

CHAPTER 21

ENERGY PRODUCTION

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8-21-1: PURPOSE AND SCOPE:

This Chapter establishes the regulations and siting criteria for new and expanding energy generation projects in Twin Falls County. The regulations contained herein are designed to protect and promote the public health, safety, and community welfare of Twin Falls County; to promote the proper location and development of such projects based on the effective use of local resources; and avoid unreasonable adverse impacts on the use and peaceful enjoyment of nearby lands for lawful purposes.

8-21-2: DEFINITIONS:

- A. **Agri-solar:** The use of land for agricultural production, such as crop or livestock production or pollinator habitats, underneath solar panels or adjacent to solar panels
- B. **Large-Scale Energy Projects:** Projects capable of producing, as per *nameplate capacity*, 10 megawatts (MW) or more; or projects that encumber 40 or more acres of land that produces power via the harnessing of wind or solar energy for transmission or storage.
- C. **Nameplate Capacity:** The maximum energy output that an energy generator can produce without exceeding design thermal limits.
- D. **Personal-Use Energy Projects:** A wind turbine or solar array with a total nameplate capacity of 200 kilowatts and encumber more than 200 sq. ft. that are associated with single family dwellings and accompanying structures. Personal energy projects with a nameplate capacity less than 200 kilowatts and 200 square feet for single family dwellings and accompanying structures require no zoning permit.
- E. **Small-Scale Energy Projects:** A wind turbine or solar array with a nameplate capacity of 200 kilowatts to ten megawatts that does not otherwise meet the definition of large-scale energy projects.
- F. **Solar Project, Ground-Mounted:** A solar energy system that is mounted on a rack or pole that rests on or is attached to the ground.
- G. **Solar Project, Roof-Mounted:** A solar energy system that is mounted on a rack fastened to or resting on a structure roof.
- H. **Structure-Integrated Energy Generation Systems:** The full integration of energy generation into the design and construction of a building or other structure. This term includes integrated photovoltaics such as solar roofs, solar facades, and individual lights and call boxes powered by solar cells. It also includes wind generators such as micro turbines that are integrated into bell towers and other design features of the structure.
- I. **Prime Farm Land:** Prime farmland is farmland which has the soil quality, growing season, and moisture supply needed to produce economically sustained high yields of crops when treated and managed according to acceptable farming methods, including water management. In general, prime farmlands have an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, acceptable salt and sodium content.

8-21-3: PERMITTING REQUIREMENTS:

- A. Relationship to Other Procedural Requirements:** The following requirements are in addition to all other procedural requirements energy projects are subject to within this Title. Where there is a conflict between these requirements and those noted elsewhere in Title 8, the requirements of this Chapter shall govern.
- B. Permit Required:** A conditional use permit is required prior to commencing any construction or ground-disturbing activities related to the installation of any small or large scale energy project. A siting permit and building permit is required prior to installation of any personal use energy project.
- C. Coordination and Documentation:** The applicant shall provide the County with copies of all applications for state and federal permits and licenses at the time of submitting a permit application, or within 30 calendar days after receiving notice of an incomplete application. Upon the issuance of any state or federal permits or licenses, environmental assessments, records of decision, memoranda of understanding, exemptions, variances, or other similar authorizations of approvals related to the proposed energy project, the applicant shall provide copies of these documents to the County.
- D. Site Review:** Site review is required for proposed electric generating projects, substations, compressor stations, and other energy projects the Director determines require such review. The County serves as the lead coordinating agency in siting energy projects located in the County, unless preempted by state or federal law. The County will avoid duplicating the actions of other governmental agencies to the extent the County standards or equivalent standards have been addressed by those agencies. During review of a proposed energy project, the County may adopt the reports and findings of other government agencies as part of a conditional use permit.
- E. Burden of Proof:**

 - 1. The applicant shall have the burden of proving compliance with all applicable requirements of this Title.
 - 2. Applicants for projects within an airport influence area shall certify compliance with or exemption from all Federal Aviation Administration (FAA) Regulations.
- F. Complete Application Required:** A complete application is required prior to permit approval. A determination of completeness by the County shall only be made upon submittal of all fees and all information required by this Title including supplemental information the County deems necessary to determine compliance. Failure to submit a complete application is grounds for denial.

G. Application Requirements: An applicant for an energy project shall submit an application on a form provided by the County along with all applicable fees to the Community Development Services Department. The application shall include the following in addition to any other requirements outlined in Chapter 3.

1. Name, address, phone number, and email address of the applicant. If the applicant is not the property owner, the name, phone number, address, and email address of the property owner shall be supplied along with authorization that the applicant is an agent of the owner;
2. Site plan(s) showing the physical features and land uses of the project area, both before and after construction of the proposed energy project, where features and uses are changed. The plan shall include a legible plot plan drawn to scale showing:
 - a. Property lines and improvements located on the subject property including the location, dimensions, and types of existing major structures, including the septic tank and drain fields, canals, laterals, easements, etc.;
 - b. Project boundaries;
 - c. Location of the proposed project describing the method and location of mounting required including (as applicable) towers, foundations, guy anchors, and/or associated equipment;
 - d. Proposed height and setback for all project equipment;
 - e. The right-of-way of any public road this is contiguous with the property and any overhead utility lines;
 - f. The location of any nearby or adjacent scenic corridors, wildlife corridors, and other environmentally sensitive areas;
 - g. The location of any nearby, adjacent, or onsite historic, cultural, or archeological resources;
 - h. The location, height, and dimensions of all existing and proposed structures and fencing;
 - i. The location, grades, dimensions, and surfacing of all temporary and permanent on-site roads and access roads from the nearest public road;
 - j. State and federal resources, lands, and other protected areas near the project site;
 - k. Existing topography with contours at intervals that accurately depict the site, depending on the size and slope of the site;

- l. Water bodies, waterways, canals, wetlands, and drainage channels;
 - m. The location of, and distances to, onsite and adjacent residences; and
 - n. The location and distance to airport influence areas;
3. Copies of all baseline wildlife studies applicable to the project site;
 4. A list of permits, approvals, or other actions that the applicant has requested or will request from other government agencies or from public or privately-owned utility companies serving the site;
 5. A transportation plan showing how vehicles would access the site and describing the impacts of the proposed energy project on the local and regional road system during construction and operation;
 6. A revegetation plan for restoring areas temporarily disturbed during construction.
 7. A drainage and erosion control plan for construction and operation, as required;
 8. For large-scale projects, a fire protection plan for construction and operation of the facility;
 9. A plan to protect any archaeological, historical, or cultural sites or artifacts found at the site.
 10. A description of actions the applicant would take to restore the site to a useful, non-hazardous condition upon project termination.
 11. A detailed cost estimate for site restoration in current-year dollars, including an explanation of the basis for cost estimates and assumptions.
 12. Certification and demonstration that foundation and structural plans were designed by an Idaho-licensed engineer;
 13. Comment letters from agencies with jurisdiction (e.g., Canal company, Highway district, South Central Public Health District, Fire district or department, Idaho Department of Water Resources, Sheriff, Post office, Idaho Fish and Game, or any other agency deemed necessary
 14. Where applicable, wind turbine specifications including rated nameplate capacity, manufacturer and model, rotor diameter, tower height, and tower type (monopole, freestanding, or guyed); and
 15. Where applicable, solar system specifications including rated nameplate capacity, manufacturer and model, and height above ground, or roof, whichever is applicable.

H. Procedures for Conditional Use Permits Approved by the Planning and Zoning Commission:

The process for review and approval of a conditional use permit by the Planning and Zoning Commission shall be as described in Twin Falls County Code, Title 8, Chapter 7.

I. Administrative Approval Procedures: The procedure for deciding administrative siting permits for personal use energy projects shall be as follows:

1. The application shall be on a form prescribed by the county and shall include the information required by this chapter. The application shall be reviewed for completeness. Upon receiving a fully completed application, the application process will proceed as follows:
2. The zoning administrator will notify the applicant that the application is complete, and the county will proceed with notification as required by this chapter.
3. Notification shall be sent to all utility companies on the one call system, Highway District, Canal Company, and other agencies required by code, and property owner(s) within 300 feet of the proposed location by first class mail and provide proof of mailing. Posting of the property shall occur on the date of notice mailing.
4. Written comments will be accepted for 15 calendar days after the date of mailing.
5. The zoning administrator shall then produce a report, which includes a summary of such comment or evidence submitted, a reasoned explanation of the grounds for the decision and a final order granting or denying the request. Such report shall be filed at the planning and zoning department within 28 calendar days after the closing date for accepting written comment, unless additional time for filing such report is granted by the board of county commissioners upon request of the zoning administrator. Notice of such filing shall be provided in writing to the applicant and to all parties entitled to notice by this chapter.

J. Report Required: Upon the applicant filing a complete written application, the zoning official shall then produce a report, which includes:

1. A reasoned statement that explains the criteria and standards considered relevant;
2. A statement detailing the facts relied upon;
3. An explanation of the rationale for the decision based on the applicable provisions of the comprehensive plan, relevant ordinance and statutory provisions, pertinent constitutional principles and factual information contained in the record;
4. Identification of the nature of compliance or noncompliance with express approval standards;

5. An explanation of compliance or noncompliance with relevant decision criteria; and
 6. The actions, if any, that the applicant could take to obtain approval.
- K. Additional Requirements for Conditional Use Permit Applications:** An applicant for a conditional use permit must follow the requirements of Twin Falls County Code, Title 8, Chapter 7 not otherwise superseded by this Chapter.
- L. Avoidance of Duplication:** The applicant may incorporate by reference any information developed or submitted in any other application if the applicant submits a copy or summary of the referenced material, identifies the agency or proceeding to which it was submitted and the outcome of that proceeding, and explains the relevance of the information to the approval standards of this Chapter.
- M. Duration of Approval:** An applicant/owner has one year from the date of final approval of a small-scale energy project and two years from the date of final approval of a large-scale energy project to secure a building permit or the conditional use permit expires automatically.
- N. Termination and Decommissioning:** As conditions of the permit for a large-scale energy project, the applicant shall demonstrate the following:
1. At the time of the application, the applicant shall submit a plan that ensures that the site will be restored to a useful, non-hazardous condition within six months of the cessation of operations. The plan shall include the following:
 - a. Removal of aboveground and underground equipment, structures, and foundations to a depth of at least three feet below the pre-existing grade. Underground equipment, structures, and foundations need not be moved if they are at least three feet below grade and do not constitute a hazard or interfere with agricultural use or other resource uses of the land.
 - b. Restoration of the surface grade and soil after removal of aboveground structures and equipment including removal of graveled areas and access roads.
 - c. Revegetation of restored soil areas with native seed mixes and plant species suitable to the area, consistent with the weed control plan.
 - d. For any part of the energy project on leased property, the plan may incorporate agreements with the landowner regarding leaving access roads, fences, gates, or buildings in place and/or regarding restoration of agricultural crops or forest resource land.
 - e. The plan must provide for the protection of public health and safety and for protection of the environment and natural resources during site restoration.

- f. The plan must include a schedule for completion of site restoration work.
2. Prior to the issuance of the conditional use permit, the landowner shall provide a performance bond to the County in the amount equal to 125 percent of the written cost estimate from an Idaho-licensed engineer to guarantee that the site will be restored as required. The conditional use permit holder is required to update the bond on an ongoing basis every five (5) years. Failure to maintain decommission bond is a violation of conditional use permit
3. If the energy project ceases operation for 12 consecutive months or construction on the project begins but is not completed within a period of 12 months following permit approval, the landowner shall restore the site according to a plan approved by the Commission unless a time extension is granted by the Commission.

8-21-4: EXEMPTIONS:

Uses and activities including (but not limited to) natural gas project pipelines, petroleum project pipelines, electric transmission and distribution lines, and structure-integrated energy generation systems shall not be regulated by resolution, policy, or ordinance enacted by any county, incorporated or unincorporated area, special use district, or other local government entity of any kind that:

- A. Prohibits, or has the effect of prohibiting, the authorized connection or reconnection of an electric, natural gas, propane, or other energy utility service provided by a public utility, municipality, or cooperative utility;
- B. Restricts, or has the effect of restricting, the source of the electricity, natural gas, propane, or other energy utility service provided by a public utility, municipality, or cooperative utility; or
- C. Requires residents or businesses within the county to use a particular type or generation source of electricity, natural gas, propane, or other fuel.

8-21-5: ZONING DISTRICTS WHERE PERMITTED:

The following is a list of uses that are either allowed, conditionally permitted, or not allowed in the various zones as set forth below.

- A. **Personal Use Energy Projects:** Personal Use Energy Projects are an allowed use in all zones subject to the requirements of this Chapter and the siting permit requirements set forth in TFCC 8-21-3-I
- B. **Small-Scale Wind Turbine Projects:** Small-Scale Wind Turbine Projects are conditionally permitted by the Planning and Zoning Commission in the Agricultural

Preservation Zone; Agricultural Zone; Commercial Zone; and Industrial Zones subject to the requirements of this Chapter and TFCC 8-21-8. Small-Scale Wind Turbine Projects are not allowed in the Rural Residential Zone.

- C. **Small-Scale Solar Projects:** Small-Scale Solar Projects are conditionally permitted by the Planning and Zoning Commission in Agricultural Preservation Zone; Agricultural Zone; Commercial Zone; and Industrial Zones subject to the requirements of this Chapter and TFCC 8-21-9. Small-Scale Solar Projects are not allowed in the Rural Residential Zone.
- D. **Agrisolar:** Agrisolar are conditionally permitted by the Planning and Zoning Commission in the Agricultural Preservation Zone, Agricultural Zone, and subject to the requirements of this Chapter and TFCC 8-21-10.
- E. **Large-Scale Wind Turbine Projects:** Large-Scale Wind Turbine Projects are conditionally permitted by the Planning and Zoning Commission in the Agricultural Preservation Zone, and Agricultural Zone subject to the requirements of this Chapter and TFCC 8-21-11.
- F. **Large-Scale Solar Projects:** Large-Scale Solar Projects are conditionally permitted by the Planning and Zoning Commission in the Agricultural Preservation Zone and subject to the requirements of this Chapter and TFCC 8-21-12.

If the site of the proposed energy project is within an area subject to an overlay district, the proposed use shall meet or exceed the applicable requirements of the overlay district as well as applicable requirements of the base district.

8-21-6: DETERMINATION OF SCALE:

Total aggregate energy output of pre-grid intertie connected systems of one or more energy generation sources (e.g., solar and wind or two or more systems of the same type), regardless of ownership, will be used to determine the scale of the project for the purposes of these regulations. The location of such systems on more than one parcel shall not be used to determine a systems classification as used within this Chapter.

8-21-7: GENERAL REQUIREMENTS:

In addition to all other requirements energy projects are subject to within this Title, the following general requirements for such projects must be met, unless otherwise noted. Where there is a conflict between these requirements and those noted elsewhere in Title 8, the requirements of this Chapter shall govern.

- A. **Access and Parking:** The applicant has secured, or can secure, all necessary access approvals from the applicable highway districts or the Idaho Transportation Department

for access points for temporary and permanent project roads and parking areas at the project site. The applicant agrees to:

1. Use existing roads for access to the extent practical and avoid construction of new roadways as much as possible.
 2. Restore the natural grade and revegetate land used for temporary access roads, equipment staging areas, parking, and field office sites used during construction of the energy project. The applicant must specify the type and amount of seed or plants used to revegetate the disturbed areas and a timeline to complete this work.
 3. Construct and maintain all-weather access roads as needed to assure adequate, safe, and efficient emergency vehicle and maintenance vehicle access to the site.
- B. Dust Control:** During site development and construction, the applicant must regularly water or otherwise treat unpaved roads and staging areas as necessary to minimize dust and wind erosion.
- C. Erosion and Sediment Control:** The applicant must conduct all roadwork and other site development work in compliance with a National Pollutant Discharge Elimination System (NPDES) permit as required by U.S. Environmental Protection Agency regulations. Applicants must submit copies of their NPDES permit and erosion and sediment control plan as part of the application submittal. The plan must include measures to prevent damage to local roads and adjacent areas.
- D. Fire Protection:** The owner/operator of an energy project must implement fire protection measures for the construction and operation of the energy project that are acceptable to the County and other land management agencies adjacent to the proposed energy project, if any. For power generation projects, the applicant must submit a copy of a Fire District-approved fire prevention or protection plan at the time of application. Personal use projects are exempt from this requirement.
- E. Fish, Wildlife, and Native Plant Protection:** The applicant of energy projects shall certify that the proposed energy project will be designed, constructed, and operated without significant adverse impact to fish, wildlife and native plant resources, including fish and wildlife habitat, migratory routes, and state or federally listed threatened or endangered fish, wildlife, or plant species.
- F. Preservation of Prime Farm Land:** Consistent with the goals set forth in the Twin Falls County Comprehensive Plan to preserve the rural character of Twin Falls County, no energy projects should be placed on prime farmland. The applicant shall certify that the proposed energy project will not be placed on or interfere with prime farm land.
- G. Protection of Historical and Cultural Resources:** Construction and operation of the proposed energy project shall not cause significant adverse impact to historical and

cultural resources identified by the State Historic Preservation Office or identified in the Comprehensive Plan. The applicant agrees to implement a plan to preserve any previously undiscovered archeological, historical, or cultural artifacts discovered during construction or operation of the energy project in compliance with applicable County, state, and federal Law.

- H. **Scenic Area Corridor:** Large-scale energy projects and ground-mounted small-scale projects visible from the road right-of-way shall not be located within a designated scenic corridor. Scenic corridors include federal or state scenic byways, scenic highways, scenic areas, and scenic waterways. If the proposed energy project is adjacent to a designated scenic corridor, the applicant shall implement mitigation measures that would protect the resource values of the designated scenic corridor as a condition of approval. Such measures may include, but are not limited to, using colors that blend with the background, setting the development back from a right-of-way or stream corridor, using the natural topography to screen the energy project, and retaining or planting vegetation that would obscure the view of the energy project within the scenic corridor.
- I. **Signs:** Billboards (off-premises signs) are not permitted on the site of large-scale energy projects. The following on-premises signs are allowed:
 - 1. Signs required for public or employee safety or otherwise required by law.
 - 2. No more than two signs which comply with the requirements of Title 8 Chapter 4.
- J. **Visual Impact:** Applicants must demonstrate the intent to reduce the visual impact of construction and operation of the proposed energy project to the extent practical by methods that may include, but are not limited to, the following:
 - 1. Avoiding state or federal scenic areas and significant visual resources listed in the Comprehensive Plan;
 - 2. Using natural topography to obscure the project;
 - 3. Using materials and colors that blend with the background unless otherwise required by the Federal Aviation Administration;
 - 4. Retaining or planting vegetation to obscure views of the energy project; and
 - 5. Setting the energy project back from the edge of public arterial rights-of-way and from the Snake River Canyon Rim, Rock Creek Canyon, Salmon Falls Canyon, and Deep Creek Canyon. Solar systems shall be set back a minimum of 200 feet from the canyon rim. Wind turbines shall be set back from the canyon rim a minimum of 1 mile.

- K. **Weed Control:** The applicant shall submit a plan for weed control and shall certify that the plan will be implemented during construction and operation of the proposed energy project.
- L. **Proximity to the Airport:** Large-scale energy projects shall not be permitted within the Airport Overlay District.
- M. **Cleaning Chemicals and Solvents:** During operation of the proposed solar energy project, all chemicals or solvents used to clean photovoltaic panels or heliostats must be low in volatile organic compounds. The operator should use recyclable or biodegradable products to the extent possible.

8-21-8: ADDITIONAL REQUIREMENTS FOR SMALL-SCALE WIND TURBINE PROJECTS:

- A. Small-scale wind turbine projects, where permitted, are subject to the following additional requirements:
 - 1. **Automatic Over-Speed Controls:** All installations shall be equipped with manual-electronic or mechanical and automatic over-speed controls to limit the blade rotation speed to within the design limits of the system.
 - 2. **Blade Clearance:** There shall be a minimum of 25 feet between the ground and the lowest point of the rotor blade. No blades may extend over parking areas, driveways, structures, or sidewalks.
 - 3. **Height:** Small-scale wind turbines and associated structures shall not exceed a total height of 125 feet in all zones (measuring from the natural ground level to the apex of the turbine blade).
 - 4. **Interference Avoidance:** No installations shall be in any location where their proximity would interfere with existing fixed broadcast, retransmission, or reception antenna. This includes interference with residential radio, television, wireless phone, or other personal and emergency communication systems reception or in any location along the major axis of an existing microwave communication link where its operation is likely to produce electromagnetic interference in the link's operation.
 - 5. **Lighting and Marking:** Lighting and marking shall only be permitted if required by and in accordance with state and federal law.
 - 6. **Rotor Diameter:** The maximum rotor diameter (the cross-sectional dimension of the circle swept by the rotating blades) shall not exceed 15 feet.

7. **Security:** The small-scale wind turbine structure shall be designed to deter unauthorized access. At minimum, a distance of at least 12 feet must be provided from the ground to the bottom of the ladder or other access method.
8. **Setbacks:**
 - a. Small-scale wind turbines and associated structures shall be set back a distance equal to 125 percent of the total height, measured from the natural ground level to the tip of the turbine blade at its apex from all property boundaries, overhead utility lines, private or public roads or rights-of-way, and other turbines and associated structures.
 - b. No part of a small-scale wind turbine structure, including guywire anchors, may extend within ten feet of the property boundaries.
9. **Wiring:** All wiring to and from a small-scale wind turbine structure shall be underground.

8-21-9: ADDITIONAL REQUIREMENTS FOR SMALL-SCALE SOLAR PROJECTS:

- A. Small-scale solar projects where permitted, are subject to the following additional requirements:
 1. **Appearance:** Exposed hardware, supporting structures, frames, and piping shall be finished in non-reflective surfaces. Roof-mounted systems shall be compatible with the color scheme of the roof.
 2. **Coverage:** Roof-mounted systems are limited in area only by what the structure will support, as determined by an Idaho Licensed Structural Engineer.
 3. **Glare:** Solar panels shall be placed such that concentrated solar radiation or glare shall not be directed onto nearby properties and/or roadways.
 4. **Height:**
 - a. **Roof-mounted systems:** Systems shall not exceed a height of eight inches from the roof surface. In no event shall the placement of the solar panels result in a greater total height (including building and panels) than is allowed for the principal building in the zoning district in which they are located.
 - b. **Ground-mounted systems:** The maximum height shall be seven feet as measured from the average grade at the base of the pole to the highest edge of the system when the panel is in its horizontal position.
 5. **Locations and Setbacks:**

- a. No ground-mounted solar energy system may be located within the required front or side yard or on any utility, water, sewer, or other public easement.
 - b. All parts of any ground-mounted solar energy system shall be set back at least seven feet from side and rear yard setbacks.
6. **Wiring:** All wiring to and from a small-scale solar energy unit and project shall be placed underground, enclosed in conduit, or otherwise obscured from view.

8-21-10: ADDITIONAL STANDARDS FOR AGRISOLAR:

In addition to meeting the other requirements of this Title including standards for the appropriately scaled energy project detailed in this chapter not otherwise superseded by this Section, agrisolar shall be regulated as follows:

- A. **Co-Location Compatibility:** Projects must demonstrate that the proposed project is compatible with the continuing use of the land for agricultural purposes. Such purposes include, but shall not be limited to, the use of land for grazing, crop production, and beekeeping.
- B. **Height:** The height of agrisolar projects is variable and will be determined by the agricultural use that will exist underneath the agrivoltaic system.
- C. **Return to Agricultural Use:** When an agrisolar project ceases operation, the energy operation shall comply with all decommissioning requirements of this Chapter and disturbed areas shall be returned fully to agricultural use.
- D. **Wellhead Protection Overlay District:** Where agricultural operations exist within a Wellhead Protection Overlay District, and such agricultural operations pose a high risk to the recharge area, land within the overlay may be used exclusively for energy production supplemented by low-risk agricultural activities as appropriate, provided hazardous chemicals, as determined by the water authority, are not used in the maintenance and operation of the energy project. The applicant shall demonstrate their intent to comply with this provision, if used, and submit a list of chemicals certifying that the use of chemicals shall be limited to those on such list.

8-21-11: ADDITIONAL STANDARDS FOR LARGE-SCALE WIND PROJECTS:

- A. In addition to meeting the other requirements of this Title, large-scale wind projects must be designed to:
 - 1. **Reduce Visual Impact:** To the extent practical, the proposed large-scale wind energy project must be designed to minimize visual impact by:
 - a. Using underground electric lines.

- b. Using turbine towers of uniform design and color, with maximum height of 500 feet. (Measuring from the natural ground level to the apex of the turbine blade.)
 - c. Using the minimum lighting necessary for safety and security purposes in addition to aviation warning lights required by federal or state law.
 - d. Using appropriate lighting techniques to prevent glare.
 - e. Using existing roads to provide access to the site or, if new roads are needed, minimizing the amount of land used for new roads and locating roads to reduce visual impact and other adverse environmental impacts, such as erosion.
 - f. For utility-scale projects, using existing substations or, if new substations are needed, minimizing the number of new substations.
2. **Protect Wildlife Resources:** The applicant shall certify that the proposed large-scale wind energy project will be designed and constructed to reduce the likelihood of significant adverse effects on wildlife and wildlife habitat. Measures to reduce significant impact may include, but are not limited to, the following:
- a. Conducting biologically appropriate baseline wildlife surveys in the areas affected by the proposed wind energy project to determine wildlife species present and patterns of habitat use.
 - b. Selecting turbine locations to reduce the likelihood of significant adverse impacts on wildlife based on expert analysis of baseline data.
 - c. Designing turbine towers to reduce horizontal surfaces for perching.
 - d. Designing turbine towers and pad-mounted transformers to avoid creation of artificial habitat or shelter for raptor prey.
 - e. Spreading gravel on turbine pad areas to minimize weeds and to avoid creation of habitat for raptor prey.
 - f. Using anti-perching protection devices on transmission line support structures and appropriate spacing of conductors.
 - g. Avoiding construction activities near raptor nesting locations during sensitive breeding periods and using appropriate no-construction buffers around known nest sites.
 - h. Developing a plan for post construction monitoring of the wind energy project site using appropriate survey protocols to measure the impact of the project on wildlife in the area.

3. **Protect Public Safety:** The proposed large-scale wind energy project must be designed and operated to protect public safety by measures that may include, but are not limited to, the following:
 - a. Designing turbine blades so that, at the closest point, the sweep of the blades is at least 25 feet above the tallest existing or foreseeable obstruction to blade movement.
 - b. Designing, constructing, and operating the project to exclude the public from close proximity to turbine blades and electrical equipment.
 - c. Designing, constructing, and operating the project to protect against structural failure of the turbine tower or blades that could endanger public safety.
 - d. Restricting public access to the interior of tubular turbine towers by installing locked access doors.
4. **Required Setbacks:** The proposed wind energy project has been designed so that all aboveground parts of the nearest wind turbine structure are set back from the property line by a distance that is at least 125 percent of the height of the wind turbine structure, including the rotor-swept area, except when the wind energy project extends onto the abutting property.
5. **Signal Interference:** No large-scale wind project shall be installed in any location where its proximity to existing fixed broadcast, retransmission, or reception antennae for radio, television, or wireless phone, emergency communication or other personal communication systems would produce interference with signal transmission or reception unless the applicant provides a replacement signal to the affected party that will restore reception to at least the level present before operation of the large wind energy system. No large-scale project shall be installed in any location within the line of sight of an existing microwave communications link where operation of the large wind energy system is likely to produce electromagnetic interference in the link's operation. No large wind energy system shall be installed in any location within the radar line of sight of a doppler system where operation of the large wind energy system is likely to produce interference in the radar's operation.

8-21-12: ADDITIONAL STANDARDS FOR LARGE-SCALE SOLAR PROJECTS:

In addition to meeting the other requirements in this Title, large-scale solar projects must be designed to:

- A. **Limit Ground Leveling:** The proposed large-scale solar energy project has been designed and would be constructed so that ground leveling is limited to those areas needed for effective solar energy collection and so that the natural ground contour is preserved to the greatest extent practical.

B. Protect Wildlife Resources: The applicant shall certify that the proposed large-scale solar energy project will be designed and constructed to reduce the likelihood of significant adverse effects on wildlife and wildlife habitat. Measures to reduce significant impact may include, but are not limited to, the following:

1. Designing foundations and support structures for solar equipment to avoid creation of artificial habitat or shelter for raptor prey.
2. Controlling weeds to avoid the creation of artificial habitat suitable for raptor prey.
3. Using anti-perching protection devices on transmission line support structures and appropriate spacing of conductors.
4. Avoiding construction activities near raptor nesting locations during sensitive breeding periods and using appropriate construction buffers around known sites.
5. Using suitable methods such as co-location or sound-producing devices to discourage birds from entering areas of concentrated solar energy near solar-thermal mirrors or other devices that concentrate solar radiation.

C. Prevent Misdirection of Solar Radiation: The applicant shall certify that the proposed large-scale solar energy project has been designed and will be operated to prevent the misdirection of concentrated solar radiation onto nearby property, public roads, or other areas accessible to the public.

D. Promote Public Safety: The applicant shall certify that the proposed large-scale solar energy project has been designed and will be operated to protect public safety, including development and implementation of a plan of operating procedures to prevent public access to hazardous areas.

8-21-13: PENALTIES:

A violation of any section or subsection of this Chapter is subject to any and all actions and penalties outlined in Section 8-3-2 of this Title.

8-21-14: SEVERANCE:

If any provision of this chapter or the application thereof to any person or circumstance is held invalid by a court of competent jurisdiction, the invalidity shall not affect other provisions or applications of this chapter or these regulations, which can be given effect without the invalid provision or application. To this end, the provisions of these regulations are declared to be severable.