

1 Welcome

PowerButte is Butte County's innovative initiative to encourage the use of solar power to generate a sustainable energy supply.

Over the past few years, solar facility development has been increasing in Butte County as property owners realize the benefits related to renewable energy, cost savings, and reducing greenhouse gas (GHG) emissions. Renewable energy generation can provide benefits not only to individual property owners, but also to Butte County residents and businesses: creating new economic opportunities, offering options to landowners for an additional economic use of their land, setting Butte County on a path toward energy independence and cost savings, and increasing County revenue to fund priority services and facilities desired by residents.



Utility-scale solar energy systems are defined in the **Butte County Zoning Ordinance** as "Tier 4" systems that are ground-mounted (as opposed to roof-mounted), where most or all power generated is delivered offsite with little or no on-site use.

This Utility-Scale Solar Guide (Guide) is a component of the PowerButte initiative and is a resource to anyone interested in utility-scale solar facilities within unincorporated Butte County, including landowners, developers, community members, and County staff and decision-makers. This Guide also provides general information about solar energy and sets a framework for Butte County.

VISION STATEMENT

Through community, Planning Commission, and Board of Supervisors meetings, the County crafted the following vision statement, which reflects a shared community aspiration for Butte County's renewable energy future:



Butte County is a place for clean, abundant, and renewable energy supported by technological innovation. Energy generated within the county contributes to economic development, environmental protection, reduced dependence on fossil fuels, and lower GHG emissions.

Locally-produced clean energy also supports an affordable and reliable power network for local residences, businesses, and agricultural operations as well as throughout the state. Utility-scale solar facility development complements the county's scenic qualities, avoids impacts to agricultural resources, and is sited and designed in harmony with Butte County's communities, residential neighborhoods, and cities.



Purpose and Use of this Guide

The purpose of this Guide is to act as a tool and resource for the community, providing information and guidance on utility-scale solar development in Butte County. The Guide covers a range of topics in a user-friendly format to provide a comprehensive overview of the items to consider, and is organized in these sections:

1 Welcome

This chapter sets the stage for the Guide by introducing the PowerButte initiative and describing the county's physical and economic context with respect to utility-scale solar development. This chapter also includes the vision and guiding principles that serve as a framework for this Guide.

2 State & Local Context

This chapter discusses the current and projected future status of renewable energy statewide and in Butte County, and also looks at the current State and local regulations that govern renewable energy facilities.

3 Development & Design Guidelines

This chapter provides guidance for siting utility-scale solar facilities and guidelines for facility design, development, and decommissioning. The guidelines cover a range of topics and serve as a resource for anyone preparing an application for a utility-scale solar facility. The guidelines do not establish any new requirements or regulations; rather, they suggest ways to develop and design facilities to minimize impacts. This chapter also provides information on the County's publicly accessible [on-line mapping tool](#), where you can explore opportunities and constraints for utility-scale solar facility development, as well as areas that the County has determined to be unsuitable for this type of development.



4 Permitting Process

This chapter outlines the County's permitting process for utility-scale solar facilities to guide you through the application and review process. This includes the necessary steps, recommended application materials, additional requirements, the environmental review process, and general guidance on the permitting process at the State and federal levels.

5 Community Benefits

This chapter provides examples of how other cities and counties have incentivized or required "community benefits" as a part of solar facility development. While community benefits are not currently required or formally incentivized in Butte County, this chapter serves as a resource to help facilitate discussion about potential future changes to address this topic.

6 Future Trends & Creative Approaches

This chapter provides County staff, residents, and stakeholders a taste of the new technologies and concepts that will allow for more widespread and effective solar energy systems, and how these innovations may affect utility-scale solar systems in Butte County.

Butte County Context

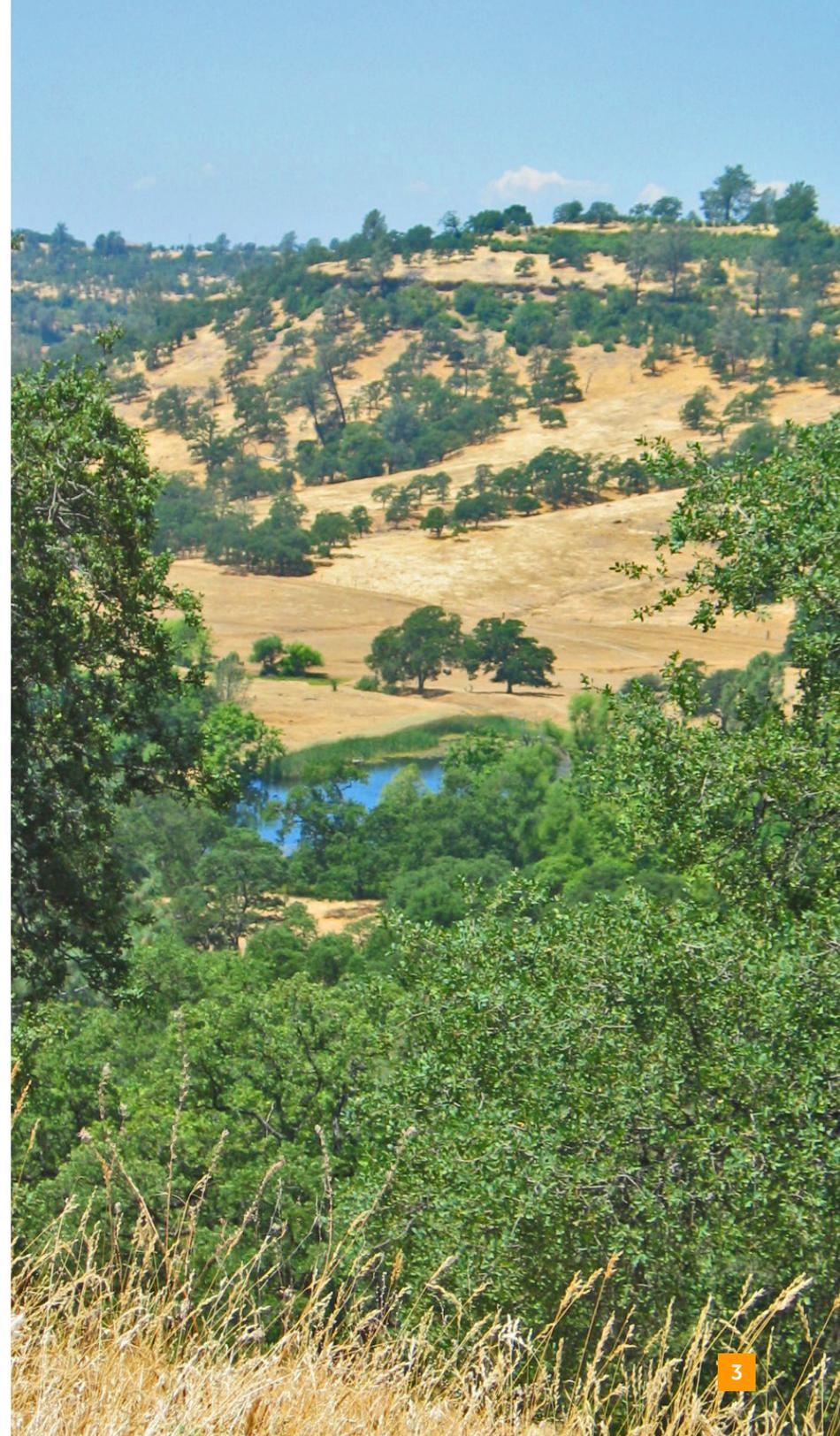
Future development of utility-scale solar is encouraged in Butte County, but should be sensitive and complementary to the county's unique context.

Butte County is defined by its rich landscape of valley, hills, and mountains, and the rivers and creeks that transect them. The valley is bountiful in the crops it produces and the open space and natural resources it provides. To the east, the hills and mountains frame the valley and complement its bounty with their own wealth of timber, mineral, biological and ecological resources, and recreational opportunities.

The rivers and creeks, the lifeblood of this landscape, provide natural corridors for the wildlife and native plants that sustain the county's rural and natural setting. The county's settlers, early or most recent, have recognized and valued this unique landscape. They have established their settlements in small, compact, and urban developments – the incorporated communities of Gridley, Biggs, Oroville, Paradise, and Chico and such unincorporated areas as Palermo, Thermalito, Berry Creek, Yankee Hill, Forest Ranch, Cohasset, and Durham-Dayton-Nelson – to maintain as much of the surrounding natural landscape as possible, thus wisely using land while conserving the county's rich resources. In this manner, the county's settlers to-date have created a socially, economically, and environmentally sustainable community.

Agriculture and open space will continue to dominate Butte County's landscape and be an important part of the county's culture and economy. Existing agricultural areas will be maintained and an array of agricultural services will support agriculture while providing new jobs to Butte County residents. At the same time, new and innovative high-technology businesses will be located in Butte County, including green business and industry, attracted in part to the natural and urban environment of the county and in part to the opportunities for partnerships with Butte County's educational institutions.

Agriculture continues to serve as a driver within Butte County's economy and is a strong priority for the community. Meanwhile, activities related to the agricultural sector, such as rice drying and agricultural processing, contribute to a high proportion of energy consumption in the county.



Stakeholders met to form a vision and guiding principles for the future of renewable energy in Butte County



Public Outreach

As part of its PowerButte initiative, Butte County began a process to promote the development of utility-scale solar facilities in 2015. This process is intended to build upon the framework for renewable energy development established by the County's General Plan and Climate Action Plan. This began with outreach to local stakeholders, the community, and County decision-makers to engage, educate, and learn about the context for, and tradeoffs with, promoting large-scale solar energy facilities in Butte County. As part of this outreach, the County met with a group of local stakeholders representing a wide variety of interests, and hosted a series of community workshops in June 2015 to craft a shared vision for Butte County's future with respect to utility-scale solar facilities (see page 1), as well as the guiding principles (see next page), to guide implementation of that vision. The Planning Commission and Board of Supervisors then reviewed, refined, and accepted the vision statement and guiding principles at meetings in July and August of 2015.

While this project was originally conceived as a solar overlay zone to streamline the development of utility-scale solar facilities in Butte County, the input received during the process suggested that a case-by-case evaluation of facilities is appropriate, especially given significant concerns about impacts to grazing lands and other resources, and that changes to the current requirements in the Zoning Ordinance are not necessary. The project was subsequently reconceptualized as this Guide, which compiles the vision, guiding principles, research, mapping, and analysis that had been completed in the project's first phase into a user-friendly document that informs the community, property owners, solar developers, County staff, and decision-makers about the regulatory and technical context for large-scale solar, how it can be developed in ways to minimize impacts and in consideration of site opportunities and constraints, the permitting process, and possible future approaches and trends.



Guiding Principles

Developed with community and decision-maker input, the following principles support the County's vision statement on renewable energy and will guide utility-scale solar development in Butte County.

Agriculture

Ensure that utility-scale solar facilities support and strengthen agriculture in Butte County. Explore methods to locate facilities in a manner that will complement agriculture.

Biological Resources

Locate utility-scale facilities away from sensitive habitat for special-status plant and animal species.

Scenic Quality

Design and locate new utility-scale solar facilities to protect the unique visual and scenic character of Butte County.

Water Resources

Ensure that new utility-scale solar facilities do not have a negative impact on Butte County's invaluable water resources, through effects on water supply, water quality, or groundwater recharge.

Economic Development

Generate new jobs and revenues by attracting new businesses that design, manufacture, install, and decommission solar facilities and that desire access to an abundant supply of local renewable energy.

Property Owner Coordination

Coordinate with property owners to assist them in the application and review process. Involve adjacent property owners to ensure that they are not negatively impacted by new solar facilities.



Grazing is an important aspect of Butte County's agricultural industry



Butte County has beautiful scenic resources and views of landscape, mountains, and water

Residential neighborhood in Butte County



Local Preferences

Engage local communities and neighborhoods in decision-making for new utility-scale solar facility applications.

Broadly Shared Benefits

Promote a clean energy future that benefits the citizens of Butte County by diversifying the County's energy sources and setting the County on a path towards future energy independence and cost savings.

Utilities Coordination

Incorporate utility planning and facilities into the creation of the Utility-Scale Solar Guide.

Impact Assessment

Identify and appropriately address potential environmental impacts before approving new solar facilities. Consider slope stability and geotechnical hazards when considering impacts to adjacent properties. Consider impacts throughout the lifespan of the facility, including its decommissioning and removal.

Residential Neighborhoods

Ensure that the location, design, and operation of new utility-scale solar facilities maintain property values and minimize negative impacts to residential neighborhoods and properties.

Technological Requirements

Consider the technological and economic requirements of energy providers in the development of design guidelines.

Stakeholder Cooperation

Build partnerships between cities, utilities, businesses, and residents in both urban and rural areas to plan for a shared clean and reliable energy future.

Land Use Planning

Provide consistency with the Butte County General Plan, Zoning Ordinance, and Climate Action Plan.

Stakeholder cooperation and consensus is essential for collecting meaningful input

