security is insufficient, it may demand such other Security as it deems to be necessary.
    vii. Survival of Sale. The Security must be written so as to survive any sale or transfer of the Solar Energy System and related project property or the insolvency of the project owner. It shall further apply to all successors and assigns of the project owner.
2. Reclamation.

i. Owner Initiated. The owner/operator shall commence reclamation proceedings within 90-days of the date of abandonment of a Solar Energy System project. Reclamation activities shall be conducted in accordance with the reclamation plan and the standards contained in these regulations.
ii. County Initiated. Upon determining that a part or whole of the Solar Energy System has been abandoned, the Zoning Director shall notify the owner/operator by certified mail. The notice shall allow 90-days for the commencement of decommissioning. The notice shall also inform the owner/operator of their right to request a hearing before the County Commission.
    1. Abandonment and Reclamation Hearing. Upon request of the owner/operator or expiration of the 90-day deadline, the Zoning Director shall schedule a hearing with the County Commission and provide the owner/operator notice as to the time and location of the hearing.
    2. Hearing Purpose. The purpose of the hearing is to determine the validity of the determination of abandonment, establish whether the owner/operator intends to reclaim, and whether to authorize the use of Security to complete the reclamation of a part of or whole Solar Energy System project.

K. Procedures for Vacation of the Overlay District. Removal of a designated SEOD shall be accomplished by the same procedures as followed to establish the overlay district. In addition to any other factors relating to a rezoning, the County may remove the SEOD if:
1. Failure to Perform. It is determined that no SES-L have been constructed in the SEOD within a period of ten (10) years from the date of the County Commission Order that established the District.
2. Abandonment. An entire project is deemed abandoned.

L. Special Use Permits – Solar Energy System, Large
1. A special use permit is required in accordance with Chapter 400, Article X.
2. No SES-L as defined herein shall be constructed, erected, maintained or operated except under Special Use Permit issued in accordance with these regulations in areas zoned Solar Energy Overlay District (SEOD).
3. All Special Use Permits for SES-L shall comply with the procedures and standards of these regulations and the Solar Energy Overlay District.
4. Application Standards for a new SES-L. Before commencing construction of a SES-L project, the applicant shall submit a site plan as follows:
    i. Location of all solar panels, collector lines (or other underground conduit or wiring), transmission lines, substations, permanent maintenance and access roads, operation and maintenance buildings and other permanent structures used by the applicant in conjunction with the project; and
    ii. The distance from the proposed solar panel location to the nearest built structure, and above ground utilities, the nearest tree(s), and all property lines;
    iii. The proposed location and design of the project, including all solar panels, ground equipment, appurtenant structures, transmission infrastructure, access, fencing, landscape/plantings, exterior lighting, and related accessory structures;
    iv. All properties of Participating Landowners, including property lines;

v. All public roads within the project boundaries; and
vi. All occupied residences within the SEOD and occupied residences on land owned by a Non-Participating Landowner within the SEOD sufficient to determine compliance with required setbacks.

5. Standard Conditions. The following conditions shall be attached to each Special Use Permit granted under this section, unless the County Commission specifically omits one or more.
    i. Prior to construction of any structure authorized by this permit, the owner shall enter into a Transportation and Infrastructure Mitigation Agreement approved by the County Commission.
    ii. Any alteration to any lot line, as it existed at the time of application submittal, that results in a conflict with any adopted standard or condition of approval, shall be cause for revocation of the permit.
    iii. The owner/operator shall submit an annual report detailing monthly power generation for each SES-L for the previous twelve (12) months. The annual reporting period shall commence on the date the Special Use Permit is issued. Reports are due within 60-days of the end of each annual reporting period.
    iv. The owner/operator shall continue to comply with the Missouri Energy Infrastructure Conservation Siting Work Group Guidelines for Conservation Siting of Energy Infrastructure in Missouri.
    v. Any division of land, regardless of the acreage involved, on which a Special Use Permit for a SES-L has been issued is subject to review by the Zoning Director. The Zoning Director's review is to ensure that the proposed division is compatible with the requirements of the Special Use Permit.
    vi. The owner shall record, in the land records of the Cass County Recorder of Deeds, a Notice of Land Division Review (NLDR). The NLDR shall be on forms provided by the Zoning Director and shall clearly state the requirements of this condition.
6. Final Site Plan.
    i. Commencement Date. The applicant shall notify the Zoning Director in writing of the date when the SES-L project will commence delivering energy to the utility grid and selling energy in commercial quantities, documented by a confirmation from the interconnecting utility (The "Commencement Date"). The applicant shall provide this notice within 30 calendar days of the Commencement Date.
    ii. As-Built Plan. Within 90 days after the Commencement Date, the applicant shall provide a final site plan to the Zoning Administrator that conforms to the standards set forth in Section 400.392 Solar Energy Facilities and this section, as applicable. The applicant shall update the final site plan to show the as-built location of all SES-L project facilities shown on the approved site plan, including as-built locations of underground collector lines and the locations where underground collector lines cross County roads.