

IRON COUNTY ORDINANCE NO. 2010-4

AN ORDINANCE OF IRON COUNTY, UTAH, AMENDING CHAPTERS 17.16, 17.20, AND 17.33 OF THE IRON COUNTY CODE, PERTAINING TO SOLAR ENERGY SYSTEMS

WHEREAS, Iron County finds that solar energy is an abundant and renewable energy resource, and that its conversion to electricity can help reduce our dependence on nonrenewable energy resources and decrease the air and water pollution that may result from the use of conventional fossil fuels for power production;

WHEREAS, it is the policy of the State of Utah to encourage the development of independent and qualifying power production and cogeneration facilities, to promote a diverse array of economical and permanently sustainable energy resources in an environmentally acceptable manner, and to conserve our finite and expensive energy resources and provide for their most efficient and economic utilization. §54-12-1, Utah Code Annotated;

WHEREAS, the purposes of the County Land Use, Development, and Management Act, as set forth in §17-27a-102, Utah Code Annotated, must be considered in the development and adoption of land use regulations, including those pertaining to solar energy systems;

WHEREAS, Iron County finds that the criteria of Section 17.12.060 Iron County Code, pertaining to amendments to development regulations, have been properly considered, as presented in the staff report for this proposal;

WHEREAS, the Planning Commission of Iron County held a duly advertised and noticed public hearing on the proposed solar energy amendments to the Zoning Ordinance for the purpose of receiving public comment regarding the content of the amendments, and after considering the comments unanimously voted to forward the proposed ordinance to the Iron County Commission with a recommendation for approval;

WHEREAS, the Iron County Commission has held a duly advertised and noticed public hearing on the proposed ordinance for the purpose of receiving public comment regarding the content of the ordinance;

WHEREAS, after considering the public comments and the language of the proposed ordinance, the County Commission concludes that the proposed ordinance appropriately considers and balances all interests in accordance with the purposes and goals of the County Land Use, Development, and Management Act; the Iron County General Plan; and, the Iron County zoning ordinance.

NOW THEREFORE, THE COUNTY LEGISLATIVE BODY OF IRON COUNTY, UTAH ORDAINS AS FOLLOWS:

SECTION 1. THE FOLLOWING PORTION OF IRON COUNTY CODE 17.16.030, TABLE OF USES, IS AMENDED TO READ AS FOLLOWS. (Only the uses and footnotes that are being amended or added are shown. P refers to a permitted use, C refers to a conditional use, and X means not permitted.)

Use Table

USES	ZONE DISTRICTS								
	A-20	R-5	R-2	R-1	R-1/2	C	LI	I	IA
Solar Power Plant- Concentrated Solar Thermal	C(6)	X	X	X	X	X	X	C(6)	C(6)
Solar Power Plant- Photovoltaic Solar	C(6)	C(6)	X	X	X	C(6, 8)	C(6, 8)	C(6)	C(6)
Accessory Solar Energy System, Photovoltaic or Hot water	P	P	P	P	P	P	P	P	P
Accessory Solar Energy System, Concentrated Solar Thermal	C	C	C	C	C	C	C	C	C

...

6) See also Chapter 17.33.

...

8) Photovoltaic solar power plants may only be located in the Commercial and Light Industrial zones in conjunction with commercial or light-industrial development of the site, and in a manner that preserves the primary purpose(s) of the zone.

SECTION 2. IRON COUNTY CODE SECTION 17.20.010, USE DEFINITIONS, IS AMENDED BY ESTABLISHING OR AMENDING THE FOLLOWING DEFINITIONS:

“Accessory Solar Energy Systems”, include any photovoltaic, concentrated solar thermal, or solar hot water devices that are accessory to, and incorporated into the development of an authorized use of the property, and which are designed for the purpose of reducing or meeting on-site energy needs.

“A Solar Power Plant” means a utility-scale commercial facility that converts sunlight into electricity, whether by photovoltaics (PV), concentrating solar thermal (CST) devices, or various experimental solar technologies, with the primary purpose of wholesale or retail sales of generated electricity.

SECTION 3. IRON COUNTY CODE CHAPTER 17.33 IS AMENDED TO READ AS

FOLLOWS:

CHAPTER 17.33 Solar Power Plants

Sections:

17.33.010	Purpose
17.33.020	Definitions
17.33.030	Regulations and Design Standards, Solar Power Plants
17.33.040	Permit Applications
17.33.050	Provisions for Conditional Use Permit Review

17.33.010 Purpose:

The purpose of this Chapter (17.33) is to establish minimum requirements and regulations for the placement, construction and modification of solar power plants, as defined herein, while promoting the safe, effective and efficient use of such energy systems.

17.33.020 Definitions:

- A. Accessory Solar Energy Systems**, include any photovoltaic, concentrated solar thermal, or solar hot water devices that are accessory to, and incorporated into the development of an authorized use of the property, and which are designed for the purpose of reducing or meeting on-site energy needs. Accessory Solar Energy Systems may be permitted as described in Section 17.16.030, Table of Uses, and are not subject to this chapter (17.33).
- B. Concentrating Solar Thermal Devices**, also known as Concentrated Solar Thermal Power (CST), are systems that use lenses or mirrors, and often tracking systems, to focus or reflect a large area of sunlight into a small area. The concentrated energy is absorbed by a transfer fluid or gas and used as a heat source for either a conventional power plant, such as a steam power plant, or a power conversion unit, such as a sterling engine. Although several concentrating solar thermal technologies exist, the most developed types are the solar trough, parabolic dish and solar power tower.
- C. Photovoltaics (PV)**, is a technology that converts light directly into electricity. PV solar panels have been around for several years, although concentrated photovoltaic (CPV) technologies are now being developed. Both PV systems and CPV systems are included within this definition.
- D. Solar Power Plant**, means a utility-scale commercial facility that converts sunlight into electricity, whether by photovoltaics (PV), concentrating solar thermal devices (CST), or various experimental solar technologies, for the primary purpose of wholesale or retail sales of generated electricity.

17.33.030 Regulations and Design Standards - Solar Power Plants

All solar power plants shall comply with the following minimum regulations and design standards.

A. Permitted Locations. A solar power plant that complies with the provisions of this section may be permitted as described in Section 17.16.030, Table of Uses, Iron County Zoning Ordinance.

B. Design Standards.

1. **Minimum Lot Size.** No concentrated solar thermal power plant shall be erected on any lot less than forty acres in size. No photovoltaic solar power plant shall be erected on any lot less than five acres in size.

Maximum Height. The maximum height for all structures shall be established through the Conditional Use Permit process, provided a structure height of 30 feet or less shall always be permitted.

3. **Setbacks.** Solar power plant structures shall be set back from all property lines and public road rights-of-way at least thirty feet, or 1.5 times the height of the structure, whichever is greater. In addition, solar power plant structures must be located at least 100 feet from all residentially-zoned lots and existing residences.

Additional setbacks may be required to mitigate noise and glare impacts, or to provide for designated road or utility corridors, as identified through the review process.

4. **Safety / Access.**
 - a. An appropriate security/livestock fence (height and material to be established through the Conditional Use Permit process) shall be placed around the perimeter of the solar power plant. Knox boxes and keys shall be provided at locked entrances for emergency personnel access.
 - b. Appropriate warning signage shall be placed at the entrance and perimeter of the solar power plant project.
5. **Noise.** No operating solar power plant shall produce noise that exceeds any of the following limitations. Adequate setbacks shall be provided to comply with these limitations.
 - a. 50 dBA, as measured at the property line of any neighboring residentially-zoned lot;
 - b. 45 dBA, as measured at any existing neighboring residence between the hours of 9 p.m. and 7 a.m.
 - c. 60 dBA, as measured at the property lines of the project boundary, unless the owner of the affected property and the planning commission agree to

a higher noise level, as follows.

The owner of a neighboring property that would otherwise be protected by the 60 dBA noise limitation may voluntarily agree, in writing, to a higher noise level. Any such agreement must specifically state the noise standard being modified, the extent of the modification, and be in the form of a legally binding contract or easement between the landowner (including assignees in interest) and the solar power plant developer, effective for the life of the project. Notwithstanding any such voluntary noise agreement between the affected landowner and the solar power plant developer, the agreement shall only be effective and reflected in the County's authorization of the project when it has been reviewed and determined acceptable to the County. The County shall consider the likely impacts and consequences of the modified noise limit requested, based on the specific circumstances of the situation, in determining whether to grant the request. Any such noise agreement must be submitted with the conditional use permit application and if authorized by the County, must be filed with the County Recorder upon issuance of the conditional use permit.

6. Visual Appearance.
 - a. Solar power plant buildings and accessory structures shall, to the extent reasonably possible, use materials, colors, and textures that will blend the facility into the existing environment.
 - b. Appropriate landscaping and/or screening materials may be required to help screen the solar power plant and accessory structures from major roads and neighboring residences.
 - c. No solar power plant tower or other tall structure associated with a solar power plant shall be lighted unless required by the Federal Aviation Administration (FAA). When lighting is required by FAA, it shall be the red, intermittent, glowing-style, rather than the white, strobe-style, unless disclosed and justified through the application review process. Aircraft sensor systems to turn the lights on only when low-flying aircraft are in the area may be required.
 - d. Lighting of the solar power plant and accessory structures shall be limited to the minimum necessary and full cut-off lighting (e.g. dark sky compliant) may be required when determined necessary to mitigate visual impacts.
 - e. No solar power plant shall produce glare that would constitute a nuisance to occupants of neighboring properties or persons traveling neighboring roads.

7. Electrical Interconnections. All electrical interconnection and distribution lines within the project boundary shall be underground, unless determined otherwise by the planning commission because of severe environmental constraints (e.g. wetlands, cliffs, hard bedrock), and except for power lines that leave the project or are within the substation. All electrical interconnections and distribution

components must comply with all applicable codes and public utility requirements.

8. Fire Protection. All solar power plants shall have a defensible space for fire protection in accordance with the Iron County Wildland-Urban Interface Code.

C. Local, State and Federal Permits. A solar power plant shall be required to obtain all necessary permits from the Utah Department of Environmental Quality, including the Utah Division of Air Quality and the Utah Division of Water Quality, applicable permits required by Iron County, and applicable Federal permits.

D. Agreements/easements. If the land on which the project is proposed is to be leased, rather than owned, by the solar energy development company, all property within the project boundary must be included in a recorded easement(s), lease(s), or consent agreement(s) specifying the applicable uses for the duration of the project. All necessary leases, easements, or other agreements between the solar development company and the affected parties must be in place prior to commencing construction, unless specified otherwise by the conditional use permit.

17.33.040 Permit Applications

An application for a conditional use permit to establish a solar power plant shall include a complete description of the project and documentation to sufficiently demonstrate that the requirements set forth in 17.33.030 will be met. Supporting documentation for addressing the review criteria of 17.33.050 and 17.28.050(A) is also to be provided. The land use authority may require any information reasonably necessary to determine compliance with this chapter.

It is preferred that any related conditional use permit applications for substations or transmission lines be considered in conjunction with the conditional use permit application for the solar power plant; however, if the details of those improvements are not available at the time of application for the solar power plant, they may be considered later, through subsequent conditional use permit review. At a minimum, the intended route for connecting to the power grid and the alternative locations of any substation shall be disclosed with the application for the solar power plant.

Due to the complexity of large-scale solar power plant projects, the County may require a development agreement or other appropriate instrument to address taxing, land use, property assessment, and other issues related to the project. For example, the County is interested in preventing large tax shifts that may otherwise be incurred by County residents each year a centrally-assessed solar power plant is depreciated; therefore, cooperation to establish an agreement for payment in lieu of taxes (PILT), or other acceptable solution, may be necessary. A development agreement may be required as a condition of the permit, and must be approved by the Board of County Commissioners prior to commencing construction.

17.33.050 Provisions for Conditional Use Permit Review.

Following the provisions of Chapter 17.28, Iron County Code, additional or more thorough consideration shall be given to the following as the County determines whether the project needs to be approved, denied, or conditionally approved:

- A. **Project Rationale**, including estimated construction schedule, project life, phasing, and likely buyers or markets for the generated energy.
- B. **Siting Considerations**, such as avoiding areas/locations with a high potential for biological conflict such as wilderness study areas, areas of environmental concern, county and state parks, historic trails, special management areas or important wildlife habitat or corridors; avoiding visual corridors that are prominent scenic viewsheds, or scenic areas designated by the County; avoiding areas of erodible slopes and soils, where concerns for water quality, landslide, severe erosion, or high storm runoff potential have been identified; and, avoiding known sensitive historical, cultural or archeological resources.
- C. **Site and Development Plans**, which identify and/or locate all existing and proposed structures; setbacks; access routes; proposed road improvements; any existing inhabitable structures and residentially zoned lots within ¼ mile of a photovoltaic solar project or ½ mile of a concentrated solar project; existing utilities, pipelines, and transmission lines; proposed utility lines; utility and maintenance structures; existing topographic contours; existing and proposed drainageways; proposed grading; areas of natural vegetation removal; revegetation areas and methods; dust and erosion control; any floodplains or wetlands; and other relevant items identified by the county staff or planning commission. All maps and visual representations need to be drawn at an appropriate scale.
- D. **Analysis of Local Economic Benefits**, describing estimated: Project cost, generated taxes, percent of construction dollars to be spent locally, and the number of local construction and permanent jobs.
- E. **Visual impacts, appearance, and scenic viewsheds**. Potential visual impacts may be caused by components of the project such as mirrors, solar towers, cooling towers, steam plumes, above-ground electrical lines, accessory structures, access roads, utility trenches and installations, and alteration of vegetation. Those projects that are within a sensitive viewshed, utilize reflective components (e.g. exposed mirrors), or that propose structures taller than 30 feet must provide a viewshed analysis of the project, including visual simulations of the planned structures and analysis of potential glare impacts. The number of visual simulations shall be sufficient to provide adequate analysis of the visual impacts of the proposal, which shall be from no less than four vantage points that together provide a view from all sides of the project. More visually-sensitive proposals (e.g. solar power towers or exposed mirrors in sensitive viewsheds) may require analysis from significantly more vantage points, such as different distances and sensitive locations. The planning commission may also require a Zone of Theoretical Visibility/ Zone of Visual Impact (ZVI) Analysis, which is a 360-degree computer analysis to map

the lands within a defined radius of a location that would likely be able to see an object. Significant visual impacts that cannot be adequately mitigated are grounds for denial.

- F. Wildlife habitat areas and migration patterns.** Specifically include information on any use of the site by endangered or threatened species and whether the project is in a biologically significant area. If threatened or endangered species exist in the area, consultation with United States Fish and Wildlife Service (USFWS) will be necessary.
- G. Environmental Analysis.** In the absence of a required State or Federal Agency environmental review for the project (e.g. NEPA), the planning commission may require an analysis of impacts to historic, cultural and archaeological resources, soil erosion (water and wind), flora, and water quality and water supply in the area, when there is reason to believe that adverse impacts to such may occur.
- H. Solid waste or hazardous waste.** As applicable, the application must include plans for the spill prevention, clean-up, and disposal of fuels, oils, and hazardous wastes, as well as collection methods for solid waste generated by the project.
- I. Height Restrictions and FAA Hazard Review.** Compliance with any applicable airport overlay zoning requirements and the ability to comply with FAA regulations pertaining to hazards to air navigation must be demonstrated.
- J. Transportation Plan for Construction and Operation Phases.** Indicate by description and map what roads the project will utilize during the construction and operation/maintenance phases of the project, along with their existing surfacing and condition. Specify any new roads and proposed upgrades or improvements needed to the existing road system to serve the project (both the construction and O&M periods)—remember to identify needed bridges, culverts, livestock fence crossings (gates and cattle guards), etc. Also identify all areas where modification of the topography is anticipated (cutting/filling) to construct or improve the roadways. Address road improvement, restoration or maintenance needs associated with the construction, ongoing maintenance/repair, and potential dismantling of the project. Provide projected traffic counts for the construction period, broken down by the general type/size of vehicles, and identify approximately how many trips will have oversized or overweight loads. If significant impacts to the transportation system are anticipated, the County may require financial guarantees to ensure proper repair/restoration of roadways or other infrastructure damaged or degraded during construction or dismantling of the project. In such case, the “before” conditions of the roadways and other infrastructure must be documented through appropriate methods such as videos, photos, and written records, to provide a proper reference for restoration.
- K. Public Safety.** Identify and address any known or suspected potential hazards to adjacent properties, public roadways, communities, aviation, etc. that may be created by the project.
- L. Noise limitations.** Submit sufficient information regarding noise, so as to demonstrate

compliance with 17.33.030(B)(5).

M. Decommissioning Plan. Describe the decommissioning and final land reclamation plan to be followed after the anticipated useful life, or abandonment, or termination of the project, including evidence of proposed commitments with affected parties (county, any lessor or property owner, etc.) that ensure proper final reclamation of the solar energy project. Among other things, revegetation and road repair activities should be addressed in the plan.

N. Other probable and significant impacts, as identified through the review process.

SECTION 4. SEVERABILITY.

Should any portion of this ordinance be found for any reason to be unconstitutional, unlawful, or otherwise void or unenforceable, the balance of the ordinance shall be severable therefrom, and shall survive such declaration, remaining in full force and effect.

SECTION 5. EFFECTIVE DATE:

This Ordinance, Iron County Ordinance No. 2010-4, shall become effective at 12:01 a.m., Wednesday, the 12th of May, 2010. The County Clerk is directed to give notice of this ordinance pursuant to Utah Code § 17-53-208.

PASSED AND ADOPTED BY THE BOARD OF COUNTY COMMISSIONERS OF IRON COUNTY, UTAH this 26th day of April, 2010.

**BOARD OF COUNTY COMMISSIONERS
IRON COUNTY, UTAH**

By: /s/ Wayne A. Smith
Wayne A. Smith, Chair

ATTEST:

/s/ David I. Yardley
David I. Yardley
County Clerk

VOTING:

Wayne A. Smith Aye
Alma L. Adams Aye
Lois L. Bulloch Aye