Session of 2022

SENATE BILL No. 481

By Committee on Utilities

2-9

AN ACT concerning solar energy systems; relating to the siting and construction of commercial-scale and limited-scale solar energy conversion systems; requiring approval by boards of county commissioners prior to construction; establishing construction, siting, notification and health and safety requirements for such systems.

WHEREAS, This act shall be known and may be cited as the Kansas commercial-scale and limited-scale solar energy conversion system facility health and safety standards act.

Now, therefore:

Be it enacted by the Legislature of the State of Kansas:

Section 1. As used in sections 1 through 3, and amendments thereto:

(a) "Agrivoltaic" means a solar energy conversion system that provides for the the dual use of land by combining a solar energy conversion system with agricultural activities that occur underneath or surrounding the panels or modules of the solar energy conversion system, including, but not limited to, growing crops, providing for pollinators or grazing animals.

(b) "Commercial-scale solar energy conversion system" means a solar energy conversion system that converts solar energy into electricity for the primary purpose of storage or sales of generated electricity and includes all appurtenant facilities of such system, including, but not limited to, roads, substations and operation or maintenance buildings. "Commercial-scale solar energy conversion system" does not include any personal or accessory solar energy conversion system.

(c) "Concentrating solar thermal device" and "concentrated solar power" means an electric generation system that uses mirrors or lenses to reflect and concentrate sunlight onto a receiver that is heated to a higher temperature in order to spin a turbine or power an engine.

(d) "Extraordinary events" means any large scale or facility-wide damage to the solar arrays or panels of a commercial-scale or limited-scale solar energy conversion system due to wind, storm, hail, fire, flood, earthquake or other natural disaster or any other severe damage or injury to life or property.

(e) "Limited-scale solar energy conversion system" means a solar energy conversion system that does not exceed 20 contiguous acres in area

and is primarily designed and intended to be used by those members who joined together to create and use the energy generated by such system and not sales of electricity to a third-party unless such sales occur under a net metering arrangement.

(f) "Net metering" means a utility billing program in which renewable energy facilities of customer-generators are connected to the grid to transfer and require the utility to offset or reimburse such customer-generator for the surplus power generated by such facilities.

(g) "Operator" means the person or entity responsible for the construction, operation, maintenance and decommissioning of a commercial-scale or limited-scale solar energy conversion system.

(h) "Permeable fencing" means fencing that allows wildlife to pass through with wildlife corridors for larger wildlife, including, but not limited to, typical barbed wire fencing, wire fencing with larger holes than traditional chain-link fencing and woven wire fencing.

(i) "Personal or accessory solar energy conversion system" means a solar energy conversion system that is designed and primarily intended for consumption on-site or to offset part or all of the electrical energy requirements of the premises upon which such system is located through a net-metering arrangement.

(j) "Project area" means the total impacted area including the site area and all accessory or appurtenant structures and equipment, wildlife corridors and any other components of the solar energy conversion system.

(k) "Road maintenance agreement" means an agreement executed between the operator and governing body having jurisdiction of a road that identifies the responsibilities, cost, upkeep and any fees for maintenance of a specific route used for the construction, operation and decommissioning of a commercial-scale or limited-scale solar energy conversion system.

(l) "Site area" means the footprint of the solar facility, including the various solar modules determined by the cumulative total of the solar modules within the facility measured with the panels as horizontal as possible. "Site area" does not include the wildlife corridors or other features of the solar energy conversion system that are not considered part of the solar module.

(m) "Solar array" means a collection of multiple solar panels that generate electricity as a system and that are typically connected to the same inverter.

(n) "Solar energy conversion system" means a device or machine that converts sunlight to heat or electricity, whether by a photovoltaic cell, concentrating solar thermal device or other conversion technology.

(o) "Solar module" means a grouping of solar arrays measured with the panels as horizontal as possible that are not separated by fencing, wildlife corridors, natural areas or roads. "Solar module" does not include

any appurtenant structures such as substations, battery storage or other storage buildings.

(p) "Wildlife corridor" means a vegetated route or other connection that allows movement of wildlife between areas of habitat that may be fragmented by a solar energy conversion system. A "wildlife corridor" includes any naturally occurring area such as stream corridors or any constructed break in the contiguously fenced areas. "Wildlife corridor" does not include any corridor or break that is used for a road.

New Sec. 2. Prior to the construction of any commercial-scale or limited-scale solar energy conversion system, the board of county commissioners of any county in which any such system is proposed to be constructed shall first approve an application for the construction of the facility and grant a conditional use permit authorizing the construction of such system. The developer of any such system shall submit such application to the board on a form and in the manner specified by the board. Such application shall include, at a minimum:

(a) The name, address and telephone number of the applicant and the contact person for the construction of the system;

(b) evidence that the applicant has mailed notice of the proposed construction by certified mail to all property owners of record within a three mile radius of the proposed site area. Such notice shall be mailed to all such property owners a minimum of 30 days prior to the applicant's submission of an application to the board of county commissioners. Such notice shall include a brief description of the proposed project, the name, address and telephone number of the applicant and the applicant's contact person, the anticipated construction dates, the anticipated day in which the application will be submitted to the board of county commissioners and the following statement: "This letter is being sent to the owners of nearby properties for the purpose of informing the property owners and other interested parties about the proposed solar energy conversion system project described further in this letter. This letter does not grant the recipient or the property owner any additional legal rights to challenge the proposed development. This letter is being provided solely to advise property owners of the pending development. For further information, contact the applicant's designated representative or the [name of county] county planning office at [phone number, email address and mailing address].";

(c) a physical and digital site plan of the existing conditions of the property that includes the following:

(1) The existing property lines and property lines that are within 1,000 feet from the exterior boundaries of the proposed project, including the names of the adjacent property owners and the current use of those properties, as determined by site inspection or from the county appraiser's

office land use map;

(2) the internal access routes along with the points of ingress and egress to the property;

(3) the location and size of any known oil and gas, water and geothermal well or any other well;

(4) the location of all existing buildings and any impervious surface of the property including the dimensions of such buildings or surfaces;

(5) the topography at two foot source of contour intervals;

(6) the location of any boundaries of the 100-year floodplain, as identified on the federal insurance administration's flood hazard boundary maps;

(7) a list of the type and percentage of coverage of the existing vegetation;

(8) the location of any waterways, watercourses, lakes or public water access;

(9) a soil map showing locations of soils classified by the United States department of agriculture as a class one or class two soil, prime farmland and farmland of statewide importance as identified in the natural resource conservation service soil survey;

(10) the surface water drainage patterns;

(11) a statement that provides whether the property contains any environmentally sensitive land or any critical habitat for endangered species; and

(12) a map of residential uses and structures within 1,000 feet of the proposed project boundary of the site area of the system;

(d) a physical and digital site plan of the proposed conditions of the property that includes the following:

(1) The proposed number, location and spacing of solar panels and all appurtenant structures, the type of the panels to be used and whether such panels will be fixed or tracking panels;

(2) the planned location and width of access roads;

(3) the planned location of underground and overhead electric lines that are necessary to connect the system to any building, substation, transmission system or electric load;

(4) the proposed time line for the construction and operation of the system;

(5) the location of any new electrical equipment that will be necessary;

(6) the location of any proposed wildlife corridors;

(7) the location of any environmentally sensitive lands and whether such lands are proposed to be protected;

(8) the location of the areas where vegetation is proposed to be removed;

(9) the location and height of any proposed lighting;

(10) a description of the method that will be used to connect the system to a building or substation;

(11) a complete wiring diagram for the site area;

(12) the location and size of any temporary construction equipment lay down areas; and

(13) a description of the approximate limits of disturbance for the construction in the project area; and

(e) the following supplemental information, records and plans shall be included with each application:

(1) Information regarding the public outreach that was conducted by the applicant, including how the applicant informed nearby property owners and interested stakeholders in the community, what meetings were held and what information was provided in such notifications and meetings;

(2) the manufacturer's specification and recommended installation methods for all major equipment of the system, including, but not limited to, the solar panels, mounting systems, and foundations for poles or racks;

(3) the installation methods that will be used to install foundations for the poles or racks;

(4) an assessment of construction impacts, including, but not limited to, noise, vibration, lights, waste management and water supply and whether mitigation measures may be necessary to reduce such impacts. Mitigation measures may include limited construction hours, reduced scope of work at one time or alternate construction methods;

(5) a preliminary equipment specification sheet that documents the proposed battery energy storage components, inverters and associated electrical equipment that is proposed to be installed;

(6) a grading plan that includes all proposed changes to the vegetation on the site, including, but not limited to, clearing, grading, topographic changes and tree removal;

(7) a preliminary storm water management plan with supporting calculations documenting how increased runoff will be conveyed throughout the site. Preliminary storm water management plans shall be provided with the original application to obtain preliminary use approval. Subject to the approval of the county engineer, detailed plans shall be submitted and approved by the county engineer prior to final approval of the application by the board of county commissioners;

(8) a copy of the interconnection agreement with the local electric utility, prior to the issuance of a conditional use permit to begin construction;

(9) an operation and maintenance plan that includes measures for maintaining safe access to the system and the stormwater and erosion

controls, as well as the general procedures for operation and maintenance of the installation. A preliminary operation and maintenance plan may be provided with the original application, as required by the county engineer, to obtain preliminary use approval. The final engineered or detailed plan shall be submitted for review and evaluation prior to approval of an application by the board of county commissioners;

(10) a plan for the construction and maintenance traffic use on public roadways, including a traffic and haul route plan based on the recommendations and approval of the board of county commissioners. Such plan shall include the following:

(A) Identification of the designated local roadways to be used for site access and an estimate of daily vehicle usage during construction and during normal operations and whether such uses will require any necessary improvements to the roads;

(B) identification of the designated haul routes for heavy loads, trucks and equipment, with connection to paved county routes or state highways; and

(C) a road maintenance agreement with the board of county commissioners that provides for the repair of roadways during and after construction and annual dust control requirements on rock roadways;

(11) a landscaping plan detailing all proposed changes to the landscape of the site area that includes the location of buffering landscapes and a species list of the plants that will be planted in the buffered area. The landscaping plan shall include a plan for the annual management of the landscape with particular attention given to the vegetative establishment period of approximately three years;

(12) a vegetation management and agrivoltaic plan detailing all proposed changes to the vegetation of the site and outlining all current and proposed agrivoltaic uses. Such plan shall:

(A) Show where existing vegetation is to be removed and the new vegetation that will be planted;

(B) provide for the installation, establishment and maintenance of ground cover and other vegetation to minimize erosion, maintain soil health and accommodate the proposed agrivoltaic use;

(C) include management methods and schedules that provide how the vegetation will be managed on an annual basis, with particular attention given to the vegetative establishment period of approximately three years; and

(D) identify the type of agrivoltaic use that is possible with the design of the facility and whether such use will be implemented;

(13) an emergency management plan for management of any occurrence of an extraordinary event at the site area. Such plan shall be provided to the owner, the local fire district and local emergency response

agencies. Such emergency management plan shall include, but not be limited to:

(A) A summary of the project with all electronic schematics, site plans, emergency routes of ingress and egress and the location of the access areas and the width and load rating of the access areas;

(B) emergency contact information of the owner or operator;

(C) a description of how the fire safety system and any associated controls will function and be maintained in proper working order;

(D) a description of the fire protection and suppression systems for the buildings that store batteries, hazardous material or compressed gases;

(E) the site control measures that will be implemented during and after any emergency and the means that may be used to manage an emergency, including shutting down the installation;

(F) procedures for inspection and testing of alarms, interlocks and controls;

(G) all applicable material safety data sheets for facilities of the system unless the system meets the reporting thresholds of the emergency planning and community right to know act in which case the applicant may submit a tier II form;

(H) the electrical shock hazards and possible areas of contact with hazardous substances or toxic fumes;

(I) whether any specialty response equipment may be required to adequately manage extraordinary events. If any specialty response equipment would be required, the board of county commissioners may require the operator of a system to provide for such equipment at the operator's expense;

(J) a requirement that the plan shall be updated annually with new copies provided to the owner, the local fire district and local emergency response agencies;

(K) a requirement that extraordinary event response training shall be provided to all emergency response stakeholders of the plan to ensure safety and effective management during an extraordinary event; and

(L) a requirement that a fire safety plan be developed in consultation with the local fire district that describes how the fire safety system and the system's associated controls will function and be maintained in proper working order;

(14) a solar glare hazard analysis that utilizes the most up-to-date version of the solar glare hazard analysis tool, or its equivalent, to evaluate the solar flare aviation hazard and potential impact on neighbors;

(15) a soil sampling plan that provides a procedure to characterize and document the soil health and heavy metals that are present before and after construction of a system, upon a request to renew a conditional use permit and after decommissioning or reclamation of the site. The soil

sampling plan shall include the following:

(A) the total carbon content, both organic and inorganic, the content of phospholipid fatty acid for soil health and heavy metal content such as lead and cadmium;

(B) a map of the sampling sites that will be utilized for each scheduled sampling event;

(C) a photo shall be included for each sample to demonstrate the location and current vegetation of the sample site;

(D) a requirement that sampling shall occur at one 25-foot by 25-foot sampling site within each discrete fenced area in a location that is deemed to be representative of the vegetation and soil conditions for such fenced area;

(E) a requirement that subsamples of soil shall be taken of the upper zero to six inches of soil, with 5 subsamples combined and mixed to form a representative sample for each 25-foot by 25-foot sample site as designated on the map;

(F) a stipulation that additional soil tests and test sites may be required by the county or secretary of health and environment at the operator's expense in the event that one or more panels are damaged to the point that leaching may have occurred or if damaged panels were not removed within 30 days. Upon any such damage, a sample shall be taken at the location of the incident, and a report shall be provided to the board of county commissioners;

(G) a stipulation that additional soil test sites may be required from graded areas over two acres;

(H) a requirement that all soil tests shall be conducted at laboratories that are certified by the United States environmental protection agency for each compound tested except that the phospholipid fatty acid analysis may conducted by a laboratory that is not certified by the United States environmental protection agency if necessary;

(I) a requirement that remediation measures shall be implemented during reclamation and that reclamation shall not be considered complete until the soil testing results are within a range designated by the secretary of health and environment; and

(J) a requirement that all required soil test results shall be sent by certified mail from the testing lab to the board of county commissioners and be made public record;

(16) a decommissioning and reclamation plan to ensure that facilities are properly removed after their useful life. Such plan shall provide the following conditions and requirements:

(A) The decommissioning of a solar array may occur in the event any solar array is not in use for 12 consecutive months unless the board of county commissioners approves a request to maintain the facility. If a solar

array has not been in use for 12 consecutive months, the board of county commissioners may issue a notice of abandonment to the owner or operator of the system. The owner or operator shall have the right to respond to the notice of abandonment within 30 days from the receipt of such notice. The board of county commissioners may withdraw a notice of abandonment if the owner or operator of the system provides sufficient information to demonstrate that the system has not been abandoned. Such information may include documentation or certification by the owner or operator of the local electric utility, or that the owner or operator of the system is actively pursuing a plan, including specified steps and a proposed schedule to bring the system back into service. If the board of county commissioners does not withdraw a notice of abandonment, the owner or operator shall have one year to complete decommissioning of the system in accordance with the decommissioning and reclamation plan;

(B) the decommissioning and reclamation plan shall include provisions for removal of all structures, foundations, underground wiring and all materials foreign to the site prior to installation of the system, except that any cables that are buried deeper than 36 inches underground may remain on the site if a map of the buried lines is provided to Kansas one-call, and is recorded with the deed of the property containing the buried cables;

(C) the decommissioning and reclamation plan shall ensure the site will be reclaimed to a useful, nonhazardous condition without delay by providing for the regrading and seeding of the land and revegetation of reclaimed soil areas with crops or native seed mixes;

(D) the decommissioning and reclamation plan shall include a description of how any changes to the surrounding areas and systems adjacent to the battery energy storage system, including, but not limited to, structural elements, means of egress, and required fire detection suppression systems, will be protected during decommissioning and approved after the system is removed;

(E) the decommissioning and reclamation plan shall provide that soil shall be tested following removal of equipment and compared with preliminary soil testing to evaluate any soil contamination to determine whether a remediation program is needed;

(F) the decommissioning and reclamation plan shall require all concrete and other materials used in the construction of the site to be removed and appropriately discarded in accordance with all solid and hazardous waste regulations;

(G) the decommissioning and reclamation plan may incorporate agreements with the landowner regarding the decommissioning requirements of such system relating to access roads, fences, gates or repurposed buildings or restoration of agricultural crops or forest resource

land; and

(H) the decommissioning and reclamation plan shall include estimated decommissioning costs and the method for ensuring that financing will be available for such decommissioning and reclamation. The applicant shall provide the basis for the cost estimates and shall include a mechanism for calculating adjusted costs over the life of the project;

(17) evidence that the applicant has sufficient general liability insurance coverage for the installation and operation of the system under a standard homeowner's or standard business owner's insurance policy that is separate and distinct from any insurance coverage required by a public utility. Such evidence shall be provided in any form and manner required by the board of county commissioners; and

(18) a plan to offer all nearby landowners an optional water analysis of any wells, streams, ponds or lakes that are within a half mile of the site area. The optional water analysis shall be offered to each landowner that has property within a half mile of the site area and shall be conducted prior to the construction of the system. Notification of the optional water analysis shall be provided through certified mail to each such landowner. The applicant shall provide a list of the landowners who were sent such notification and the landowners that requested such water analysis. The applicant shall provide the results of any such tests to the board of county commissioners.

New Sec. 3. (a) The following standards and requirements shall apply to any commercial-scale and limited-scale solar energy conversion system constructed on or after March 31, 2022:

(1) (A) To protect and plan for the future development and growth of cities, no system shall be constructed in this state unless the distance from the site area of the system is three miles or more from any incorporated city limit boundary.

(B) To protect and plan for the future development and growth of populated unincorporated areas, no system shall be constructed in the state unless the distance from the site area of the system is one mile or more from any one square mile area that contains five or more residential homes or dwellings. This subparagraph shall not apply if all the residential homes or dwellings within such one square mile area are all participating lessors.

(C) No system shall be constructed in this state unless the setback distance from the site area of the system is not less than 2,640 feet from all of the following:

(i) Non-participating landowner's property boundary;

(ii) public building property boundary;

(iii) federal wildlife refuge boundary;

(iv) public hunting area boundary; and

(v) public park boundary.

(D) No system shall be constructed in this state unless the setback distance from the site area of the system is not less than three miles from any other existing or permitted project area of another system.

(E) The distances required pursuant to this paragraph shall be measured from the ground-level center of each solar panel array, inverter, roads, battery energy storage system substations and operation and maintenance building to the nearest boundary of any of the properties described in this paragraph.

(F) No portion of a system shall encroach upon the public right of way except for those transmission or distribution lines that are necessary for the operation of the system.

(G) The board of county commissioners of a county in which a system may be located shall have authority to impose additional setback requirements to mitigate local site specific issues or to provide for frontage roads, access easements, commercial corridors or other means of ingress or egress.

(2) No solar panels of a system shall exceed 15 feet in height, measured when oriented at maximum vertical tilt. The board of county commissioners of the county in which such facility is located may approve a variance that authorizes the panels to exceed such height if the board finds that such height is necessary to accommodate the landscape without grading or to accommodate agrivoltaic uses. The board shall not approve of any variance pursuant to this paragraph if such variance would allow the height of the solar panels to negatively impact nearby land uses or the character of the area. The height restrictions provided in the paragraph shall not apply to appurtenant enclosed structures, and such structures shall comply with any local zoning ordinances.

(3) The project area of a system shall:

(A) Utilize existing terrain, vegetation, structures or screening to screen the project from off-site view to the extent possible;

(B) avoid steep slopes of 15% or greater; and

(C) minimize the impact to environmentally sensitive lands.

(4) To maintain the rural character and preserve agricultural land, the site area of a:

(A) Commercial-scale solar energy conversion system shall not exceed 500 acres in total; and

(B) limited-scale solar energy conversion system shall not exceed 20 contiguous acres.

(5) All solar panels of a system shall be constructed to minimize glare or reflection onto adjacent properties and adjacent roadways and shall not interfere with traffic or air traffic or create a safety hazard.

(6) No system shall utilize any concentrating solar thermal device.

(7) A system that is proposed to be located on prime farmland and farmland of statewide importance shall only be located on such land when the natural topography of such land is preserved as follows:

(A) Grading shall not be permitted on any soil classified by the United States department of agriculture as a class one or class two soil; and

(B) grading of prime farmland and farmland of statewide importance shall be limited to maintain the natural topography. Such grading shall not exceed 5% of the solar array area of the project area unless:

(i) A variance is authorized by the board of county commissioners of the county in which such farmland lies to ensure proper drainage or to mitigate unusual site constraints;

(ii) the grading is necessary to accommodate for the system on a brownfield site or other previously disturbed land; or

(ii) the grading is necessary for battery storage, transformers, access, roads or grid connection infrastructure.

(8) A system shall be designed to accommodate concurrent use of the land for livestock grazing, row crops or other agrivoltaic uses or shall contain a diverse array of native grasses and forbs for native habitat under and between the rows of solar panels. The ground around and under the solar panels and solar arrays and the ground in designated buffer areas shall be planted and maintained with perennial vegitated ground cover or agricultural plants that are managed to prevent erosion and runoff. Clearing of natural vegetation shall be limited to what may be necessary for construction, operation or maintenance of the system. Removal of stands of mature trees shall be limited and shall comply with environmental protection standards.

(9) (A) Topsoil shall not be displaced or removed from a project area except when:

(i) Grading has been approved for the construction of the system and the amount of displaced topsoil is minimized and is reapplied after construction of the system; or

(ii) the secretary of health and environment orders removal and disposal of such soil to remediate contamination. If any such order is issued by the secretary, the amount of removed soil shall be brought to the project area and reapplied to the original area for restoration.

(B) Any soils that are disturbed during construction shall be seeded to prevent erosion and manage runoff. Seed mixes for perennial plantings shall include a diversity of grasses and wildflowers, ideally native to the region, that will result in the growth of short stature vegetation that blooms throughout the growing season. Native plants and grasses shall be planted in buffer areas.

(C) If any application of pesticides is necessary during construction

or operation of a system, such pesticides shall only be applied in the minimum amount necessary for such purpose and shall be applied by a person who is certified by the Kansas department of agriculture for such purpose.

(10) (A) The project area or site area of a system may be enclosed by perimeter fencing to restrict unauthorized access. If fencing is used, permeable fencing shall be used where possible. If permeable fencing is not used, wildlife corridors shall be provided to allow wildlife to escape in the event of a grass fire, flooding or other natural condition. Prior to determining the placement of any wildlife corridors, each proposed wildlife corridor shall be evaluated by a wildlife biologist of the Kansas department of wildlife, parks and tourism or another specialist designated by the board of county commissioners of the county in which the system is proposed.

(B) If required by local, state or federal law or rules and regulations, critical electrical and communications equipment may be fenced with chain-link fence topped with barbed wire or other fencing that is not permeable fencing to ensure public safety and provide security for the equipment.

(C) Any perimeter fencing around a system shall provide appropriate safety and warning signage at a minimum spacing of every 500 feet. No signs, other than appropriate identification, safety and warning signs shall be displayed unless required by a state or local emergency response agency.

(11) Unless waived by the adjacent property owner, a 25-foot buffer distance shall be provided and maintained along property lines between a system and any adjacent nonparticipating property or any participating residential property. Such buffer area shall include the minimum features necessary to provide an adequate buffer to minimize land disturbance and may include a combination of berms, fences and vegetation. The buffer area may be within the minimum setback distances provided in this section and shall be designed to buffer the view of the facility from any residence or residential property. If any property owner provides a waiver for such buffer distance, such waiver shall be filed with the register of deeds in the county where such property is located.

(12) (A) Each system's battery energy storage facilities shall comply with requirements of the national fire protection association standard 855 and all other local, state and federal regulations. At a minimum, the following standards shall apply to the battery energy storage facilities of a system:

(i) Battery energy storage facilities, including all mechanical equipment, shall be enclosed by a fence with a self-locking gate to prevent unauthorized access unless housed in a dedicated use building;

(ii) the area within 10 feet of each side of a battery energy storage facility shall be cleared of combustible vegetation and surfaced with gravel or other non-combustible surfacing; and

(iii) signage for the battery energy storage facility shall comply with ANSI Z535 and shall include the type of technology associated with the battery energy storage facility, whether there are any special hazards, the type of suppression system installed in the area of the battery energy storage facility and 24-hour emergency contact information. As required by the national electric code, disconnection and other emergency management information shall be clearly displayed on a light reflective surface. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations.

(B) For safety reasons, the battery energy storage facility of any system shall not be located within any of the setback distances required pursuant to this section.

(13) Any security or safety lighting that is installed with any system or appurtenant structures shall be limited to the minimum lighting necessary to mitigate the visual impact of such lighting. No exterior lighting fixture shall be installed that exceeds 15 feet in height unless the board of county commissioners of the county in which such system is proposed authorizes a lighting fixture to exceed such height requirement due to necessity. No lighting fixture or source shall be directed off the site area, and a lighting fixture or source shall be shielded and downcast such that light does not encroach upon adjacent properties or the night sky. All exterior lighting, where used, shall be motion activated and on a timer or switch-operated. If LED lights are used, the color temperature of such lights shall not exceed 3000K.

(14) (A) The operational noise generated from the equipment of the system, including any inverter, battery energy storage facility, component or other associated ancillary equipment shall not exceed a noise level of 60 decibels as measured from any adjacent property line or 500 feet from a residence or occupied building that was constructed or under construction prior to the construction of the system.

(B) The board of county commissioners of the county in which a system is proposed shall require the submission of equipment and component manufacturer noise ratings to demonstrate compliance with the maximum permitted noise levels.

(C) Any transformers, inverters or other sound or vibration generating equipment of a system shall be placed so that low level recurring ambient noise does not exceed permitted noise levels. Such noise levels may be minimized with equipment placement or by specifically placed noise mitigating and vibration deadening fence, landscape or other efforts.

(15) All system structures shall be maintained and kept in good condition by the owner or operator of the system. Maintenance shall include, but not be limited to, painting, structural repairs, replacement of damaged or worn parts or cables and maintaining the integrity of security measures. Site access shall be maintained to a level that is acceptable to local emergency personnel. The owner or operator of the system shall be solely responsible for maintaining the site area, all appurtenant structures and access roads.

(b) Prior to the construction of any commercial-scale or limited-scale solar energy conversion system, the applicant shall post a bond, establish an escrow account or provide such other financial security deemed acceptable by the board of county commissioners. The county shall have the right to call upon said bond or other financial security for the decommissioning of the system if the operator fails to comply with the decommissioning and reclamation plan. Such financial security shall be:

(i) Equal to or greater than the estimated decommissioning costs of the system;

(ii) posted prior to the construction or operation of the facility; and

(iii) recalculated every five years and adjusted accordingly if the estimated cost of decommissioning the facility increases by 10% or more. The board of county commissioners may approve a reduction in the financial security if estimated decommissioning costs decrease.

Sec. 4. This act shall take effect and be in force from and after its publication in the statute book.