



California County Planning Directors Association

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Model Solar Energy Facility Streamlining Guidance Document

DRAFT #1

**(Companion Document to the
CCPDA Model Solar Energy Facility Streamlining Ordinance)**

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I. Introduction

A. Background

California is moving beyond a green energy vision to a green energy reality. California is leading the nation in the development of solar energy facilities.

The benefits of a transition to solar energy are many. The three central goals are to substantially:

- Reduce reliance on foreign petroleum supplies
- Stimulate local economic development and job creation amidst a struggling world economy
- Reduce greenhouse gas emissions

By 2020, California law requires that one-third of the state's electricity be from renewable energy. The timely expansion of solar energy use is a key part of the solution. With worldwide competition for development of appropriate scale solar technology, the solar industry is rapidly evolving to meet an expanding market demand.

The development of solar energy is experiencing unprecedented growth in California. Governor Brown envisions 12,000 megawatts of energy produced from a dispersed array of solar panels throughout the state - creating a new, distributed energy model. This vision has been accompanied by ongoing investment in renewable energy and excitement over how to best accomplish this goal. On average, 1 MW of solar energy production requires approximately 6 acres of land. (1 MW provides electricity for around 750 homes.) In California, many of the permit applications for development of solar energy facilities are located in rural areas and potentially involve agricultural lands and wildlife habitat.

In April 2011, Tim Snellings, Butte County Director of Development Services, was meeting with the Board of Supervisors regarding the County's Draft Zoning Ordinance. One of the topics was how Butte County could both incentivize and effectively regulate the installation of solar energy facilities (SEF) – while continuing to protect prime and other sensitive farmlands. Tim was directed to survey other counties and identify effective strategies for development of an SEF ordinance.

Tim worked with members of the California County Planning Directors' Association (CCPDA) to develop a survey of SEF regulations. What emerged was a pattern of varying degrees (including the complete absence) of regulations. Since the mission of CCPDA is to coordinate California County planning programs and to create consistency where possible, the Executive Committee agreed to assemble interested parties and draft a Model SEF Ordinance for consideration by all California counties.

CSAC staff then assisted in bringing interested parties together. Participants included representatives from County planning, CSAC, State agency staff (OPR, Energy Commission, CalFire, etc.), the solar industry, the California Farm Bureau, environmental organizations, consultants, Sonoma State University's Center for

Sustainable Communities and others. The first meeting of the Working Group was on May 19, 2011. Another meeting held on June 2 allowed the Working Group to identify 31 issues to be addressed by the model ordinance. A first draft of the model ordinance was completed with the help of a subcommittee of the growing Working Group. From there, the Working Group met several more times discussing and debating various issues.

B. The Challenge

How can California Counties:

- Incentivize and facilitate the rapid expansion of solar energy facilities, and
- Simultaneously protect important agricultural lands and wildlife habitats?

Key challenges centered on concerns from representatives of the agricultural, environmental, planning, and solar industry that:

1. SEFs were being located on prime farmlands, Williamson Act contracted lands, Unique Farmland and Farmland of Statewide Importance. **Agricultural representatives** were also concerned that the installation of SEFs on or adjacent to active farmlands would adversely impact the ability of the farmer to operate their farm – and eventually compromise agricultural production.
2. Proposed development would adversely affect sensitive environmental habitats. **Environmental representatives** also expressed concerns that habitats of special status species, including the habitat of threatened, endangered, or rare species, Ecologically Sensitive Areas, important habitat/wildlife linkages or areas of connectivity, and areas of Habitat Conservation Plans or Natural Community Conservation Plans would be adversely affected.
3. Large SEFs could eventually become abandoned and a potential nuisance or eyesore. Planners, solar industry and other representatives discussed whether requirements were needed for decommissioning, posting financial assurances, and general concern about the SEF being abandoned.
4. The Model SEF Ordinance was becoming overly regulatory rather than focused on streamlining an often lengthy and unpredictable permit process. **Solar representatives** stated that additional regulations were justified only in exchange for incentives such as expedited processing.

At the Working Group meeting held on August 03, 2011, after much discussion, there was a consensus among most in attendance to refocus the ordinance around regulations that would qualify SEF projects for more expedited permit processing and separate the Model Ordinance into two documents – The Model Streamlining Ordinance for Tiers 1-3 and this Guidance Document which addresses several issues including Tier 4 information to assist Counties.

C. Users Guide

1. **How is this material organized?**

The ordinance and guidelines are organized as follows:

The Introduction provides background information that shaped the proposed guidance document and streamlining ordinance.

The Guidance Document is intended to assist local agencies in the development of local ordinances and the review of individual applications. This document focuses on issues, policy options, best practices, and standards pertaining to the SEF permit process. The Guidance Document addresses issues of similar concern though out the State and provides a range of policy options applicable to SEF projects requiring the approval of a conditional use permit. This approach is intended to provide a reasonable range of standards and practices applicable to varying circumstances throughout California.

The Model Solar Energy Facility (SEF) Permit Streamlining Ordinance focuses on projects and permit thresholds that qualify a SEF for streamlined permit processing.

2. Building Blocks of the Ordinance

The Ordinance is divided into the following sections. It is intended that the guidance document and model ordinance provisions will encourage well sited facilities and the expeditious approval of SEF projects located in appropriate locations.

The overarching goal of this Ordinance is to incentivize SEF projects that largely avoid or minimize significant impacts on the local environment by qualifying them for a streamlined permit process.

The ordinance also encourages the location of SEFs in areas where there is existing electrical infrastructure (capacity in substations, transmission lines, etc.) and where there are also marginal soils with no or limited habitat/biological issues. This Ordinance seeks to simplify permits for well-sited projects to the very minimal necessary.

Section 1: The “Definitions” are used to place a clear meaning on terms used in the Model SEF Ordinance.

Section 2: The purpose section sets the tone and establishes the objectives of the Ordinance. It helps all stakeholders to better understand the policy framework of the ordinance and applicable goals and objectives. The “Purpose” section should convey a clear intent to enable and facilitate solar energy facilities while balancing other concerns.

Section 3: The “Applicability” section indicates that it applies to all newly proposed solar energy facilities except for facilities installed prior to the adoption of the ordinance. This exception is important to allow existing solar energy facilities to be modified without imposing different standards.

Section 4: The “Permit Requirements” are defined in a table format for ease of reference using threshold levels to define the type of permit required. There are four “tiers” or permit levels including building permit, administrative permits, minor use permits and conditional use permits. Building permits and administrative permits are ministerial permits issued at a staff level based on whether the facility meets the standards. Ministerial permits are generally defined at a scale that is compatible with the primary use or purpose of a zone in all circumstances. Use permits, on the other

hand, are discretionary permits that require environmental clearance and an opportunity for hearing before the decision-making body. Minor use permits are generally approved at the administrative level, either by staff or a zoning administrator, while conditional use permits are generally of a scale that are decided by a hearing body, such as the Planning Commission. Use permits provide an opportunity to allow a use that might not otherwise be considered compatible in a zone unless certain conditions are applied.

Section 5: The “General Requirements” address the issue that apply to all levels of Model SEF Ordinance and provides development standards for setbacks, height limits, lot coverage, agricultural buffers and disclosures, visibility and enforcement for abandonment. This section is intended as a guide towards development of consistent standards and practices, while recognizing that each county may need to vary these standards, as appropriate for the diversity of landscapes and local norms.

Sections 6, 7, and 8: Tier 1, 2 and 3 facilities are described in Sections 6, 7 and 8 respectively and include the general development standards for each permit level.

Section 9: Tier 4 facilities are generally larger in scale and require a conditional use permit. This section of the ordinance refers only to this Guidance Document for discussion of issues and policy options or best practices, recognizing that the conditional use permit process will further define development standards and mitigation requirements which may vary between counties.

Section 10: A Renewable Energy Combining Zone is provided to allow the local jurisdiction to be strategic in designating areas where utility-scale renewable energy facilities should be encouraged across a range of zoning districts while also addressing issues of compatibility and potential impacts. A combining zone can be applied in conjunction with another base zoning district to either enable or restrict certain land uses or apply certain restrictions.

A Renewable Energy Combining Zone incentivizes renewable energy by designating appropriate areas where such facilities are permitted with expedited CEQA review and a ministerial or minor use permit approval process at the project level. Conversely, the combining zone approach could also enable a county to limit the conversion of important agricultural lands or restrict the development in other potentially sensitive areas.

II. Siting and Permit Guide

A. Purpose

The purpose of this guide is to assist counties and local government agencies in understanding the statewide goals, policies and programs aimed at expanding solar energy facilities and in developing regulatory incentives designed to support the expedited processing of SEFs that avoid or minimize adverse impacts to important agricultural lands, scenic resources and sensitive habitats.

B. General Considerations

1. Laws, Policy Options and Definitions

Laws:

California has recognized solar as a clean source of renewable energy with a long history of providing policy incentives and funding mechanisms for development of solar energy resources, including the Solar Rights Act, Solar Shade Control Act, and sections of the Health and Safety Code. Various state subsidies and financial incentive programs have been implemented over the years including the Renewable Energy Program, Emerging Renewable Program, Self-Generation Incentive Program and more recently the California Solar Initiative (Go Solar), Renewable Portfolio Standard and Feed In Tariffs.

The Solar Rights Act, originally adopted in 1978 (Government Code Section 65850.5) limits local government restrictions on solar installations and prohibits local governments from adopting ordinances that would unreasonably restrict the use of solar energy systems. It also requires local governments to use a ministerial or administrative application review process instead of a discretionary process. The law has been interpreted to apply to any solar energy system (hot water or electric) designed to provide energy for on-site use. Thus, the model ordinance defines accessory solar energy systems for on-site use as exempt facilities permitted in all zones with a building or administrative permit subject to health and safety standards.

However, other utility-scale systems that feed energy into the grid are often not addressed in local zoning ordinances. A common legal premise of zoning is that if it is not listed as an allowed use, then it is not permitted in that zone. Traditional zoning would only allow utility-scale power generating facilities in industrial or designated resource zones. Thus many local jurisdictions are grappling with developing enabling legislation to permit solar energy facilities compatible with the primary uses of various zoning districts.

Policy Options:

Many of the underlying policy, legal and technical issues associated with permitting SEFs are similar. However, due to regional variations in soil types, water availability, contamination levels and other geographical differences, a “one size fits all” approach to development of SEFs is difficult to achieve in a state as large and diverse as California. As such, a discussion of common issues and a range of policy choices and best practices are provided that can be tailored to suit a particular jurisdiction. Where applicable, two or more examples of regulatory practices are provided. This Guide has been drafted to assist local agencies in development of zoning standards to facilitate permitting and provides additional guidance for the larger scale projects or SEFs that do not meet all the standards of the proposed model streamlining ordinance, and consequently require approval of a use permit.

2. Incentives

A statewide campaign goal that calls for distributed generation of 3,000 megawatts of solar energy systems on homes and businesses by 2016 was recently adopted with a budget of \$3.35 billion (“a million solar roofs”). Governor Brown recently called for 12,000 megawatts of local distributed renewable power generation by 2020. The Renewable Portfolio Standard (RPS) requires that all electricity retailers obtain 33

percent of their power from renewable sources by 2020. Feed in tariff requirements of the California Public Utilities Commission are expected to create a stable market for financing of solar energy facilities by requiring utilities to purchase renewable power at competitive rates.

Distributed Generation or Distributed Energy Resources are small-scale power generation technologies located close to where electricity is used. Distributed generation provides an alternative to the traditional electric utilities and often enhances the capacity of the utility grid by reducing the peak demand on the grid system. Incentive programs for small scale systems include net-metering which allows a customer with a renewable energy generator (i.e. solar electric system) to receive credit for generating excess power to offset the electricity used onsite when the solar system is not generating power.

Feed-In Tariff refers to the California Public Utilities Commission's rulings that require utilities to purchase power from eligible renewable energy producers (i.e. solar electric facility) connected to the grid that generate power through a standard agreement and tariff established by the CPUC. Feed-in tariffs provide stable markets that incentivize investment in power producers of renewable energy facilities.

The California Public Utility Commission established a 1-gigawatt pilot program providing a Renewable Auction Mechanism to facilitate the development of small to mid-size renewable energy facilities from 1.5 megawatts to 20 megawatts in size. The program requires the three investor-owned utilities to hold biannual competitive auctions in which renewable energy producers can submit bids to sell electrical power. The utilities must award contracts starting with the lowest-cost viable project and moving up in price until the megawatt requirement is reached for that round. The program uses standard contract terms to lower costs and provides an effective means of financing projects. To minimize underbidding, the program requires development security and relatively short project development timeframes.

These policies, incentives and regulatory programs have fueled a demand for both small and utility scale renewable energy facilities and encouraged rapid widespread development of solar energy facilities throughout the state.

Discussion:

Encouraging the rapid expansion of SEFs is the adopted policy of the state of California and is supported in many County general plans. Nonetheless, the current permit process is frequently lengthy, uncertain and expensive. Streamlining the permit process is widely considered one of the most compelling incentives available for local government. A faster, more predictable permit process is particularly important in light of the relative newness of the industry, the current marginal economics of SEFs, a very challenging economic context and concerns regarding the looming impacts of climate change.

There are many other values also supported by state and local policies including the protection of important environmental resources, agricultural lands and sustaining food supplies. Toward this end, it is clear the SEFs also need to comply with federal, state and local regulations that protect these and other resources.

Policy Options:

Permit streamlining is proposed as the potentially most compelling incentive for well-sited projects resulting in fewer significant impacts. Streamlining methods include the adoption of clear standards or special use regulations that address environmental concerns and provide a clear set of guidelines for the solar industry to follow as part of a more consistent approval process. The use of Renewable Energy Overlay Zones can also provide additional incentives to encourage siting of such facilities in appropriate areas by further reducing the burden on the applicant of costly environmental review and uncertainties with discretionary permit review. Establishing consistent standards and reduced building permit fees, especially for a direct use SEF, is also a best practice used by many communities.

Some communities are taking advantage of the state legislation AB811 that enables local jurisdictions to provide financing for energy conservation and renewable energy projects through a property tax assessment, otherwise known as Property Assessed Clean Energy (PACE). Many communities are leading the way by adopting aggressive goals for local government operations and implementing plans for achieving those goals, including installation of solar energy facilities on various public buildings, airports and other publicly owned lands.

Another local incentive that is gaining ground in California is Community Choice Aggregation, where a local government agency can become a power service provider by purchasing renewable power and selling direct to consumers. This allows for investment in the renewable energy projects that may not be located within the local jurisdiction, expanding the opportunities to areas where solar is most feasible.

While federal, state and local programs are fueling the demand for rapid expansion of solar energy facilities throughout the state, the permitting process can often become a major obstacle at the local level, particularly for large utility scale facilities in areas where local officials have limited experience with power generation facilities. This Guide is intended to assist local agencies in streamlining the permitting process by providing increased consistency across jurisdictions and addressing policy issues and environmental concerns in the permitting process.

3. Economic Development and Jobs

According to the Solar Foundation, the solar sector is creating jobs at a much faster rate than the overall U.S economy. A 2008 Navigent Consulting study found that for every six homes that go solar, one local green job is created. Over the past year, the number of people employed by the solar industry has doubled from approximately 50,000 in 2009 to 100,000 in 2010. The number of jobs in the solar industry is expected to increase by 26% in 2011, which is an unusually high industry growth rate. In 2009, there were approximately 4,000 residential solar jobs in the U.S. By 2012, projections indicate that there will be over 20,000 jobs in the home solar industry.

The impact of any given solar installation job is exponential because of what is known as the multiplier effect. The multiplier effect is when the initial amount spent produces an increase in income and consumption greater than the initial amount itself.

4. Siting Issues

When evaluating sites for potential solar facilities it is important to first identify the

constraints and opportunities of a particular location. Distance and capacity of transmission lines and substations are key factors in determining the feasibility of a solar project. Other factors such as flooding, wetlands or protected habitats or the presence of threatened or endangered species should also be identified and avoided where possible. Conversion of important farmland and protection of scenic resources are other considerations that must be weighed in the decision-making process.

Projects that are sited and designed to avoid these important resources are to be expedited in the permitting process. However, projects that are proposed in locations that potentially cannot avoid impacts to these resources, are subject to discretionary permits, environmental review and public hearings – resulting in a longer, more costly and potentially litigious process. The Guidelines provide a discussion of these key siting issues and conditions or standards are recommended that address impacts to local resources.

5. Transmission Lines

It is critical that SEFs providing electricity to the grid be located in close proximity to existing transmission facilities and substations with capacity for additional load. Working with local utilities that own these facilities can be challenging in determining where transmission facilities have capacity, especially when there are various projects proposed in the service area and utilities are competing to develop their own renewable energy projects to meet their Renewable Portfolio Standard. Development of a “smart grid” is considered essential to managing the variations in load and demand that will occur as renewable energy becomes a significant source for the utility grid.

Local jurisdictions are pre-empted under state law from review of where transmission facilities (under 100 kV) and substations can be located. However, the policies of a local General Plan or zoning are evaluated by the CPUC and can influence the decision on the location of transmission facilities. Transmission lines are encouraged to be located along existing rights-of-ways or roadways where feasible.

6. Important Farmlands

Discussion:

The protection of productive farmlands - including the agricultural operations themselves - is an issue of both statewide and local importance. Agriculture is a critical consideration to the local economy, quality of life and food security. Some argue that our food systems are as much at risk as our energy systems from the impacts of a growing global population and climate change. Other issues include the degree to which nonagricultural structures and activities are allowed on prime soils and other important agricultural lands, buffer zone requirements, and avoidance versus mitigation pertaining to the conversion of agricultural lands. Agricultural protection measures vary across the state depending upon the local geography, soil types, and past land uses, as well as the prevailing economic and political context. The potential for conversion of agricultural lands is a primary concern that must be considered by local jurisdictions in adopting local ordinances and through the use permit process. The model streamlining ordinance limits the amount of disturbance to Prime Farmland, Farmland of Statewide Importance,

and Unique Farmland, unless determined by the decision-making body in consultation with the Agricultural Commissioner and Dept. of Conservation to be chemically or physically impaired.

Another option for some counties is to limit the amount of cumulative loss of agricultural lands by limiting their use to areas designated in a Renewable Energy combining zone. This would enable a county to identify the most feasible location for distributed generation or larger utility scale facilities and limit the amount of important farmlands that could be converted.

Policy Options:

In some circumstances, solar facilities may be developed in conjunction with an underlying agricultural use such as sheep grazing with no loss of agricultural productivity. In these cases, an agricultural management plan can be required to ensure the long term productive capability of the land is monitored and maintained. Many solar energy producers contend that the SEF may be only temporary with limited term leases, which may revert back to an agricultural use at the end of the useful economic life of the facility. In these cases, mitigation for loss of agricultural land may not be required, especially when reclamation plans and financial assurances are provided to ensure the land is reclaimed to productive agricultural use. On the other hand, once a site is converted to an energy generating facility there is a general presumption that the site will continue to be used for energy production on an ongoing basis. In cases where only a portion of the site is used for the SEF, an in-perpetuity agricultural easement on the balance of the land may ensure that the loss of agricultural land is limited.

Agricultural zoning typically requires that the primary use of the land remain in agricultural production. Some counties have strong agricultural preservation policies in their General Plans and do not permit uses unrelated to agricultural production on prime agricultural lands and limit non-agricultural uses to those that do not remove land from production or impair agricultural operations. Other counties require mitigation for the loss of agricultural lands from other similar facilities or have established in-lieu fees and mitigation funds.

If the proposed Tier 3 or 4 SEF will impact Important Farmlands classified by the state Dept. of Conservation as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland, the agency should evaluate the productive capability of the land to determine the significance of the impact. In some counties, Important Farmlands also includes Farmlands of Local Importance. Due to the variation in how those locally important farmlands are defined, each county must evaluate impacts to those lands based on local practices. The amount of temporary or permanent loss of important farmland should be determined by an analysis of such impacts, prepared by qualified professional(s) under consultation with the local Agricultural Commissioner and the state Dept. of Conservation. One policy consideration may be to define significance in terms of acreage, e.g. loss of Important Farmlands over 25 or 50 acres may be considered significant since 25 or 50 acres by itself may not be viable for farming.

Where important farmlands are determined to be significantly impacted, feasible mitigation measures for the temporary or permanent loss of agricultural lands should be incorporated. Mitigation for the temporary or permanent loss of agricultural land can be satisfied by dedication or funding of perpetual agricultural conservation easements either on the remainder of the parcel or off-site. Such easements should be held by a qualified

conservation organization or other arrangements satisfactory to the County. Such easements may also be tiered/layered with conservation easements for mitigation of some sensitive habitats (see discussion on Environmentally Sensitive Habitats). In some counties an in-lieu fee is established that allows the agency to acquire agricultural easements in accordance with countywide programs. If no feasible mitigation measures are identified, then the impact to important farmlands would need to be disclosed in an EIR and a statement of overriding considerations would need to be adopted by the local agency.

7. Agricultural Preserves

Discussion:

Another siting constraint related to the conversion of farmlands is the status of a parcel under the Land Conservation Act (Williamson Act). The Land Conservation Act of 1965 enables counties to establish agricultural preserves and provide tax incentives to farmers who agree under contract to maintain their land in agricultural production. Landowners who chose to enter into contracts with the county agree to maintain the land in commercial agricultural use for a period of 10-years in exchange for a reduction in property taxes. Each year that a tax reduction is received, the contract extends for another 10-year period until the contract is phased-out or otherwise terminated. If the SEF is proposed on a site under a Land Conservation contract, the facility must be listed as a compatible use in the locally adopted Agricultural Preserve Rules and allowed by the type of contract. In addition, findings of compatibility must be made by the legislative body in consultation with the Agricultural Commissioner and/or the appointed advisory body. The SEF must be found consistent with the principles of compatibility under Government Code Section 51238.1. The SEF must be found not to impair the agricultural productivity of the land or lands in the surrounding area. The Agricultural Preserve Rules may limit the size and amount of land area that can be devoted to a utility scale facility that is not for on-site agricultural use.

Overall, a utility scale facility is not considered compatible with Agricultural Preserves and Williamson Act Contracts unless specific findings can be made for limited on-site facilities supportive of agricultural uses or if findings can be made based on marginal soils consistent with State Law. If the facility is not sized as a compatible use, the site must be phased out of the contract prior to construction, or the contract otherwise cancelled.

Policy Options:

There are several ways for a Land Conservation Act (Williamson Act) contract to be terminated including phase-out, lot line adjustments, easement exchanges, open space easement conversions or cancellation. Phase-out is initiated by a notice of non-renewal served by the landowner that begins a 9-year phase out period. During the phase out period, the restrictions on the land are still in effect, while the taxes on the property are gradually increased to full value. Lot line adjustments and easement exchanges immediately remove the land from the contract by placing other non-contracted land under the contract or easement in exchange for rescinding the contract on a specific parcel. Lot line adjustments and easement exchanges could be considered measures that also mitigate the potential loss of agricultural land as they provide a mechanism to ensure the same amount of land remains in commercial production.

Cancellation of a contract is a discretionary action which requires a public hearing and several findings that must be made by the legislative body as defined under Government Code Section 51282 . The two primary findings are that: 1) cancellation is consistent with purposes of the Land Conservation Act, and, 2) cancellation is in the public interest. There are several additional findings or criteria required for each of these two major findings. The more difficult findings being that cancellation can be found to be in the public interest only if other public concerns outweigh the objectives of the Act, and, that there is no proximate noncontracted land which is both available and suitable for the use. Both easement exchanges and cancellation require review by the state Dept. of Conservation. Cancellation findings have generally been made only on lands that have been determined to be marginally productive or otherwise contaminated. Cancellation requires a penalty fee up to 12% of the unrestricted value of the land.

Solar use easements are another option currently proposed under SB 618 that would enable the contract to be rescinded and replaced with a 10-year rolling solar easement on marginally productive lands.

8. Environmentally Sensitive Habitats

Discussion:

The protection of high value biological resources is an important consideration when siting a solar energy facility. SEF projects should avoid lands which support listed sensitive species or provide important habitat linkage or connectivity on a landscape or regional scale. Fragmentation of habitat by roads, fencing and weed management associated with solar facilities is a potential concern. Sites should be carefully evaluated and surveyed by a qualified biologist to determine if they contain rare plants or habitats for any rare, threatened or endangered species. Known sites are generally listed in the California Natural Diversity Database maintained by the Dept. of Fish and Game. However, many sites have not been surveyed and may not be included in the database. Many counties have policies and programs to protect important biotic resources, including designation as open space in the General Plan, adopted streamside conservation areas or riparian and wetland setbacks or overlay zones.

Policy Options:

If a proposed SEF project is well sited to avoid sensitive habitats then the permitting process can be expedited either through an administrative permit or minor use permit. However, if the SEF is located on high habitat value parcel(s), the permitting process will require more extensive environmental review and public hearings before the decision-making body. Applicants are encouraged to coordinate with resource agencies such as Dept. of Fish and Game and U.S. Fish and Wildlife Service during site selection to ensure that important habitats can be avoided or otherwise mitigated. Local agencies should consider important biotic resources in adopting a solar streamlining ordinance and incorporate siting criteria to minimize impacts.

9. Scenic and Historic Resources

Discussion:

The siting of a solar energy facility should include an evaluation of the community's scenic and historic resources. Scenic and historic resources often form the backdrop of a community and are highly valued as an important element of the local tourism industry.

Many communities have designated scenic corridors and scenic areas in their General Plans and zoning, including significant landforms, ridgelines, community separators and scenic highways. Because solar energy facilities require large land areas, they can cause a significant visual impact, if not properly sited and well screened from public view from scenic areas.

Policy Options:

Measures that can be used to mitigate potential visual impacts of SEF include avoiding significant scenic or historic resource areas, or when avoiding these areas is not feasible, using larger setbacks from public roads and streams, siting such that natural topography and vegetation will screen the project from public view, use of materials and colors that blend with the background, and /or planting landscape vegetation along the road frontages and residential areas to provide a visual buffer, screen the fencing and soften the visual effects to the extent practical.

C. Permit Process

The permitting process can be streamlined by defining thresholds for solar energy facilities that can be permitted with administrative permits and clearly defined standards. Proposed facilities that do not fall within the thresholds or that do not meet the standards may be limited to certain zones and/or require a discretionary use permit process and public hearing. Solar energy facilities may be incentivized to locate in certain designated areas by adoption of a Renewable Energy combining zone where larger facilities can be permitted with an administrative permit. The following provides an overview of some of the permitting process, required findings and key issues.

1. Project Description

Preparation of a complete and accurate project description is a fundamental step in analyzing an application and expediting the permit process. Toward that end, it is recommended that the appropriate County planning staff member be contacted early in the process. Most jurisdictions provide application information and forms on their departmental website and an opportunity for early consultation prior to formal submittal of a permit application.

2. Equal Treatment

Discussion:

A fundamental legal principle in land use planning (sometimes referred to as equal protection) is that similar projects should be treated in a similar manner in the discretionary permit process. As such, it is important that regulatory requirements placed on SEFs be implemented in a manner that results in a level playing field. For example, geothermal producing counties such as Lake, Sonoma, Mono, and Imperial, should consider applying similar conditions on similarly situated and scaled solar and geothermal facilities. This general principle applies to a wide variety of standards, mitigation measures and permit requirements.

Policy Options:

Comprehensively considering different types of energy projects can help lay the groundwork for equitable regulatory requirements.

3. Compatibility Findings and Nexus

Discussion:

Use permits may be granted only when the decision-making body makes certain findings supported by substantial evidence that the use, as conditioned, will not be detrimental to the health, safety or general welfare of the community. Case law requires a clear connection or nexus between a required condition or mitigation and the associated impact caused by the project in question. Required mitigation measures must be roughly proportional to the impact of the project. In other words, project applicants are only required to “fix what they will potentially break” and not be forced to correct preexisting conditions. Notwithstanding these legal standards, project applicants often voluntarily incorporate elements into their project to increase benefits to the local community.

4. Environmental Review

Environmental review is required under CEQA for both adoption of local ordinances and for discretionary projects that require use permits. Environmental review of local ordinances typically is done at a programmatic level and must evaluate the potential impact of the land uses enabled under ministerial permits as well as projected impacts from future use permits.

Cumulative impacts are particularly difficult to address at a project level and are usually addressed at a policy level through adoption of a General Plan or zoning ordinance. For this reason most ordinances are designed to be “self-mitigating” by including siting criteria, general standards or special use regulations and defining thresholds for ministerial permits that would be benign in all circumstances. When there may be significant impacts that outweigh the potential benefits of a project an EIR is required, which is a lengthy and more costly process. When an EIR is prepared for adoption of a local ordinance and a finding is made that the project outweighs significant unavoidable impacts, then subsequent projects can tier off the Programmatic EIR and streamline the permit process.

Environmental review of projects requiring use permits requires a more detailed analysis of site conditions. A more involved EIR process is required if impacts are not mitigated below a level of significance. This guide is intended to provide a more streamlined process by identifying key issues and possible mitigation measures, standards and conditions of approval that may be used by local agencies to address the concerns. SEF are land extensive projects, but generally do not create substantial impacts such as noise, traffic, air or water quality – as do many other power generating facilities.

5. Reclamation Plans

Discussion:

Abandoned facilities can become unsightly and create an attractive nuisance. There are examples in many communities of energy projects that are no longer operating that have become a blight on the landscape and detrimental to the community. Abandoned sites can also be expensive to reclaim or redevelop and can deter economic investment in the area.

Policy Options:

Local jurisdictions may require the review and approval of a reclamation plan for the decommissioning of solar energy facilities at the end of their useful economic life as part of the use permit process. Use permits may require as a condition of approval that all structures, equipment, footings and fencing be removed when the facility is no longer in use. For larger facilities, the local jurisdiction may want a more specific Reclamation Plan to be reviewed and approved as part of the permit process.

6. Financial Assurance

Discussion:

Financial Assurance may also be required to secure the expense of dismantling and removing the SEF and reclaiming the site should the facility be abandoned. Solar providers have expressed concern that these requirements may be too onerous, particularly for small and medium sized facilities as they can add substantial costs. The solar industry indicated that requiring financial assurance is not economically feasible for facilities less than 30 acres in size. Because financial assurances can add a significant burden or cost, the need for financial assurances should be evaluated taking into account the location and size of the facility, the long-term use of the site as a power generating facility and the potential for future changes in technology and demand. Additionally, local jurisdictions should consider other similar types of facilities and apply similar standards.

Policy Options:

Financial assurances may be required for large projects or if the project is located on publicly owned lands. Financial assurance can be in various forms acceptable to the county, including bonds, letter of credit or similar guarantee. There are several considerations in determining the amount and timing of the financial assurance. One issue is the amount of the assurance based on current cost estimates of salvage value of the panels, and how to update the cost estimates over time. In some cases, the solar companies have indicated that the current salvage value exceeds the removal cost, resulting in no cost for decommissioning. On the issue of the timing of funding an escrow account, consideration can be given to actual funding on Day One, or funding the account at a time closer to the end of the Power Purchase Agreement (PPA) period.

III. Development standards, conditions and mitigation measures

The following provides a list of typical development standards, conditions or mitigation measures that can be incorporated into a local ordinance as special use regulations or adopted as conditions of approval for a particular project, as appropriate. These are intended as a guide and should be tailored to the practices of the local agency. The measures can be used in preparing environmental documents for the adoption of an ordinance or review of a particular project as determined appropriate by the local

agency.

A. Aesthetics

To the extent feasible, solar energy facilities shall be sited such that they are substantially screened from view from public roads by natural topography and vegetation. Consideration should also be given to screening from nearby homes. Lighting if needed, shall be fully shielded, downward casting and not wash out onto structures, other properties or the night sky. Security lighting shall be motion sensed. Flood lights are not permitted. Fencing to be constructed should not appear institutional in nature (e.g. prison-like), with barbed wire fences at a height that can be screened.

Proposed facilities located within a historic or scenic resource area as designated in the General Plan, Area Plan or zoning code shall require administrative review of materials, colors, landscape, fencing and lighting plans. Fencing, equipment and structures shall be painted earthen colors to blend with the surrounding property, if feasible.

The operator shall maintain the facility including all required landscaping in compliance with the approved design plans, free from weeds, dust, trash, and debris.

B. Air Quality

During site preparation, grading and construction, the operator must implement best management practices to minimize dust and wind erosion including, regularly water roads and construction staging areas as necessary, minimize vehicle idling and number of vehicle trips. Paved roads will be swept as needed to remove any soil that has been carried onto them from the project site.

C. Air Safety

Solar energy facilities shall be sited and operated to avoid hazards to air navigation. Sites located within an airport traffic zone shall be required to provide an analysis documenting compliance with this standard. Solar energy facilities shall not be located within the approach zone (outer or inner safety zones) or the inner turning zones for any public use airport. If located on airport lands, the facility must meet the building setback approved on the Airport Layout Plan. The owner/operator of a facility approved within a public airport's traffic zone shall be required to record a navigation easement and may be required to mark or light the facility for air traffic safety. The operator shall notify the FAA and California Division of Aeronautics of any structures in an airport traffic zone that are more than 200 feet above the airport elevation or that exceed airport imaginary surfaces as defined in Federal Aviation Regulations Part 77. The SEF shall comply with any conditions imposed by state and federal agencies.

D. Biotic Resources

Solar energy facilities shall be sited to avoid or minimize impacts to the habitat of special status species, and the habitat of threatened, endangered, or rare species, Ecologically Sensitive Areas, important habitat/wildlife linkages or areas of connectivity, and areas of Habitat Conservation Plans or Natural Community Conservation Plans that preclude

development.. Projects located within designated area or potentially impacting these designated areas shall require a use permit. A biotic study shall be required at the time of project application to demonstrate that the facility avoids protected species to the maximum extent feasible and provides feasible mitigation measures. (NOTE: We will match the language being developed by a subcommittee – Kate, Shannon, Jill, Chris)

E. Communications Interference

Operations of a solar energy facility shall not create conditions that reduce or interfere with public or private television, radio, telemetry, wireless telephone, or other electromagnetic communication signals.

F. Cultural and Historic Resource Protection

Solar energy facilities shall be sited to avoid or mitigate impacts to significant cultural and historic resources. Projects located within a Historic District shall be subject to design review by the Landmarks Commission, unless otherwise exempt. Projects requiring a use permit that require grading more than 18 inches in depth shall require a cultural resources survey at the time of project application.

Grading plans for all solar energy facilities shall include notes that require the contractor to halt work within 200 feet of any archeological, historical or cultural resources or artifacts that may be discovered during construction or operation. In the event cultural resources are discovered during construction, the operator shall notify the local agency and a qualified professional shall be retained at the applicant's expense to evaluate the find and determine any measures to mitigate impacts including avoidance, removal, preservation or recordation in accordance with California law. The operator shall implement any feasible mitigation measures as determined by the local agency. If human remains are discovered, the County Coroner must also be notified and consultation with the Native American Heritage Commission may be required to determine the most likely descendents.

G. Farmland Protection

If the proposed SEF will impact important agricultural land classified as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland in the state Farmland Mapping and Monitoring Program, the project shall include conditions for mitigation for the temporary or permanent loss of agricultural land at a ratio of at least 1:1 (one acre mitigated for one acre impacted of similar quality agricultural lands). Mitigation for the temporary or permanent loss of agricultural land may be satisfied by an on-site agricultural management plan, dedication of perpetual agricultural conservation easements either on-site or off-site and held by a qualified conservation organization, or other arrangements satisfactory to the County. Projects may pay an in-lieu fee if allowed by County requirements.

If the facility is located on a site under a Land Conservation Act (Williamson Act) contract, the facility must be listed as a compatible use in the Agricultural Preserve Rules and allowed by the type of contract. The total site area for all compatible uses including solar energy facilities shall not be greater than 15 percent of the parcel or 5

acres, whichever is less, unless determined by the Board of Supervisors in consultation with the Agricultural Commissioner that a larger site area is consistent with the principles of in Government Code Section 51238.1.

H. Erosion and Sediment Control

The operator must have an NPDES permit from Public Works and an erosion and sediment control plan approved prior to beginning grading or construction. The plan must include best management practices for erosion control during and after construction and permanent drainage and erosion control measures to prevent damage to local roads or adjacent areas and to minimize sediment and stormwater run-off into waterways.

I. Fire Protection

A solar energy facility shall be subject to Fire Safe Standards. The operator must implement a Fire Prevention Plan for construction and ongoing operations approved by the County Fire Marshall and local fire protection district. The plan shall include, but not be limited to: emergency vehicle access and turn-around at the facility site(s), addressing, vegetation management and fire break maintenance around structures.

J. Grading, Access and Parking

Solar energy facilities shall be sited to maintain natural grades and use existing roads for access to the extent practical. Construction of new roads shall be avoided as much as possible. Natural grades shall be restored and re-vegetated for temporary access roads, construction staging areas, or field office sites used during construction. The operator shall maintain an all-weather access road for maintenance and emergency vehicles.

K. Proximity to Utility Transmission Lines and Utility Notification

For inter-connected SEF, the route of required new transmission lines and utility substations shall be identified. No building permit shall be issued until 1) evidence has been provided that the proposed interconnection is acceptable to the utility; 2) the Planning Commission has reviewed and made recommendations regarding the proposed transmission line route; and, 3) the California Public Utilities Commission has approved the location of new transmission lines.

L. Security and Fencing

The site area for a SEF must be fenced to prevent unauthorized access and provide adequate signage. Wildlife friendly fencing shall be used in rural areas. If needed, security lighting shall be motion sensed. Access gates and equipment cabinets must be locked at all times.

M. Signs

Temporary signs describing the project, and providing contact information for the contractor and operator shall be placed during construction and must be removed prior to final inspection and operation. Signs for public or employee safety are required. No more than two signs relating the address and name of the operator/facility may be placed on-site, subject to design review. Outdoor displays, billboards or advertising signs of any kind either on- or off-site are prohibited.

N. Decommissioning and Reclamation

A Decommissioning Plan shall be required and shall include the following:

1. Removal of all aboveground and underground equipment, structures, fencing and foundations to a depth of three feet below grade. Underground equipment, structures and foundations located at least three feet below grade that do not constitute a hazard or interfere with the use of the land do not need to be removed.
2. If applicable, removal of substations, overhead poles, above ground electricity transmission lines located on-site or within the public right of way if determined not to be usable to any other public or private utility.
3. Removal of graveled areas and access roads.
4. Restoration of the surface grade and placement of topsoil after removal of all structures and equipment
5. An Erosion Control Plan
6. Revegetation of disturbed areas with native seed mixes and plant species suitable to the area.
7. The timeframe for completion of removal and decommissioning activities.
8. An engineer's cost estimate for all aspects of the decommissioning plan.
9. A statement signed by the owner or operator that they take full responsibility for reclaiming the site in accordance with the Decommissioning Plan and Use Permit approval upon cessation of use.

The facility operator is required to notify the Department immediately upon termination or cessation of use or abandonment of the operation. The operator shall remove components of the facility when it becomes functionally obsolete or is no longer in use. The operator shall begin decommissioning and removal of all equipment, structures, footings/foundations, signs, fencing, and access roads within ninety (90) days from the date the facility ceases operation and return the site to an appropriate end-use.

O. Financial Assurance

Financial assurance may be required for large scale solar energy facilities. At the time of issuance of the permit for the construction of the facility, the operator shall provide financial assurance in a form and amount acceptable to the local agency to secure the expense of dismantling and removing all equipment, structures, fencing, and reclaiming the site and associated access or distribution lines in compliance with the approved reclamation plan.

IV. References and Supporting Information

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